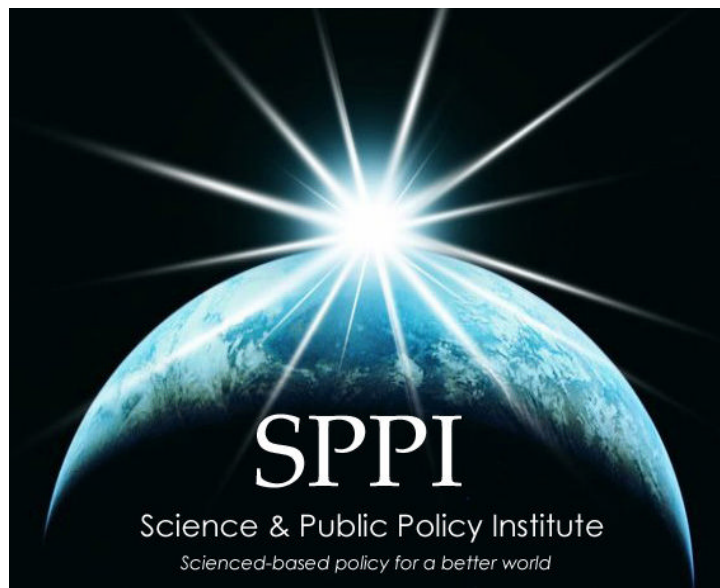


WHAT IS WRONG WITH THE IPCC?

by

Hans Labohm

November 2007

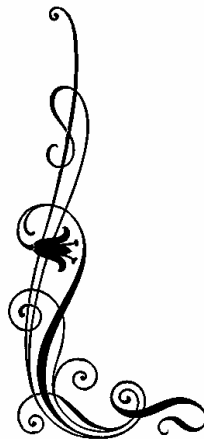


The Fourth Report of the IPCC might just as well decree the suppression of all climatology textbooks, and replace them in our schools with press communiqués. ... Day after day, the same mantra - that 'the Earth is warming up' - is churned out in all its forms. As 'the ice melts' and 'sea level rises' the Apocalypse looms ever nearer! Without realizing it, or perhaps without wishing to, the average citizen is bamboozled, lobotomized, and lulled into mindless acceptance. ... Non-believers in the greenhouse scenario are in the position of those long ago who doubted the existence of God ...

- Marcel Leroux

It should be abundantly clear by now that the AGW hypothesis is contradicted by the facts/measurements/observations and should therefore be abandoned and be substituted by a hypothesis which better matches the facts.

- Hans Labohm



What is Wrong with the IPCC?

Summary for Policy Makers

In the international discussion about climate change, which is now going on for almost twenty years, the IPCC has played a questionable role. From its inception, it has almost exclusively focused on the AGW hypothesis, while systematically ignoring alternative hypotheses.

Some main points of criticism of the IPCC include:

- The hypothesis that an increased CO₂ concentration in the atmosphere will lead to a rise in temperature has not been proven and is even at odds with the observations.
- Satellite-based temperature measurements show that the earth has warmed a few tenths of a degree Celsius between 1979 and 1998. It is not likely that this is caused by mankind.
- There is still a lack of scientific understanding, required to model all assumed radiative forcings. The most important one, for which there are not sufficient quantitative data to date, is the variable impact of clouds.
- Climate models, which are being used to achieve a better understanding of the climate system, are not suited to serve as basis for predictions. This is, *inter alia*, related to the stochastic nature of climate.
- The global climate is very much determined by extra-terrestrial phenomena, of which the fluctuation of sun activity is the most important.
- Should there still be global warming in the future, for which there are only model-based indications, then mankind will not be able to do something about it. Moreover, also according to the IPCC, a modest additional warming (e.g., of 2 degrees Celsius) will on balance be beneficial for mankind.
- The IPCC has ignored the climate projections of astrophysicists, which suggest global cooling.

The advent of climate alarmism, fuelled by statements of many prominent politicians and the media, has no scientific justification. Many catastrophic consequences of climate change, such as floods and extreme weather events, have been predicted, which are not based on scientific knowledge. Especially the European governments have opted for a climate policy which is completely unrealistic and results in a massive waste of scarce resources.

Finally, one should not discount the possibility that the average global temperature will fall considerably in the near future. This might have harmful implications, as opposed to a modest rise of temperatures, which on balance will have positive effects.



Part 1

IPCC stands for Intergovernmental Panel on Climate Change. It is a kind of network/think tank, which operates under the aegis of the UN. It consists of thousands of scientists, many of them climatologists. Once every five years or so, it takes stock of the peer-reviewed scientific literature on climate change. It publishes its findings in a series of comprehensive reports, which serve as the scientific underpinning for policy measures, including the Kyoto Protocol, to counter the ‘threat’ of man-made global warming.



The IPCC was established in 1988 by the World Meteorological Organization (WMO) and the United Nations Environment Programme (UNEP). Its mission is: ‘to assess the scientific, technical, and socio-economic information relevant for the understanding of the risk of human-induced climate change.’

Various authors have pointed out that the mandate of the IPCC is too narrow and not purely scientific, since its wording presupposes that there is such a thing as man-made global warming (often referred to as AGW: Anthropogenic Global Warming), which excludes other explanations for the (modest) warming which has taken place over the last century. But at the time, AGW had not been proven – and since then the situation has not changed. However, a prominent Netherlands participant in the IPCC has recently stated that today the IPCC is interpreting its mandate more comprehensively and does also take alternative explanations into consideration. But climate sceptics are not convinced that this is the case.

Yet, the IPCC is generally believed to be the single most authoritative body in the field of climate science and its reports serve as scientific basis for climate policies of governments, which have profound implications for society. As such the panel occupies a monopoly position.

AGW proponents often claim that there is a consensus among scientists about man-made global warming. However, this is contradicted by the facts. A recent opinion poll among 133 German climatologists, by Hans Kepplinger und Senja Post, revealed that 37% of climate researchers adhere to the AGW hypothesis, whereas 36% remain sceptical. The rest occupies an intermediate position.¹ It is likely that in other countries the outcome would not have been substantially different. By no stretch of imagination this can be construed as a pro AGW consensus.

Nevertheless, opinions which deviate from those of the IPCC are more often than not ignored by politics, even if they come from prominent scientists, who are attached to the most prestigious universities and/or scientific institutions in the world. Apparently politics considers that it can do without a second opinion.

From a technical and logistical point of view, the IPCC is a well-oiled piece of machinery. It displays an exemplary degree of professionalism. Time and again it succeeds to produce re-

¹http://www.welt.de/welt_print/article1210902/Die_Klimaforscher_sind_sich_laengst_nicht_sicher.html

ports which comprise thousands of pages. Both AGW adherents and climate sceptics use these reports as standard reference literature.

One of the Netherlands participants of the IPCC has even qualified the IPCC process as ‘a triumph of worldwide interdisciplinary and intergovernmental cooperation.’

But outside the official circles there are also opposing views about the IPCC. At the other extreme there is the judgment of Lord Nigel Lawson, former chancellor of the exchequer of the United Kingdom. He told a Washington committee that the UN Intergovernmental Panel on Climate Change ‘is so flawed, and the institution ... so closed to reason, that it would be far better to thank it for the work it has done, close it down, and transfer all future international collaboration on the issue of climate change to other world institutions with a better focus on economics.’

This rather strong statement was preceded by some failed attempts to communicate with representatives of the IPCC about the conclusions of an inquiry, published in July 2005, by the Economic Affairs Committee, one of four permanent committees of the House of Lords, on the economics of climate change. This report had been approved by all political parties. But discussions about the outcome of the inquiry with the IPCC stranded in a *dialogue des sourds*. Moreover, in the latest Fourth Assessment Report (AR4) of the IPCC, no reference had been made to the results of the inquiry. The Lords were not amused. They were not accustomed to such a treatment. It is also remarkable that the British government has so far dismissed the inquiry of the House of Lords.

Is Lord Lawson right? Is the IPCC impervious to criticism and should it therefore be disbanded? Judge for yourself.

Affairs

The IPCC has been tarnished by a couple of agonizing affairs. Many readers will probably be familiar with the row about the so-called hockey stick (see below). But a far more serious affair already occurred in 1996.

In his book, ‘Global Warming: Myth or Reality. The Erring Ways of Climatology.’ (Springer, 2005), the French climatologist, Marcel Leroux, exposes the flaws in the current state of climate science.

The author is no stranger in climate Jerusalem. He is professor of climatology at the University J. Moulin and director of the Laboratoire de Climatologie, Risques, Environnement, both in Lyon. He has already been criticizing the IPCC for more than 20 years. He believes that temperatures are the result of the dynamics of weather systems in the context of the various distinct aerological spaces in the world, not of the hypothetical equations of climate models.

Leroux started to write his book in order to comment on the sad state into which climatology has drifted during the last 20 years, since its entering into the political arena, and to show that climatology is also itself to blame for this drift.

‘Hardly a week goes by without some new scoop ... filling our screens and the pages of our newspapers,’ he writes. ‘Global warming caused by the greenhouse effect is our fault, just like

everything else, and the message/slogan/misinformation becomes even more simplistic, ever cruder! It could not be simpler: if the rain falls or draught strikes; if the wind blows a gale or there is none at all; whether it's heat or hard frost; it's all because of the greenhouse effect, and we are to blame. An easy argument, but stupid!

'The Fourth Report of the IPCC might just as well decree the suppression of all climatology textbooks, and replace them in our schools with press communiqués. ... Day after day, the same mantra - that 'the Earth is warming up' - is churned out in all its forms. As 'the ice melts' and 'sea level rises' the Apocalypse looms ever nearer! Without realizing it, or perhaps without wishing to, the average citizen is bamboozled, lobotomized, and lulled into mindless acceptance. ... Non-believers in the greenhouse scenario are in the position of those long ago who doubted the existence of God ... fortunately for them; the Inquisition is no longer with us!'

In his book he also meticulously analyzes the development of climate science, focusing on the successive reports of the IPCC, which appeared in 1990, 1995, and 2001. According to Leroux, the first report already contains the core ideas of what is known as 'global warming', but its tone is moderate and it makes no mention of human responsibility for it. The second report contributes nothing new from a scientific point of view, but suddenly and surprisingly, the human race is held responsible for global warming.

How was this turnaround achieved? New scientific insights? No, it was the result of a veritable scientific coup by sleight of hand. The scandal was brought to light by various people involved, including Frederick Seitz, president emeritus of Rockefeller University and chairman of the George C. Marshall Institute (Washington). In his letter to the Wall Street Journal, on June 12, 1996, he wrote:

'[But] this [IPCC] report is not what it appears to be - it is not the version that was approved by the contributing scientists listed on the title page. In my more than 60 years as a member of the American scientific community, including service as president of both the National Academy of Sciences and the American Physical Society, I have never witnessed a more disturbing corruption of the peer-review process than the events that led to this IPCC report.

'A comparison between the report approved by the contributing scientists and the published version reveals that key changes were made after the scientists had met and accepted what they thought was the final peer-reviewed version. ... Few of these changes were merely cosmetic; nearly all worked to remove hints of the scepticism with which many scientists regard claims that human activities are having a major impact on climate in general and on global warming in particular.

'The following passages are examples of those included in the approved report but deleted from the supposedly peer-reviewed published version:

- 'None of the studies cited above has shown clear evidence that we can attribute the observed [climate] changes to the specific cause of increases in greenhouse gases.
- 'No study to date has positively attributed all or part [of the climate change observed to date] to anthropogenic [man-made] causes.

- 'Any claims of positive detection of significant climate change are likely to remain controversial until uncertainties in the total natural variability of the climate system are reduced.'

Instead, the following text was inserted: 'The balance of evidence suggests a discernable human influence on global climate.' In spite of the way this view was imposed, and all the subsequent controversy, the idea was never retracted. On the contrary, the latest, fourth report the IPCC (2007) states that it is more than 90% likely (previously still 50%) that more than half of the warming which took place since the middle of the 20th century was man-made. Of course, this statement grabbed media head lines. However, if one asks the scientists who were responsible for upgrading the likelihood of the human contribution to global warming, on which scientific method the adjustment had been based, their answer is 'expert judgement'. According to the climate sceptics, however, this is the result of highly questionable 'group think'. The 'expert judgement' of many sceptical scientists is that it is highly unlikely that the modest warming of the earth has been caused by mankind.

By the way, it is impossible to attach a precise probability value to any scientific statement. Something is certain or not certain. If it is not certain, those who make the statement in question could add that it is likely. But this likelihood cannot be expressed in a numerical value. The scientific notion 'probability' only applies to phenomena which can be repeated many times. Example: if one throws a dice, the probability that the six will not show up on top is 83.3%. One can verify this probability by throwing the dice many times (say thousand times).

The third IPCC report (TAR) brought a second scientific coup. It increased the value of the projected rise in temperature, and clinched the argument with the hockey stick diagram, stating that temperatures in recent times are higher than they have been for a thousand years. As early as November 2003, Steven McIntyre and Ross McKittrick published their bombshell article on the flaws in the reconstruction of the Northern Hemisphere temperatures by Mann, Bradley and Hughes, in *Energy & Environment*. But the article was initially ignored. Only after that the updated version of the article appeared in the *Geophysical Research Letters*, in February 2005, it started to dawn on the established climate science community that something was wrong. The latter article had been preceded by a paper by Hans von Storch (climate specialist at the GKSS Research Center in Geesthacht near Hamburg - not a climate sceptic), *et al*, in *Science*, October 2004, with a similar message. Hans von Storch went even so far as to qualify the hockey stick as *Quatsch* (rubbish).

In an earlier stage, however, various other climate skeptics had already sharply criticized this part of the curve. First of all, because one has to be very careful to 'glue together' curves which represent series of measurements which have been collected by different methods. Some statisticians go even so far as to condemn this practice as strictly forbidden. Furthermore, skeptics have criticized the coverage of the network of thermometers, which has been used to measure worldwide temperatures. This network labours under many flaws and holes, especially in the Third World, the oceans and the poles. But even more important is their objection that it is very likely that insufficient compensation has taken place for the so-called urban heat island effect. Many measuring stations are located in urban areas and airports, which have been expanding over the decades. High buildings shelter them from erstwhile cooling winds, while concrete and asphalt attract and store heat, warming their immediate surroundings. But that has nothing to do with global warming or the greenhouse effect. How do the figures make allowance for these effects? So far the methodology applied to do so, has not been revealed.

The secretiveness of Mann *et al* about their calculations, aroused suspicion that they had something to hide. Had they perhaps been cherry-picking, by merely using the data which matched their preconceived ideas? Have they been guilty of spindoctoring? In order to answer these questions the American House Committee on Energy and Commerce (with subpoena power) started an investigation, inviting Mann *et al* to submit all necessary information. AGW adherents fiercely protested against this investigation. They compared it with the McCarthy witch hunt of the 1950s. Did they have a point? Of course, in principle politics should refrain from meddling into the business of science. But climatology has been thoroughly politicised for some time already - unfortunately somewhat one-sidedly. Repeatedly prominent politicians comment on climate issues as being one of the greatest threats of mankind, even worse than terrorism. The climate industry may count on their loyal support, with lavish subsidies in its wake, provided they confirm that something terrible is happening with our climate, that mankind is to blame for it, and that severe measures have to be taken to remedy the situation.

The man-made global warming hypothesis provides the scientific underpinning of extremely costly measures. Therefore, it is of paramount importance that it is correct. Companies, such as Enron and Shell, also have to disclose their books if there is any suspicion of improper practices. Why then exclude scientists from such an obligation? After all, the stakes are high.

After some procedural haggling, the investigation was ultimately carried out by two separate authoritative committees. The first being a special panel of the American National Academy of Sciences, chaired by Gerald North. In its report, which came out in June 2006, it essentially upheld the McIntyre/McKittrick critique of the 1,000-year temperature change represented by the hockey stick graph. It should be recalled that the hockey stick constitutes the basis for the IPCC assessment's conclusion that the increase in 20th century Northern Hemisphere temperatures is 'likely to have been the largest of any century during the past 1,000 years' and that the '1990s was the warmest decade and 1998 the warmest year' of the millennium. But these statements appeared to be unfounded. One of the NAS panellists even declared that the IPCC had sent a 'very misleading message' when it adopted the hockey stick as the great icon of man-made global warming.

A subsequent separate assessment of the statistical aspects of the hockey stick temperature reconstruction was made by a panel directed by Edward Wegman, a prominent statistics professor at George Mason University, who is chair of the National Academy of Sciences' Committee on Applied and Theoretical Statistics. He is also a board member of the American Statistical Association. Wegman assembled a committee of colleagues, including David Scott of Rice University and Yasmin Said of The Johns Hopkins University. Also contributing were Denise Reeves of MITRE Corp. and John Rigsby of the Naval Surface Warfare Center.

The panel found, amongst other things, that Mann *et al*, misused certain statistical methods in their studies, which inappropriately produce hockey stick shapes in the temperature history. Wegman's analysis also concluded that Mann's work cannot support claim that the 1990s were the warmest decade of the millennium.

According to Wegman, a social network analysis revealed that the small community of paleoclimate researchers appear to review each other's work, and reuse many of the same data sets, which calls into question the independence of peer-review and temperature reconstructions.

The panel also concluded that although the researchers rely heavily on statistical methods, they do not seem to be interacting with the statistical community. It observed that authors of

policy-related science assessments should not assess their own work. Their report noted: 'Especially when massive amounts of public monies and human lives are at stake, academic work should have a more intense level of scrutiny and review. It is especially the case that authors of policy-related documents like the IPCC report, Climate Change 2001: The Scientific Basis, should not be the same people as those that constructed the academic papers.' But that was exactly what had happened.

However, it should be borne in mind that the flaws of the hockey stick do not necessarily constitute a refutation of the man-made global warming hypothesis. But it does undermine the scare-mongering statements by its proponents that the recent warming has been unprecedented in the last thousand years.

In the latest IPCC report (AR4 of 2007) the hockey stick has disappeared. But no apologies have been made for the fact that the previous report contained misleading information.

Ignoring alternative views

In addition to these affairs, the practical functioning of the IPCC has been criticised. There are strong indications that the IPCC systematically ignores alternative scientific views, which are inconsistent with the AGW hypothesis – a practice which is colloquially called 'cherry picking'.

In discussions with the AGW proponents climate sceptics have often been often told that their views should first be published in peer-reviewed journals before they can be taken into consideration. At first sight this seems a reasonable requirement. But on closer scrutiny this argument is open to criticism. It is a good tradition in science that anybody may criticise any scientific statement with good arguments, irrespective of his or her position or background. However, often the climate establishment does not respect this tradition. On the contrary, as a rule only insiders are allowed to participate in the discussion. In this way an official though flawed idea can survive for a very long time. This has happened many times before in the history of science.

Many climate sceptics have offered articles to the journals like Nature en Science, which were rejected. It seems as if the reviewers of these journals are exclusively recruited form the ranks of the AGW adherents, which adversely affects the possibility of publication of alternative views. In this way dissidents can be kept at bay. However, this does not apply to all journals. Climate sceptics have been offered a platform for publication by journals like Geophysical Research Letters en Energy & Environment.

Moreover, some criticisms are so evident that they do not seem to require peer review. They simply follow from the observations/measurements. The analysis of the Vostok ice core measurements over 420,000 years offer a case in point. These show that increase in CO₂ concentration in the atmosphere is preceded by temperature increases – and not the other way around. This contradicts the AGW hypothesis an increase in the CO₂ concentration must cause an increase in temperature. Another example concerns the most recent satellite-based temperature measurements, which show a stabilisation over the last 5 years – which contradicts the projections of the climate models.

But publication in peer-reviewed journals does not necessarily imply that the IPCC pays attention to the articles in question.

When scrutinizing the references to literature in the IPCC reports, it appears that the lead authors of various chapters hardly refer to contributions of reputable climate sceptics. They do, however, generously refer to their own studies. (Some critics have even called it a compilation of their own work.)

Attempts have been made to take stock of critical literature. But this is a Sisyphus job, because it concerns hundreds, if not thousands of articles which have been published in various fields of science. However, the Canadian environmental scientist and expert reviewer of the IPCC, Madhav Khandekar, has collected a more limited bibliography, comprising 68 recent peer-reviewed articles, which explicitly or implicitly challenge the AGW hypothesis.²

Over the years, many prominent scientists have distanced themselves from the IPCC, because of the selective and biased way in which this body practices science. ‘Manipulation’ and ‘politicization’ are the qualifications which invariably pop up in the interviews which they have given.³

Spiral of hyperbole

As has been explained before, there exists strong propensity of climate alarmism within the IPCC. But outside the IPCC, alarmism is still further magnified. David Henderson, former chief economist of the Organization of Economic Cooperation and Development (Paris), presented in a recent article a number of statements of high-ranking officials of various international institutions.⁴

- Rajendra Pachauri, chairman of the IPCC: ‘I hope this report will shock people [and] governments into taking more serious action.’
- Achim Steiner, Director-General of UNEP: ‘In the light of the report’s findings, it would be irresponsible to resist or seek to delay actions on mandatory emissions cuts.’
- Yvo de Boer, Executive Secretary of the United Nations Framework Convention on Climate Change (UNFCCC): ‘the findings ... leave no doubt as to the dangers that mankind is facing and must be acted on without delay.’
- Stavros Dimas, Eurocommissioner for environment: ‘... a grim report ...’

Even political leaders joined the doomsday chorus, of which Henderson also gave some striking examples.

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<http://www.friendsofscience.org/assets/files/documents/Madhav%20bibliography%20SHORT%20VERSION%20Feb%2006-07.pdf>

³ Prominent scientists, who have distanced themselves from the IPCC include: Wil Alexander, John Christy, Vincent Gray, Zbigniew Jaworowski, Chris Landsea, Marcel Leroux, Richard Lindzen, Nils-Axel Möerner, Hans Oerlemans, Paul Reiter en Roy Spencer. Moreover, many other scientists have criticised the IPCC. For a more extensive list, see: Hans Labohm, ‘Klimakatastrophenzweifel – eine Einführung’, NOVO, jan./febr. 2007. <http://www.novo-magazin.de/86/novo8624.htm>

⁴ David Henderson, ‘Governments and Climate Change Issues - The Case for Rethinking’, World Economics, Volume 8, Number 2, 2007.

- Tony Blair, then Prime Minister of the UK in a comment on the Stern Report: ‘What is not in doubt is that the scientific evidence of global warming caused by greenhouse gas emissions is now overwhelming... [and] ... that if the science is right, the consequences for our planet are literally disastrous.’⁵
- The British Prime Minister, Tony Blair, and the Netherlands Prime Minister, Jan-Peter Balkenende, in a common letter of October 2006 to the EU leaders: ‘We have a window of only 10 – 15 years to take the steps we need to avoid crossing a catastrophic tipping point.’
- The Canadian Prime Minister, Stephen Harper, qualified climate change as: ‘... perhaps the biggest threat to confront the future of humanity today.’
- The French President, Nicolas Sarkozy, declared: ‘What is at stake is the fate of humanity as a whole.’

According to David Henderson these statements are ‘extreme extrapolations’ of the conclusions of the IPCC reports. They are certainly not in accordance with the underlying science. But there is no AGW proponent who dares to challenge those statements. They are tacitly being sanctioned by what Henderson calls the ‘environmental policy milieu’ (scientists and policy makers which adhere to the AGW hypothesis). These statements are, moreover, in accordance with the views which prevail among wide swathes of the population and captains of industry. Small wonder, since they have heard nothing else for such a long time.

But what are the most important substantive flaws of the scientific basis of AGW? These will be dealt with in part 2 of this paper.



⁵ The Stern Report has been written on request of the British government by a group of scientists headed by Sir Nicholas Stern, former chief economist at the World Bank, subsequently head of the British Government Economic Service and adviser to the British government concerning the economic aspects of climate change and development. The report, which has been published on 30 October 2006, has been widely regarded as an authoritative document, which makes a convincing case for an urgent implementation of policy measures to tackle climate change. In my view this is a serious mistake, because its scientific underpinnings are deeply flawed. The report has been criticised by various prominent environmental economists, including William Nordhaus and Richard Tol, as well as by climatologists, including Roger Pielke, Jr.

Part 2

In part 1 of this article an overview of the origin and history of the IPCC was presented, highlighting some affairs which have tarnished its reputation. In this part some fundamental flaws of the AGW (Anthropogenic Global Warming) hypothesis will be dealt with.



Models

Climate alarmism rests on model projections. These consist of sets of equations on the basis of what could be called traditional mathematics. But well hidden in the main text of the Third Assessment Report of the IPCC (TAR), it has been recognised that climate is a coupled, non-linear, stochastic system. So, there is something wrong here. Ideally, one would have to apply another chapter of mathematics to describe the system: the so-called Lorenz equations, named after the American MIT meteorologist Edward Lorenz. Unfortunately, one then enters the field of predictable unpredictability. In other words: chaotic systems, such as climate, have only limited predictability. That is not very helpful. Therefore, one prefers ignore this complication and to muddle through with the current climate models on the basis of linear and non-linear (differential) equations. It goes without saying that this abstracts away from an essential feature of the climate system.

Because of their nature, models offer a simplified representation of reality. But those who use them often believe that, basically, they are sufficiently reliable. Does that also apply to climate models? Many climate sceptics believe that this is not the case. They acknowledge that the use of models is inevitable and useful for analytical purposes in order to achieve a better understanding of the climate system, but they think that they are not sufficiently reliable to offer a basis for predictions.

In a recent article in the Dutch journal 'Geografie',⁶ Dick Thoenes observed that many scientists who are engaged in future studies, e.g., in the field of population, economics and climate, use computer simulations. These are based on models, which offer quantitative descriptions of all relevant processes. Because of the fact that the uncertainties connected with the assumptions remain hidden, most readers are generally not aware of the limited reliability of predictions. They are often inclined to unconditionally accept the outcome of the models. But this can be completely unjustified. Climate predictions offer a striking example. They have triggered rampant climate alarmism, for which there is not sufficient scientific justification.

Thoenes argues that the relative unreliability of these predictions does not stem from the computer simulations as such, but result from the fundamental fact that models are always a simplification of reality. Moreover, models labour under lack of reliable data which are required as input for the models. The climate system is so complex, that our knowledge about its functioning is still inadequate to feed climate models with all the required information. Gaps in knowledge will have to be substituted by assumptions, which are not always spelled out in the studies concerned, while processes about which there is no knowledge at all are conveniently ignored.

⁶ Dick Thoenes, 'Over de onvoorspelbaarheid van het klimaat', *Geografie*, February 2007.

Despite their limitations, models are being used to determine the human contribution to global warming. This is commonly referred to as ‘attribution’. In order to detect the human fingerprint, modellers simulate climate development over the 20th century on the basis of assumptions on climate forcings, including increasing CO₂ concentration in the atmosphere, volcanic emissions and aerosols. They subsequently compare the resulting temperature curves of the computer simulations *with* and *without* the human contribution with real temperatures over the period concerned. Those curves which include the human contribution show a better match with real temperature measurements than those without. They then suggest that this method offers proof of the human fingerprint. However, it is just ‘curve fitting’.

At a hearing for a commission of the US Senate, the Australian scientist Bob Carter stated:⁷ ‘After many years of trials, the IPCC in 2001 reported simulations that mimicked the historic temperature record if and only if human emissions were included in the forcings. These results have later been widely misrepresented as being evidence for human-caused global warming. They are, of course, evidence only that a curve matching exercise involving many degrees of freedom has plausibly mimicked the 20th century temperature curve. They are exercises in virtual reality, and not evidence of any type.’

American researcher Myanna Lahsen has interviewed a number of modellers.⁸ She concluded that in practice modellers may often tend to confuse their models with reality.

The following passage represents the core conclusions of her investigation:

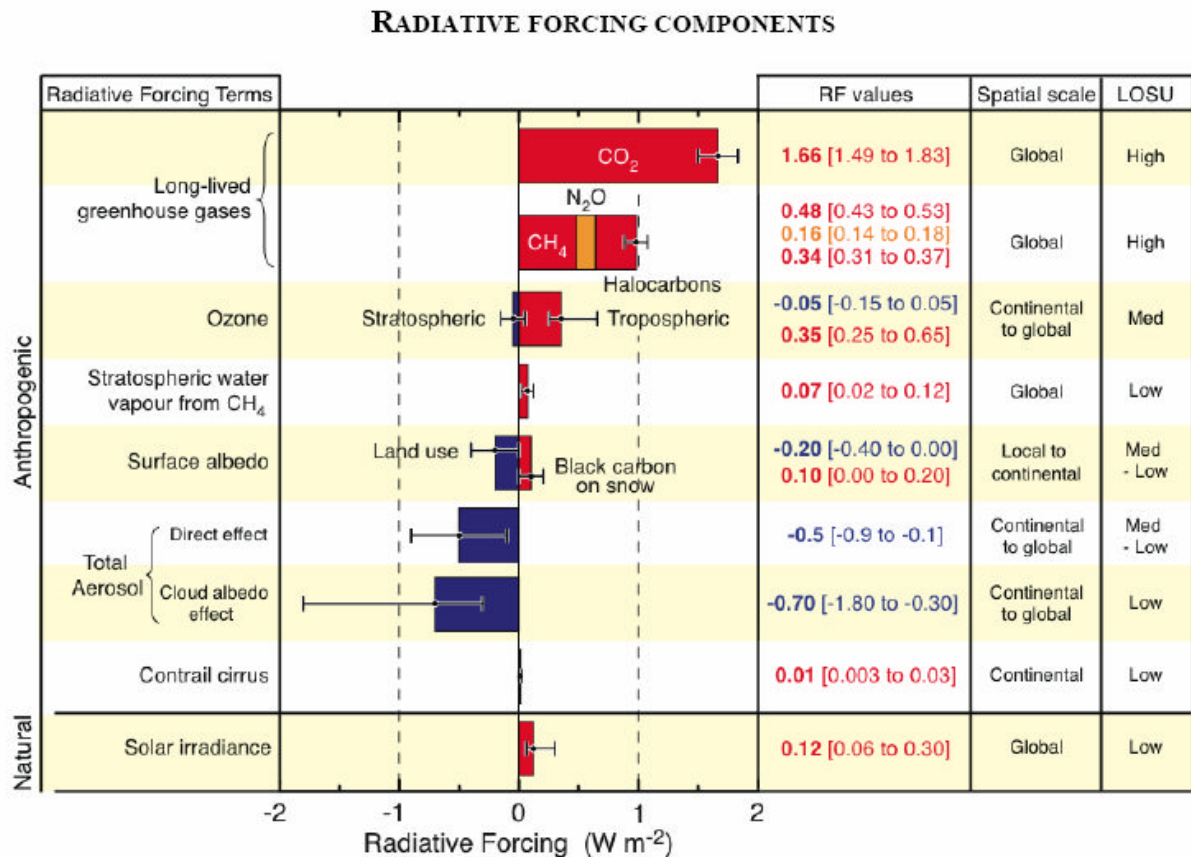
‘Generally speaking, atmospheric scientists are better judges than, for example policy-makers, of the accuracy of model output. However, the distribution of certainty about GCM [General Circulation Models] output within the atmospheric sciences reveals complications in the categories of ‘knowledge producers’ and ‘users’, and the privileged vantage point from which model accuracies may be gauged proves to be elusive. Model developers’ knowledge of their models’ inaccuracies is enhanced by their participation in the construction process. However, developers are not deeply knowledgeable about all dimensions of their models because of their complex, coupled nature. Similarly, the empirical training of some atmospheric scientists - scientists who may be described as users - limits their ability to gauge GCM accuracies in some respects while enhancing their ability to do so in other respects; and, generally, they may have better basis than the less empirically oriented modellers for evaluating the accuracy of at least some aspects of the models. Professional and emotional investment adds another layer of complexity. Model developers have a professional stake in the credibility of the models to which they devote a large part of their careers. These scientists are likely to give their models the benefit of doubt when confronted with some areas of uncertainty. By contrast, some of the empirically trained atmospheric scientists, who are less invested in the success of the models, may be less inclined to give them the benefit of the doubt, maintaining more critical understanding of their accuracy.’

The IPCC reports contain many figures, which may give the impression that they are based on measurements and, therefore, reflect reality. But closer examination reveals that this impression is not always justified. Some crucial figures have been generated on the basis of models.

⁷ The Role of the Media. Testimony of Dr. Robert M. Carter, James Cook University, Townsville, Australia, before the Committee on Environment and Public Works, United States Senate. December 6, 2006.

⁸ Myanna Lahsen, *Seductive Simulations? Uncertainty Distribution Around Climate Models*. *Social Studies of Science*, Vol. 35, No. 6, 895-922 (2005).
http://sciencepolicy.colorado.edu/admin/publication_files/resource-1891-2005.49.pdf

Given the fact that the models are flawed, as has been explained, these figures may conceal similar flaws. In the graph below the IPCC presents various the radiative forcing (RF) components.



Source: IPCC, AR4, Summary for Policymakers.

The so-called ‘Independent Summary for Policymakers, IPCC Fourth Assessment Report’, published by the Fraser Institute, which presents a critical review of the IPCC’s recent Fourth Assessment Report (AR4) argues:⁹

‘Radiative Forcing (RF) is a modelling concept that attempts to summarize the climatic effect of diverse changes in the environment. It is not directly measured, nor is it related to the greenhouse effect, and overall remains poorly quantified. ... Measurement of RF in Watts/square meter is a convention, but RF itself is not a measured physical quantity. Instead it is computed by assuming a linear relationship between certain climatic forcing agents and particular averages of temperature data. The various processes that it attempts to approximate are themselves poorly quantified.’

The last column of the graph shows the level of scientific understanding (LOSU), which the authors believe to possess of the various forcings. It should be emphasised that this is the result of subjective judgement. It goes without saying that the lower the judgement, the lower the reliability of the RF figure in question. From the graph it is clear that the IPCC recognises to know little of many forcings. How then is it possible that it claims that it is more than 90%

⁹ <http://www.richel.org/grk/ispm/IndependentSPMfinal.pdf>

likely that more than half of the global warming, which took place since the middle of the previous century, should be attributed to anthropogenic causes? There appears some missing link in the chain of reasoning. Or, to put it differently, this defies any logic.

Against the background of the preceding argument it seems also unwarranted to qualify the level of scientific understanding of the CO₂ forcing as 'high'. Furthermore, it should be noted that the cloud albedo effect (the reflection of sunlight by clouds), which probably constitutes the most important of all forcings, does not only show the most important negative impact, but is also rated as having a low level of scientific understanding. This is likely to be related to the great variability of cloud patterns. But more importantly, this graph only refers to the cloud albedo effect insofar it is of human origin via production of aerosols. Forcings of natural origin have not been taken into consideration. Many climate sceptics hold the view that sun activity, cosmic rays and cloud formation, and their interaction, are the dominant forces in climate variability. But this view has been summarily dismissed in the IPCC reports.

Hypothesis versus observations

Thomas Huxley once observed: 'The great tragedy of science – a beautiful hypothesis slain by an ugly fact.'

To what extent do models succeed in representing real climate? This question has been investigated by various scientists, including Douglas Hoyt. He has developed a 'Greenhouse Warming Scorecard', where he compares model outcomes with observations. It can be found on the website of Warwick Hughes.¹⁰ The deviations appear to be numerous and substantial.

More recently, also Fred Singer, the archfather of the international climate sceptics, has highlighted a crucial discrepancy between the outcome of climate models and real temperature trends.¹¹ In this context he refers to the report of the U.S.-Climate Change Science Program (CCSP) that is based on the most recent information.¹² In this report *patterns* of warming have been presented. Observed warming trends have been compared with projections, on the basis of the best available models, which includes both anthropogenic forcings (greenhouse gases and aerosols) and natural forcings. The Tropics offer the most sensitive location for validation. The models show that the warming trend increases with height, peaking at 10 kilometres. In reality, however, the trend appears to be flat at this level, yes, even somewhat declining.

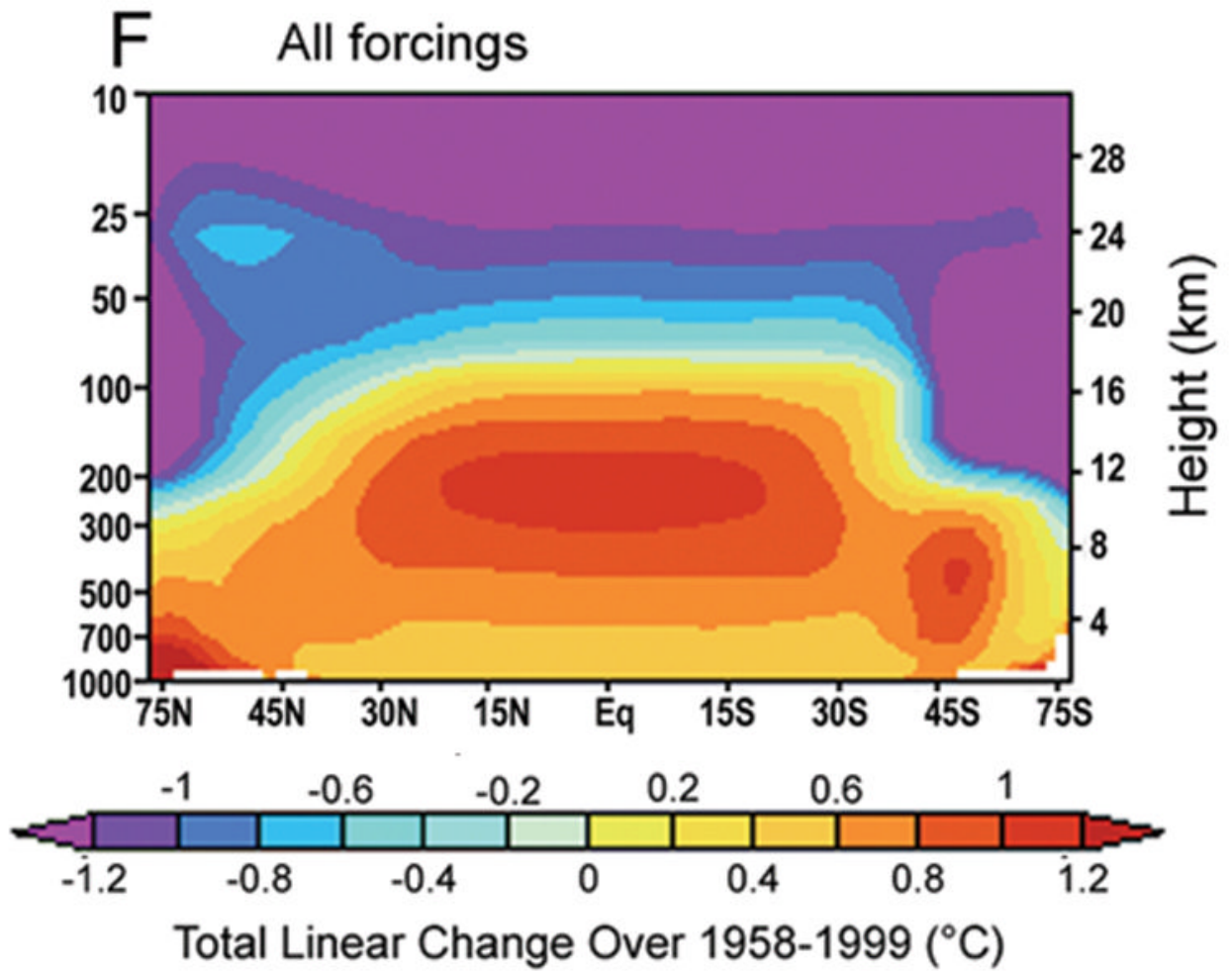
Singer's conclusion is: 'The fingerprints don't match.' AGW proponents could argue that the data are unreliable. But Singer believes that the models remain wanting. He is of the opinion that this difference shows that the impact of CO₂ on temperatures is only marginal, which implies a refutation of the AGW hypothesis.

¹⁰ <http://www.warwickhughes.com/hoyt/scorecard.htm>

¹¹ Fred Singer, Letter to Editor, Geotimes, Sept 2006.

¹² www.climate-science.gov/Library/sap/sap1-1/finalreport/default.htm

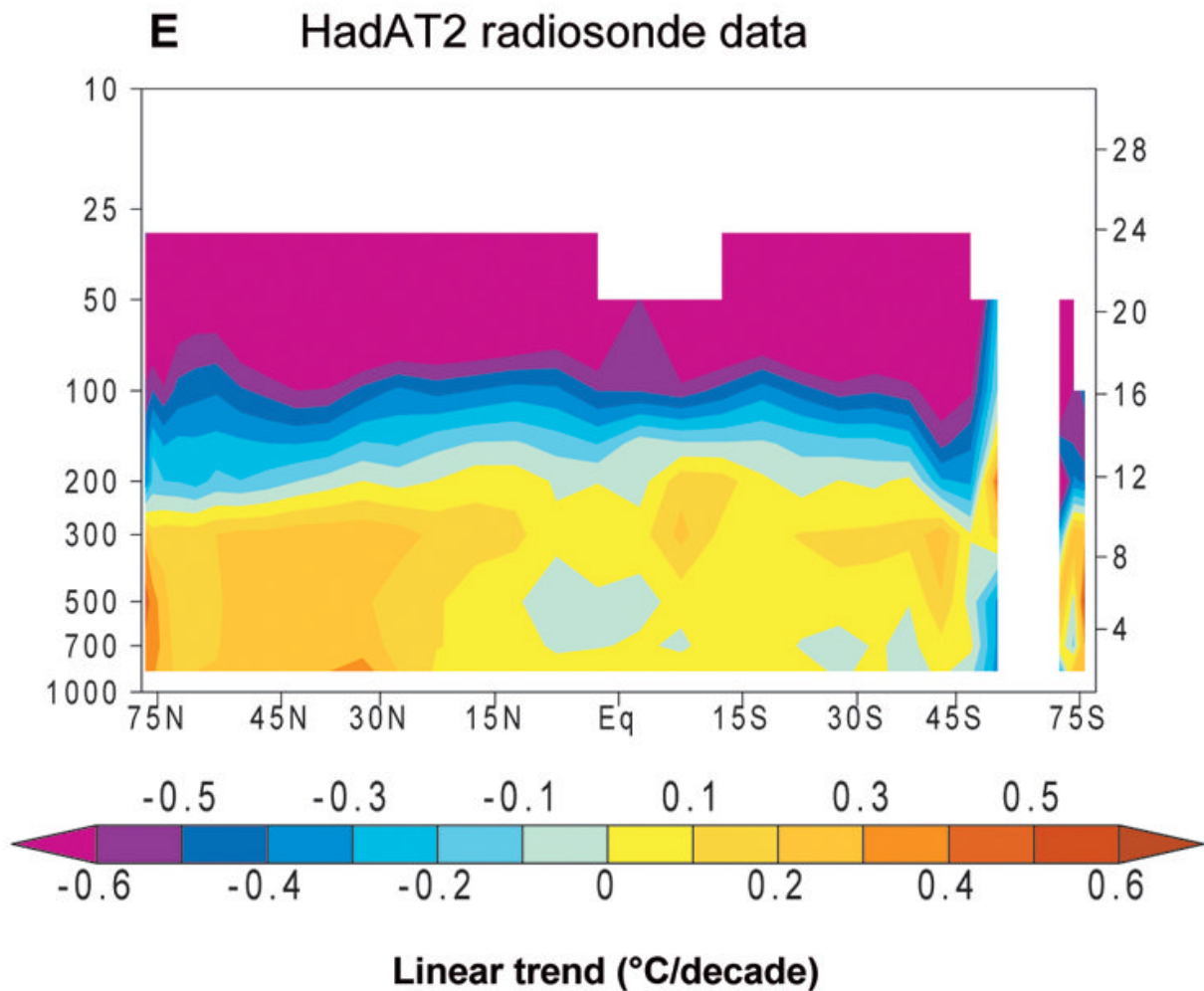
PCM Simulations of Zonal-Mean Atmospheric Temperature Change



Source: CCSP 1.1 – Chapter 1, Figure 1.3F

In this graph the left-hand vertical axis represents air pressure in hPa. The right-hand vertical axis represents the height in kilometres. The horizontal axis shows the latitudes, with the equator in the middle. The colour (warm red) shows a maximum of the modelled warming at a height of approximately 10 kilometres in the Tropics.

Observations Radiosonde Data



Source: CCSP 1.1 – Chapter 5, Figure 7E.

This graph, which represents real temperatures, shows a relatively flat trend (light blue and yellow) at a height of 10 kilometres in the Tropics. The conclusion is that the modelled warming markedly differs from observed warming.

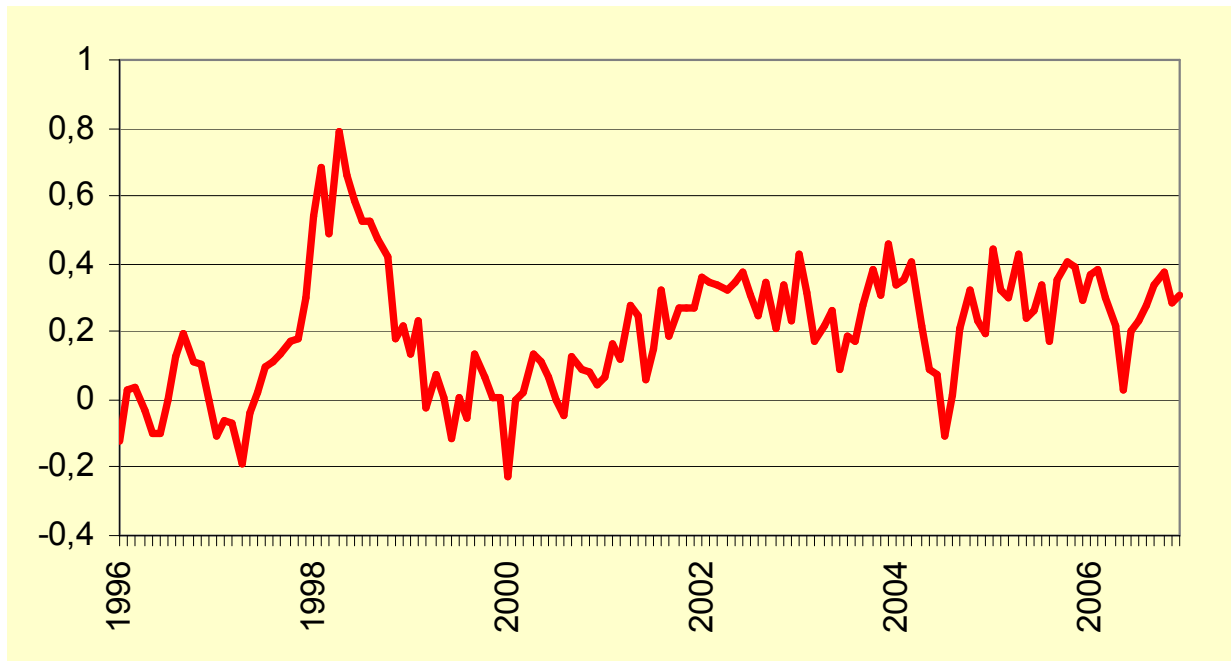
Mother Nature refuses to comply with the outcome of climate models

In the mean time, Mother Nature does not seem to be impressed by IPCC's expectation concerning her behaviour. She simply refuses to comply with the outcome of climate models. It has already been nine years ago (February 1998) that satellite-based measurements of monthly worldwide average temperatures reached their peak. Subsequently, temperatures went down and up. But over the last five years they seem to have stabilised at a level which is 0.4 degree Celsius below their peak of 1998 (see graph). It seems as if the climate catastrophe only exists in the virtual reality of the climate models.

Although one might assume that policymakers would be interested in the latest information on worldwide temperatures, this graph did not figure in the last 'Summary for Policymakers' of

the IPCC. This is a serious omission, because it concerns information which is of paramount importance to allow politicians to make rational political decisions.

***Global Temperature Anomaly in the Lower Troposphere
Deviations from the Monthly Average over the Period January 1979 - December 2006***



Source: John Christy en Roy Spencer¹³

CO₂ and temperature

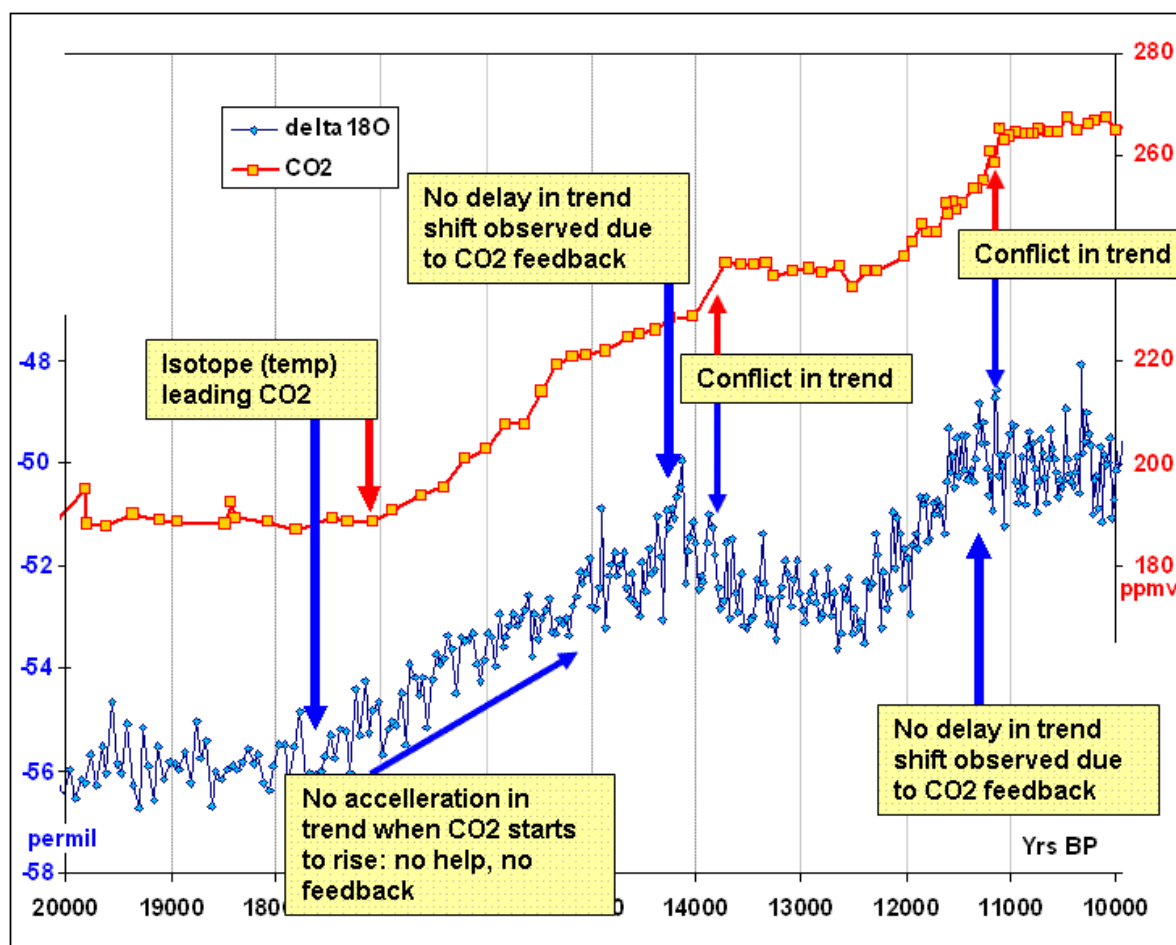
It should be abundantly clear by now that the AGW hypothesis is contradicted by the facts/measurements/observations and should therefore be abandoned and be substituted by a hypothesis which better matches the facts.

On geological times scales (hundreds of millions of years) there does not exist any correlation between CO₂ and temperatures. On time scales of hundreds of thousands of years there is indeed a connection between the CO₂ concentration of the atmosphere and temperature, but rises and falls in temperature invariably preceded rises and falls in CO₂ concentration. This implies that changes in temperature determine changes in CO₂ concentration, and not the other way around.

AGW adherents retort that CO₂ accelerates temperature rises after these have been triggered by an initial impulse (e.g., increased activity of the sun) - often referred to as positive feedback. In this way they try to uphold the man-made global warming paradigm. However, recent ice core measurement from the EPICA (European Project for Ice Coring in Antarctica), which contain 'natural archives' of temperature and CO₂ signals from the past, show no acceleration at all (see graph).

¹³ <http://web.archive.org/web/20070323005914/http://www.ghcc.msfc.nasa.gov/MSU/msusci.html>

*Ice Cores EPICA Dome C - Temperature & CO₂
No proof of positive feedback*



Sources: Monnin *et al*, 2004 (CO₂); Stenni *et al*, 2006 (d18O); Bijkerk

The left-hand vertical axis (d18O) represents the relative oxygen isotope ratio compared with the international standard (Vienna Standard Mean Ocean Water: VSMOW), expressed in per mill. This is generally accepted as a proxy for temperature. The right-hand vertical axis represents the CO₂ concentration in the atmosphere in ppmv. The horizontal axis represents time, expressed in years before present (BP), where ‘present’ equals the standard year 1950.

The graph does not only confirm that CO₂ follows the isotope temperature, but also shows that the temperature is not affected by changes in CO₂. This is most visible around 14,000 years ago, where the isotope temperature falls abruptly, while CO₂ is still rising. Consequently, there is no trace of an accelerating impact of CO₂ on the isotope temperature.

In this context, also recent research by paleo-ecologist Bas van Geel and his team (University of Amsterdam) is relevant.¹⁴ It shows that climate has been hypersensitive to small changes in sun activity. It is expected that in the near future many more publications will follow from this kind of research, which will all substantiate this connection.

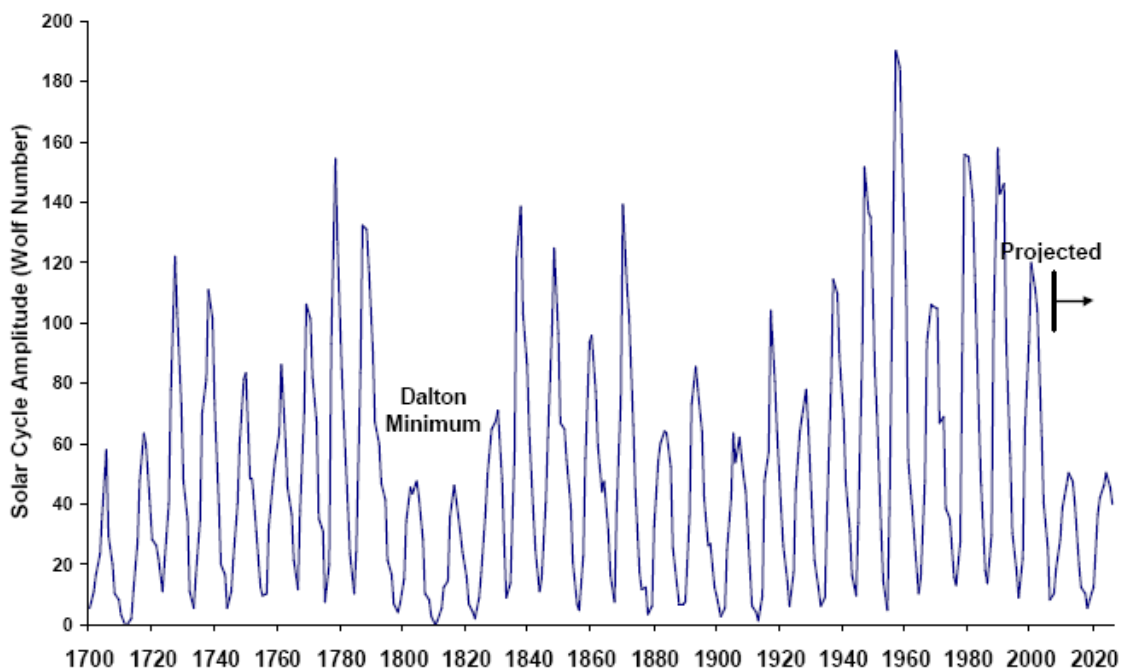
¹⁴ <http://www.knowledge.co.uk/sis/abstract/van-gel.htm>

Astrophysical climate projections foretell cooling

Ironically, just as global warming scare-mongering reaches new heights, the global cooling hypothesis is making a comeback. It should be recalled that the frightening images of imminent global warming disaster are of fairly recent vintage. After all, in the 1960s and 1970s various prominent climatologists held the view that it was not global warming that formed a mortal threat to humanity, but global cooling.

Currently, there is a growing number of scientists in the field of astrophysics, who foresee a new little ice age in the near future, which is often referred to as a new Dalton minimum. This graph offers an illustration of their projections.

Past Solar Cycles with a Projection of Future Solar Cycles



Source: David C. Archibald

Some time ago the astronomer Khabibullo Abdusamatov of the Pulkovo Astronomical Observatory in St. Petersburg declared that the Earth will experience a 'mini Ice Age' in the middle of this century, caused by low solar activity. Temperatures will begin falling five or six years from now, when global warming caused by increased solar activity in the 20th century reaches its peak. The coldest period will occur 15 to 20 years after a major solar output decline, between 2035 and 2045, Abdusamatov said. This view is shared by the Belgian astronomer, Dirk Callebaut, who expects a 'grand minimum' in the middle of this century, just like the Maunder Minimum (1650-1700 – even colder than the Dalton Minimum), a period during which the Thames, the Seine and the Dutch canals were frozen in winter. A similar message came from solar physicist David Hathaway, who pointed out that the Sun's Great Conveyor Belt has slowed to a record low crawl. This has important repercussions for future solar activity. The Great Conveyor Belt is a massive circulating current of fire (hot plasma) within the Sun. Researchers believe the turning of the belt controls the sunspot cycle. According to theory and observation, the speed of the belt foretells the intensity of sunspot activity ~20 years

in the future. A slow belt means lower solar activity; a fast belt means stronger activity. Hathaway believes that Solar Cycle 25, peaking around the year 2022, could be one of the weakest in centuries. Finally, the climatologist Olech Sorochtin, member of the Russian Academy of Physical Science, has recently published an article in which he also supports the idea of an imminent little ice age. His message was prominently disseminated by the Russian press agency Novosti, which in the period of the Cold War was generally considered to be a mouthpiece of the Kremlin.¹⁵ Therefore, it is perhaps not too far-fetched to speculate that this might be a warning signal that the Russians will drop out of Kyoto, when its first phase expires in 2012.

If – a big if – these astrophysicists are right, the global warming hype will soon be over, while the Kyoto Protocol will prove to be redundant.



Robert Ferguson, President
bferguson@sppinstitute.org
209 Pennsylvania Ave., SE
Suite 299
Washington, D.C 20003
www.scienceandpublicpolicy.org (202) 288-5699

¹⁵ <http://de.rian.ru/analysis/20071009/83073114.html>



Hans H.J. Labohm was born in 1941. He studied Economics and Economic History at the University of Amsterdam, the Netherlands. After military service, he joined the Ministry of Defence and was posted at the Netherlands Permanent Representation to NATO, Brussels. In 1971, he entered the Netherlands Diplomatic Service and was posted at the Netherlands Embassy in Stockholm, Sweden. In 1974, he returned to the Netherlands, where he held various functions at the Ministry of Foreign Affairs in The Hague. From 1978, he was Deputy Head of the Policy Planning Staff, being responsible for, among other things, long-term in-depth analysis and speech-writing. From 1987-1992 he was Deputy Permanent Representative of the Netherlands to the OECD (Organisation for Economic Cooperation and Development), and Standing Member of the Development Assistance Committee (DAC) of the OECD in Paris, France.

From 1992 - 2005, he was Senior Visiting Research Fellow and Advisor to the Board at the Netherlands Institute of International Relations, Clingendael, The Hague. He is now independent economist and publicist.

He is guest teacher at the Netherlands Defense Academy. Moreover, he frequently gives lectures to (foreign) students at universities and other educational institutions in the Netherlands and abroad.

Over the years, he has published many books, articles and papers, mainly in Dutch, but also in English, German and French, on a wide range of issues, primarily in the field of international economics and politics.

He writes in various Netherlands quality newspapers, such as Het Financieele Dagblad, Trouw, NRC Handelsblad and De Volkskrant. Moreover, he is a frequent commentator on radio and tv and a regular contributor to TCS.

Positions:

Hans Labohm is member of the Foreign Policy Committee of the Netherlands (classical) Liberal Party (VVD), Chairman of the Development Committee of the same party, and member of the Editorial Board of 'Liberaal Reveil'.

Recent books:

- Man-Made Global Warming: Unravelling a Dogma. Multi-Science Publishing Co., Ltd, UK. Co-author, together with Simon Rozendaal en Dick Thoenes

- Cannons and Canons, Clingendael Views of Global and Regional Policies.

- Koninklijke Van Gorcum BV, Assen. Co-editor and co-author, together with Alfred van Staden en Jan Rood

**The author is grateful for comments on earlier versions of this paper from Bas van Geel, Arthur Rörsch, Dick Thoenes and Arend-Jan Voortman. It goes without saying that the usual disclaimer applies.*