

Title: Climate change – A Christian response
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Part 1

I grew up in a family that was very environmentally conscious – long before it was fashionable. In the 1960s we grew organic strawberries and vegetables, made cottage cheese from our two cows which never saw an antibiotic or any other chemicals. The pastures they grazed on were only treated with organic fertilizers.

When I did my degree in Agricultural Science, we had to present a seminar on a topic of our choice to the whole student body and the whole faculty. When the notice for mine went out entitled *Does Organic Farming have a Scientific Basis*, my fellow students and some of the faculty thought I was playing a practical joke, and asked me what I was really going to do! I must have argued the case well as I got a very good mark for my seminar!

For my honours project, I researched the nitrate and phosphate loadings of rivers in Tasmania, seeking to determine how much came from agricultural activities. When I worked as a farm advisory officer in the Huon Valley, I actively promoted methods which reduced the amount of farm chemicals which were being used. I wrote the Question & Answer page in the Tasmanian *Organic Growing Magazine* for over 20 years. In our churches I have led camp studies on *A Christian Perspective on the Environment*.

Why am I telling you all this? Because I want to make it clear that I am passionate about protecting the environment, reducing pollution, minimising the adverse effects of agriculture on the quality of soils and the wider environment. My passion for this arises from the conviction that we are stewards of God's creation, and that for having lived on this earth, we should leave it in better shape than when we were born. I am not only about conserving what there is – I am an advocate for improving the environment!

So no doubt you would expect me to write an article warning you about the pending disaster caused by man induced global warming (known as Anthropogenic Global Warming or AGW for short). As a scientist with a life time track record of environmental concern, you may be shocked by what follows. But I believe it needs to be said, for the sake of the poor of the world.

As part of my science training, I was taught to be sceptical. To always ask: What is the empirical data? What are the hard facts? Have other scientists been able to replicate the experiments or measurements that gave this data? If there is no empirical, repeatable data, you are moving from the realm of science into the realm of speculation. Speculation has its place, because you can do experiments to see if your speculation is heading in the right direction. But to promote speculations as scientific fact is nothing less than telling lies.

As data becomes available, one can formulate a hypothesis, which accommodates all the known empirical data. But as new data becomes available, we must be willing to revise one's hypothesis, to accommodate the new data. So what are **the hard facts about climate change?**

Climate has always been changing

Climate has never been static. Evidence indicates that climate changes have generally been gradual, and often cyclical (such as ice ages occurring around every 120,000 years). Sometimes changes have been more sudden, such as the events which snap froze mammoths in the Arctic some 20,000 years ago, with the grasses and flowers they had consumed, still readily identifiable in their stomachs today!

The Bible tells us that there was a major change in climate that occurred around the time of the Flood (Gen 7 and 8). Rain fell as it had never fallen before. After the flood, God made a covenant declaring: *As long as the earth endures, seedtime and harvest, cold and heat, summer and winter, day and night will never cease* Gen 8:22 – thus indicating that the earth will continue to provide for man's needs.

Then there were the various droughts that the Bible tells us about. The 7 years of plenty in Egypt were followed by 7 years of great drought not only in Egypt, but also in the land of Canaan (Gen 41- 47).

We know that from around 900 to 1300 AD it was 2- 3C warmer in Europe and North America than it is today (known as the Medieval Warm period – the temperatures peaked around 900 to 1100) which led to the colonising of Greenland and Newfoundland. But the subsequent increasing cold led to the Vikings deserting Greenland by 1400. Archaeologists have excavated Viking house ruins under the current permafrost. Again, this climate change was not caused by man's activities.

We also know that the temperature was lower from 1400 – 1900 – a period known as the *Little Ice Age*. In those days the Thames in London froze over most winters! As the climate cooled, farmers had to adapt to shorter growing seasons. Again man's activities were not responsible for the change.

In the period 1940 to 1970 there was a global cooling phase, which led to some scientists to claim we were entering into a new ice age. They claimed the cause was that we were draining too many swamps, thus reducing the production of methane, which is a green house gas! One of the current leading advocates of AGW theory, Dr. Stephen Schneider, in the 1970's claimed that small particulates (called aerosols) were to blame, and that their effect was orders of magnitude greater than carbon dioxide warming the environment.

No one – not even the global warming alarmists – is claiming that these clearly recorded major changes in climate were caused by human activity. Everyone agrees they were caused by “natural phenomena”. (Al Gore and his followers find the Mini Ice Age and the Medieval Warm Period a very inconvenient truth, and so either ignore it, or even deny it every happened!)

The Big Question:

If climate has changed so markedly over so many thousands of years, without the influence of man, we must ask the question: Are the current changes in climate (a warming of 0.6C in the past 100 years) due to man's influence, or is it simply the result of the same natural forces which changed the climate in the past?

That is an obvious question, which must be answered. Until we know the answer, we can not know whether there is any value in reducing our carbon dioxide emissions.

As Paul Murray commented in the West Australian recently¹ if you dare to ask such questions, then you are labelled a “sceptic” which is the next worst thing to being called a paedophile! One CBS reporter has even

¹ West Australian, June 12, 2007 p 16

labelled sceptics of AGW as “holocaust deniers”! If we are to be good stewards of the earth God has entrusted to us, we must not be afraid to ask the hard questions. We must insist on scientifically verifiable answers. We can not just accept the media hype at face value.

The media and the spin doctors assure us, that “the science is settled”: Man’s carbon dioxide emissions are the cause of global warming. We are told that while there are a few ill informed scientists refusing to face reality, the “consensus” among the world’s leading scientist is that there is no doubt that man made carbon dioxide emissions are the cause of the current “alarming” rate of global warming and climate change.

Consensus is not science

The very fact that “consensus” argument is needed shows that the data available is inadequate to establish the assertion being made.

Science by consensus is never good science. If the facts are clear, then a discussion can take place as to what the facts mean. But the facts must first be established. Science works on the basis that you can do experiments in your own laboratory or take measurements in nature. Others must be able to do the same, and get the same answers. That establishes the facts.

When people claim “scientific consensus” you know that the data is not yet clear, and that any assertion made is speculation rather than science.

Historically, scientific consensus has all too often been wrong. A few examples:

Scientific American in 1905 labelled the Wright brothers as *fraudsters* for claiming to have flown with a machine that was heavier than air. The scientific “consensus” – even 2 years after they had flown - was that it could not be done.

As part of his anti Jewish campaign, Hitler organised a group of 200 eminent scientists to have a forum which condemned Einstein’s theory of relativity $E = mc^2$. Asked whether the condemnation of 200 eminent scientists bothered him, Einstein responded: “It doesn’t need 200 scientists to disprove Relativity, it just needs a single fact”.

The first medical doctor who discovered the connection between high salt intake and high blood pressure was struck off the medical register in the US for giving the unjustifiable advice to his heart patients to eat less salt!

In the 1970s the scientific consensus was that we were about to enter a new ice age!

The scientific consensus today is that evolution is a “fact”. But many eminent scientists do not believe in evolution. Some, such as Michael J Behe, in his book *Darwin’s Black Box – the Biochemical Challenge to Evolution* demonstrates that the notion of evolution is inconsistent with the empirical data from biochemical research.

While the media and the AGW proponents do their utmost to silence those who hold a different view, there is no consensus among scientists that the 0.6C warming in the last century has been caused by carbon dioxide emissions. Atmospheric scientists tell us that the water vapour in the atmosphere has 30 times the influence on the earth’s temperature, as does the level of carbon dioxide.

It may surprise you that over 4,000 scientists have signed the “Heidelberg Appeal” including more than 70 Nobel Prize winners. A 1997 Gallup Poll of eminent North American climatologists (who one would have thought understand more about climate than journalists or politicians such as Al Gore!) showed that 83% did not support the claims of AGW. In 1998, the *Oregon Institute of Science and Medicine* issued a petition for signature by atmospheric scientists saying there is no scientific evidence indicating that green house gases cause global warming. That petition was signed by more than 17,000 scientists and leaders involved in the issue.² Unfortunately these kinds of things do not make it into the media, because most journalists have adopted the “cause” of Global Warming and want to “advance the cause” rather than report objectively on the debate.

The Scientific Evidence

It may surprise some, but the IPCC reports are first produced by the scientists, and then non scientist bureaucrats “rewrite” them. The bureaucrats deleted these two statements from the scientists’ 1995 report:

1. *None of the studies cited have shown clear evidence that we can attribute the observed climate changes to increases in green house gases.*

2. *No study to date has positively attributed all or part of the climate change to...man made causes.*

Interestingly suspicious, wouldn’t you say? It gives the impression that a political agenda is being driven at the cost of truth.

One of the biggest problem facing anyone trying to determine the truth about environmental issues is that very little of what is published about the environment is actually published in peer reviewed scientific journals. And some of the prophets of doom about carbon dioxide emissions want to keep it that way. Stephen Schneider, one of the prophets of the ice age in the 1970s, and now a strong advocate of AGW has stated: *...we need to get some broad based support, to capture the public’s imagination. That of course means getting loads of media coverage. So we have to offer up scary scenarios, make simplified, dramatic statements, and make little mention of any doubts we might have.* Schneider effectively admits that the pursuit of truth must be sacrificed on the altar of “pushing the agenda”! In commenting on this quote in the Federal Parliament, Dr Dennis Jensen, currently the only PhD qualified scientist in our federal parliament stated: *an honest scientist would never bend the truth to push an agenda.* Sadly, pushing the AGW agenda has become more important to journalists and many scientists, than scientific integrity and pursuit of the truth.

¹ <http://www.capmag.com/article.asp?ID=4674> accessed 4/1/2008

Part 2: Global Warming - The Evidence and World Poverty

In my first article we saw that the world's climate has never been static. There is ample evidence that warmer and colder periods occurred in history, without the influence of man. This month we will examine some of the claimed evidence for Anthropogenic Global Warming (AGW), and consider the potential impact the AGW agenda may have on the world's poor.

The evidence?

Prof Bjorn Lomborg, a paid up member of Greenpeace, and a professor of statistics in Denmark, wanted to influence his students. He wanted them to see how disastrous the world environmental scene was. So he set assignments for them to do the statistical analysis of some of the data being promoted by the environmental movement. Much to his dismay, he discovered that most of what is presented as “known facts”, is simply assertions made by an individual or the spokesman of an organisation, without any substantiating evidence, and only very rarely sourced from peer reviewed scientific journals. His discoveries led him to write the very readable book: *The Skeptical Environmentalist – Measuring the Real State of the World*. (Cambridge University Press, 1998) It is well worth reading!

David Evans started work in the Greenhouse Office in Canberra in 1999 as a computer modeller. He was convinced that global warming was caused by carbon dioxide emissions. He was highly motivated and excited about his job and developed a program that is widely used for calculating the amount of carbon various tree plantations would take from the atmosphere. It is widely used because it has been shown to be accurate to plus minus 10%.

But as more evidence has emerged, David says it has becoming more and more difficult to hold to AGW. He says the facts that are known today, simply don't support it.³

A major problem facing individuals (and governments!) who want to be informed of the facts, is that when some previously promoted “fact” is exposed as flawed, the media and much of the environmental movement merrily go on their way propagating the falsehoods. For example, 2005 is still touted as being the hottest year on record in the USA. Steve McIntyre found the data had been incorrectly processed; there was a Y2K error in the computer code. The facts now are that 1934 is the hottest year on record, and four of the hottest years in USA are now known to have occurred in the 1930s, and only 3 in the last 10 years. McIntyre was also the person who discovered the errors in Michael Mann's infamous hockey stick graph in the third IPCC report. That false graph was also used in Al Gore's movie *An Inconvenient Truth*. Have we ever heard Al Gore setting the record straight? Unfortunately not!

Interestingly, a British judge ruled recently⁴ that Al Gore's *An Inconvenient Truth* could only be shown to school children if the nine factual errors in it were pointed out before hand. He found that the “apocalyptic

³ watch part of an interesting lecture he gave at http://www.youtube.com/watch?v=rTUDWy6T050&watch_response

⁴ *Inconvenient Errors* The Australian 12/10/2007

vision” presented in the film was not an impartial analysis of climate change but part of a politically partisan crusade, and that the film was deliberately alarmist.

It is interesting to note that Al Gore continues to use ‘20 times as much energy’ as the average American, and he has made it clear he has no intention of reducing his energy consumption! It makes me wonder whether he really believes the message of his own movie!

So what hard facts are there to support the notion that carbon dioxide emissions are the cause of the small (0.6C) increase in temperature that has been recorded in the past 100 years?

Firstly we need to note that the biggest part of the increase took place in the period 1905 to 1940, which was before the CO₂ levels began to increase significantly.

Repeated calls by “sceptical” scientists for independent, repeatable observations to support the notion of AGW have failed to produce any evidence. It may surprise you that there is **NO experimental evidence, nor measurements which have established a link between carbon dioxide emissions and global warming written** in a peer reviewed scientific journal. Indeed, the only measurable, repeatable observations made come from ice core data (which is not always reliable). This data suggests that CO₂ levels lead temperature increases by 800 years; this means that the temperature increase *causes* the increase in CO₂, not the other way around!

The “evidence” for AGW is based solely on computer climate models which have been developed. The problem with these models is that they are overly simplistic – they depend on the notion that the way the atmosphere works is like the air in a glass jar. This fails to take into account the many buffering effects in the natural systems that produce our climate. Not one of the models that gives the various dooms day predictions, has been able to predict the average world temperature 5 years in advance. When run backwards, they fail to give answers consistent with what we know the climate was like 5, 10 or 20 years ago.

Kevin Trenberth, coordinating lead author of the IPCC 4th Assessment Report admitted the weaknesses inherent in the models used. He stated: *...none of the climate states in the models correspond even remotely to the current observed climate. In particular, the state of the oceans, sea ice, and soil moisture has no relationship to the observed state at any recent time in any of the IPCC models.* (This quote is not a misprint!)

Even within the IPCC there are many scientists who do not believe that AGW is by any means established. Yuri Israel, the Vice Chairman of the IPCC has stated: *there is no proven link between human activity and global warming.*

The Precautionary Principle

But shouldn't we try and reduce the CO₂ emissions just in case they are the cause of global warming? That *sounds* a reasonable argument.

Given the fact that we know that asteroids have hit the earth in times past, and have had a catastrophic impact on climate, should we not also invest in schemes to try and deflect asteroids from hitting the earth?

Whether we like it or not, the world has finite financial resources. The question we need to ask is: Is it justifiable to spend huge sums— billions upon billions – trying to avoid an asteroid strike, when the likelihood of being able to influence the outcome is rather dubious at best? Or should we direct these resources to alleviate poverty and environmental degradation in third world countries? I think most would say: use those resources to alleviate poverty!

Given that the only evidence for AGW comes from overly simplistic computer models, I believe humanity would be far better served if all the money spent on the Bali Climate conference, and the many salaries of CO₂ emission counters, research into the geo-sequestration of Carbon Dioxide, etc were channelled into poverty alleviation and environmental projects in the third world.

So the precautionary principle is not quite as wise a principle as some would have us believe. In fact, as with the consensus argument, the resort to precautionary principle indicates that the evidence is weak. Where we can reduce our emissions without increasing the cost of living (which always affects the poor the most), by all means let's get rid of our SUVs if we don't need them and buy the most energy efficient fridge and air con system. But most of the advocated strategies cost money. Big money!

Add to this the fact that there are actually known benefits from the increased CO₂ levels in the atmosphere, and it makes the principle look decidedly foolish.

Benefits of increased carbon dioxide and global warming

For some, to suggest that there could be benefits from increased levels of CO₂ in the atmosphere is akin to suggesting there could be benefits from paedophilia. But let's be rational and ask the question!

Dutch horticulturalists have long known that rotting bales of straw in the glass house lead to better crops. Scientists have worked out why: It increases the level of carbon dioxide in the air. As the carbon dioxide level increases, not only does their growth increase, but they are also able to withstand drought better. It is interesting to note that there is substantial evidence that in the days of the dinosaurs the carbon dioxide level was 3000ppm, about 10 times the present level. And it seems the world survived these levels! There is also evidence that forests around the world have increased their growth rates in the past 50 years as the carbon dioxide level has increased.

Various crops have been tested for response to carbon dioxide "fertilising". While the results vary, they range from 10 to 100 percent increase in yields. If CO₂ levels were to increase to say 600ppm, most crops would yield between 10 and 20% more. That is certainly a significant benefit that should help to feed the world!

If the CO₂ were to increase the world's temperatures a little more, Northern American, European and Russian homes would need to spend much less on heating. Canadian farmers would have bumper crops. Ships could take a short cut across the arctic from the Atlantic to the Pacific Ocean. (By the way in 1896 a British Admiral reported on the fact that the ice had receded so much that it now seemed possible to make that crossing! And that was before CO₂ levels went up!) Indeed Fred Singer, a retired professor of environmental science has written a book *Unstoppable Global Warming: Every 1500 years*, which outlines the benefits of global warming.

Conclusion

The problem with the Global Warming/Climate Change debate is that it has moved from science to the realm of politics, and the political method simply does not produce good science!

It seems that with the rejection of Christianity in the western world, people are looking for another cause. As Ray Evans writes: *Environmentalism has largely superseded Christianity as the religion of the upper classes in Europe and to a lesser extent in the United States... It is a form of religious belief which fosters a sense of moral superiority in the believer, but which places no importance on telling the truth.*⁵

If a lie is repeated often enough, many people will believe it. Much of what is written about Climate Change (From the Stern report, to Evangelical Climate Change Initiative's *Climate Change: An Evangelical Call to Action*) assumes that AGW is a fact, when at best it is a very dubious hypothesis.

Given the dubious foundation of the hypothesis that the 0.6C increase in world temperatures in the last 100 years is due to CO₂ emissions produced by man, I find it immoral for Christians and others to call on governments to spend huge sums of money (and we are talking billions upon billions) to try to prevent scenarios which simplistic computer models are predicting. Imagine what a difference such sums invested in the developing world could make to the growing environmental degradation occurring there! It could provide the infra structure for clean water, sewage treatment, safe garbage disposal, recycling schemes, health care, irrigation schemes etc for the poor. And such investment would pay huge environmental dividends.

[Apart from the articles, Abetz made a few other statements]

Sea level changes and the poor

The proponents of AGW tell us that for the sake of the poor, many of whom live in low lying areas, we need to reduce our CO₂ emissions because otherwise the sea level will rise and inundate their land.

If you visit the Australian Museum website you will find an interesting item⁶ about the formation of Sydney Harbour. In summary it says: 18,000 years ago the sea level was 120m lower than today, and the coastline was 15 km further east. This, we are told, was at the height of the last Glacial Period, when sea levels were at their lowest. The present sea level, we are told has been pretty static for the past 6,000 years. That means that over 12,000 years, the sea level rose by 120 metres. That is an average of 1 metre per century! That makes the possible 15cm in the past 100 years look rather insignificant! As a scientist, I need some convincing that this minute change in sea level is caused by mans activities, given that the huge sea levels such as this were not caused by man.

⁵ *Nine Facts about Climate change* by Ray Evans, quoted in *Greenhouse sceptics to congregate*, The Age 28/02/2007

⁶ <http://www.austmus.gov.au/exhibitions/catching/sealevels.htm> accessed 4/1/2008

Carbon Neutral –Fiction or Fact?

No doubt we have all seen cars with stickers attached: This vehicle is carbon Neutral. Are such people really making a significant contribution to reducing CO₂ emissions? Most are not. Let me explain:

There are two kinds of “carbon neutral” programs. The one works on the basis of paying a company, money. The company uses the funds to buy land and plants trees. As trees grow, they absorb carbon dioxide from the air. Sounds wonderful! But the problem is that when the tree reaches maturity, it actually produces as much CO₂ as it takes out of the air. Once a tree goes into decline, it actually produces *more* CO₂ than it takes out of the air. The only way to make sure that trees actually reduce the overall CO₂ level in the air in the long term is to harvest the trees when they reach maturity, and make sure that they are not burned, and not allowed to rot. (Rotting also returns the cellulose to CO₂). A further problem which is affecting the poor in Africa is that the carbon neutral companies naturally want to buy the land for planting trees as cheaply as they can, and so they are increasingly doing this in Africa, pushing subsistence farmers off the land, adding to poverty. The only genuine Carbon Neutral companies are those who actually use the money to provide (usually third world) people with devices which allow them to produce less CO₂. One company uses its funds to provide a simple slow combustion stove to African villagers, so that they use only a fraction of the amount of wood to cook their meals to what they used to need when cooking on a little open fire. Others provide local villages with hydro electric generators, so that they can get electricity without producing CO₂ emissions. These kinds of innovations are helping to reduce CO₂ emissions and also helping the poor.

The Koyoto Protocol farce

I have come across so many (especially prior to the recent federal election) people who felt that Australia should have signed the Koyoto protocol. When I have asked them whether they were aware of how it worked, most thought it was simply about agreeing to reduce our carbon dioxide emissions. But that is only a very small part of it. Here is how it works:

Countries that ratified the Koyoto Protocol agreed to reduce their CO₂ emissions to their pre 1991 levels by 2012.

Under the terms of Koyoto, developing countries (including Africa, India, Indonesia, China) can continue to increase emissions without any penalty.

For every tonne of CO₂ that a country exceeds its target, it must pay \$25 to a country that has reduced its CO₂ by more than its target. So who are the winners? It is mainly the former Soviet satellite states whose economies crumbled with the fall of communism, and whose inefficient and polluting industry could not compete on world markets, and hence closed down. The fact is that these countries are buying their goods from elsewhere now – probably China – where the pollution per item produced is far higher than it would be in a modern western country.

Those western countries, whose economies have prospered and expanded, will not meet their targets, and so have to pay big dollars in 2012. Kevin Rudd said that Australia looks like it might exceed its target by 1%, or 6 million tonnes, so we would have to pay \$150 million to some of these Balkan or other states who have “credits”.

The problem with Kyoto is that there are no set methods for calculating a country’s CO₂ emissions. It is generally accepted that it is impossible to calculate it any more accurately than plus or minus 10%. World Bank’s calculations indicate Australia will exceed its target by 100 million tonnes, but the Greenhouse

Office in Canberra says their calculations show only 6 million. The difference in credits we have to pay is going to be either \$150 million or 2.5 billion. Who will decide?! Sounds like a lawyers' paradise!

The problem with Koyoto is that we could almost meet our target by simply not clearing any more land. And if we chose to close down our cement industry, and import all cement from Indonesia, we could pat ourselves on the back and say what exemplary world citizens we are in having met our Koyoto protocol obligations. But buying our cement from Indonesia does absolutely nothing for the world CO₂ levels!

If genuine factual evidence emerges to show that CO₂ does indeed cause an increase in world temperatures, then we should look at the consumption of goods and services by a nation, and then work out what the emissions are per capita, and then call on each nation to reduce their consumption (irrespective of where the goods are made!) to a certain per capita level.