# Warming DA Affirmative

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## Non Unique

### No tipping point, global warming is self-correcting

**PCW 2011 (**Peace Corp Worldwide, “Could Global Warming Be Good?”, http://peacecorpsworldwide.org/light-not-heat/2011/11/18/could-global-warming-be-good/)

Further, the average temperature of the earth is 60 degrees F or 15 degrees C. At temperatures under 72 degrees F or 22 degrees C the human corpus dies in a matter of hours if not protected by man-made inventions, i.e. clothing, heating, and shelter. The import is that, for man to inhabit most of the earth, he needs to alter the climate or adapt to it. ¶ This is important since the warmer the earth becomes the less costly it becomes to extend our zone of existence, i.e. less cost to make our homes warm. At the same time, we will reduce the need to spew noxious gases into the atmosphere by heating our homes. If one extrapolates the data one sees that global warming is essentially a self-correcting problem, i.e. as we reduce the need for heating, we reduce noxious gases in the atmosphere and thus reduce man-made global warming.¶ Of course the concern is not that the earth is getting warmer, but that it is doing so at an accelerated rate. Most agree that, if greenhouse gases are not checked, the average temperature of the earth will increase by 1-2 degrees C over the next 100 years. But wait, that average will have to grow by 7 degrees C to come up to the minimum temperature required for unassisted human existence. And that is the minimum, most studies show that man can live at much higher average temperatures. So we have several centuries of “global warming” at current “breakneck” speeds before the human race is actually threatened. ¶ Ah yes, it is not global warming that is the problem, it is “climate change.” In other words it is not the heat itself that is the problem but the changes in our weather patterns caused by that heat.

### Scientists over exaggerate on warming

**Peters 2009** (“When scientists lie: The global-warming Inquisition”, http://www.nypost.com/p/news/opinion/opedcolumnists/when\_scientists\_lie\_9BY2EXQGT2KsTIF4K9b21H)

In the most notorious trial in the history of science, the Inquisition condemned Galileo in 1633. The aged scientist was forced to recant his life’s work. The fact that the earth revolves around the sun threatened the church establishment’s doctrine. Galileo was worse than right — he was inconvenient.¶ Since his trial, scientists have mythologized him as their secular saint.¶ How times have changed: With the Climategate scandal, we now find scientists in the role of inquisitors — suppressing inconvenient facts and persecuting researchers who challenge the doctrine decreed by the Global Warming clergy. There are two potentially world-changing issues in play. First, as President Obama prepares yet another soaring speech, this time for Copenhagen, we face the complex issue of climate change.¶ The second vexing issue is: Can we trust our scientists? They’re supposed to be the guardians of truth, who unlock the secrets of the universe with scrupulous objectivity. Can we survive scientists who lie to influence policy?¶ On the first count — the global- warming question — I’m like most Americans: I lack the technical background to investigate and judge the data myself. Is climate change real? Yes. But the climate has always changed in great cycles. Are today’s changes man-made and newly destructive? I don’t know — although I suspect we make things worse.¶ It would help if I could depend on scientists to lay out the case honestly. But now we find that some of the most influential specialists on climate change are outright liars, manipulating data and (shades of Inquisition bookburnings) using the peer-review process to silence those who suggest that global warming’s more complex than Al Gore claims.

#### Warming not slowing down – study proves

Brad Plumer, staff writer for The Washington Post, 12-7-2011, “Is global warming slowing? A new study says no.,” The Washington Post, <http://www.washingtonpost.com/blogs/ezra-klein/post/is-global-warming-slowing-down-a-new-study-says-no/2011/12/07/gIQAJdKucO_blog.html>, TF

The global temperature series is one of the clearest pieces of evidence that the planet is heating up. Over the past century, it’s easy to see from, say, NASA’s data that surface temperatures have risen dramatically. But there’s also a fair bit of short-term natural fluctuation from year to year, which can sometimes obscure what, exactly, is going on. For instance, according to the World Meterological Association, 2011 looks to be the 10th-warmest year on record. But this year was also a La Niña year, part of a natural weather cycle in which oceans run a little cold and temperatures tend to drop (as it happens, 2011 will likely prove to be the warmest La Niña year on record). So how do we tease out the human influence on climate from these short-term natural variations? A number of climate researchers have tried to do just that, but a new paper from statistician Grant Foster and climatologist Stefan Rahmstorf provides two graphs that show rather clearly how we’re warming the planet. First, Foster and Rahmstorf took the raw data from five different global temperature series since 1978, including surface data and lower-atmosphere data from satellites. Notice that temperatures have been rising since 1978, but there’s a fair bit of fluctuation due to natural events that affect different data series differently (El Niño events, for instance, affect satellite data more strongly than surface data). That allows skeptics to say things like, “Hey, global warming has stopped since 1998!” So, in their paper, Foster and Rahmstorf tried to separate the signal from the noise. Using statistical techniques (detailed further by Foster here), they factored out the influence of the three biggest known natural mechanisms that can influence global temperatures in the short term — the El Niño oscillation, solar variability and volcanic eruptions. When those are removed, here’s what the graph looks like. What’s left over is the global warming signal — the bulk of which is caused by humans emitting greenhouse gases into the atmosphere. (There are other smaller factors at play here, too, but previous “attribution” research has found that human activity, El Nino oscillations, solar activities and volcanoes can explain more than three-fourths of temperature variation since 1899.) Moreover, there’s no indication that global warming has slowed at any point.

#### Warming past the brink

Common Dreams, 3-27-2012, “On the Brink: Planet Near Irreversible Point of Global Warming,” Common Dreams, <https://www.commondreams.org/headline/2012/03/27-5>, TF

We may have already passed the tipping points on global warming, say scientists at the Planet Under Pressure conference. At the London conference, scientists are giving a bleak view of the future of the planet due to catastrophic damage and growth by humans, saying we are close to the irreversible point of global warming. Will Steffen, executive director of the Australian National University's climate change institute, gave an urgent warning that humanity needs to act radically on climate change. "We can ... cap temperature rise at two degrees, or cross the threshold beyond which the system shifts to a much hotter state," he said. Bob Watson, former head of the UN's climate panel and chief advisor to Britain's environment ministry, stated that the world has already passed any hope of limiting global warming to two degrees Celsius, and stated that "we just have not acted. The need for action is becoming more and more urgent with every day that passes." Martin Rees of the Royal Society, Britain's academy of sciences, stated this this century "is the first when one species -- ours -- has the planet's future in its hands."

#### Warming speeding up

Kari Lydersen, staff writer for The Washington Post, 2-15-2009, “Scientists: Pace of Climate Change Exceeds Estimates,” The Washington Post, <http://www.washingtonpost.com/wp-dyn/content/article/2009/02/14/AR2009021401757.html>, TF

The pace of global warming is likely to be much faster than recent predictions, because industrial greenhouse gas emissions have increased more quickly than expected and higher temperatures are triggering self-reinforcing feedback mechanisms in global ecosystems, scientists said Saturday. "We are basically looking now at a future climate that's beyond anything we've considered seriously in climate model simulations," Christopher Field, founding director of the Carnegie Institution's Department of Global Ecology at Stanford University, said at the annual meeting of the American Association for the Advancement of Science. Field, a member of the United Nations' Intergovernmental Panel on Climate Change, said emissions from burning fossil fuels since 2000 have largely outpaced the estimates used in the U.N. panel's 2007 reports. The higher emissions are largely the result of the increased burning of coal in developing countries, he said. Unexpectedly large amounts of carbon dioxide are being released into the atmosphere as the result of "feedback loops" that are speeding up natural processes. Prominent among these, evidence indicates, is a cycle in which higher temperatures are beginning to melt the arctic permafrost, which could release hundreds of billions of tons of carbon dioxide and methane into the atmosphere, said several scientists on a panel at the meeting. The permafrost holds 1 trillion tons of carbon, and as much as 10 percent of that could be released this century, Field said. Along with carbon dioxide melting permafrost releases methane, which is 25 times more potent a greenhouse gas than carbon dioxide. "It's a vicious cycle of feedback where warming causes the release of carbon from permafrost, which causes more warming, which causes more release from permafrost," Field said.

## Thumpers

### Methane

**EPA 2011** (Environmental Protection Agency, “Methane”, http://www.epa.gov/methane/)

Methane (CH4) is a greenhouse gas that remains in the atmosphere for approximately 9-15 years. Methane is over 20 times more effective in trapping heat in the atmosphere than carbon dioxide (CO2) over a 100-year period and is emitted from a variety of natural and human-influenced sources. Human-influenced sources include landfills, natural gas and petroleum systems, agricultural activities, coal mining, stationary and mobile combustion, wastewater treatment, and certain industrial process.

Methane is also a primary constituent of natural gas and an important energy source. As a result, efforts to prevent or utilize methane emissions can provide significant energy, economic and environmental benefits. In the United States, many companies are working with EPA in voluntary efforts to reduce emissions by implementing cost-effective management methods and technologies.

### Methane is 72x more dangerous as CO2

**Scientific American 2010** (“Defusing the Methane Greenhouse Time Bomb”, http://www.scientificamerican.com/article.cfm?id=defusing-the-methane-time-bomb)

Methane trapped in Arctic ice (and elsewhere) could be rapidly released into the atmosphere as a result of global warming in a possible doomsday scenario for climate change, some scientists worry. After all, methane is 72 times more powerful as a greenhouse gas than carbon dioxide over a 20-year timescale. But research announced at the annual meeting of the American Geophysical Union this December suggests that marine microbes could at least partially defeat the methane "time bomb" sitting at the bottom of the world's oceans.¶ The conventional wisdom for decades has been that methane emanating from the seafloor could be consumed by a special class of bacteria called methanotrophs. It has long been known, for instance, that these organisms at the bottom of the Black Sea consume methane produced in its deep oxygen-free waters.¶ What has not been clear is whether these bacteria would be of any use in the event that a special class of ice at the bottom of the ocean is destabilized by a warmer climate. This ice, known as clathrates, or methane hydrates, consists of a cage of water molecules surrounding individual molecules of methane, and it exists under conditions of low temperature and high pressure. These conditions can be found on the continental shelf the world over, but there is an extra large quantity of seafloor suitable for methane hydrates in the Arctic because of its low temperatures and a seafloor plateau that happens to be at the optimum depth for clathrate formation. The Arctic also happens to be more vulnerable to climate change because parts of the poles are warming at least twice as fast as the rest of the world.

### Sun Radiation causes the warming cycle

**National Geographic 2007** (“Mars Melt Hints at Solar, Not Human, Cause for Warming, Scientist Says”, http://news.nationalgeographic.com/news/2007/02/070228-mars-warming.html)

Simultaneous warming on Earth and Mars suggests that our planet's recent climate changes have a natural—and not a human-induced—cause, according to one scientist's controversial theory.¶ Earth is currently experiencing rapid warming, which the vast majority of climate scientists says is due to humans pumping huge amounts of greenhouse gases into the atmosphere. (Get an overview: "Global Warming Fast Facts".)¶ ¶ Mars, too, appears to be enjoying more mild and balmy temperatures.¶ In 2005 data from NASA's Mars Global Surveyor and Odyssey missions revealed that the carbon dioxide "ice caps" near Mars's south pole had been diminishing for three summers in a row.¶ Habibullo Abdussamatov, head of space research at St. Petersburg's Pulkovo Astronomical Observatory in Russia, says the Mars data is evidence that the current global warming on Earth is being caused by changes in the sun.¶ "The long-term increase in solar irradiance is heating both Earth and Mars," he said.¶ Solar Cycles¶ Abdussamatov believes that changes in the sun's heat output can account for almost all the climate changes we see on both planets.¶ Mars and Earth, for instance, have experienced periodic ice ages throughout their histories.¶ "Man-made greenhouse warming has made a small contribution to the warming seen on Earth in recent years, but it cannot compete with the increase in solar irradiance," Abdussamatov said.¶ By studying fluctuations in the warmth of the sun, Abdussamatov believes he can see a pattern that fits with the ups and downs in climate we see on Earth and Mars.¶ Abdussamatov's work, however, has not been well received by other climate scientists.

## No Link – General

### **Global warming is part of a natural cycle**

Kazan ‘9 (writer for The Daily Galaxy, “Is Global Warming Part of Earth's Natural Cycle: MIT Team Says "Yes"”, http://www.dailygalaxy.com/my\_weblog/2009/06/is-global-warming-part-of-earths-natural-cycle-mit-team-says-yes.html)

A team of MIT scientists recorded a nearly simultaneous world-wide increase in methane levels -the first increase in ten years. What baffles the team is that this data contradicts theories stating humans are the primary source of increase in greenhouse gas. It takes about one full year for gases generated in the highly industrial northern hemisphere to cycle through and reach the southern hemisphere. Since all worldwide levels rose simultaneously throughout the same year, however, it is probable that this may be part of a natural cycle - and not the direct result of man's contributions. MIT's Matthew Rigby and Ronald Prinn, the TEPCO Professor of Atmospheric Chemistry in MIT's Department of Earth, Atmospheric and Planetary Science, state that this imbalance has resulted in several million metric tons of additional methane in the atmosphere. Methane is produced by wetlands, rice paddies, cattle, and the gas and coal industries, and is destroyed by reaction with the hydroxyl free radical (OH), often referred to as the atmosphere's "cleanser." Methane accounts for roughly one-fifth of greenhouse gases in the atmosphere, though its effect is 25x greater than that of carbon dioxide. Its impact on global warming comes from the reflection of the sun's light back to the Earth. Methane is broken down in the atmosphere by the free radical hydroxyl (OH), a naturally occuring process. This atmospheric cleanser has been shown to adjust itself up and down periodically, and is believed to account for the lack of increases in methane levels in Earth's atmosphere over the past ten years despite notable simultaneous increases by man.¶ Prinn has said, "The next step will be to study [these changes] using a very high-resolution atmospheric circulation model and additional measurements from other networks. The key thing is to better determine the relative roles of increased methane emission versus [an increase] in the rate of removal. Apparently we have a mix of the two, but we want to know how much of each [is responsible for the overall increase]."¶ The primary concern now is that while the collected data in 2007 reflects a simultaneous world-wide increase in emissions, how relevant are any of the data findings at this late date?¶ One thing does seem very clear, however; science is only beginning to get a focus on the big picture of global warming. Findings like these tell us it's too early to know for sure if man's impact is affecting things at "alarming rates." We may simply be going through another natural cycle of warmer and colder times - one that's been observed through a scientific analysis of the Earth to be naturally occurring for hundreds of thousands of years.

## Link Turn – HSR

### HSR offers greener energy

**Tutten and Perl 2011** (Mark Tutten is a writer for CNN World, and Dr. Anthony Perl is Professor of Urban Studies and Political Science at Simon Fraser University in Vancouver, British Columbia, Canada, where he directs the Urban Studies Program. His latest book, co-authored with Richard Gilbert, is "Transport Revolutions: Moving People and Freight Without Oil.", “How green is high-speed rail?”, http://www.cnn.com/2011/11/18/world/how-green-is-hsr/index.html)

Any debate about the future of high-speed rail must consider where this mobility option fits into the 'big picture' of how transportation systems meet looming economic, energy and environmental challenges. In a world where 95% of motorized mobility is currently fueled by oil, high-speed rail offers a proven means of reducing dependence on this increasingly problematic energy source.¶ This value of using proven electric propulsion technology should not be underestimated when both the time and money to deploy energy alternatives are in short supply.¶ In our recent book Transport Revolutions, Richard Gilbert and I documented the economic, environmental and political dividends to be gained from replacing the internal combustion engines powering today's aircraft, cars, and motor vehicles with traction motors that can be powered by multiple energy sources delivered through the electric grid.¶ Since electricity is an energy carrier, it can be generated from a mix of sources that incorporate the growing share of geothermal, hydro, solar, and wind energy that will be produced in the years ahead. And because electric motors are three to four times more efficient than internal combustion engines, an immediate improvement will precede introducing renewable energy into transportation. Grid-connected traction offers the only realistic option for significantly reducing oil use in transportation over the next 10 years.¶ If such a shift does not begin during this decade, the risk of a global economic collapse and/or geo-political conflict over the world's remaining oil reserves would become dangerously elevated. Making a significant dent in transportation's oil addiction within 10 years is sooner than fuel cells, biofuels, battery-electric vehicles and other alternative energy technologies will be ready to deliver change.¶ Biofuels that could power aircraft now cost hundreds of dollars per gallon to produce. Batteries that a big enough charge to power vehicles between cities are still too big and expensive to make electric cars and buses affordable.¶ But grid-connected electric trains have been operating at scale and across continents for over a century. And when the Japanese introduced modern high-speed trains through their Shinkansen, in 1964, the utility of electric trains was greatly extended.¶ Since the 1980s, countries across Asia and Europe have been building new high-speed rail infrastructure to deploy electric mobility between major cities up to 1,000 kilometers apart. For intercity trips between 200 and 1,000 kilometers, high-speed trains have proven their success in drawing passengers out of both cars and planes, as well as meeting new travel demand with a much lower carbon footprint than driving or flying could have done.¶ If we are serious about reducing oil's considerable risks to global prosperity and sustainability, we will not miss the opportunity offered by high-speed rail to decrease transportation's oil consumption sooner, rather than later.

### **HSR has the potential to blend different forms of green tech**

Marchetti 2011 (“High Speed Rail Goes Solar In Europe”, http://www.earthtechling.com/2011/06/high-speed-rail-goes-solar-in-europe/)

A very unique project blending two favorites of green technology lovers – high speed rail and clean energy – has been completed in Europe by Belgian rail operator Infrabel and renewable energy developer Enfinity. This solar powered high speed rail tunnel we first brought you word of back in October.¶ Enfinity said the roof of tunnel of the HSL4 (high-speed line Antwerp – Amsterdam) high speed rail line in Antwerp, Belgium now has 16,000 solar panels installed atop it. These panels cover a total surface area of 50,000 m², which is about the size of 8 football pitches according to European metrics. The energy produced from these panels is being used, according to Enfinity, to power the railway infrastructure (signaling, lighting, heating of railway stations etc.) and also the trains using the Belgian rail network. Approximately 3.3 MWh of electricity reportedly will be generated per year, which is said to be the equivalent to the average annual electricity consumption of nearly 1,000 homes. It is believed that 4,000 trains per year – equivalent to one full day of rail traffic – will be able to run entirely on solar energy.¶ The so called Solar Tunnel is believed to be the first of its kind in Europe and also the first time railway infrastructure has been used to generate green energy. You can marvel at the wonders of this blending of green technologies below while you consider that here in the US high speed rail is basically still a pipe dream.

## Link Turn – Highways

### Improving our highways helps the environment

**CAA 2011** ( Canadian Automobile Association, “Better and Safer Roads — Better Environment”, http://www.caa.ca/eco/english/better\_safer/index.html)

Making our roads safer, preserving individual mobility, and reducing the environmental impact of cars are all tied to the condition of our roads and highways.¶ Each year, the average Canadian produces approximately five tonnes of greenhouse gases (GHGs), and statistics estimate that approximately 50 per cent of those GHGs are produced by our vehicles. Though GHGs produced by light duty vehicles may only represent 12 per cent of the overall amount of GHGs produced in Canada, there is considerable room to reduce, particularly when we examine the excess of GHGs caused by roads in poor and unsafe conditions.¶ The National Highway System (NHS), for example, is the backbone of Canada's transportation system comprising some 38,000 kilometres of roads and highways and carrying 30 per cent of our nation's traffic. Unfortunately, like most of our roadway infrastructure, the National Highway System is subject to ad-hoc maintenance, leaving many sections of this important infrastructure out of date and inefficient when it comes to the needs of today's motorists. Inefficient roads and highways create congested traffic situations — particularly during rush hour, near land borders and when traffic lanes are reduced (whether because of construction or design). Congestion causes cars to produce more GHGs because they are idling at low speeds, and braking constantly. Fluid traffic does not cause as many GHGs because traffic is circulating at optimal speeds — less gas is being wasted and less GHG emissions are produced.¶ Is upgrading our roads the only answer? Well, certainly, Canada does need a long-term plan and dedicated funds to ensure our roads and highways are safe and well maintained. However, there are many other solutions that can help to lessen the impact we have on our environment. Eco-Driving is a solution you can implement on your own to help to protect our environment.

## No Impact

### **No real impact to warming**

Washington Post ’12 (“Not so fast on warming”, http://www.toledoblade.com/Editorials/2012/07/20/Not-so-fast-on-warming.html)

Can you blame the scorching weather on climate change? Not really. Or at least, not yet.¶ In a National Oceanic and Atmospheric Administration report released last week, researchers tried to determine how much they could attribute six extreme weather events last year to human-caused global warming. Even now, some experts worry that drawing conclusions is precipitous. Figuring out what caused a flood in Thailand or a drought in Texas is hard. Doing it quickly is harder.¶ Scientists involved in the report reckoned that climate change significantly increased the likelihood of last year's warm winter in the United Kingdom and heat wave in Texas. Experts also determined they could not show that global warming contributed to flooding in Thailand; the level of rainfall wasn't historically unusual.¶ Anyone who, in the midst of a hurricane here or a heat wave there, simplistically blames greenhouse-gas emissions is wrong. But it's also wrong to blame all extreme events on forces that are beyond human control.¶ Recurring climate patterns such as El Nino and La Nina can influence extreme weather. So can chance fluctuations in a massive, complicated Earth system. But natural variability doesn't mean human activity isn't playing an increasing role in the formation of extreme events, or in the scale of the resulting damage.¶ Most obviously, more people are living in environmentally precarious zones. Stripping land or degrading wetlands can leave humans more vulnerable to floods, as in Thailand, or hurricanes, as in New Orleans.¶ The planet is warming. Humans releasing heat-trapping gases into the atmosphere are almost certainly responsible for much, if not all, of that warming. The particular patterns of warming, comparison to the historical record, and basic precepts of physics all indicate this.¶ On average, more energy in the system probably increases the intensity or frequency of certain extreme weather events, such as very high temperatures, across the planet. Patterns emerge. In recent years, there have been more record-breaking heat events and fewer record-breaking cold ones. Scientists are beginning to assess how much particular incidents can be attributed to climate change in anything like real time.¶ While the science of attribution improves, what can you say the next time you suffer through a sustained heat wave? This sort of thing will get more common across a warming world. That should be more than enough to spur Americans to demand action from their leaders.

## Impact Turn

### Global warming good for the environment

**Worstall 2012** (“Global warming: It's GOOD for the environment”, http://www.theregister.co.uk/2012/07/08/global\_warming\_good\_for\_the\_environment/)

Climate change, this global warming thing, it's going to mean that the tropical forests frazzle up and then we all die, right? It will mean the death of the "lungs of the planet" – such as the miles upon miles of Amazon jungle – which turn CO2 into the O2 that we inhale. It's tossup for humanity, basically. Except, according to one new paper in Nature, that's not the way it will work. CO2 is indeed plant food and more plant food means more plants, more forests and thus we're all saved: or perhaps not quite as screwed as some seem to think at least. Experimental studies have generally shown that plants do not show a large response to CO2 fertilisation. “However, most of these studies were conducted in northern ecosystems or on commercially important species” explains Steven Higgins, lead author of the study from the Biodiodversity and Climate Reseach Centre and Goethe-University. “In fact, only one experimental study has investigated how savanna plants will respond to changing CO2 concentrations and this study showed that savanna trees were essentially CO2-starved under pre-industrial CO2 concentrations, and that their growth really starts taking off at the CO2 concentrations we are currently experiencing.“¶ Purists will cavil at this description, but grasslands and forests compete with each other. Forest cover kills off the grass and thus grasslands only thrive where trees don't. Savannas are, to a useful level of truth, the front line where the battle is taking place. As the paper points out, the trees on these savannas are finding their growth limited by the amount of food they can get: the CO2 from the atmosphere. As we burn more fossils that will go up, the trees will get more food and forests will advance across those grasslands.¶ These burgeoning forests will then rather neatly lock up in the biosphere all that extra carbon that we have been releasing into the atmosphere. Or some of it. But the major point of this paper is that far from climate change being a threat to the tropical forests, it looks as if it will be the cause of more of them growing. Good news for those of us who like our unsustainable tropical hardwood furniture: it looks like there's going to be a lot more of it to go around soon enough.¶ Now all we have to hope for is that the upcoming IPCC report, the fifth, will report honestly and openly upon all the effects of rising CO2 levels so we can work out whether it's worth ditching industrial civilisation or not. Yes, I live in hope too. For this is actually the most important question in the entire subject. We know very well what the direct effect of a doubling of atmospheric CO2 is: a 0.7 degree rise in temperature – that's just straight physics. The idea that we might get 2 or 4 or 5 degrees of temperature change comes from the interaction of positive and negative feedback mechanisms. And we don't know what all of those mechanisms are, don't know the direction of some of them and are really very unsure indeed what the total value is. Which is a pity because it's really the only thing we're interested in.

### Air pollution is good

Fox News 12

Jonathan Serrie works for Fox news as a staff writer Published July 10, 2012 Answer to speedy tree growth lies in air pollution, Auburn University study showshttp://www.foxnews.com/scitech/2012/07/10/answer-to-speedy-tree-growth-lies-in-air-pollution-auburn-university-study/#ixzz21OJUfKfN

As the scientific community worries about greenhouse gas emissions contributing to global warming, a new Auburn University study suggests the Southeastern U.S. absorbs more carbon than it produces. And, at least in the short term, air pollution may actually be helping to speed the growth of young, carbon-absorbing forests in the region.¶ “Our study actually showed that Southeast carbon uptake is much faster than other regions,” said Hanqin Tian, a professor at Auburn’s School of Forestry and Wildlife Sciences, and lead author of the study published in the journal Ecosystems. “This area has trees that are very young and the growth is very fast. So, they uptake more carbon from the atmosphere.”¶ While earlier studies have examined the effect of individual factors on carbon storage and climate change, Tian developed a computer model that takes into account multiple natural and manmade variables – such as land use, climate and pollution – over the past century.¶ The model suggests that moderate amounts of air pollution, in the form of carbon and nitrogen, had a fertilization effect on young forests. Many of these new trees appeared on abandoned agricultural land during the mid-20th century.¶ “In the short term, it could increase the carbon uptake,” Tian said. “But that’s not guaranteed for long.”¶ The Auburn study suggests the Southeast is approaching a “tipping point.” The region’s urban areas are growing. And, despite the temporary fertilization effects of atmospheric carbon and nitrogen, Tian said increasing levels of other pollutants, such as ground level ozone, threaten to do more harm than good to the environment in the long-term.¶ “The take-home message is we really need to do urban/land use planning and also air pollution control to help the Southern U.S. forests to become maybe a sustainable carbon sink,” Tian said.¶ Read more:

## Other

#### **Scientifically proven warming’s not real**

Todd 2012(writer for Policymic and attends Dartmouth University, “A Really Inconvenient Truth: Global Warming is Not Real”, http://www.policymic.com/articles/3824/a-really-inconvenient-truth-global-warming-is-not-real”)

Sixteen prominent scientists recently signed an op-ed in the Wall Street Journal expressing their belief that the theory of global warming is not supported by science. This has not been getting the attention it deserves because politicians (looking at you Al Gore) are frankly embarrassed to admit that they are wrong about the phenomenon known as global warming. Not only has our planet stopped warming, but we may be headed toward a vast cooling period.¶ New data shows that in fact the Earth has not warmed at all over the last 15 years. In fact, the Daily Mail reports that the Met Office and the University of East Anglia Climatic Research Unit, after taking data from nearly 30,000 stations around the world, have found that the earth stopped warming in 1997. The report suggests we are headed toward a new solar cycle, Cycle 25, which NASA scientists have predicted will be significantly cooler than Cycle 24 which we are in now. This data largely contradicts the accepted theory among the public that carbon dioxide pollution is causing global warming and even proposes that we are actually heading toward global cooling.¶ I share the same frustration in the political and scientific community that the sixteen scientists express. Why did we all hop on board the global warming bandwagon started by politicians when the scientific community didn’t back it? Since 1998, 31,000 scientists have signed a petition agreeing with the fact that there is no scientific evidence or consensus that man-made global warming exists while the Intergovernmental Panel on Climate Change (IPCC) has the support of only 2,500 scientists. Yet, for some reason it is accepted that global warming is scientifically undeniable.

#### **Entering a cooling period**

RedOrbit 2009(“Is The Earth Entering A Cooling Cycle?”, http://www.redorbit.com/news/science/1770901/is\_the\_earth\_entering\_a\_cooling\_cycle/)

On the scientific research front, most news headlines tend to be aimed at showing how global temperatures are on a steady upward climb, but one report published last week appears to reveal that those upward trends may not be entirely accurate.¶ In an October 9 BBC News story, climate correspondent Paul Hudson noted that the warmest year on record was not in 2008 or 2007, but in 1998.¶ The story goes on to state that no climate increase has been measured over the past 11 years, although emissions of carbon dioxide continue to rise.¶ The BBC story cited experts who claim that although the world has gone through decades of rapid warmth during the 20th Century, the earth operates on natural climate cycles, which man has no control over.¶ Additionally, experts have long debated whether the spikes in warming have been attributed to an increase in the Sun’s energy and that warming causes a rise in carbon dioxide levels, rather than the other way around. For some scientists, there is the lingering possibility that the earth could be entering a period of global cooling, rather than the widely sensationalized warming trend.¶ BBC News cited a study published two years ago by the Royal Society.¶ In the study, scientists observed solar output and cosmic ray intensity over the past 30-40 years in order to contrast them against global average surface temperature.¶ "Warming in the last 20 to 40 years can’t have been caused by solar activity," concluded Dr Piers Forster, a contributor to the Intergovernmental Panel on Climate Change (IPCC).¶ But the BBC story goes on to cite contradicting information from solar scientist Piers Corbyn, who works with long-range weather forecasting firm Weatheraction.¶ Corbyn uses Solar Weather Technique, which he touts to be “the most advanced and reliable long-range forecasting system in the world.”¶ His method uses predictable aspects of solar activity, primarily particle and magnetic effects from the Sun, to make long-range weather forecasts.¶ Using his method of research, Corbyn has concluded that solar charged particles are actually responsible for shifts in global temperatures.¶ And then there’s the story being told by the earth’s oceans.¶ BBC News cited information from Professor Don Easterbrook from Western Washington University last November.¶ Easterbrook’s research showed that the earth’s oceans are on a cyclic periods of warming and cooling.¶ He says the Pacific decadal oscillation was on a warming cycle during the 1980s and 1990s, which can be correlated with warmer global temperatures.¶ However, the PDO has begun to cool down in recent years, says Easterbrook.¶ "The PDO cool mode has replaced the warm mode in the Pacific Ocean, virtually assuring us of about 30 years of global cooling," said Easterbrook.¶ So which story can the world rely on in terms of global warming or cooling?¶ Scientists at the Met Office claim that there will always be periods of slower warming and temporary cooling. However, the long-term global temperature trend is certainly up.

#### **Warming helps humans**

OSS 12 (Open Source Systems, “Global Warming Natural Cycle”, http://ossfoundation.us/projects/environment/global-warming/natural-cycle)

Is global warming a natural cycle? Or is global warming affected by human influence? What does the science say? Both are true. In the natural cycle, the world can warm, and cool, without any human interference. For the past million years this has occurred over and over again at 100,000 year intervals. About 80-90,000 years of ice age with about 10-20,000 years of warm period.¶ The difference is that in the natural cycle CO2 lags behind the warming because it is mainly due to the Milankovitch cycles. Now CO2 is leading the warming. Current warming is clearly not natural cycle. The earths natural cycles, if human industrial output had not been involved, would have us near or slightly below thermal equilibrium, possibly slightly cooling.¶ In other words, if we were in the natural cycle without human influence, the forcing levels would likely be around 0W/m2 to -0.1W/m2. We are currently experiencing a positive forcing of around 3.6 to 3.8W/m2 and a human induced negative forcing of around 2W/m2. The resultant forcing, depending on current levels and the Schwabe cycle is around +1.6W/m2 above natural cycle as estimated.

#### **Warming makes fantastic weather**

Brown 2012(“Global Warming Producing Some Really Fucking Awesome Weather”, http://www.theindytribune.com/2012/01/global-warming-producing-some-really.html)

INDIANAPOLIS - Despite international concern over CO2 emissions and rising global temperatures, people from all across Indiana are discovering that global warming is, for better or worse, producing some really fucking awesome weather right now.¶ Fears over increasing sea-levels, ferocious natural disasters and far-reaching droughts were cast aside this afternoon as Hoosiers enjoyed a comfortable 62 degrees - unseasonably high for early January.¶ "I'm absolutely loving all this fucking beautiful sunshine," said Indianapolis resident Grant Hoburn. "Normally at this time of year I'd be up to my knees in shitty ass snow, but now it's getting to where I can go outside in a t-shirt; a fucking t-shirt! If this is that thing they call climate change, I honestly don't see the big fucking deal."¶ The mere notion that an evolving climate might one day precede the largest food shortage in human history, devastate the African continent and cause unimaginable natural carnage across the globe was duly forgotten by the hundreds of people casually walking dogs in White River State Park this afternoon.¶ "I just cannot fucking believe it," smiled 24-year-old Michaela Dennison, seemingly displaying no interest in the debate over whether global warming is natural or man-made. "Here we are in winter and it's fucking gorgeous outside. It's just totally awesome."¶ Meanwhile, though most Hoosiers are embracing the fucking marvelous weather for what it is, climate analysts believe that come July most people will find temperatures of 109 degrees utterly intolerable.

#### **CO2 good**

Zubrin 12 (“Carbon Emissions Are Good”, http://www.nationalreview.com/articles/295098/carbon-emissions-are-good-robert-zubrin)

Last week, the Environmental Protection Agency (EPA) announced its intention to enforce regulations that would effectively ban new coal-fired power plants in the United States. As coal is by far America’s cheapest and most plentiful fossil fuel, and coal-fired power stations account for 45 percent of all electricity generated in the U.S., the destructive economic effects of this edict can hardly be overstated. It is therefore imperative to subject the EPA’s logic to a searching examination.¶ According to the EPA, despite their disastrous economic effects, regulations to prevent the U.S. from making use of its coal resources are necessary, because coal combustion produces carbon dioxide, which allegedly will cause global warming, which would allegedly be harmful to the Earth’s biosphere and human society. Others, wishing to avoid an environmentalist-created economic catastrophe, have challenged this argument’s first premise, to wit, that global warming is really occurring. Since there is no actual global temperature, but only an average of many different constantly changing local temperatures, this approach has led to convoluted debates revolving around data sets that can easily be based upon an unrepresentative mix of measurements.¶ Advertisement¶ This has left the EPA’s second premise — that global warming would be a harmful development — largely unchallenged. This is unfortunate, because while it is entirely possible that the earth may be warming — as it has done so many times in the past — there is no rational basis whatsoever to support the contention that carbon-dioxide-driven global warming would be on the whole harmful to life and civilization. Quite the contrary: All available evidence supports the contention that human CO2 emissions offer great benefits to the earth’s community of life.¶ Putting aside for the moment the question of whether human industrial CO2 emissions are having an effect on climate, it is quite clear that they are raising atmospheric CO2 levels. As a result, they are having a strong and markedly positive effect on plant growth worldwide. There is no doubt about this. NASA satellite observations taken from orbit since 1958 show that, concurrent with the 19 percent increase in atmospheric CO2 over the past half century, the rate of plant growth in the continental United States has increased by 14 percent. Studies done at Oak Ridge National Lab on forest trees have shown that increasing the carbon dioxide level 50 percent, to the 550 parts per million level projected to prevail at the end of the 21 century, will likely increase photosynthetic productivity by a further 24 percent. This is readily reproducible laboratory science. If CO2 levels are increased, the rate of plant growth will accelerate.¶ Now let us consider the question of warming: If it is occurring — and I believe it is, based not on disputable temperature measurements but on sea levels, which have risen two inches in two decades — is it a good thing or a bad thing? Answer: It is a very good thing. Global warming would increase the rate of evaporation from the oceans. This would increase rainfall worldwide. In addition, global warming would lengthen the growing season, thereby increasing still further the bounty of both agriculture and nature.

#### **Warming helps animals**

BBC News 2001 (“Global warming helps Arctic animals”, http://news.bbc.co.uk/2/hi/americas/1324416.stm)

Research in the American Arctic has revealed that the polar bear and bowhead whale populations are booming after decades of decline, and part of the reason for that may be global warming.¶ Although the long-term predictions suggest many Arctic species could be jeopardised by any continued rise in temperatures, scientists think that at the moment some animal populations may be benefiting from a slightly warmer climate.¶ In the Arctic desert of Northern Alaska, a tiny monitoring station is tracking the polar climate.¶ Research over three decades shows the amount of carbon dioxide and other greenhouse gasses in the atmosphere has steadily increased. Temperatures have also risen by a tenth of one degree every year since 1977.

#### **Alt Causes**

Earth Save 2011 (“A New Global Warming Strategy: How Environmentalists are Overlooking Vegetarianism as the Most Effective Tool Against Climate Change in Our Lifetimes

by Noam Mohr” http://www.earthsave.org/globalwarming.htm)

Methane is responsible for nearly as much global warming as all other non-CO2 greenhouse gases put together. Methane is 21 times more powerful a greenhouse gas than CO2. While atmospheric concentrations of CO2 have risen by about 31% since pre-industrial times, methane concentrations have more than doubled. Whereas human sources of CO2 amount to just 3% of natural emissions, human sources produce one and a half times as much methane as all natural sources. In fact, the effect of our methane emissions may be compounded as methane-induced warming in turn stimulates microbial decay of organic matter in wetlands—the primary natural source of methane.¶ With methane emissions causing nearly half of the planet’s human-induced warming, methane reduction must be a priority. Methane is produced by a number of sources, including coal mining and landfills—but the number one source worldwide is animal agriculture. Animal agriculture produces more than 100 million tons of methane a year. And this source is on the rise: global meat consumption has increased fivefold in the past fifty years, and shows little sign of abating. About 85% of this methane is produced in the digestive processes of livestock, and while a single cow releases a relatively small amount of methane, the collective effect on the environment of the hundreds of millions of livestock animals worldwide is enormous. An additional 15% of animal agricultural methane emissions are released from the massive “lagoons” used to store untreated farm animal waste, and already a target of environmentalists’ for their role as the number one source of water pollution in the U.S.

#### No tipping point, global warming is self-correcting

PCW 2011 **(**Peace Corp Worldwide, “Could Global Warming Be Good?”, http://peacecorpsworldwide.org/light-not-heat/2011/11/18/could-global-warming-be-good/)

Further, the average temperature of the earth is 60 degrees F or 15 degrees C. At temperatures under 72 degrees F or 22 degrees C the human corpus dies in a matter of hours if not protected by man-made inventions, i.e. clothing, heating, and shelter. The import is that, for man to inhabit most of the earth, he needs to alter the climate or adapt to it. ¶ This is important since the warmer the earth becomes the less costly it becomes to extend our zone of existence, i.e. less cost to make our homes warm. At the same time, we will reduce the need to spew noxious gases into the atmosphere by heating our homes. If one extrapolates the data one sees that global warming is essentially a self-correcting problem, i.e. as we reduce the need for heating, we reduce noxious gases in the atmosphere and thus reduce man-made global warming.¶ Of course the concern is not that the earth is getting warmer, but that it is doing so at an accelerated rate. Most agree that, if greenhouse gases are not checked, the average temperature of the earth will increase by 1-2 degrees C over the next 100 years. But wait, that average will have to grow by 7 degrees C to come up to the minimum temperature required for unassisted human existence. And that is the minimum, most studies show that man can live at much higher average temperatures. So we have several centuries of “global warming” at current “breakneck” speeds before the human race is actually threatened. ¶ Ah yes, it is not global warming that is the problem, it is “climate change.” In other words it is not the heat itself that is the problem but the changes in our weather patterns caused by that heat.

#### **Alt causes to warming – methane**

O’Harra 12 (writer for Alaska Dispatch, “Warming Arctic: Methane greenhouse gas oozing through cracks in sea ice”, http://www.alaskadispatch.com/article/warming-arctic-methane-greenhouse-gas-oozing-through-cracks-sea-ice)

In what may point to an alarming new driver for global warming, scientists have found unexpected amounts of methane emerging from the Arctic Ocean between cracks and open leads amid pack ice far out to sea.¶ Samples taken during five pole-to-pole research flights during 2009 and 2010 found the super greenhouse-gas methane, or CH4, appearing in concentrations about half a percent above background levels -- a surprising level given the distance from known sources like thawing permafrost and frozen hydrates on the seabed, according to new paper published in the online edition of Nature Geoscience.¶ Patches of exposed ocean were apparently exhaling methane within 600 miles of the geographic North Pole, hundreds of miles beyond Alaska's polar shore.¶ "These observations show a clear signature of CH4 emissions from surface water distributed across the Arctic Ocean north of the Chukchi and Beaufort seas, spanning many months of the year," wrote lead author Eric Kort with NASA's Jet Propulsion Laboratory, along with 11-coauthors, in the paper. "We suggest that the surface waters of the Arctic Ocean represent a potentially important source of methane, which could prove sensitive to changes in sea-ice cover."¶ Even worse, a climate warming process involving one of the most potent greenhouse gases may already be feeding on itself, the scientists said, since upper layers of the Arctic Ocean are known to be saturated with methane.¶ As melting sea ice exposes more ocean water to the air, methane production may increase — which in turn will trigger ever larger emissions, eventually leading to even greater loss and fracturing of ice, Kort explained in this JPL story discussing the results.¶ "While the methane levels we detected weren't particularly large, the potential source region, the Arctic Ocean, is vast. So our finding could represent a noticeable new global source of methane," Kort said.

#### **Warming good for humans**

Patterson 11 (writer for New York Post, “Global warming we can all cheer”, http://www.nypost.com/p/news/opinion/opedcolumnists/global\_warming\_we\_can\_all\_cheer\_YuaZ4rbJSEIerSIa8Ij25I)

You can be forgiven if you didn’t know that we’re in the middle of an ice age right now, what with all the talk about global warming. But it’s true. We’re in what geologists call “the Quaternary glaciation,” an ice age that’s lasted for the past 2.5 million years.¶ Ice ages last a very long time, with periods of extreme cold punctuated by warmer periods, or interglacials. We’re in such an interglacial right now: The Holocene epoch began about 12,000 years ago. It’s best thought of as a brief respite from the most severe ravages of Quaternary ice.¶ So global warming actually began around 10,000 BC, when the ice sheets that had covered large portions of North America and Eurasia retreated to the poles. And what has happened since this (entirely natural) warming began? The Neolithic Revolution, the dawn of civilization and the expansion of human populations like never before. In other words, homo sapiens, which existed in its more or less anatomically modern form for 100,000 to 200,000 years, began to flourish and thrive as a result of this most fortuitous warmth.¶ In short: Global warming is good for people.¶ If you don’t believe me, look at the temperature variations within the Holocene: The so-called Roman Warming coincided with the heights of classical civilization; then came a period of cooling which coincided with the social collapse of the Dark Ages.¶ Then there was the Medieval Warm Period, which coincided with the rise of monumental cathedrals in Europe and the settlement by Vikings in a lush Greenland, followed by the Little Ice Age (from roughly the 14th to the 19th centuries) — which saw widespread political upheavals, famine and disease.¶ Finally, there is the current warming trend of the last century and a half or so.¶ In each instance, the result is broadly the same: The warmer the Earth, the better it has been for people.¶ So let’s be thankful for the Holocene — civilization could never have arisen without it. And let’s be thankful we live in this especially warm period within the Holocene, which has seen human populations achieve measures of health and wealth unparalleled in all of history.¶ But let us also not be fooled — this blessed respite will someday end. The ice will return. It always has, it always will. And when it does, it will threaten all we have built, and indeed, our very existence.¶ Enviros often describe global warming as some kind of Hell on Earth. But Dante Alighieri, who taught us a thing or two about Hell, knew better. In Canto 34 of The Inferno, Dante and his guide Virgil descend to the ninth and lowest circle of Hell, and in the very center they find Satan who sits, not in a pit of fire — but frozen in a solid lake of ice.