

# **CLIMATE CHANGE – NATURAL OR MAN-MADE?**

## **A Briefing Note for Policy Makers**

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## **Introduction**

In recent years the claimed threat from 'global warming' or 'climate change', which we are assured is due to man-made emissions of 'greenhouse gases', has been used to convince us of the need to curb our profligate lifestyles and become 'greener'. To force us to comply, increased taxes and other restrictions have been introduced or are threatened. We are told there is an overwhelming scientific 'consensus' about the cause of climate change.

But how reliable is the information received by the public from environmental groups, the media, government, and scientists whose livelihoods depend on toeing the approved line? Are we expected to accept a reduced standard of living and loss of freedom for no good reason?

Few people have either the time or the understanding of scientific methods to research the evidence themselves, leaving them vulnerable to misleading or one-sided reporting, whether accidental or otherwise. This briefing paper explains the basic issues and uncertainties about climate change, so that a more balanced view can be taken. Recommendations for further reading are given in the notes for those who wish to find out more.

The author has no formal qualifications in climate science, but has been researching the subject for about ten years with the assistance of those who are experts in the field and have access to the world's leading scientists.

## **The greenhouse effect**

Most people probably have only a vague idea of how the greenhouse effect works, along the lines of 'trapping' heat received from the sun. To assess the claims that man-made greenhouse gas emissions cause global warming, a slightly better understanding is required. For a start, heat is not 'trapped' – energy transfer is merely delayed, not stopped. The greenhouse effect is certainly real and without it the Earth's average temperature would be some 30 deg C colder, making it uninhabitable for many existing life forms. The claim of man-made global warming is that an enhanced greenhouse effect is taking place that will lead to catastrophe.

All objects emit infrared radiation, and the wavelength of that radiation depends on the temperature: hotter objects emit shorter wavelength (higher frequency, more energetic) radiation than cooler ones. The sun is obviously very hot, with a surface temperature of about 6,000 deg C, so its radiation is of much shorter wavelength than that of the Earth's surface, which has a temperature range generally between –60 and +50 deg C.

Some trace gases in the atmosphere absorb energy from infrared radiation, when the frequency of that radiation coincides with one of the resonant frequencies of the molecules of the gas, making them vibrate. These are the so-called greenhouse gases and, in order of importance, the main ones are water vapour, carbon dioxide, methane and nitrous oxide. None of these

gases resonate with the sun's short-wavelength radiation, which passes through the atmosphere without absorption.

Radiation from the Earth's surface varies in wavelength with temperature and each of the greenhouse gases absorbs energy only within certain wavelength ranges. When the molecules of a greenhouse gas absorb radiation in this way their vibrational energy increases and they, in turn, emit infrared radiation in all directions – up, down and sideways, into the atmosphere and downwards towards the Earth's surface. This leads to increased temperature.

It follows that if surface temperatures were rising because of an increase in the greenhouse effect, as the proponents of the man-made global warming hypothesis claim, it must be as a result of a warming atmosphere. This is very important to understand, as will be shown later.

Since greenhouse gases absorb infrared radiation only within the wavelength bands that cause them to resonate, the potential for additional quantities of those gases to add to the greenhouse effect is limited. As the radiation in a particular wavelength band is used up, the amount left for absorption by more of the gas is reduced. A simple analogy is to consider drawing a curtain across a window – a large part of the light will be shut out but some will still get through. Add a second curtain to the first and most of the remaining light will be excluded. A point will quickly be reached where adding more curtains has a negligible effect, because there is no light left to stop. This is the case with absorption of energy as more carbon dioxide is added to the atmosphere.

So the impact on the greenhouse effect of carbon dioxide emissions is not in direct proportion to the amount of the gas added. Indeed, it is estimated that the first 20 parts per million (ppm) of carbon dioxide has a greater effect on temperature than the next 400 ppm (current levels are just over 380 ppm). A doubling of carbon dioxide levels from the pre-industrial level of 280 ppm to 560 ppm has been calculated to cause a temperature increase of little more than 1.0 deg C – and the claimed 0.6 deg C increase in surface temperature in the twentieth century means that half of that may have occurred already<sup>1</sup>.

These calculations are clearly at odds with the alarmist predictions of the Intergovernmental Panel on Climate Change (IPCC), which predicts that the same doubling of carbon dioxide levels could result in a temperature increase of between 2.0 and 6.5 deg C. The reasons for the discrepancies and the flaws in the IPCC's methods will now be explained.

### **Why the alarmist predictions do not add up**

The theoretical effect of carbon dioxide on global temperature as described in the previous section is not in dispute. The IPCC obtains its much higher forecasts of temperature increase by assuming that the modest impact of extra carbon dioxide is amplified by further theoretical feedback mechanisms that are unproven, and by ignoring or making incorrect allowances for other factors that can have a moderating influence on climate.

The IPCC's forecasts are produced by computerised General Circulation Models (GCMs) that simulate the effects of altering some factors known to have an impact on climate, including greenhouse gas concentrations. To make the models useable they contain many simplifications and assumptions, limiting their ability to replicate the real world and produce credible forecasts. The interrelationships between the factors affecting climate are complex and many are poorly understood, so some are not modelled at all.

A key assumption in the GCMs is that a small increase in temperature as a result of extra carbon dioxide causes more evaporation from the surface of the oceans, thus raising the concentration of water vapour in the atmosphere. Since water vapour is by far the most important greenhouse gas, the initial warming is amplified. But this ignores the fact that the process of evaporation has a cooling effect by consuming the extra heat energy, so the more likely impact of an initial warming is simply to speed up the rainfall cycle. In addition, the atmosphere is not showing the amplification predicted.

The GCMs also make inadequate allowance for the effect of atmospheric water in the form of clouds. These reflect infrared radiation, both from the sun and from the Earth's surface, so they can have either a warming or a cooling effect depending on circumstances. Everyday experience confirms this: a cloudy winter's night is warmer than a clear one; a cloudy summer's day is cooler than a sunny one. Overall, high-level clouds generally have a net warming effect and low-level clouds a net cooling effect.

Variations in the worldwide degree of cloud cover can have a significant effect on global temperatures, as will be seen later, but the GCMs fail to model these variations adequately. This is a major flaw in the models and there is increasing evidence that, far from feedback mechanisms amplifying an initial warming, they act to moderate it. For instance, it was discovered in 2001 that there is a 'heat vent' mechanism in the western Pacific that reduces high-level cirrus cloud when the ocean temperature rises, thus allowing more infrared radiation to escape into space. Exactly how this mechanism works is not fully understood, but it acts like a thermostat<sup>2</sup>.

The vast quantities of water present in the oceans also have a major impact on climate by storing heat and limiting short-term variations in temperature. Changes in ocean circulation, such as occur during El Nino and La Nina events, can have a significant effect on weather systems. The relative impact on climate of water in all its forms (oceans, lakes, rivers, clouds and water vapour) compared with carbon dioxide is summarised in this colourful quote from Dr Martin Hertzberg:

*In comparison to water in all its forms, carbon dioxide is the equivalent of but a few farts in a hurricane<sup>3</sup>.*

As well as acting as a greenhouse gas, carbon dioxide is essential to plant life, so more atmospheric carbon dioxide means a higher rate of plant growth. Since vegetation emits water vapour (a process known as transpiration), this

has a cooling effect and some scientists believe the additional transpiration due to faster growth can mostly if not completely balance the warming effect of the extra carbon dioxide<sup>4</sup>.

If the IPCC's models were correct, it would imply that the climate is hyper-sensitive to any slight initial warming or cooling, from any cause. If this were the case, the climate would have been subject to large and rapid changes in temperature throughout Earth's history, and life could not have evolved as it has. The IPCC's predictions, therefore, fly in the face of reason and the data.

Moreover, the inability of current computer hardware to cope with a realistic climate model projection was put into perspective by Dr Willie Soon of the Harvard Smithsonian Institute, who calculated that to run a 40-year projection using all variables across all spatial scales would require 10 to the power 34 years of supercomputer time. This is 10 to the power 24 times longer than the age of the Universe!

### **The false 'consensus'**

The claimed scientific consensus that human activity is the cause of climate change is the most blatantly false assertion ever made in connection with the subject. It is a contradiction in terms – science does not work by consensus. The scientific method is to develop hypotheses that are tested by experiment and established theories are challenged as new evidence becomes available. It is rare for scientists to agree on any issue, and certainly not one as complex as climate. To anyone with any knowledge of science, a claim that there is scientific consensus on a topic should act as a warning of exploitation by political, commercial or other interest groups.

The IPCC is a United Nations body and is essentially political, not scientific. Although over 2,000 scientists contribute to its Assessment Reviews (the most recent published in 2007), only about 50 participate in the Summary for Policymakers, the only part that receives any publicity. These authors, who are all government appointees, also include mathematical and fluid dynamics computer modellers as well as 'impacts' researchers, including economists and social scientists - appointees who have to adhere to the wishes of their political masters.

To illustrate how dishonest the IPCC process is, the Summary for Policymakers is published before the body of the report, which is then edited to ensure it supports the summary. It is wrong to assert that all those scientists who contribute to the IPCC reviews support the published conclusions, as many do not and some have resigned in protest about their research findings being misrepresented<sup>5</sup>.

The illusion of consensus is strengthened by the difficulty that dissenting scientists have in getting their research published. Many scientific journals refuse to publish peer-reviewed papers that raise doubts about man-made climate change because of the feared political and financial consequences. A

recent example is that of Ferenc Miskolczi, a Hungarian atmospheric physicist and a former researcher with NASA (the National Aeronautical and Space Administration). Miskolczi discovered an error in the derivation of equations used to support the concept of runaway greenhouse warming<sup>6</sup>. When the error was corrected, the equations showed instead that greenhouse warming is self-limiting. NASA refused to publish the results so Miskolczi resigned, eventually getting his research published in a Hungarian journal.

Further evidence of scientific suppression was described by delegates to the International Conference on Climate Change held in New York in early March 2008<sup>7</sup>. The conference was organised by independent scientists to publicise the evidence that the IPCC ignores. It culminated in the production of the Manhattan Declaration on Climate Change<sup>8</sup>, which recommends:

*That world leaders reject the views expressed by the United Nations Intergovernmental Panel on Climate Change as well as popular, but misguided works such as “An Inconvenient Truth”.*

*That all taxes, regulations, and other interventions intended to reduce emissions of CO<sub>2</sub> be abandoned forthwith.*

The relative lack of reporting of this conference in the media contrasts with that of the stage-managed IPCC showcase in Bali in December 2007.

To coincide with the New York conference, the Nongovernmental International Panel on Climate Change (NIPCC) published its own Summary for Policy-makers to counter the IPCC's one-sided claims. The report, entitled *Nature, Not Human Activity, Rules the Climate* is essential reading for anyone who wishes to review the full weight of evidence against the claimed consensus<sup>9</sup>. The NIPCC was formed in 2007 to provide a truly open scientific forum on climate issues, independent of the politicised IPCC.

Ultimately, the proof that climate change is either natural or man-made will be demonstrated by comparing actual observations with theoretical predictions. It is that area of research that will be considered next.

### **Evidence versus theory**

The first issue to consider is the accuracy of temperature data. It is claimed that global surface temperatures increased by 0.6 deg C during the twentieth century, but this figure is derived largely from land-based measuring stations, when two-thirds of the planet is covered by water. Many of these stations are situated in or near built-up areas, which have a higher temperature than the surrounding countryside due to heat retention by the built environment. This 'urban heat island' effect increases with time as towns and cities expand. It is not even possible to audit ground-station data for the urban heat island effect, as the database management has been so poor as to preclude it.

The number of temperature measuring stations has also varied significantly over time and there was a sharp reduction following the collapse of the Soviet Union. Many of the stations that closed down in the 1990s were located in the colder parts of the globe, causing the average surface temperature to be distorted upwards<sup>10</sup>. Although some allowance is made for the loss of stations and the urban heat island effect in calculating the global average, bias still exists. If properly allowed for, the rate of temperature increase post-1980 would be little more than half that claimed<sup>11</sup>.

Global temperatures did not rise consistently throughout the twentieth century: they rose sharply through the 1920s and 1930s (the warmest year on record in the United States is still 1934), fell gradually from 1940 till the mid-1970s, then rose until the late 1990s. Claims that the cooling period was due to aerosol (pollutant) effects are countered by the IPCC itself. The warmest year globally was 1998, boosted by an El Nino. On a two-year rolling average, there has been no warming since 2002/03. Throughout all these periods in the last century and up to today, atmospheric carbon dioxide levels have been rising, showing no close correlation with the temperature trend.

Since 1979, satellites have given an accurate record of temperature changes in the atmosphere. These show a much lower rate of temperature rise than ground-based surface stations. As explained earlier, if an increase in surface temperature was caused by an enhanced greenhouse effect, it would have to be as a result of a warming atmosphere. The satellite measurements show this has not been the case.

The IPCC's models predict that carbon dioxide-driven global warming should produce a marked increase in atmospheric temperature in the tropics between 9 and 12 km above the ground. Actual measurements show no such increase in temperature<sup>12</sup>. This failure of the atmosphere to gain heat in the way predicted by the models is a damning indictment of their validity. Clearly the data is showing that an already warm atmosphere can transmit heat energy to space at a faster rate than the computer models allow for.

Since the record warm year of 1998, global temperatures have levelled off and may now be on a falling trend, despite increasing man-made emissions and atmospheric levels of carbon dioxide. The winter of 2007/08 has been one of the coldest for many years in large parts of the northern hemisphere, with disruption due to heavy snowfalls across North America and China, and snow in parts of the Middle East for the first time in decades.

All four temperature-tracking institutions have recorded a fall in global temperature over the last year, ranging from 0.65 to 0.75 deg C, equivalent to the claimed temperature increase in the whole of the twentieth century<sup>13</sup>. The extent of Antarctic sea ice in January 2008 was significantly above the 1979–2000 mean and, in the Arctic, it was greater than in the previous four years<sup>14</sup>. While an abrupt fall in global temperature in a single year does not of itself signal the start of a long-term trend, the fact that such a decrease can occur

while carbon dioxide levels continue to rise indicates that more powerful factors must be affecting the climate. These will now be examined.

### **Alternative explanation for recent climate change**

If the average surface temperature rises faster than that of the atmosphere, it will be as a result of additional solar radiation reaching the Earth's surface. The most important regulator in this respect is low-level cloud cover, which has a net cooling effect. So a decrease in cloud cover leads to warming, and an increase leads to cooling.

It has long been known that there is a close correlation between temperature trends and sunspot activity. This property of 'solar eruptivity' is not to be confused with changes in the sun's output of heat energy – its irradiance. Variations in the sun's irradiance are well known, and considered by the IPCC, but the sun's eruptive activity is not even listed by the IPCC as a possible climate forcing in the 2007 Summary for Policymakers.

It has also been established that more cosmic rays penetrate the atmosphere during cool periods than during warm ones. But a correlation does not prove a cause-and-effect relationship, and it is only in recent years that the mechanism linking these findings has been established – and demonstrated experimentally.

Danish scientist Henrik Svensmark has shown that the strength of the sun's magnetic field determines the rate at which the most energetic cosmic rays are able to reach the lower levels of the Earth's atmosphere. There they act as a catalyst to create charged particles that form the nuclei of water droplets, which then produce clouds. This mechanism has been verified in a small-scale experiment by Svensmark himself, and will be the subject of more elaborate research by the European Organization for Nuclear Research (CERN) in Geneva in 2010<sup>15</sup>.

So the stronger the sun's magnetic field, the fewer high-energy cosmic rays penetrate the atmosphere to seed clouds, and the planet warms. The length of sunspot cycles is inversely proportional to the strength of the sun's magnetic field, i.e. the shorter the cycle the stronger the field. The average length of a solar cycle is around 11 years, but the solar cycle that ended in 1996 (known as solar cycle 22) was unusually short, at 9.6 years. The strong magnetic field associated with that solar cycle contributed markedly to the warming of the 1990s<sup>16</sup>.

Solar cycle 23 that followed is only now drawing to a close but may not end completely until mid-2009, which would mean a length of 13 years. Solar physicists predict this could result in a reduction in global temperature of as much as 2 deg C in the next ten years. It is also likely that solar cycle 24 will be weak, so the cooling trend could continue for longer<sup>16</sup>.

The sun's magnetic field reverses polarity with each sunspot cycle but it does not happen instantaneously: there is an overlapping, transitional period from one cycle to the next. The first sunspot of solar cycle 24 was observed on 3 January 2008, even though solar cycle 23 had not ended, so sunspots of both magnetic polarities can exist together. The unstable nature of the transition period can lead to more extreme weather events, such as those experienced in the second half of 2007 and expected by Weather Action to continue through 2008<sup>4</sup>.

While the recorded sharp fall in global temperature over the past year is not proof that a period of cooling has begun, it is in line with the predictions of solar physicists. It would be wise to consider, therefore, what the impacts of a colder climate would be.

### **Warming or cooling – which is better?**

There have been periods in recorded history warmer than today's, most notably the Roman Warm Period (roughly 200 B.C. to 400 A.D.) and the Medieval Warm Period (900 to 1300 A.D.). Both were periods of prosperity for humanity, while the colder periods of the Dark Ages and the Little Ice Age created hardship, disease and hunger<sup>17</sup>. Warm periods are 'climate optima'.

A warmer climate means extended growing seasons, and an increase in crop-growing areas into latitudes that were previously unsuitable for cultivation. Warmer winters mean fewer cold-related deaths, which would far outweigh any increase in heat-related summer deaths. Warmer winters also generate less demand for energy. Claims that diseases such as malaria could spread to temperate areas as a result of global warming are unfounded, since malaria is related more to poverty than temperature<sup>18</sup>.

A cooling climate, on the other hand, means reduced growing seasons and less land area suitable for crops. This could lead to food shortages, and world demand for food is growing – wheat prices are at a historical high at the time of writing. Higher carbon dioxide emissions could help boost crop growth and partly offset the negative impact of lower temperatures, but a decrease in ocean temperature could lead to greater absorption of carbon dioxide from the atmosphere, thus reducing its concentration.

Colder winters mean more cold-related deaths and more energy consumption – and Britain's energy supply situation is already critical. Also, contrary to the claims of the climate alarmists, more frequent and/or more severe winter storms occur in a colder climate than a warmer one, since the atmospheric circulation patterns that create those storms are driven by the difference in temperature between the equator and the poles.

Fears about rising sea levels in a warming world are also unfounded. Sea level has been rising since the end of the last ice age and the rate of rise did not increase in the twentieth century. Even the IPCC has been moderating its predictions of future sea level rise in successive reports. While some ice will

melt in a warmer climate, more evaporation and precipitation produces greater snowfall over the Antarctic and Greenland ice caps, which have been growing in volume<sup>19</sup>. Polar bears and penguins have survived and adapted to changing sea-ice coverage in the past and will continue to do so.

There is no doubt that, as shown throughout history, a warmer climate is more beneficial than a colder one. It is remarkable therefore that so many people have been persuaded to believe the opposite. As Nigel Calder remarks in *The Chilling Stars*:

*...among the thousands of human generations, ours may be the first that was ever frightened by a warming.*

### **Motives behind climate change alarmism**

The modern environmental movement is very different from that of the 1960s and 1970s. It has become much more politically motivated, especially since the collapse of communism at the end of the 1980s<sup>20</sup>. Canadian scientist Dr Patrick Moore, co-founder of Greenpeace, left that organisation in the 1990s because it had been taken over by extremists, as he explains on the website of his new organisation, Greenspirit<sup>21</sup>:

*There were always extreme, irrational and mystical elements within our movement, but they tended to be kept in their place during the early years. Then in the mid-Eighties the ultra-leftists and extremists took over. After Greenham Common and the Berlin Wall came down these extremists were searching for a new cause and found it in environmentalism. The old agendas of class struggle and anti-corporatism are still there but now they are dressed up in environmental terminology.*

While the most extreme environmental zealots may be relatively few in number, they have managed to gain undue influence by exploiting the gullibility of many ordinary and scientifically illiterate people, who are only too willing to believe that the planet needs 'saving' from mankind's excesses. Perhaps it is a psychological throwback to those earlier civilisations that offered human sacrifices to the gods, to assuage their sins and spare them from punishment in the form of drought, flood, famine or disease. There are certainly many parallels between modern environmentalism and religion<sup>22</sup>.

Unscrupulous political leaders and corporations have been quick to recognise the opportunities to exploit this vulnerability in order to promote their political ideologies, raise more tax revenue, or make a profit. A candid admission of the political motives behind climate alarmism was made by a Canadian government minister at the time of the Kyoto conference:

*No matter if the science is all phoney, there are collateral environmental benefits ... climate change [provides] the greatest chance to bring about justice and equality in the world<sup>23</sup>.*

Carbon offsetting and trading schemes have the potential to make large profits for those who run them. Subsidies given to develop 'renewable' energy sources, such as wind power, are a licence to print money for their operators, at the expense of the rest of us. Companies promote 'green' products that may be little more than gimmicks, but can be very profitable.

Billions of pounds a year are being spent on climate research aimed at 'proving' man-made global warming. Many of the scientists involved in this research have reservations about the biased reporting of results, but dare not speak out for fear of losing their funding or their positions.

The personal attacks and abuse heaped on 'sceptics' in an attempt to intimidate them and others into silence is a sure sign that real science has little to do with the climate change debate. It is notable that many of those scientists who are prepared to challenge the 'consensus' view in public are either retired or are otherwise not dependent on government funding – but they are not in the pay of 'Big Oil' either, as their attackers like to claim. Some of the most prominent climate realists are interviewed in the Wag TV documentary *The Great Global Warming Swindle*<sup>24</sup>.

One of the few world leaders to recognise the potential damage that climate alarmism could cause to prosperity and freedom is Vaclav Klaus, president of the Czech Republic. He spent much of his life under communism and gave an impressive analysis of the politics of climate change to a U.S. government committee in March 2007. His views are summarised in the following quote:

*So-called climate change, and especially man-made climate change, has become one of the most dangerous arguments aimed at distorting human efforts and public policies in the world<sup>25</sup>.*

### **Consequences of acting on climate change alarmism**

Since most man-made carbon dioxide is the result of energy use, and energy drives economic activity, cutting back on energy use by significant amounts would inevitably have a detrimental impact on the economy. In the United States it has been estimated that to reduce the warming predicted to 2050 by just 0.04 deg C (a negligible amount) would result in a cumulative loss to the U.S. gross domestic product of \$1.3 trillion over 20 years<sup>26</sup>. This is a huge amount of wealth to waste for the sake of an immeasurably small return. The same amount of money could be used to produce real benefits elsewhere<sup>27</sup>.

Proportionate damage would be caused to the economies of other developed countries, including Britain. At the same time, developing countries like China

and India, which are not committed to the ineffective Kyoto agreement, will continue to power ahead. Perhaps the most disturbing proposals under consideration are those for carbon trading, especially if applied at a personal level. This would amount to individual energy rationing that would severely restrict liberty and freedom of choice. It would also lead to a redistribution of wealth, exactly as some of its proponents want – socialism by the back door.

Attempts to generate more electricity from unreliable and costly renewable sources such as wind power will damage the environment and leave Britain susceptible to energy shortages. At least 3,000 wind turbines are required to generate as much electricity as one conventional or nuclear power station, and the conventional station has to be kept idling, inefficiently, to step in at a moment's notice if the wind drops. The greatest demands for electricity are during severe cold in winter and heat waves in summer, both of which are generally associated with atmospheric high pressure, when wind speeds are low. So wind power is not available when it is most needed.

Paradoxically, the world environment is likely to be damaged far more by misguided attempts to reduce carbon emissions than would be caused by man-made global warming, even if it were real and continued unchecked. If third-world countries were prevented from exploiting their natural resources to provide a better standard of living for their citizens, not only would their peoples continue to suffer poverty, disease, and low life expectancy<sup>28</sup>, but they would not have the ability to protect their natural environments – only wealthy countries can afford to do so.

Poor countries would continue to destroy forests for fuel or slash-and-burn agriculture, leading to habitat loss, and endangered species would continue to be killed for bush meat. People in these countries are focused on surviving today – they do not have the luxury of planning for tomorrow. The destruction of Indonesian rain forests to produce palm oil for biofuel is an example of the distorted priorities brought about by the obsession with carbon reduction.

It is also well established that, as prosperity grows, birth rates decrease. If economic growth is delayed, populations will continue to grow for longer and put more pressure on the environment and natural resources. It is in the interests of the whole world, therefore, that third-world countries are helped and encouraged to raise their standards of living, and this can only be achieved if they have access to abundant energy at reasonable cost.

## **Conclusions**

Research pointing away from carbon dioxide as the driver of climate change, in favour of the sun as the main influence on global temperature, is being published at an accelerating rate. Indeed, some of the papers and reports referred to in this briefing note were published while it was being written. Increasing numbers of scientists are abandoning support for the man-made hypothesis of climate change as the evidence mounts in favour of the sun<sup>29</sup>.

The majority of people are unaware, however, of the growing strength of the scientific case against man-made carbon dioxide emissions being the cause of climate change. They have been denied the opportunity to weigh the facts for themselves through the effective suppression of contrary views. It is analogous to a jury in a criminal trial being asked to deliver a verdict after hearing only the prosecution case, based on weak circumstantial evidence. The defence case, that there is a far more likely suspect whose fingerprints were all over the crime scene, is ruled inadmissible.

Those with a vested interest in upholding the man-made global warming scare have made strenuous efforts to discredit the evidence in favour of a solar link, but their arguments have been shown to be shallow and unsubstantiated<sup>30</sup>. It can be only a matter of time before the weight of evidence becomes so overwhelming that the current wall of censorship collapses – the truth always comes out in the end. If the recent downturn in global temperature persists as solar physicists predict, it will be impossible to maintain for long the lie that the planet is warming out of control.

The question is how much damage will be done to economic prosperity and individual liberty before people realise how badly they were misinformed in pursuit of ideological, political or commercial interests. Political leaders who nail their colours to the mast of the sinking ship of man-made global warming may well go down with that ship, as people vent their anger against those who have deliberately manipulated public opinion.

The time is right for leaders of courage to expose the sham of the ‘consensus’ on climate change and lead the fight against policies that will enslave and impoverish us, as well as cause real damage to the world’s environment.

## **Notes**

1. For a more detailed explanation of carbon dioxide’s contribution to global temperatures, visit [www.co2science.org](http://www.co2science.org). See also David Archibald’s presentation to the International Conference on Climate Change in March 2008, page 22 on, where the effects of CO2 are discussed at length: [www.warwickhughes.com/agri/Solar\\_Arch\\_NY\\_Mar2\\_08.pdf](http://www.warwickhughes.com/agri/Solar_Arch_NY_Mar2_08.pdf).
2. See *Natural Heat Vent May Counter Global Warming*, National Policy Analysis, May 2001, [www.nationalcenter.org/NPA336.html](http://www.nationalcenter.org/NPA336.html).
3. Dr Martin Herzberg is a combustion research scientist and also served as a meteorologist with the US Navy. He teaches science and maths and has been studying the global warming issue for the last twenty years. The quote is taken from a paper *The Sky is NOT Falling* from The Carbon Sense Coalition to the Garnaut Climate Change Review and can be read at <http://carbon-sense.com/wp-content/uploads/2008/01/garnaut-submission.pdf>.

4. Weather Action ([www.weatheraction.com](http://www.weatheraction.com)) produces long-range weather forecasts based on an understanding of the effects of solar magnetic events on the Earth's climate and weather. It successfully predicted the very wet summer of 2007, including its disastrous floods, as far in advance as December 2006. Its founder, Piers Corbyn, gave a Powerpoint presentation to a meeting of the Minerals Engineering Society in January 2008 and copies can be obtained from him. The presentation includes a slide showing how the warming effect of doubling CO<sub>2</sub> would be negated by increased transpiration.
5. As an example, Chris Landsea, a leading expert on hurricanes, resigned from the IPCC in January 2005. His letter of resignation is here: [http://sciencepolicy.colorado.edu/prometheus/archives/science\\_policy\\_general/000318chris\\_landsea\\_leaves.html](http://sciencepolicy.colorado.edu/prometheus/archives/science_policy_general/000318chris_landsea_leaves.html)
6. The original equations had assumed an infinitely thick atmosphere, an assumption used to simplify the calculations. Miskolczi re-derived the equations, making proper allowance for the 'boundary conditions' of a finite atmosphere and introducing a negative feedback term. See: <http://www.dailytech.com/Researcher+Basic+Greenhouse+Equations+Totally+Wrong/article10973.htm>
7. See: [www.freerepublic.com/focus/f-news/1981617/posts](http://www.freerepublic.com/focus/f-news/1981617/posts)
8. The Manhattan Declaration can be read in full at: [www.heartland.org/Article.cfm?artId=22866](http://www.heartland.org/Article.cfm?artId=22866)
9. The full report can be accessed from: [www.heartland.org/article.cfm?artId=22835](http://www.heartland.org/article.cfm?artId=22835)
10. Just how significant this impact was can be seen in the histogram on page 112 of *The Politically Incorrect Guide to Global Warming and Environmentalism* by Christopher C Horner, 2007. Despite the somewhat facetious nature of the title, this is a serious book that exposes many of the myths and lies used to support the man-made global warming scare.
11. Paper in the Journal of Geophysical Research, December 2007, by Ross McKittrick and Patrick Michaels, *Quantifying the influence of anthropogenic surface processes and inhomogeneities on gridded global climate data*. It concludes that the real rate of temperature increase since 1980 has been 0.17 deg C, not the 0.30 deg claimed.
12. Diagrams comparing expected and actual temperature increases are on page 6 of *Nature, Not Human Activity, Rules the Climate*, which can be found at [www.heartland.org/article.cfm?artId=22835](http://www.heartland.org/article.cfm?artId=22835).
13. Article by Michael Asher in Daily Tech, 26 February 2008, at: [www.dailytech.com/Temperature+Monitors+Report+Widescale+Cooling/article10866.htm](http://www.dailytech.com/Temperature+Monitors+Report+Widescale+Cooling/article10866.htm)

14. Article by Catherine Elsworth in Daily Telegraph, 26 February 2008, at: [www.telegraph.co.uk/earth/main.jhtml?view=DETAILS&grid=A1YourView&xml=/earth/2008/02/26/ealice126.xml](http://www.telegraph.co.uk/earth/main.jhtml?view=DETAILS&grid=A1YourView&xml=/earth/2008/02/26/ealice126.xml)
15. *The Chilling Stars: a new theory of climate change*, by Henrik Svensmark and Nigel Calder, published 2007, is the story of Svensmark's quest to establish the link between solar magnetic activity, clouds and climate change. He shows that not only do variations in cosmic rays reaching the lower atmosphere, due to changes in the sun's magnetic field, affect the climate on a timescale of decades to centuries; the long-term movement of the solar system through the galaxy, where there may be more or fewer cosmic rays, may account for the much greater changes in climate seen over periods of millions of years.
16. See David Archibald's presentation to the International Conference on Climate Change in March 2008, *Solar Cycle 24: Implications for the United States*, at [www.warwickhughes.com/agri/Solar\\_Arch\\_NY\\_Mar2\\_08.pdf](http://www.warwickhughes.com/agri/Solar_Arch_NY_Mar2_08.pdf).
17. Read, for example, *Unstoppable Global Warming Every 1,500 Years*, by S Fred Singer and Dennis T Avery, published 2007.
18. Malaria was endemic to the Essex marshes in the 18th century (during the Little Ice Age) and a major outbreak took place in Archangel, in the Arctic Soviet Union, in the 1920s. Read, for example, pages 238 and 239 of *The Politically Incorrect Guide to Global Warming and Environmentalism* by Christopher C Horner, 2007.
19. An analysis of sea level issues is on pages 15 to 17 of *Nature, Not Human Activity, Rules the Climate*, which can be found at: [www.heartland.org/article.cfm?artId=22835](http://www.heartland.org/article.cfm?artId=22835).
20. *The Politically Incorrect Guide to Global Warming and Environmentalism* by Christopher C Horner, 2007, is recommended reading.
21. See: [www.greenspirit.com](http://www.greenspirit.com)
22. See for example an article by Brian Durrant in Daily Reckoning at: [www.dailyreckoning.co.uk/Economic-Forecasts/Global-warming-a-New-Religion-00008.html](http://www.dailyreckoning.co.uk/Economic-Forecasts/Global-warming-a-New-Religion-00008.html) and also *The Politically Incorrect Guide to Global Warming and Environmentalism* by Christopher C Horner, 2007.
23. Christine Stewart, Canadian Environment Minister, quoted in the *Calgary Herald* of 14 December 1998.
24. *The Great Global Warming Swindle* is available on DVD from Wag TV at [www.wagtv.org](http://www.wagtv.org). The DVD contains footage not shown in the original programme as broadcast, including extended interviews with some of the leading scientists.

25. The full transcript can be read online at:  
[www.vaclavklaus.cz/klaus2/asp/clanek\\_tisk.asp?id=lgDUIjFzEXAz](http://www.vaclavklaus.cz/klaus2/asp/clanek_tisk.asp?id=lgDUIjFzEXAz)
26. See Chapter 11 of *The Politically Incorrect Guide to Global Warming and Environmentalism* by Christopher C Horner, 2007.
27. It has been estimated that the cost to the United States of complying with the Kyoto agreement would be sufficient to provide clean water and sanitation for the whole world. See for example *The Skeptical Environmentalist* by Bjorn Lomborg, 2001.
28. This issue is emphasised in *The Great Global Warming Swindle*, available on DVD from Wag TV at [www.wagtv.org](http://www.wagtv.org).
29. See for example the following article published in May 2007, entitled *Climate Momentum Shifting: Prominent Scientists Reverse Belief in Man-made Global Warming – Now Skeptics*, which can be viewed at:  
[http://epw.senate.gov/public/index.cfm?FuseAction=Minority.Blogs&ContentRecord\\_id=927b9303-802a-23ad-494b-dccb00b51a12](http://epw.senate.gov/public/index.cfm?FuseAction=Minority.Blogs&ContentRecord_id=927b9303-802a-23ad-494b-dccb00b51a12)
30. See for example the blog of astrophysicist Nir Shaviv, *More Slurs from RealClimate.org*, at <http://www.sciencebits.com/RealClimateSlurs>.