

Science must end climate confusion



VIEWPOINT
Richard Betts

Climate scientists need to take more responsibility about how their work is presented to the public, suggests the Met Office's Richard Betts. In this week's Green Room, he says it is vital to prevent climate science being misunderstood or misused.

Recently, I gave a talk on climate change in my local village hall in Devon, and not surprisingly I was given a hard time.

In fact, it started two days before that. Cut off from work by the snow (which, incidentally, had been forecast with almost pinpoint accuracy), I was out with the kids and being teased by the other dads.

"Where's all this global warming you're always on about, ha ha!"

The usual stuff, leading to the usual somewhat nerdy discussion on the difference between weather and climate, which was then cut short when one of the children crashed their sledge and asked if we had got that on video to send to a TV show such as You've Been Framed.

Of course, we are seeing the same comments in some parts of the press and on Twitter, from those who jump on any bit of cold weather to say it proves that global warming is not happening and we're all a bunch of idiots (or worse).

No matter how many times we say that "global warming" means a rise of average temperature across the world, decade by decade, and not every year being consistently warmer than the last in every place on Earth, there are still those that get this mixed up.

Warming world



“ Individual weather events, from heatwaves to big freezes, cannot be used either to prove or disprove climate change ”

Yes, we have had the coldest December in the UK for 14 years and now we are having a big freeze in early January; but the UK covers less than half of one thousandth of the Earth's surface.

Last year was actually the fifth warmest year on record as far as global temperatures were concerned.

The four warmest years were, in ascending order, 2002, 2003, 2005 and 1998. The last decade was the warmest on record, followed by the 1990s and then the 1980s, so the world is definitely warming up.

To be fair, people often make the same mistake but in the other direction, and link every heatwave, major flood, drought and famine to global warming.

Of course, we know that these things happen anyway, even without climate change - they may happen more often under a warmer climate, but it is wrong to blame climate change for every single event.

Climate scientists know this, but still there are people outside of climate science who will claim or imply such things if it helps make the news or generate support for their political or business agenda.

Mixed messages

Climate "sceptics" accuse climate scientists of exaggerating the evidence for human-caused climate change in order to secure their own funding; but actually I think that any vested interests in talking up the problem lie elsewhere.

The focus on climate change is now so huge that everybody seems to need to have some link to climate change if they are to attract attention and funding.

Hence the increasing tendency to link everything to climate change - whether scientifically proven or not.

The question is: do climate scientists do enough to counter this? Or are we guilty of turning a blind eye to these things because we think they are on "our side" against the climate sceptics?

It's easy to blame the media and I don't intend to make generalisations here, but I have quite literally had journalists phone me up during an unusually warm spell of weather and ask "is this a result of global warming?"

When I say "no, not really, it is just weather", they've thanked me very much and then phoned somebody else, and kept trying until they got someone to say yes it was.

Talking up of the problem then gives easy ammunition to those who wish to discredit the



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Individual natural disasters are not evidence of climate change

science.

They do not care whether the wrong information came from the scientists or from a second-hand source, they just say (quite rightly) that it's wrong and therefore why should they trust other parts of the science?

Climate scientists need to take more responsibility for the communication of their work to avoid this kind of thing.

Even if scientists themselves are not blaming everything on climate change, it still reflects badly on us if others do this.

We cannot simply say it is everyone else's fault; we need to be very clear about what can be used as evidence for or against climate change.

Long-term, large-scale trends and the overall statistics of extreme weather events can and should be part of this evidence base. Individual weather events, from heatwaves to big freezes, cannot be used either to prove or disprove climate change.

If we do not help the media, NGOs and the public to understand this, we have done nothing to stop them getting it wrong.

If our science is misunderstood and misused, and then turned against us, it really will be a case of We've Been Framed.

Dr Richard Betts is head of climate impacts at the Met Office Hadley Centre

The Green Room is a series of opinion articles on environmental topics running weekly on the BBC News website