

The Debate About Global Warming.

History of the Debate.

The scientists have been debating the issue of Global Warming for years. The first major warnings of the threat posed by global warming go back about 25 years though at that time there were only a few who recognised the problem. By the late 1980s many more had become convinced and the message was sufficiently worrying for reluctant governments to decide they should do something. They set up the IPCC (Inter-governmental Panel on Climate Change) to produce a consensus report on the science. (see The Proponents of Action below)

Since this time the climate has become an important scientific topic and a lot of scientists have become involved in research. Also over this time the vast majority of these climate experts have become convinced that global warming is real and very threatening and the IPCC reports are now seen as tending to the conservative end of the spectrum. Within the scientific community the debate has largely finished. The consensus is that we should take major actions to avert further global warming.

There remain a small number of climate scientists who are not convinced. Nothing is ever completely certain in science. Possibilities always remain that something new will turn up. About the best you can get a scientist to say is that something is "almost certain". Thus it is "almost certain" that the sun will rise tomorrow. There are always a few scientists who for reasons of contrariness, or some hunch, or because there is money in it, oppose the prevailing view and very occasionally they are right. Think how many doctors opposed the view that smoking causes lung cancer.

Despite the strong support for the prevailing scientific view, governments have been very reluctant to act - it is too difficult and they can put off difficult action for the next administration. So for 20 years, despite the scientific warnings, which have got more and more worrisome, nothing of significance has been done. Now at last governments are beginning to heed the warnings and are starting very tentatively to act.

Over this period the media and the public at large have largely ignored the problem - nobody wants to hear that kind of bad news. We are governed by a business-political elite and business is generally opposed to any kinds of regulation or restraint, further there are also lots of businesses which see action on global warming as threatening to their prosperity. (If you make patio heaters or gas-guzzling 4x4s, or run an airline, then serious actions to reduce greenhouse gas emissions WILL threaten your business.) There are also lots of influential private individuals who do not want their freedom to pollute to be constrained. These groups have a strong interest in seeing that actions are not taken. So there is a strong lobby of people who are opposed to action on global warming. This has been reflected in the media by a combination of ignoring the problem and, when it is acknowledged, giving equal prominence to the opponents of action as to the proponents.

Now that action is beginning to occur the opponents of action are becoming more vociferous. They are once more raking up the old arguments which have been resolved in the scientific community over the period.

Spin of the Opponents.

As the opponents of action emerge they are making various emotional claims, which we may fairly call spin.

The environmentalists and the proponents for major action have been making their case for years but the opposition has largely ignored this case while little or nothing was being done. Now that the message is getting through and governments are beginning to

propose actions, the opposition is howling that debate is being stifled by the claim that the time for debate is over. Why have they not been participating for the last 15 years?

They also lay claim to unfairness when people call them "deniers" claiming that it is associating them with holocaust deniers. This seems little more than a ploy to curry sympathy. For most of us "deniers" is a straight-forward English word which means "one who denies something" - in their case the urgent need for drastic action, which is precisely what they do.

They also make great play with the fact that the scientific reports do not use words like "catastrophic", "devastating" and indeed "drastic". We would point out that this is not in the nature of scientific reports. A scientific report into a plane crash does not use these words. It is left to others to interpret the human implications of such reports.

The Nature of the Debate.

Most people will not investigate the science behind the claims put forward by either the proponents or the opponents of action. Instead they will take up a position having decided whom to believe. The proponents of action claim that those who oppose action are liars and manipulators, but at the same time those opponents claim that the proponents are similarly liars and manipulators. How is the ordinary individual to know who to believe?

There appears to be two elements to making this decision.

- * One evaluates the credibility of the rival camps.
- * One sees whose story makes sense.

The Rival Groups.

The Proponents of Action.

On the one side we have the scientific consensus. The Inter-governmental Panel on Climate Change - the IPCC is a body that was set up by governments following the Earth Summit of 1988. Prior to that summit a largish group of respected environmental scientists had been putting forward the worrying view that global warming was a threat. They were sufficiently persuasive that governments had to pay some attention - so in time honoured fashion they set up a commission to investigate the problem. That commission is the IPCC; it was established by the member governments of the Earth Summit to monitor all the peer reviewed scientific research papers on climate change and to formulate an overall message from this research. It is a forum open to acknowledged expert institutions - members of the World Meteorological Organisation and United Nations Environment Programme and its reports are produced by working parties appointed from the members. In the UK our lead member institute is the Hadley Centre - the Met Office Centre for Climate Change research. Though other scientists and institutes are called on to contribute to the review process. Because it is so vital a huge amount of research into all aspects of global warming and climate change is going on. The IPCC working parties attempt to keep abreast of all this research and every so often come out with agreed reports as to what the overall conclusions of this research are. They have produced 4 major reports 1990, 1995, 2001, and 2007(coming out bit by bit). The reports are produced by consensus of the members of the various working groups. Like other consensus reports have a tendency to be conservative. Also the IPCC does suffer from governmental manipulation. (For example in 1997the Bush administration used its influence to get rid of the one of the chairman Mr Robert Watson and had him replaced by a sceptic Mr Harland Watson.)

However as more and more research results have come in the IPCC reviews have over the years become more and more definite about:- the fact of temperature rise, that the cause of the rise is mans emissions of greenhouse gases, and that the consequences will be serious.

In addition to the IPCC, 16 of the most prestigious Science Institutes in the World. Including, the Royal Society, and the Australian, Flemish, Brazilian, Canadian, Caribbean, Chinese, French, German, Indian, Indonesian, Royal Irish, Italian, Malaysian, New Zealand and Swedish Academies of Science. These bodies in an unprecedented step published a statement that said that "they did not consider the doubts about the need to mitigate the risks imposed by global climate change to be justified". Ie. that there is an urgent need for action. Similar statements were published by:- the US National Academy of Science, the American Meteorological Society, the American Geophysical Union and the American Association for the Advancement of Science.

These views are naturally supported by the huge number of independent climate scientists whose research forms the basis of the IPCC reviews.

The IPCC is also supported by large numbers of journalists and environmentalists, who have got the message.

The Opponents of Action.

Are a bit of a mixed bunch because they do not have a consistent set of reasons for their opposition. They comprise:-

A very much smaller number of climate scientists, and a mixture of scientists of other disciplines.

A large number of groups set up and supported by businesses opposed to regulation. These groups have been set up cleverly and often covertly with fine and liberal sounding names (The Advancement of Sound Science Coalition, Science and Environment Policy Project, the Center (US) for the Study of Carbon Dioxide and Global Change, the National Wetlands Commission) and an appearance of independence and a community base. The groups deal in minority research, (if you survey 100 reports on the shrinkage of glaciers spanning several years you may find 99 which report shrinkage and 1 which for some reason measures and reports an increase) which is fine though it should be acknowledged as a minority result, but they also deal in old research results that have been subsequently corrected, and in inaccuracy and downright lies These groups appear all over the internet and support one another giving the appearance of a large independent community.

Lots of journalists and commentators. This group move among the business-political elite who are generally opposed to regulation and justify their opposition by down playing the threat of global warming. Some have been taken in by the messages of the sponsored groups. Indeed the media has been split almost 50:50 (which has been part of the reason for the public's confusion on the issue) though the balance is now shifting.

Quite a lot of private individuals who find the notion that human beings are having a rapid and drastic effect on the Earth's climate incredible.

The Stories.

The Proponents of Action.

- 1) The temperature is rising significantly and has already risen by 0.8°C since the start of the industrial revolution.
- 2) The quantity of some greenhouse gases in the atmosphere has risen hugely and is continuing to go up enormously rapidly. CO_2 is 30% higher than in 1750 or at any time

in the last 600,000 years. Methane has doubled since 1750. The extra greenhouse gases are caused by mankind's actions:-our burning and use of fossil fuel and our deforestation.

- 3) The extra concentration of greenhouse gases is responsible for the temperature rise we already see.
- 4) We need urgently to stop increasing the concentration of greenhouse gases because the threatened temperature rise will have extremely serious consequences.

The story told by this group is quite consistent. The basic science of the greenhouse effect has been well understood for 200 years, can be demonstrated in the lab, and the size of the effect has been exhaustively quantified (the greenhouse effect keeps the World 30°C warmer than it would otherwise be). The only areas of debate within this group concern how serious the consequences of global warming will be and how urgent the required actions are. All say it is very serious and action is very urgent. Some scientists argue that the consequences will be very, very serious and that action is very, very urgent. Quite a large number of scientists are now warning that feedback effects may cause global warming to run away out of control and become unstoppable and that this is likely to happen imminently if we do not cut our emissions very rapidly and by a large percentage, some suggest it may already be too late.

The political claims of this group are that those who oppose action are either those who are simply contrary, or who have a vested interest in denial (paid by industrialists who do not want to be constrained) or those who simply do not want their activities or lifestyles to be constrained.

The Opponents of Action.

- 1) Point out that the Earth has at various times been warmer in the past and that at various times the CO₂ concentration has been higher.
This is true but it is largely irrelevant - there were all sorts of reasons why these things happened in the past. When the Earth formed it was molten -so what? The question is what is happening today.
- 2) Do not tell a consistent story.
- 3) Some deny that the temperature rise is part of a trend. "We have simply had a number of warm years".
- 4) Some accept that the temperature has risen, but deny that this is caused by greenhouse gases.
- 5) Some accept that it is caused by greenhouse gases but deny that the cause of their increase is mankind's actions.
- 6) They have little to say about threats of further temperature rise.

They are consistent only in saying that we should not yet do anything to constrain our output of greenhouse gases. They put forward a number of possible explanations for things that may be causing the temperature to rise (those that accept such a rise). All these suggestions have undergone extensive, though not exhaustive, researched. The IPCC conclusion of their review of this research is that the contribution of these causes are far too small to explain the observation temperature rise.

They can give no theories as to why an increase in greenhouse gases would not result in the global warming we see.

The political claims of this group are that;- the science of global warming is a conspiracy by the scientists to mislead governments, - or a conspiracy of governments to enable them to raise more taxes and to control the lives of citizens.

The TGWS Position.

In TGWS we accept that we do not "know" (100%) how bad the effects of unchecked global warming will be. We do not "know" when those consequences will become unstoppable.

On the other hand if one reads the scientific reports (and reads between the lines and the unemotional prose - even those of a sceptical group like "Sense about Science".) They contain lots of hints that very scary things are likely to happen.

The Threat posed by Global Warming is huge.

Similarly we do not "know" the timescale in which things are likely to get out of hand. But again we accept that it is probably very short. Some scientists believe that it is already too late to stop global warming running away out of control.

In TGWS on the other hand we continue to believe that it will be possible to stop the most catastrophic events, which are threatened, from occurring. If we did not believe this there would be little point in campaigning.

However we do believe that the threats are very serious and that we should be taking really drastic actions to avert them. This forms the basis of our call for really drastic actions to start immediately.

To quantify this general statement we believe that we our target should be to cut UK emissions to about:-

1.3 tonnes of CO₂ (cut of about 85%) by 2030

Version 1 23/April/07