



Global warming, also referred to as climate change, is the observed century-scale rise in the average temperature of the Earth's climate system and its related effects. Multiple lines of scientific evidence show that the climate system is warming.

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Joe Scott

Published on Apr 23, 2018

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Joe Scott3 months ago

Just a heads up everybody, this is a highly polarizing topic, and while discussion and debate are always encouraged, abuse and trolling is not. So be respectful or I'll start dropping the ban hammer. Toodles!

290

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David Burton1 hour ago (edited)

[PART 1 OF 2]Joe, this video is very disappointing.

At 3:52 you grossly *misrepresented* the Global Warming Petition, which I signed. I hate it when people misrepresent my views!

You said the Petition is, "*basically arguing that climate change is not real.*" That's untrue.

The Global Warming Petition says *nothing like that*. I and 31,386 other "skeptical" American scientists have signed to indicate our belief that:

“There is no convincing scientific evidence that human release of carbon dioxide, methane, or other greenhouse gases is causing or will, in the foreseeable future, cause catastrophic heating of the Earth’s atmosphere and disruption of the Earth’s climate. Moreover, there is substantial scientific evidence that increases in atmospheric carbon dioxide produce many beneficial effects upon the natural plant and animal environments of the Earth.”

That is an accurate summary of the best scientific evidence. Note that there's no suggestion that human emissions of GHGs don't influence the climate. That's just crazy-talk! The best evidence is that anthropogenic (human-caused) climate change is real, but modest and benign, and CO2 emissions are beneficial, rather than harmful.

Did you know that 15-20% of agricultural production is due to the extra CO2 in the atmosphere, because of mankind's fossil fuel use? If we didn't have that extra productivity, we could almost, but not quite, make up for it by putting *ALL* of the world's rain forests under cultivation.

The benefits of elevated CO2 levels for plants have been known for a century. Here's an article from *Scientific American*, 98 years ago:

<http://tinyurl.com/1920sciamCO2>

This photo is from that article. The potatoes on the left were grown with the benefit of exposure to CO2-laden exhaust gases from a blast furnace. The potatoes on the right were grown under normal conditions.

http://www.sealevel.info/CO2_fertilized_potatoes_1920.png

CO2 emissions are greening the planet! Here's a map:

http://sealevel.info/greening_earth_spatial_patterns_Myneni.html

Rising CO2 levels are especially beneficial in arid regions. Here's a *National Geographic* article about how climate change is benefiting the Sahel (southern Sahara):

https://news.nationalgeographic.com/news/2009/07/090731-green-sahara_2.html

Excerpt:

"Images taken between 1982 and 2002 revealed extensive regreening throughout the Sahel, according to a new study in the journal *Biogeosciences*. The study suggests huge increases in vegetation in areas including central Chad and western Sudan. ... 'Before, there was not a single scorpion, not a single blade of grass,' he said. 'Now you have people grazing their camels in areas which may not have been used for hundreds or even thousands of years. You see birds, ostriches, gazelles coming back, even sorts of amphibians coming back... The trend has continued for more than 20 years. It is indisputable."

Read that last sentence again: "*IT IS INDISPUTABLE.*"

Those are not my words (though they could be). That's quoted from the *National Geographic* article.

Thanks, in part, to higher CO2 levels, crop yields are soaring, and that great scourge of mankind, famine, is becoming increasingly rare.

If you'd like to learn more about climate change, here are some trustworthy resources:
<http://sealevel.info/learnmore.html>

At 4:21 you said, "*only 0.1% of the people who signed this petition were actual climate scientists.*" – as if that's a bad thing!

You've got that backwards. Specialists in a field are the *WORST* people to poll about the efficacy of the methodologies of that field, because you are *guaranteed* to *always* find consensus, in *every* field, no matter how good or bad those methodologies are. Even in fields which are complete hokum, the field's specialists will claim that their methods work.

- Would you ask ONLY Supply Siders about the correctness of Supply-Side economic theories?
- Would you ask ONLY Jungians about the correctness of Jungian psychology?
- Would you ask ONLY cold fusion researchers whether cold fusion is practical?
- Would you ask ONLY homeopaths whether homeopathy works?



At [4:30](#) you discussed Dr. Peter Doran's "97% consensus" article, and you repeated his false claim that, among people *"who had more than 50% of their papers published on climate science topics, 97.4% of them agreed that humans are causing climate change."*

That statement is untrue.

In fact, there are many different things wrong with it.

Most obviously, it's a straw-man. Of course "humans are causing climate change!" That's ***not*** what the climate debate is about. The vast majority of the signers of the Global Warming Petition would certainly agree that humans are causing climate change.

Less obviously, the claimed statistic is simply untrue, even for that straw-man question, because Doran deliberately excluded skeptics, to arrive at that number. Here's what he did.

FIRST, Dr. Doran wrote just two "opinion" questions for his survey, both of which were "gimmies," designed to elicit the answers he wanted. (There were also some demographic & background questions.)

The survey pretended to be an attempt to learn about scientists' opinions, but it wasn't. Neither question was designed to actually learn anything about scientists' opinions. Both of the questions were so uncontroversial that even I, and most other skeptics of climate alarmism, would have given the answers he wanted.

SECOND, Doran had his graduate student send the survey to over 10,000 geophysical scientists, but only to people working in academia or government — known bastions of left-of-center politics. Scientists working in private industry, who tend to be more conservative, were not surveyed. That biased the sample, because the climate debate is highly politicized: most conservatives "lean skeptical" and most liberals "lean alarmist" in the climate debate.

They got 3,146 responses.

THIRD, to calculate his supposed "consensus" Prof. Doran excluded all but the most biased respondents: the most specialized specialists in climate science.

That's a massive, fundamental blunder, like asking only homeopaths about the efficacy of homeopathy, rather than the broader medical community. It makes the result completely meaningless. No matter how sketchy the practices in a field, if you ask **ONLY** practitioners of that specialty you'll always find strong support for those practices. Even if you asked astrologers whether astrology works, most would say "yes."

By screening out all but the most specialized specialists in climatology, Doran excluded over 97% of the geophysical scientists who had answered the survey! Only 79 were left.

That's right: he pruned 3,146 responses down to just 79 (2.5% of the respondents).

But even that didn't get his desired "consensus" figure up to 97%. So,

FOURTH, to calculate his final "97.4%" result, Doran excluded respondents who gave one of the "skeptical" answers to the first of his two questions.

I'm not kidding, he really did!

The first "gimme" question was:

1. **"When compared with pre-1800s levels, do you think that mean global temperatures have generally risen, fallen, or remained relatively constant?"**
(I would have said "risen" — after all, the 1700s were the Little Ice Age!)

Those who answered "remained relatively constant" were not asked the 2nd question, and ***they were not counted*** when calculating his percentage consensus.

That left Doran with just 77 out of 3,146 responses. He used only those 77 for the "97.4%" calculation.

The second question was:

2. **"Do you think human activity is a significant contributing factor in changing mean global temperatures?"**

Well, of course it is! That encompasses both GHG-driven warming and particulate/aerosol-driven cooling. It could also be understood to include Urban Heat Island (UHI) effects.

Since just about everyone acknowledges at least one of those effects, I would have expected nearly everyone to answer "yes" to this question. Yet 2 of 77 apparently did not.

It is unfortunate that Doran and his graduate student didn't ask any legitimate questions about the claims of climate hysterians. For example, they could have asked, *"Do you think that, in the words of James Hansen, this is 'our last chance to save humanity' from a 'climate catastrophe' caused by fossil fuel use?"*

Of course the reason Prof. Doran didn't ask a "real" question like that is that Hansen is a kook, few scientists agree with him, and Doran's survey was a scam: Its purpose was ***NOT*** to discover anything, it was to support a propaganda talking point.

At [6:58](#) you said, *"when the vast majority of scientists agree on one thing, that's generally where you find the truth."*

http://sealevel.info/AMS/2017_Survey_Report_bar_chart.png


There's obviously no consensus! Their answers were all over the place. (The "average" answer was about 57%.)

Note: that's from the most recent survey. The AMS has been conducting such surveys since 2009; here's a collection of them:

<http://sealevel.info/AMS/>
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 **David Burton** 7 minutes ago (edited)
[PART 2 OF 2]

At 7:40 you said, *"If you have higher CO2 without a corresponding uptick in water and nutrients, it doesn't really make a difference. In fact water's going to be even harder to come by [because a plant] is going to need more water just to maintain the status quo..."*

That's exactly backwards. Extra CO2 makes plants more drought resistant and water-efficient, by improving stomatal conductance relative to transpiration. That is especially helpful in arid climates. Google finds many articles about it:

<http://tinyurl.com/CO2droughtstress>

When air passes through plant stomata (pores), two things happen: the plant absorbs CO2, and the plant loses water through transpiration. When CO2 levels are higher, the ratio of CO2 absorbed to water lost improves, which improves both plant growth and drought resistance. The plants also commonly respond to elevated CO2 by reducing the density of the stomata in their leaves, which reduces water loss. Recent research has found that:

"Land plants are absorbing 17% more carbon dioxide from the atmosphere now than 30 years ago... [yet] the vegetation is hardly using any extra water to do it, suggesting that global change is causing the world's plants to grow in a more water-efficient way."

<https://www.nature.com/articles/s41467-017-00114-5>
<https://theconversation.com/rising-carbon-dioxide-is-making-the-worlds-plants-more-water-wise-79427>

As a result, some of the world's deserts and near-deserts are greening, especially in Africa. In fact, most of the Earth is getting greener.

http://sealevel.info/greening_earth_spatial_patterns_Myneni.html

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At 8:05 you said, *"...climate models suggest that that rain comes in the form of high energy storms..."* while showing satellite imagery of hurricanes.

What "climate models suggest" is inconsistent with measured reality. (That's commonly the case with climate models, which is not surprising, when you consider that they are completely unverifiable; how good do you think weather models would be, if they weren't being constantly compared to reality, and refined?)

CO2 emissions and levels have been rising substantially and continuously since about 1950. So if that were going to cause an increase in extreme weather, don't you think it would have started happening by now?

It hasn't happened. Here are some graphs & articles:

There's no clear trend in hurricanes:
http://web.archive.org/web/20180712005105/http://policlimate.com/tropical/frequency_12months.png

http://web.archive.org/web/20180721221638/http://policlimate.com/tropical/global_running_ace.png

http://web.archive.org/web/20170814040731/https://www.wunderground.com/hurricane/accumulated_cyclone_energy.asp?basin=gl&MR=1

Strong tornadoes have noticeably **declined**:
<http://www1.ncdc.noaa.gov/pub/data/cmb/images/tornado/clim/EF3-EF5.png>

<https://www.investors.com/politics/editorials/despite-what-youve-heard-global-warming-isnt-making-weather-more-extreme/>

doi: 10.1002/2017GL076071

Despite such proof, many climate alarmists steadfastly insist that global warming causes extreme weather. One of the sources of their confusion is probably Dr. James Hansen. On the night of Dec. 9, 2009, though I rarely watched television, I turned on the set and channel-surfed across David Letterman on the *Late Show*, introducing Dr. Hansen, who was hawking his then-new book. That sounded interesting, so I paused there.

His book is entitled, *Storms of My Grandchildren: The Truth About the Coming Climate Catastrophe and Our Last Chance to Save Humanity*.

Hansen claimed on p.250 that global warming would warm higher latitude oceans less than lower latitudes, which would cause stronger storms. Page 250 is not part of the free preview on Amazon, but here's Hansen on Letterman, plugging his book and making the same claim, starting at 7 minutes 25 seconds:

<https://www.youtube.com/watch?v=SOKBOFLhgqM#t=7m25s>

But it is now known that that prediction was ***exactly backwards***. In the northern hemisphere “polar amplification” causes extreme latitudes to warm much faster than other places, and in the tropics stabilizing “negative feedbacks” reduce warming. So anthropogenic climate change causes a ***reduced*** temperature gradient, rather than increased. (Of course that hasn't caused Hansen to retract his clearly erroneous prediction.)

You’ve heard that “no news is good news?” Well, in climate science it’s the converse: “good news is no news!” Climate alarmists and their allies in the press rarely report the good news, about reduced extreme weather, improved agricultural productivity, and a greening planet, thanks to anthropogenic CO2.

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At [8:18](#) you said, *"Without extra fertilizer, plants exposed to more CO2 might grow a little bit faster at first, but they quickly hit a nitrogen plateau and stop grown as the soil gets depleted of nutrients."*

That’s nonsense. You're apparently unfamiliar with the thousands of scientific studies and published papers by agronomists, who have ***measured*** the effects of elevated CO2 for all important crops, with a wide variety of cofactors.

Most obviously, although it is true that fertilization needs to match the productivity of the crops, so more productive crops require more fertilizer, that’s only true when calculated *per acre*. If fertilization rate is calculate per unit of yield, there's no increased requirement.

Additionally, legumes, like soybeans, alfalfa, and clover, fix their own nitrogen, so they'll never hit a "nitrogen plateau." Indeed, studies show that legumes benefit enormously from higher CO2 levels.

Here’s a great resource where you can find the peer-reviewed papers about the many studies of CO2's effects, on any crop of your choosing: http://co2science.org/data/plant_growth/plantgrowth.php

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At [8:27](#) you said, *"extra CO2 in some plants can cause chemical imbalances that causes them to lose their natural defenses against insects."*

That’s wrong. It is not true for any crop, at any CO2 concentration which could ever plausibly be reached outdoors. Where did you read that nonsense?

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At [8:42](#) you said, *"In the outside world... it [elevated CO2] would have little or no effect on the plant growth, and can actually be harmful."*

That’s complete nonsense. ***Thousands of studies*** have proved that CO2, elevated to levels far beyond what we can ever hope to reach outdoors, are ***dramatically beneficial*** for most crops, and ***never*** harmful to any.

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At [9:07](#), you repeatedly mispronounced "albedo."

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At [11:44](#) you said fossil fuel CO2 emissions are around 29 billion tonnes (Gt). That's low.

Because we have good financial data about the amount of coal, oil & natural gas being produced and used, we have good numbers for the amount of CO2 being released from fossil fuels:

http://cdiac.ess-dive.lbl.gov/ftp/ndp030/global.1751_2014.ems

In 2014 mankind released (9,855-568) million tonnes of carbon from fossil fuels = just over 34 Gt of CO2.

By now it should be approaching 36 Gt of CO2.

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At [14:45](#) you repeated that "climate change is real and caused by humans" and even Exxon agrees.

That’s a straw-man. Even I agree that climate change is real, and that humans cause some of it. But the best evidence is that humans' effect on climate is modest and benign.

That’s the Single Cause Fallacy that you decried at [10:15](#). You imply that because humans cause ***some*** climate change, they are THE cause of climate change.

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At [15:34](#) you plugged John Cook's SkS site. That might explain some of your confusion: it's not a reliable source of information.

It's not the worst source. Unlike sites like DeSmogBlog, Principia-Scientific, and HotWhopper, which are devoted entirely to disinformation, SkS does actually have competent contributors. But they filter the content, cherry-pick the studies they report, and censor the comments, to enforce their viewpoint.

If you'd like to learn more about climate change, here is a list of some much better resources:

<http://sealevel.info/learnmore.html>

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Justin O'Brien 3 months ago
HOGWASH! The climate is flat and the earth is changing.

525 [REPLY](#)

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176

REPLY

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Shailly Keshari

3 months ago

You make great content. Please keep it up! And great video btw

36

REPLY

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Kris Sisk

3 months ago

Step one to ending the climate change skepticism: improve scientific literacy. If you look at climate change deniers you'll notice one thing: they all lack basic scientific literacy. People who know how to interpret and analyze scientific data just facepalm and sometimes get frustrated with the skeptics who can't do that and constantly use nonsensical - to someone who understands the data - arguments.

25

REPLY

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paxwallacejazz

3 months ago (edited)

I really wish that the methane monster wasn't waiting in the wings but it is and once the arctic ice is gone replaced by dark ocean then all the self reinforcing feedback loops already triggered and baked into the cake of planetary chemistry, will be turbo charged. This pretty much guarantees the arival of the methane monster. Check out International Arctic Research Centre and their lead Scientist Natalia Sharakova. This will leave us with a mean temperature increase that guarantees world agricultural failure (can you say food riots) which will lead to famine and pandemics, resulting

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9

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J.D. Hague

3 months ago

Oy. If science is about consensus, then getting it right is irrelevant.

30

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Jimi Warner

3 months ago

You're leaving out a substantial group of people, whom I would consider myself a part of. People who don't necessarily **deny** climate change, but instead see the proposed solutions as very problematic. The problem is that any major issue like this always results in the gov't claiming that the only solution is more gov't power.

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Wesley Tillman

3 months ago (edited)

What skeptics are actually saying is that- yes, there is climate change, humans play some role in it, but, there is good reason to think the human role isn't endangering the biosphere. Skeptics would have people note that strangely the solutions that seem to crop up to deal with the projected unsuitable changes in climate all involve massive expansion of government control over us and reductions in human liberty on all levels. Skeptics are additionally saying something you forgot to mention; that there are powerful forces on the political left that wish to impose these severe

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Phillip Brewster

2 weeks ago (edited)

Ok global warming is caused deliberately by the government with aerosol injections through chem trials not by joe shmo driving his SUV stop the government using its pollution flights and then all these problems will stop these demonic controllers are the problem

3

REPLY

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William Brown

3 months ago

the problem is Politics. its a highly politisized topic. so any rational discussion on it wont happen. and thats on both sides of the "debate"

52

REPLY

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Keith Stout

3 months ago

I'm a skeptic but I really enjoyed this video. I don't disagree with anything you said. I'm glad you used the word suggest when talking about climate models, because that is my biggest issue. The climate with all of it's feedback systems is extremely complex. I don't believe we have enough understanding of all of these systems to project, with certainty, what the weather will be like like in five years, much less a hundred or a thousand years. I would like to critique one thing. You mention the vested interest on the don't believe it side but there are vested interests on both sides.

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10

REPLY