

# Climate Sceptics

## The "The Great Global Warming Swindle" Swindle

Right. That's it. So many people have now asked me about that wretched "Great Global Warming Swindle" documentary that was on Channel 4 the other week that I've decided to write this response, to hopefully clear it all up once and for all.

I should say first that if you've never heard of the programme, didn't see it, or aren't bothered about it in the least – hooray! The fewer people that were exposed to this bunkum, the better. Feel free to stop reading this rant and go back to your happy, Durkin-free life (Martin Durkin is the name of the director of this - I hesitate to use the word - "documentary"). If, however, you did see it, and it annoyed, confused or disturbed you, or people you know keep asking you awkward questions about it, or even if it confirmed your own beliefs about climate change being a huge conspiracy by evil power-crazed lefty greenies, then hopefully this article may be of help to you.

The problem with this sort of TV programme is that if you're not familiar with the details of the science behind climate change, a lot of the claims it makes can sound quite convincing, especially when they're gravely pronounced by a bunch of people with scientific-sounding titles and accompanied by lots of dramatic music and images. Well, as someone who has spent a lot of time studying climate change science and policy I can cheerfully state that the entire programme is a mish-mash of discredited theories, faulty data, fringe opinions presented as facts, some reputable science being horribly misrepresented, and some moderately bonkers conspiracy theories. For those who are particularly interested, I've written a summary (below) of what's wrong with each of the programme's main claims, along with some links to places with more detailed dissections of these issues. I hope it's helpful.

One of the most annoying things about this programme was that there was nothing new in it. Far from being an exciting new expose of the flaws in climate science, it was a hurled-together collection of theories which have already been studied in-depth by climate scientists – in peer-reviewed journals - and found to have insufficient evidence to support them. Far from being ignored or "suppressed", these theories have been seriously examined and found not to stack up. On the other hand, they are great at boosting the TV ratings. Whoopee.

Of course we can't be 100% sure about human-induced climate change. We can't be 100% sure about anything. Of course science isn't something pure and objective – politics affects science and science affects politics. But the only way that anyone's made any progress (in science/knowledge/whatever you want to call it) is by testing out different theories and going with the one that fits most of the evidence. After over a century of study, the evidence for human-induced climate change is overwhelming, and the consequences if we do not act fast could be catastrophic for most of the population of the planet. If someone collected together a handful of rogue scientists who claimed that tobacco doesn't cause cancer, or that unsafe sex doesn't increase the risk of getting AIDS (these people do exist) and made a stirring documentary about their struggle to bring the truth to the world, it would be staggeringly irresponsible – but not as irresponsible as "The Great Global Warming Swindle".

Phew. Rant over. I feel a lot better now. See below if you're interested in more details about the science and the conspiracy theories.

Meanwhile, in the interests of balance, I thought I'd better include the film-maker's response to all of these criticisms. When Dr Armand Leroi from Imperial College London wrote to Martin Durkin to complain about the distorted science presented in the programme, Durkin replied with the following, one-line response:

“You're a big daft cock.”

(see <http://ocean.mit.edu/~cwunsch/papersonline/durkinemails>)

Thanks Martin, that makes things much clearer.

### **Detailed Responses To The Main Claims Made By The Programme**

**Claim 1:** “Global warming is caused by increased cloud cover due to sun-induced cosmic radiation, not by CO2 at all. So nerrh.”

The relationship between the activity of the sun and the warming of the globe is clearly crucial, and has been the subject of an enormous amount of research. It is given special attention in the latest report by the IPCC (which is of course an enormous international committee of the world's most respected climate scientists), which concludes that yes, changes in sun activity has had a small effect on global temperature rises, but that the great majority of the impact was from human-produced greenhouse gases.

The specific claim made in the programme – that cosmic rays from sun activity is producing extra clouds that are warming the planet – relies on a single scientific paper by Henrik Svensmark, published in the Proceedings of the Royal Society earlier this year. This paper presents an apparent correlation between cosmic radiation and low-level cloud cover, which is an interesting suggestion and probably worthy of further study but absolutely does not somehow “prove” that sun activity is BEHIND ALL GLOBAL WARMING EVER, as suggested by the TV programme. Even if there turns out to be a decent amount of evidence for this theory (which would go against Svensmark's track record of putting forward theories about the climate that quickly get disproved, as detailed by George Monbiot in his recent Guardian article), there would also have to be evidence that changes in low-level cloud cover are actually responsible for all of the current and historical global warming, and that solar activity was the main driver of these changes. Svensmark's paper does not present any such evidence - although you wouldn't guess that from the TV programme. It's a bit like saying “I've just seen a small boy pull a leaf off that tree. Small boys can clearly have an impact on the number of leaves on trees. This means that all the leaves must fall off the trees in autumn because millions of small boys are pulling them off, probably on their way back to school after the holidays.” You'd need to collect a lot more evidence – and find good reasons to discount all of the evidence for the prevailing theory about why the leaves come off the trees – before making that sort of claim.

Most of the “alternative” theories of global warming fall into this category of one-or-two-papers-by-fringe-scientists-looking-for-attention-that-usually-get-disproved-or-become-redundant-soon-afterwards. The article by Monbiot (aka The Omnibot) gives more examples of this, in relation to other claims made in the programme about solar activity and discrepancies in the temperature data (which all relies on research that's already been shown to be wrong). One of the few scientists whose work hasn't been discredited - who appeared on the programme talking about the possible impacts of global warming on the ocean – was Professor Carl Wunsch, who has since written a very angry complaint to Channel 4 about how badly he and his work were misrepresented through very selective quotation by the film-makers...

Latest IPCC report: <http://www.ipcc.ch/SPM2feb07.pdf>

More information on solar activity and climate change (with further links):  
<http://gristmill.grist.org/story/2006/12/28/090/30666>

George Monbiot sinking his teeth into some bad science and growling like the little terrier he is:  
<http://www.monbiot.com/archives/2007/03/13/channel-4s-problem-with-scien...>

Carl Wunsch's letter of complaint to the programme: <http://ocean.mit.edu/~cwunsch/papersonline/channel4response>

A detailed scientific dissection of Svensmark's cosmic rays/cloud cover paper by a proper hardcore scientist (warning: climate science geeks and masochists only):

<http://www.realclimate.org/index.php/archives/2007/03/cosmoclimatology-t...>

If you want to know the journal references for some academic articles that go into more detail on some of these issues, I can send them (dannychivers (at) wildmail (dot) com), but seriously: you probably don't want them.

**Claim 2:** "But look! Look at these graphs! First off, global temperature FELL between 1940 and 1970! Second off, when the climate changed in prehistoric times, the warming came first, then the CO2 rose afterwards! Get out of that one Mr Bond – mwoahahahaaaa..."

First off, global warming DID plateau for a bit between the 40s and the 70s, due to the now widely-recognised phenomenon of "global dimming" – a type of industrial pollutant called sulphate aerosols were partially blocking the sun's rays. This lasted for a while until the ongoing build-up of greenhouse gases – combined, ironically enough, with a reduction in sulphate aerosol pollution – eventually swamped the dimming effect and temperatures began to show an overall increase once more. Global temperatures, on average, DIDN'T fall during this period, although the way the graph was displayed on the programme made it look like they did. Follow the medialens.org link below if you want to see some more accurate temperature graphs for this period (go on, you know you want to).

As for the second point – well, this is another one of those claims where, if you're not familiar with the science, it can sound pretty damning. Even though it would mean that somehow, every climate expert in the world had missed this really obvious fact up until now, resulting in the slapping of thousands of foreheads and an enormous chorus of "d'oh!" as scientists around the world realised their foolish error on watching Channel 4's ground-breaking Durkumentary – despite this rather unlikely scenario, the whole warming-before-CO2-on-the-graph thing is pretty hard to explain, right? Right?

Well, no, actually, it's not hard to explain at all - it's already been explained, plenty of times, and is now a standard part of the general consensus on how global warming works. For example, there's a nice explanation of it – from 2004 – right here:

<http://www.realclimate.org/index.php/archives/2004/12/co2-in-ice-cores>

Durkin and his merry gang of contrarians have shamelessly picked out just a few specific examples of when the Earth has warmed up in the past – the warmings at the end of ice ages – and ignored all of the rest of the historical temperature data. They've then somehow forgotten to mention that these specific examples of warming were probably triggered by events such as increased solar activity, changes in ocean circulation or long-term variations in the Earth's orbit. This initial short-term warming led to the gradual release of vast amounts of CO2 from soils and oceans, which, in an excellent example of a positive feedback loop, created a greenhouse effect which led to more warming and thus the release of more CO2 and so on until the whole climate had changed completely; it then took thousands of years of plant and algae growth to absorb the CO2 and thus get the temperature down again. So in these examples, which each consisted of about 5000 years of warming, other factors accounted for about the first 800 years of warming; the following 4200 years were then due mainly to CO2 levels.

There hasn't been enough solar activity or oceanic circulation change over the last 100 years to

account for all of the warming we're seeing, and the Earth isn't at one of the hot bits of its cycle, so those things can't explain the current bout of climate change. However, we have put an enormous amount of CO2 into the atmosphere in that time period. Even without all of the graphs showing a correlation between CO2 and recent temperature rises, it's not hard to follow this one to its logical conclusion. Unless you're distracted by your own shrieks of glee at getting a programme commissioned by Channel 4 even though the other documentary you did for them was so flawed and misleading that Channel 4 had to make an on-air public apology...

Further explanation and links to scientific articles about global cooling and the 800-year lag, as well as other misleading points from the programme:

[http://www.medialens.org/alerts/07/0313pure\\_propaganda\\_the.php](http://www.medialens.org/alerts/07/0313pure_propaganda_the.php)

Durkin's previous "documentary" and the consequences for Channel 4:

[http://www.foe.co.uk/resource/press\\_releases/19980402000124.html](http://www.foe.co.uk/resource/press_releases/19980402000124.html)

**Claim 3:** "But of course climate scientists exaggerate the risks of global warming – it's a great way for them to get more funding!"

Let me just say: Errr...what? If funding was all that climate scientists were after, then you'd expect them to be flocking to where the REAL money is: climate change denial. Some of the wealthiest institutions in the world – large corporations such as Exxon who rely on burning fossil fuels to maintain their ridiculous profits – are desperately flinging money at anyone with a couple of science A-Levels who's prepared to stand up and say climate change isn't happening, or isn't caused by humans ([http://news.yahoo.com/s/afp/20070202/pl\\_afp/unclimateusdeny\\_070202142458](http://news.yahoo.com/s/afp/20070202/pl_afp/unclimateusdeny_070202142458)). In fact, considering the enormous rewards available from the hideously wealthy global fossil fuel industry and all of its offshoots, it's extraordinary that there aren't more climate change denying scientists out there – people like John Christy, Paul Reiter, Richard Lindzen, Paul Driessen, Roy Spencer, Patrick Michaels, Fred Singer and Tim Ball, who are all linked to American right-wing institutes and think-tanks funded by Exxon. Wait, hang on – those eight scientists were all featured on The Great Global Warming Swindle. That means that the majority of the scientists on the programme have links with Exxon. Goodness me, who ever would have thought it?

You know, I'm actually rather impressed with how many scientists have maintained their integrity on this one, turned their back on the wealth and gone with the scientific evidence instead – that climate change is happening, and that greenhouse gases from fossil fuels and deforestation are behind it.

Nice map of the links between Exxon and climate-denying scientists:

<http://www.exxonsecrets.org/index.php?mapid=831>

**Claim 4:** "The whole climate change thing only ever took off coz Thatcher wanted to screw over the miners and build nuclear power stations and so funded lots of research into why coal is, like, bad."

What? Are you suggesting that a politician cynically promoted a particular issue not because they cared about it but because it suited their purposes at the time? Surely not! What a shocking revelation, etc, etc.

This story tells us something about the cynicism of politicians. It tells us nothing about the science of climate change. It also ignores the incredible, tireless efforts of thousands of scientists and millions of grassroots campaigners who have fought tooth and nail for twenty years to get the issue of climate change back on the agenda after Maggie's brief dalliance with it. It's a crude and oversimplistic interpretation of history, created to suit a particular political position and, d'you know what, it makes me a bit cross.

**Claim 5:** "It's all a conspiracy by bitter Marxists and attention-seeking greenies with an anti-development agenda, and propped up by a huge climate change industry full of people who owe

their jobs to climate change being real...”

Oh good grief. Where to begin? How to argue with people whose world-view is so twisted and bizarre?

I guess it all comes down to which of the following two scenarios seems more feasible to you:

1) The lifestyles we enjoy in the wealthy world are built on fossil fuels. The suggestion that we need enormous changes to our societies, economies and the way we live our lives – even if many of these changes might actually be positive in the long run – is actually quite a scary concept and so we shouldn't be surprised if many people don't want to believe it, and if many politicians shy away from taking the tough actions needed to avert climate disaster. Meanwhile, the fortunes of the world's wealthiest – and most powerful - corporations, countries, and individuals have been built on the idea that we can just go on consuming the Earth's resources as if they were infinite, and exploiting the poor and the powerless as if their lives were of little value. Climate change is the biggest challenge yet to these ideas and so, whether through self-preservation, self-delusion, or just the cold logic of the unrestrained capitalist market, there is huge opposition to action on climate change from the world's most powerful institutions. Against this background, a rapidly growing number of people in both the poor and the rich world have realised how drastic the change in our societies need to be, and are trying to sound some very unwelcome alarm bells. In the UK, their voices are finally beginning to be heard; “TGGWS” is part of a backlash against these voices, and stems from a convenient coming-together of sensationalist attention-seeking film-makers, a ratings-chasing TV channel and a light smattering of misguided and/or corporate-sponsored scientists.

2) The Green Lobby are a terrifying new force within our society who want you to live in a log hut and eat mud. They're all just trying to get rich, which is why they spend so much time on voluntary campaigning and why so many of them avoid well-paid corporate jobs to work for small organisations instead. They also hate poor people. What do you mean, some of the world's leading environmentalists are from the Global South, that the poor are usually the first to suffer from environmental disaster, that poverty and environmental destruction usually have the same roots within the global economic system and that this sophisticated and complex relationship has been well appreciated by the great majority of environmental activists for a very long time? I can't be arsed with all this, I'm off for a drive. Is there anything good on Channel 4 tonight?

An excellent guide to dealing with “climate sceptics”: <http://gristmill.grist.org/skeptics>

Paul Kingsnorth's rather vicious but amusing imaginary reconstruction of how the programme got made: <http://www.paulkingsnorth.net/2007/03/in-your-face-eco-hippies.html>

...and what happened afterwards: <http://www.paulkingsnorth.net/2007/03/scene-channel-four-post-mortem-int...>

Marcus Brigstocke getting delightfully cross about it all on the Friday 16th edition of The Now Show (about 18 minutes in): <http://www.bbc.co.uk/radio4/comedy/nowshow.shtml>

Danny Chivers, March 2007