

## The media and climate change

<i>Introduction</i>	2
<i>Are scientists responsible for the representation of the problem in the media?</i>	2
<i>What's wrong with getting your information from the mass media?</i>	2
<i>What's so good about the process of peer review?</i>	3
<i>This is a debate; shouldn't both sides be able to argue their point?</i>	3
<i>Shouldn't people be allowed to make up their own minds based on scientists debating the data?</i>	4
<i>Who is qualified to comment on climate change?</i>	4
<i>Some people say "the debate is over". Is this right?</i>	5
<i>Who is qualified to say how we should communicate climate change?</i>	5

## **Introduction**

This is a huge and controversial area but we have provided answers to some of the biggest issues and talking points. Please bear in mind that whatever the shortcomings of the media on this issue, the Environment Agency takes the view that climate change is the number one global challenge to the environment and that it is happening now. The Environment Agency also agrees with the Intergovernmental Panel on Climate Change (IPCC), which states that:

"Most of the observed increase in globally averaged temperatures since the mid-20<sup>th</sup> century is very likely due to the observed increase in anthropogenic greenhouse gas concentrations."<sup>1</sup>

## **Are scientists responsible for the representation of the problem in the media?**

Yes and no. The short answer is that while scientists do have control over the way that they present their findings and the way in which something like a press release for their latest report is written, once the story is out they only have limited control over the way it is presented.

They and we rely on those that control the mass media to present us with unbiased and accurate information so that we can come to our own conclusions. However, the media also have a significant interest in attracting viewers, listeners and readers. They are supremely good at this and it shapes the content that the media present to us and that we consume. Stories about conflict and controversy, underdogs winning against the odds, attractive people being good or bad and so on sell newspapers and other media.

By contrast, the attraction of the peer-reviewed literature to its audience is that it produces content that is credible, objective and reliable. It presents facts, not stories about facts. The peer-review process (see below for more information) allows a scientist control over content, subject to the comments of his/her peers. It also ensures scientists can present their findings and conclusions in the context within which they were drawn. The mass media may or may not allow a scientist to comment on interpretations of his/her work. Even where comment is allowed, this is in such a different form to that which a scientist may be used to that there is a risk that their message does not get across. Alternatively, others who may have less knowledge of a subject but are better at expressing themselves in a media-friendly way may drown their message out.

After the Channel 4 documentary 'The Great Global Warming Swindle', one of the scientists interviewed for the programme, Professor Carl Wunsch, wrote the following:

"Many of us [scientists] feel an obligation to talk to the media - it's part of our role as scientists, citizens and educators. The subjects are complicated, and it is easy to be misquoted or quoted out of context. My experience in the past is that these things do happen, but usually inadvertently - most reporters really do want to get it right."

"I have some experience in dealing with TV and print reporters and do understand something of the ways in which one can be misquoted, quoted out of context, or otherwise misinterpreted. Some of that is inevitable in the press of time or in discussions of complicated issues. Never before, however, have I had an experience like this one. My appearance in the "Global Warming Swindle" is deeply embarrassing, and my professional reputation has been damaged. I was duped - an uncomfortable position in which to be."<sup>2</sup>

## **What's wrong with getting your information from the mass media?**

Nothing, but as with all information, you need to decide whether you agree with what that source is telling you and, even if you agree, whether you trust the source to present an accurate and objective view of the subject. An excellent starting point is to find out which organisation or individual is funding the source in question and what their agenda might be.

---

<sup>1</sup> Solomon et. al. (2007) "Climate change 2007: The Physical Science Basis, Summary for Policymakers" [http://ipcc-wg1.ucar.edu/wg1/docs/WG1AR4\\_SPM\\_Approved\\_05Feb.pdf](http://ipcc-wg1.ucar.edu/wg1/docs/WG1AR4_SPM_Approved_05Feb.pdf)

<sup>2</sup> <http://www.realclimate.org/index.php/archives/2007/03/swindled>

The mass media are expert in providing information and comment that appeals to their audience. The only real way to be sure is to take your information from as many sources as possible and to ensure as best you can that the sources you use are presenting you with that information in a way that does not push you towards a particular point of view.

### **What's so good about the process of peer review?**

One of the reasons that the peer-reviewed literature is a more reliable source of information than the mass media is that its audience expects and receives a process of information production that has been challenged to produce objective, credible information. This does not mean that the process is fail-safe and there have been examples of research making it into the peer-reviewed literature that later provide to be fraudulent. However, the peer-review process does at least attempt to insert an element of quality control that the mass media does not.

A summary of the process of peer review is as follows:

A prospective author sends advance copies of his/her work or ideas to the editor of a journal that they believe will provide an authoritative platform for their findings. The editor in turn passes these copies on to either two or three experts in the relevant field who then return an evaluation of the work, including suggestions for improvement and clarity.

Editors rely on the referees' in-depth knowledge of various subject areas, but would normally have a good general understanding of the field in their own right. An editor would consider the referees' comments as well as their own opinion of the proposed work in the context of the particular journal before making a final decision. To aid the editor in this decision, the referees will provide a recommendation as follows:

- To unconditionally accept the proposed work;
- To accept it in the event that its authors improve it in certain ways;
- To reject it, but encourage revision and invite resubmission, or
- To reject it outright.

It is extremely unusual for a submitted article to be accepted unconditionally. Normally if a paper is going to be accepted it is under option 2, whereby referees' comments are passed back to the author(s) to address. Only when these have been answered satisfactorily, is a paper then finally accepted for publication.

### **This is a debate; shouldn't both sides be able to argue their point?**

If we agree that there is a debate (see question below) then it seems reasonable to expect that those engaged in it should not present information in a distorted or inaccurate way. The process of debate does allow for the use of persuasion to target the emotions of the audience, as well as the simple presentation of logical facts. But what we should be careful of is sources that use rhetoric without backing this up with evidence, selectively "cherry-pick" the evidence, or simply present evidence that is out of date or has previously been shown to be inaccurate.

We also need to distinguish between debates in the scientific literature and those in the mass media. If scientists disagree with an article in the peer-reviewed literature they can write in and seek to persuade others that they are correct; they may even choose to publish their own article on the subject. The original author can then respond if necessary. There is therefore a mechanism to allow debate and to air differences, with the ultimate aim of producing a consensus on the issue, until someone else challenges it and the process begins again.

This process of consensus and challenge is what drives forward scientific discovery and so it is ultimately constructive. The mass media however do not look to facilitate consensus. One of the ways that the media attract their audiences is through controversy and some sections of the media will deliberately use rhetoric not backed by evidence to provoke a reaction - to

create a story. This has nothing to do with the merits of the case for or against a particular statement and it means that both sides of the argument may not be given equal airing, which is a fundamental part of the process of debate.

The result can be that an opinion or a new piece of evidence is put forward that appears to challenge a certain viewpoint. Depending on the viewpoint being challenged, certain media that appeal to certain audiences will be more likely to report the story, or to create it in the first place. However, if it later turns out that the story is wrong, there is no guarantee that the same media will report this fact and certainly it is unlikely that they will give an apology the same coverage as an original story - just think about where apologies appear in most newspapers. The question has to be asked, "is there really a debate on climate change in the mass media?"

### **Shouldn't people be allowed to make up their own minds based on scientists debating the data?**

In a perfect world the answer to this question would be yes. Unfortunately, many of us do not have the technical knowledge nor the time to interrogate the peer-reviewed literature and come to our own independent conclusions. With climate change, as with many other areas, we rely on intermediaries to digest that information for us and produce a faithful, if simplified, summary that we can understand.

This is partly the role of the media but as noted above, it is not a role that the mass media always performs well, if at all. The main reason for this is that the media are constantly looking to engage their audiences and will therefore produce information that appeals to them. This does not always equate to a faithful summarising of the original work or of the state of knowledge in a particular field.

This is why the work of the IPCC (see our Science FAQs for more information) is so vital. The IPCC is the most authoritative source of information on climate change, reviewing the peer-reviewed literature on the subject and relying on the combined talents of thousands of scientists world-wide to produce its reports. If people want to make up their own minds then they should use the IPCC's Synthesis Reports, Summaries for Policymakers and Working Group reports as a starting point to do it. However, the IPCC has been criticised for using a peer review process that was so rigorous that research deemed controversial, not fully quantified or not yet incorporated into climate models was excluded from the most recent Fourth Assessment Report. A good example is the work that came out of the 2005 conference entitled "[Avoiding Dangerous Climate Change](#)".

The existence of debate should not be seen as an excuse to throw out wholesale all the conclusions from the IPCC's Fourth Assessment Report. This takes us back to the importance of using multiple, trusted sources. The work of the IPCC is an excellent place to start and though there are disputes and debates even here, they are not about the existence of man-made global warming, but about its likely future severity. Ultimately you need to ask yourself or others, "if you do not trust a particular source to produce an accurate and objective summary of the state of knowledge in the field, then who do you trust, and why?"

### **Who is qualified to comment on climate change?**

Or, to put it another way, "who should we believe?" If you are not familiar with the various institutions and scientists involved in the field of climate change it can be hard to distinguish experts from charlatans or simply to give an appropriate weight to the statements made by different commentators depending on their expertise.

As discussed above, the best way to approach this problem is not to trust any single source, but to build up your own picture of the issue by reading a number of different sources. One of the strengths of the IPCC is that it combines the research of a large number of different scientists to give an overall picture of the current state of knowledge. One of the weaknesses of the mass media is that articles are written by a single person who may or may not choose to give a balanced view of the current state of knowledge.

### **Some people say "the debate is over". Is this right?**

The phrase "the debate is over" has been heard more and more with reference to the science of climate change. It is not a concept that a scientist would agree with. It is instead a reaction by some decision-makers to the perceived inability to move the public debate beyond whether there is a problem towards what to do about the problem. This is quite a risky move because it allows accusations of censorship and certainly there are some scientists who are uncomfortable with it.

However, the function of science is to examine, to theorise, to debate and to question in order to produce new knowledge. The purpose of decision-makers is to use that knowledge to drive action. Whilst it is important that scientists debate theories and propose new ideas, at some point decision-makers can no longer sit on the fence; they either act or they do not. This is a particularly difficult problem when it comes to climate change for two reasons. First, because there are uncertainties in the science, but the consequences of not acting are so disastrous that we have to act while the science is still taking shape. Second, because inaction is even more likely when the consequences of actions are not felt immediately, as is the case for climate change. The time lag in the climate system means that we are already committed to some degree of climate change right up to the 2050s because of past and near future emissions of greenhouse gases.

Clearly there will be debate over when the time to act has come. Some commentators insist we are already too late, others that we do not need to act at all, however the British Government's view is that "climate change is probably the greatest long-term challenge facing the human race.... We can, however, avert the worst global scenarios if the world acts decisively, but there can be no delay. The longer we put off action, the more dramatic and costlier the changes we will have to make."<sup>3</sup>

It is ironic that the political recognition of climate change that scientists and others have been calling for for so long has brought its own set of problems that seem to undermine the public's belief in man-made climate change and the need to act to prevent it. It is undoubtedly a good thing that more decision-makers are taking the problem seriously, but this has its downside in the fact that people are suspicious of politicians and their motives. This has led to claims that politicians are using climate change as an excuse to raise taxes and increase state interference in the lives of citizens.

Whilst it is valid to debate the solutions put forward to combat climate change, it is not a logical extension of that debate to question whether man-made climate change is occurring because you do not agree with the proposed solutions to the problem. Decision-makers may be experiencing difficulties in justifying some climate change policies, partly as a result of a lack of public trust, but this is a wider problem with the political system not with the evidence for man-made global warming.

### **Who is qualified to say how we should communicate climate change?**

Hopefully by now the difficulties in communicating climate change will have become apparent. There are a number of communications consultancies and thinktanks who have examined the problem and we can see their influence in the way in which some decision-makers choose to talk about climate change. This is a large area of research but it is worth looking at 'the debate is over' as an example.

This is a communication method advocated by a consultancy called Futerra and it is based on the assertion that continuing to treat the causes of climate change as a balanced public debate is counter-productive. The reason for this is that, as the IPCC makes clear, "most of the observed increase in globally averaged temperatures since the mid-20<sup>th</sup> century is very

---

<sup>3</sup> Defra (2006) Climate Change The UK Programme 2006, <http://www.defra.gov.uk/ENVIRONMENT/climatechange/uk/ukccp/pdf/ukccp06-all.pdf>

likely due to the observed increase in anthropogenic greenhouse gas concentrations."<sup>4</sup> Based on this authoritative assessment, Futerra have decided that the point has been reached at which we should move from debating the existence of man-made climate change to debating the solutions. It is very difficult to do that when commentators continue to refute the balance of evidence from the scientific community and use rhetoric, "cherry-picking" and misrepresentation of that evidence to continue the "debate".

As discussed above, using such tactics means we should question whether this is a debate in the proper sense at all. However it seems that Futerra may have under-estimated the extent to which doubt over the causes of climate change still exists in the public's mind. There is a danger that people will view 'the debate is over' as high-handed censorship, despite the logic behind it, which is why this FAQs document has been produced.

Just as with the science, there are a range of commentators on the communication of climate change. Different commentators have different levels of expertise, agendas, and access to the media and decision-makers to spread their messages. Eventually it comes down to what works and the findings of research into communicating climate change are there to provide ideas and evidence for different approaches. Four of the better research documents on communicating climate change can be found through the links below; there are many others:

- "Warm Words: How are we telling the climate story and can we tell it better?" (The Institute for Public Policy Research);
- "The Rules of the Game: Evidence base for the Climate change Communications Strategy" (Futerra);
- "New Rules: New Game" (Futerra), and
- "Is this climate porn? How does climate change communication affect our perceptions and behaviour?" (Tyndall Centre for Climate Change Research)

---

<sup>4</sup> Solomon et. al. (2007) "Climate change 2007: The Physical Science Basis, Summary for Policymakers" [http://ipcc-wg1.ucar.edu/wg1/docs/WG1AR4\\_SPM\\_Approved\\_05Feb.pdf](http://ipcc-wg1.ucar.edu/wg1/docs/WG1AR4_SPM_Approved_05Feb.pdf)