



18 February 2014

Rt Hon Lord Deben
House of Lords
London
SW1A 0PW

Dear John,

I have just come across a document on the website of the Committee on Climate Change. It purports to be a dissection of my claims made in a speech to the House of Lords last autumn. It is surprising that you had not mentioned to me (a party colleague in the House of Lords) that it was being prepared, surprising that it was not shown to me in draft and surprising that I was not even told it had been published once it had been. Doing these things would have saved you from embarrassing error, because the document, as I detail below, omits and distorts quotations from the IPCC in a way that I would never do, and so reaches false conclusions about whether I was right on all the points I made. At the very least I am due an apology for this and an explanation. Once you have read my letter you will probably want to withdraw the document you have published. If you do not do so, then I would expect that in the interests of accuracy, you would put this letter on your website in a prominent position next to the document itself.

I will go through each of my nine claims here and add my own comments.

Claim 1

“First, [the IPCC AR5] acknowledges the pause or standstill in temperature for the first time.”

Your document quotes AR5 as follows:

“the rate of warming over the past 15 years... is smaller than the rate calculated since 1951”.

The words missing from the middle of that quotation are as follows:

“(1998–2012; 0.05 [–0.05 to +0.15] °C per decade), which begins with a strong El Niño,”

This is shockingly misleading on the part of the CCC's document, quoting a sentence from AR5 and deliberately omitting the very numbers and words which prove that there has been no significant warming during the 15 years in question! Can you explain why the words were left out? I have never seen quite such a blatant example of cherry-picking.

In any case, Box 9.2 of AR5 specifically refers to the word "hiatus":

The causes of both the observed GMST trend hiatus and of the model–observation GMST trend difference during 1998–2012 imply that, barring a major volcanic eruption, most 15-year GMST trends in the near-term future will be larger than during 1998–2012 (high confidence; see 11.3.6.3. for a full assessment of near-term projections of GMST).

So I was correct.

Claim 2

"Secondly, it acknowledges for the first time since its report in 1990 that the medieval warm period was at least as warm as today on a global level and therefore that today's temperatures are not unprecedented in the last thousand years."

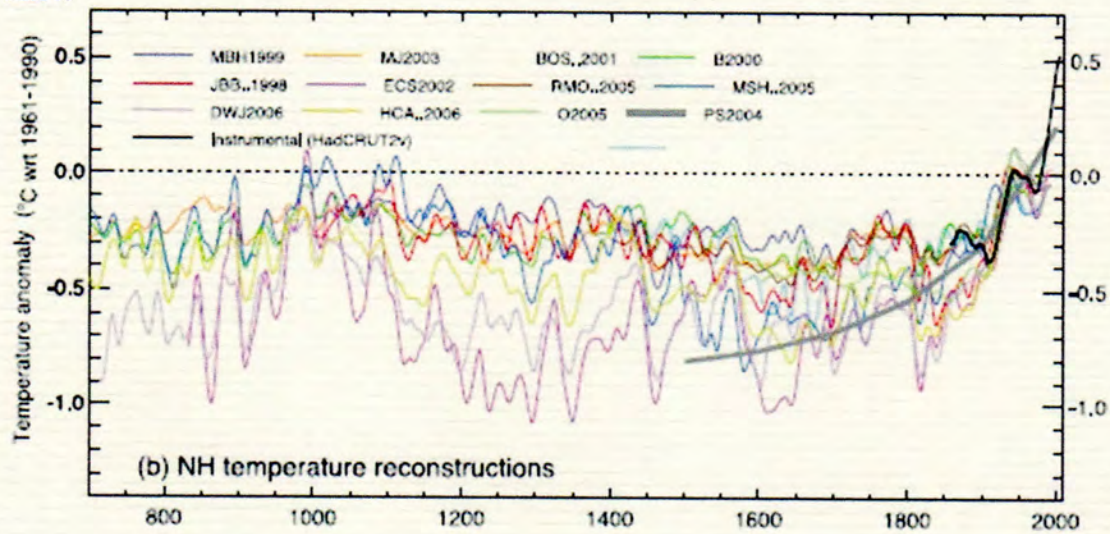
This is what the IPCC actually said: "*Continental-scale surface temperature reconstructions show, with high confidence, multi-decadal intervals during the Medieval Climate Anomaly (950-1250) that were in some regions as warm as in the late 20th century*"

Chart 5.7 quite clearly shows higher temperature during the medieval period in AR5 than the equivalent chart on page 467 of AR4, and temperatures at possibly higher than today's. (Medieval temperatures were even lower in AR3.)

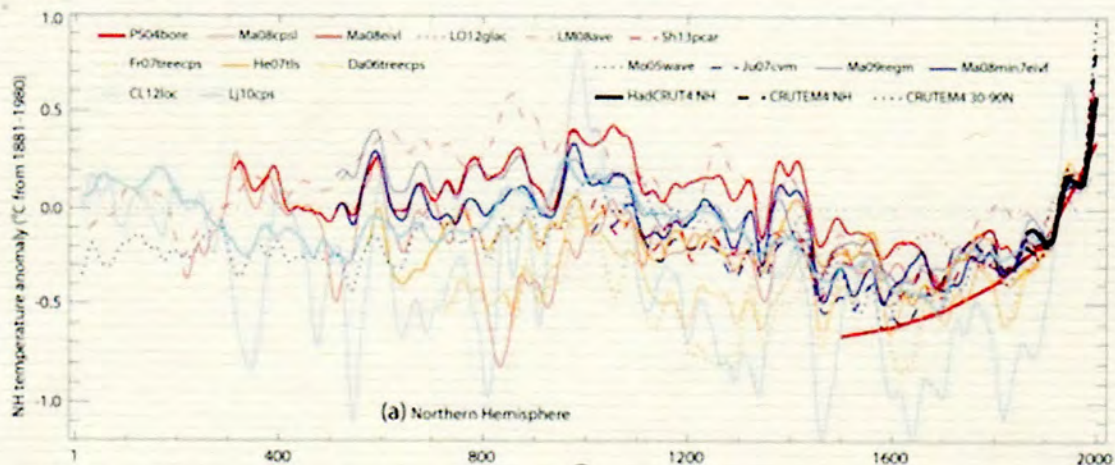
So I was correct that the temperatures are higher than reported previously and it is clear that they are possibly at least as warm as today's. My only mistake was to recall that this referred to the globe, rather than the Northern hemisphere. As you know, the paleo evidence suggests that the southern hemisphere was also warm during Medieval times, though of course the data is sparser, and a recent paper in Science firmly states the following about Antarctic and North Pacific water temperatures: "*Both water masses were ~0.9°C warmer during the Medieval Warm period than during the Little Ice Age and ~0.65° warmer than in recent decades.*"

<http://www.sciencemag.org/content/342/6158/617>.

AR4:



AR5:



Claim 3

“Thirdly, it acknowledges for the first time that Antarctic sea ice is slowly expanding not retreating, which was not predicted by its models.”

You concede I was correct.

Claim 4

“Fourthly, it acknowledges that 111 of its 114 models overstated warming in the last 15 years.”

Box 9.2 of the AR5 clearly states, just as I said:

“However, an analysis of the full suite of CMIP5 historical simulations (augmented for the period 2006–2012 by RCP4.5 simulations, Section 9.3.2) reveals that 111 out of 114 realisations show a GMST trend over 1998–2012 that is higher than the entire HadCRUT4 trend ensemble (Box 9.2 Figure 1a; CMIP5 ensemble-mean trend is 0.21 °C per decade).”

Yet this quotation was entirely missing from the CCC's comment on my claim. Why? It is the section I was referring to, as you would have found out if you had bothered to ask me.

So I was correct.

Incidentally, during the debate in question, Lord May said of me in relation to my claim that "climate change is happening more slowly than expected" that what I had "just said was factually incorrect. Climate change temperature has fluctuations. [Ridley] does not understand the statistics properly; it is basically the same problem he had with his thesis. It fluctuates; it goes up; it flattens a bit. But the statement made by the noble Viscount, as if it were a flat generality, was inaccurate."

I hope he now sees that I was correct and he was not. 0.05 degrees per decade, plus or minus 0.1, is indeed statistically "flat", though this was not actually what I had said. I am copying this letter to Lord May. I have no idea what he was referring to in my thesis.

Claim 5

"Fifthly, it acknowledges that the range of equilibrium climate sensitivity is lower than it was six years ago."

You say "The IPCC has lowered the bottom of the range".

You concede that I was correct.

Claim 6

"The sixth thing that the IPCC acknowledges is that transient climate response is lower."

You concede that I was correct.

Claim 7

"Seventhly, it acknowledges that sea-level rise, which is definitely happening, is lower than some authorities, such as Professor Rahmstorf, have tried to persuade us that it is."

You say that AR5 gives slightly higher estimates for future sea level rise than AR4, based on new economic scenarios. But this was not the claim I made. And in any case, Professor Judith Curry comments that Figure 3.14 of AR5 shows clearly that

"the rate of rise during 1930-1950 was comparable to, if not larger than, the value in recent years. This IPCC's analysis does not support an acceleration in the rate of sea level rise in the latter 20th century, and hence the data does not support the IPCC's conclusion of *a substantial contribution from anthropogenic forcings to the global mean sea level rise since the 1970s.*"

You concede I was correct to say that IPCC estimates are lower than Rahmstorf's. And I was not referring to Rahmstorf's post-IPCC deadline publications, but to his 2007 paper which argued that the IPCC AR4 had been conservative and that 1.4 metres of sea level rise could be expected.

Claim 8

"Eighthly, it says, using the words 'very unlikely', which it specifically defines in statistical terms, that a collapse of the Gulf Stream is very unlikely, that a collapse of the west Antarctic or Greenland ice sheet is very unlikely and that an explosion of methane from clathrates on the ocean floor is very unlikely."

Nothing in your document contradicts what I said. As you can see from the table below, taken from AR5, all but one of the abrupt change to the climate I discussed are described as either "very unlikely" or "exceptionally unlikely". [note: AMOC collapse effectively includes Gulf Stream collapse.]

It might be worth the committee asking itself the question posed to Professor Mat Collins at the Royal Society, when he, a coordinating lead author, described these results. The question was put by Andrew Montford.

"This prompted me to put a question to him, which was the first I'd been able to raise via the chair all day (I'd tried in several talks). I said to Matt:

"What the IPCC says, and what the media says it says are poles apart. Your talk is a perfect example of this. Low likelihood and low confidence for almost every nightmare scenario. Yet this isn't reflected at all in the media. Many people here have expressed concern at the influence of climate sceptics. Wouldn't climate scientists' time be better spent reining in those in the media producing irresponsible, hysterical, screaming headlines?" □ □

Tumbleweed followed for several seconds.

Then Matt said: □ □ "Not my responsibility"."

Why is this? Why does the CCC not try to correct inaccuracies from those who exaggerate the dangers of climate change?

Change in climate system component	Potentially abrupt (AR5 definition)	Irreversibility if forcing reversed	Projected likelihood of 21st century change in scenarios considered
Atlantic MOC collapse	Yes	Unknown	<i>Very unlikely</i> that the AMOC will undergo a rapid transition (<i>high confidence</i>)
Ice sheet collapse	No	Irreversible for millennia	<i>Exceptionally unlikely</i> that either Greenland or West Antarctic Ice sheets will suffer near-complete disintegration (<i>high confidence</i>)
Permafrost carbon release	No	Irreversible for millennia	Possible that permafrost will become a net source of atmospheric greenhouse gases (<i>low confidence</i>)
Clathrate methane release	Yes	Irreversible for millennia	<i>Very unlikely</i> that methane from clathrates will undergo catastrophic release (<i>high confidence</i>)
Tropical forests dieback	Yes	Reversible within centuries	<i>Low confidence</i> in projections of the collapse of large areas of tropical forest
Boreal forests dieback	Yes	Reversible within centuries	<i>Low confidence</i> in projections of the collapse of large areas of boreal forest
Disappearance of summer Arctic sea ice	Yes	Reversible within years to decades	<i>Likely</i> that the Arctic Ocean becomes nearly ice-free in September before mid-century under high forcing scenarios such as RCP8.5 (<i>medium confidence</i>)
Long-term droughts	Yes	Reversible within years to decades	<i>Low confidence</i> in projections of changes in the frequency and duration of megadroughts
Monsoonal circulation	Yes	Reversible within years to decades	<i>Low confidence</i> in projections of a collapse in monsoon circulations

Claim 9

“Ninthly, it says that it has low confidence in a number of tipping points that were previously thought to be possible concerns: the collapse of tropical forests, of boreal forests and of the monsoon, an explosion of greenhouse gases from the Arctic permafrost and an increase in megadroughts. It says that it has low confidence in these things. These are major retreats.”

As your document concedes, the words “low confidence” are indeed used, as I said, about boreal forest collapse, monsoon collapse, and megadroughts. The words also appear in the above table, referring to permafrost collapse. In addition AR5 states:

Based on updated studies, AR4 conclusions regarding global increasing trends in drought since the 1970s were probably overstated.

So I was correct about all four issues.

My remark about “major retreats” referred to all nine points I had raised, not to this specific issue.

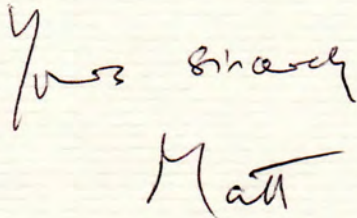
In conclusion, my carefully chosen wording was wholly correct on seven of the nine points I made, and mostly correct on the other two (Numbers 2 and 7). So your statement that I was incorrect on six is quite wrong and I expect you to withdraw it.

I find it quite extraordinary that the Committee on Climate Change, which is supposed to be an objective and neutral body, should have published this document, abridging citations to try to cast doubt on the accuracy of my statements to the House of Lords.

Let me end by quoting Professor Judith Curry, Chair of the School of Earth and Atmospheric Sciences at the Georgia Institute of Technology, testifying to the Senate recently:

“Multiple lines of evidence presented in the IPCC AR5 WG1 report suggest that the case for anthropogenic warming is weaker than the previous assessment AR4 in 2007. Anthropogenic global warming is a proposed theory whose basic mechanism is well understood, but whose magnitude is highly uncertain. The growing evidence that climate models are too sensitive to CO₂ has implications for the attribution of late 20th century warming and projections of 21st century climate. If the recent warming hiatus is caused by natural variability, then this raises the question as to what extent the warming between 1975 and 2000 can also be explained by natural climate variability.”

I look forward to hearing from you.

The image shows a handwritten signature in dark ink. The signature is written in a cursive style and appears to read 'Viscount Ridley'. The first part of the signature is a stylized 'V' followed by 'iscount', and the second part is 'Ridley'.

Viscount Ridley

Copies to Lord Krebs
 Lord May