

Submission by the International Broadcasting Trust to the BBC Trust's Science Impartiality review

Summary

Covering science in general and climate change in particular, in an impartial way, presents major challenges. There are signs that various factors, including newspaper coverage of 'Climategate', pressure from the blogosphere and a shifting mood amongst a significant minority of the public (an increase of around 10% in the number who don't believe humans are responsible or don't believe that climate change is happening over 12 months), as well as a sense of boredom with the topic within the media, has influenced editorial and journalistic framings of the issue over the last six months.

In this paper we look in detail at the way in which climate change has been reported across the BBC and we make a series of practical proposals which we believe could not only enhance the BBC's coverage but offer new opportunities for innovation. We have eight specific recommendations:

1. Journalists and programme makers should resist 'debate' framings - putting up opposing 'pro' and 'sceptic' climate change science opinion - that carry with them the implication of a balanced debate between equally informed players.
2. The BBC should recognise that the most appropriate way to represent climate change science is to work harder to communicate that science is a process not a result.
3. Broadcasters should support their work by fully referencing academic sources where they make claims about climate science.
4. Programme makers should be more self-critical about their tendency to seek to 'ventriloquize' public feeling, including feelings of scepticism, and to work harder to represent the best available knowledge rather than ill informed opinion.
5. There is an urgent need to improve the quality of debate on the political, ethical and cultural dimensions of climate change and how to prepare to adapt to and mitigate the threat of climate change. The BBC should invest in identifying and encouraging new voices within this broad field.
6. Storytelling about climate change needs to acknowledge the uneven geography and time scales of impacts of climate change adaptation and mitigation.
7. Staff should be encouraged and supported to create time for direct contact with specialists outside the context of programme making, and time for research and reflection within production to support the

development of more 'process' rather than 'result' based accounts of science and technology.

8. The research and policy communities surrounding climate change need to invest more effort in understanding media decision-making, their own role within media framing of issues such as climate change and reflect hard on what they can do to promote more effective accounts of their findings.

Introduction

The review is timely, given BBC Vision's focused investment in 2010's 'Year of Science', in particular the profile it has given science via prominent slots on the most popular TV channels. It also allows an assessment of the challenges facing broadcasters around a specific and high profile science topic - climate change – that has received little attention outside News in this year of programming.

This submission by the International Broadcasting Trust focuses largely on questions of broadcaster impartiality related to climate change science, but inevitably must consider the media's role and responsibilities with regard to wider science-policy-politics relations. The huge significance of the topic would be justification alone for this focus within the submission. However, we believe that lessons learnt from an analysis of the relationship between climate change science, policy and politics, and of media representation of these, are of significance for other areas of science and technology coverage. Indeed, they point to wider changes in relations between the media, the public and complex long term issues that are of critical importance for democratic societies, and for international relations, and will remain so for decades to come.

Following the lead of the brief for the Impartiality Review this paper does not seek to review or analyse individual outputs or BBC performance as a whole. However, where relevant it does make reference to outputs from across the networks over the last five years in order to illustrate arguments about the distinctive challenges faced by media producers when working with this demanding topic. We include a body of simple and practical proposals that can help to address these challenges.

We take as our compass the Trust's own ambition to ask whether the BBC 'presents a partial view of the nature of science and the role science plays within society'. We also note one of the important conclusions of the previous

BBC Trust document on impartiality: 'Impartiality is about breadth of view, and can be breached by omission' (BBC Trust 2007).

Many would approach this topic and these quotes by assuming that questions of impartiality around the science should be driven by an assessment of the degree to which positions contrary to the mainstream have been appropriately covered. Certainly there are numerous online comments on blogs and complaints to the BBC that charge the institution with bias. For example one online commentator, responding to Richard Black's Earth Watch blog entry of 21 July 2010, argues that:

'Like most of the BBC articles surrounding climate change, this one is one sided and takes the position that the heroes are the scientists that believe global warming is completely man made. Not surprising for the BBC. Liberal journalism' (Andrew, 2010).

There are signs that various factors, including newspaper coverage of what was termed 'Climategate', pressure from the perhaps overexposed blogosphere and a shifting mood amongst a significant minority of the public (around 10%), as well as a sense of boredom with the topic within the media, has influenced editorial and journalistic framings of the issue over the last six months. While we want to recognize the consistent high quality of BBC news and factual coverage in terms of both depth and pace, we argue in this submission that there is the threat of very different 'biases by omission' in broadcast media coverage to those implied by 'Andrew'.

Return to 'climate debates' = two steps backwards

Jeremy Vine introduced a *Panorama* film with the following words:

'Does anyone believe the claims any more?.. A freezing winter, and allegations that the scientists have misled us have set the experts at loggerheads.'

The iPlayer summary suggests that: '(i)ncreasing numbers of us simply don't believe in global warming. Tom Heap speaks to some of the world's leading scientists on both sides of the argument.' Reporter Tom Heap found in the course of the programme that: 'When the two sides leave their bunkers there seems plenty to unite them'.

This framing represents a return to implying a two-sided discourse, as if viewers would be offered an even-handed account and then invited to make

up their own minds. The commissioners, producers and marketers of the *Panorama* clearly felt that media mood, blogosphere activity and active critical comment justified the tone that was taken in the introduction and summary materials. Such framings were common in broadcast news until the late 1990s when BBC journalists and editors gradually started to reflect the fact that the vast majority of scientists with authoritative knowledge in climate-relevant disciplines were convinced both of climate change and of the human causes of it.

The programme sought to give a range of commentators a chance to position themselves on a body of central questions. It also worked to splice in a sense of widely distributed public opinion through vox pops and a playful 'wall of certainty' device knowingly borrowed from *Top Gear*. Viewers of the whole programme are likely to have been left with a sense that the great majority of informed opinion believes that climate change is a problem and that it is human caused. Such a conclusion is justified by the enormous international research effort that has resulted in the four IPCC Assessment Reports. In the case of this programme the debate framing appears to be a carefully deployed editorial device intended to 'invite in' a body of the public who appear to feel alienated from and mistrustful towards the scientific and policy communities that are arguing for action on climate change. In effect the programme served as a restatement of the well-established scientific consensus, and demonstrated that one of the most prominent 'sceptics', Bjorn Lomborg, whose international prominence, book sales and marketability as a speaker has leant heavily on that reputation, is in fact in agreement with *almost all* of the key arguments contained in the IPCC reports.

However, this return to a 'debate' framing is a retrograde step in terms of appropriate representation of the science, and even packaging and marketing a programme in this way may help to further delay comprehensive debate of actions to mitigate and adapt to climate change. Perhaps more serious is that this framing is returning to inform editorial and journalistic decision-making within programming that has less specialist support and preparation time. It seems that editors and programme makers are looking for ways to return to a balancing of sceptical voices with those of the 'IPCC consensus' (itself a problematic shorthand). This backwards step serves to distort public understanding of the state of the science and the planet.

We recommend that journalists and programme makers resist 'debate' framings - putting up opposing 'pro' and 'sceptic' climate change science opinion - that carry with them the implication of a balanced debate between informed players. We argue that such debate framings of climate change science misrepresent a large and well established body of research, even

where the framing is used as a 'packaging device'. This is not to say that 'climate contrarian/denier/sceptic'¹ voices should not enjoy broadcast space - on the contrary. The BBC's environment specialists have taken time to represent the range of opinion on the topic. But their non-specialist colleagues should draw from the care with which they clearly position climate contrarians in terms of the nature of their authority on climate science and the relative strength of their point of view within the scientific community. Their relative frequency of appearance should not reflect journalistic taste for conflict, event and personality in storytelling but rather the balance of opinion within the scientific community.

At the same time we would argue that consideration of how to prepare to adapt to and mitigate the threat of climate change is crying out for quality debate, and not enough has been done within the research and policy community, or within the media, to develop a diverse body of people who can populate those debates in the media. Hence we also argue for a purposeful expansion of both the programming and the cast list on the political, ethical and cultural dimensions of climate change. In the run up to COP15 (the 2009 United Nations Climate Change Conference, commonly known as the Copenhagen Summit), was a sense that the real nature and scope of these difficult questions was not fully explored, and there was forced consensus around the value of a specific deal between nation states. The mainstream political consensus around climate change has enjoyed relatively light scrutiny from the media, with the near term implications of long-term commitments (e.g. of the cross-party support for the Climate Change Act), underexplored. Editors and commissioners should make space for specialists and teams to explore these questions fully.

Confected climate science conflicts: 'balance as bias'

There have been many other instances in advance of the *Panorama* over the last six and more months where broadcasters have sought to convene a 'climate change debate' despite the distortions such a framing creates in the public mind.

¹ It is difficult to identify an appropriate collective noun: some deny a well established body of science, but it has been suggested that the 'denier' term appears to be a rhetorical device that seeks guilt by association with holocaust denial. This is a shrill and inappropriate move. At the same time 'sceptic' is problematic as scepticism is a quality pursued in all good scientific and journalistic practice. 'Contrarian' is the term applied in this paper as it suggests a conscious decision to take a position contrary to the mainstream of opinion.

News and factual media pursue conflict, event and personality. The 'grammar of television' amounts to unwritten but widely accepted rules regarding what constitutes a story. Increasing media diversification, resulting in intensifying competition for remaining broadcast market share, has sharpened the appetite amongst commissioners and channel controllers for material that meets their notions of audience expectations. These features of the contemporary media have only sharpened the truism that 'the worst crime of a reporter or programme maker is to be boring'.

Climate change is not just difficult and complex, with long-term consequences and deep-seated uncertainties, it has also become an orthodoxy. This was the main justification given by Ofcom when it concluded that Channel 4's 2007 documentary *Great Global Warming Swindle* had not breached Rule 2.2 of the Broadcasting Code (Ofcom 2008). Science and environment journalists and programme makers are faced with dual challenges: not only do they have to do justice to nuances in the science. They also have to attract the support of editors/commissioners and then the attention of the audience to a story that, despite its importance and dynamism, feels like it has been told many times before.

The vast majority of people working in the media have little or no experience of contemporary science practice, and only a small proportion are science/technology graduates. It is easy to understand how the combination of a complex subject, and a return to references to a 'climate debate' allows producers and presenters to think in terms of 'balancing' what they define as 'pro and anti climate changers'. With this move they fulfil a sense of obligation to 'balance' but also to creating what seem engaging broadcasts.

This tendency within journalism to exaggerate the sense that informed scientific opinion is still split has been summarised as 'balance as bias'. It has long been a significant problem within the North American context. Boykoff and Boykoff's 2004 study of the US quality press found that '(i)n the end, adherence to the norm of balanced reporting leads to informationally biased coverage of global warming. This bias, hidden behind the veil of journalistic balance, creates both discursive and real political space for the US government to shirk responsibility and delay action regarding global warming' (2004, 134).

A more recent US study has found that the majority (90%) of the source materials supporting denier/sceptic/contrarian positions are associated with conservative think tanks (Jacques et al 2008). Their study concluded that 'the notion that environmental sceptics are unbiased analysts exposing the myths and scare tactics employed by those they label as practitioners of 'junk

science' lacks credibility. Similarly, the self-portrayal of sceptics as marginalised 'Davids' battling the powerful 'Goliath' of environmentalists and environmental scientists is a charade, as sceptics are supported by politically powerful (bodies) funded by wealthy foundations and corporations' (364).

However, this account fails to acknowledge the commitment of unpaid bloggers to sustained critiques of climate science. The blogosphere has created a new arena for communication and for scientific/political discourse, and it has been an important nursery and vector for climate contrarian claims-making whether supported by evidence or not. As sociologist of science Richard Holliman puts it: '(t)he blogosphere provides almost unlimited capacity to communicate where disagreement, controversy and conspiracy theories abound' (17) (2011 forthcoming). In the UK context examples include E-newsletters and blogs such as Benny Peiser's CCNet newsletter, a long-running digest of climate contrarian news. Media and environment analyst Alex Lockwood suggests, borrowing a term from computer science, that 'climate disinformation online is a form of cultural and political malware every bit as threatening to our new media freedoms, used not to foster a forum for open politics but to create... a "multiplicity of fragmented publics" that harms not only our democracy, but our planet.' (Lockwood 2008). This 'malware' has infected mainstream journalism at a time when suspicions aroused by 'Climategate', and boredom with over-hyping of the COP15 climate conference, made it prone.

Climate contrarian material generated in the blogosphere is further promoted through 'sceptic' figureheads including Lord Lawson and Viscount Monckton who have enjoyed substantial media attention over the last 18 months. Journalists and programme makers rarely have the time or knowledge to investigate some of the scientific claims made by these parties, and the climate science community has tended to avoid direct engagement and rebuttal. These individuals are attractive to news journalism: their self-identity is one of plucky independent mindedness. The complexities and uncertainties that are inherent within climate science permit attention-seeking contrarians to play provocative rhetorical games.

It is instructive however that it took a disgruntled US scientist, John Abraham, rather than a journalist, to expose deliberate and multiple misrepresentations of climate science. In the wake of attending a lecture by Viscount Monckton of plausibly and engagingly presented arguments that charged climate change scientists with lying he decided to track back through all of Monckton's references and contact the original authors upon whose work he had based his arguments. He found a litany of misrepresentations and has posted these in an audio and slide presentation online. He explains his motivation thus: 'It's

really difficult for an audience to discriminate science facts especially when they're given in a very rabid manner without citation' (Abraham, slide 125, 2010). Despite a significant public attack including threats of libel Professor Abraham's analysis stands firm.

Broadcasters should establish the authority of sources in relation to the topic under discussion, and show evidence of having researched their claims. Hence our second recommendation is that broadcasters must show their working by fully referencing academic sources where they make claims about climate science, and by clearly indicating the nature and limits of the authority of a particular source on climate change science. This is particularly important where public service broadcasters give space to climate contrarian claims on the science that have not been peer reviewed. They must demand of it the same rigour that climate science which feeds into the IPCC has been subjected to. There is now little reason why online science reporting, and websites linking to broadcasts, cannot include html links to original scientific papers and to publication track-records of their sources and interview subjects. This one simple move would represent an enormous advance in science reporting generally. The main implied cost is a modest increase in researcher/producer/journalist time spent in 'footnoting' a story with online links. This could be achieved via stronger links with research bodies who might support science researcher internships for individuals trained in the highest standards of transparent academic referencing (and in signalling uncertainties).

Public opinion: editors hold a distorting mirror

The return to the 'balance' framing of climate change appears to be a direct response to events that have become summarised as 'Climategate' (shortly followed by 'Himalayagate' and the short-lived 'Amazongate'). There is some evidence that reporters and editors are reacting to a sense that they may have been 'spun' by environmentalists on climate change. But it is just as likely that this shift is a response to a changing perceptions of the issue and authority figures. Polling suggests that attitudes have shifted amongst a significant minority of the public, with an increase of around 10% in the proportion of the US and UK populations that are sceptical of climate change over the last couple of years (see Leiserowitz 2010 for US figures and Spence et al 2010 for UK figures). Editors and programme makers have sought to allow this body of the population to hear their views represented. While there are many areas of political or ethical debate where such balancing is desirable, we argue that in the case of reporting of scientific knowledge where there is a high degree of

consensus amongst legitimate authorities, this leads to perverse outcomes and serves to mislead the public.

Nearly two years prior to these events, in a blog post responding to criticism of the science history documentary series *Climate Wars* (first broadcast: BBC One September 2008), producer Jonathan Renouf set out the context in which he made the programme:

Today, the overwhelming majority of climate scientists would, I think, agree with three propositions. First, the climate is in a warming trend. Second, that most of this warming trend is down to human emissions of greenhouse gases. And third, that if emissions continue to rise then the result will be continued warming which will become damaging to human society. It's also true to say that – here in Britain – all the main political parties accept that global warming is real, and that it's a threat to society. In America, both candidates for the presidency take the same view. Most major corporations are also in the same camp. (Renouf 2008)

Within climate science and politics little has changed in the two years since, indeed international political commitment has consolidated and climate science, in the context of intense media and public scrutiny, continues to accrue further evidence supporting the proposition that humans are responsible for climate change (see, for example, Joint Science Academies May 2009; Netherlands Environmental Assessment Agency 2010)².

A joint open letter to the journal *Science* by over 250 members of the US National Academy of Science responded to the media controversy over 'Climategate' with the following statement:

(T)here is compelling, comprehensive, and consistent objective evidence that humans are changing the climate in ways that threaten our societies and the ecosystems on which we depend.

Many recent assaults on climate science and, more disturbingly, on climate scientists by climate change deniers, are typically driven by

² This review for the Dutch government was commissioned in the context of both 'Climategate' and an error concerning regional impacts on the Netherlands within the IPCC 4AR. This review of the science of regional impacts in the IPCC 4AR found, looking at 32 different regions, that the summaries are "well founded and none were found to contain any significant errors". The Dutch review also found that "(t)he Working Group II contribution to the Fourth Assessment Report shows ample observational evidence of regional climate-change impacts, which have been projected to pose substantial risks to most parts of the world, under increasing temperatures."

special interests or dogma, not by an honest effort to provide an alternative theory that credibly satisfies the evidence... Society has two choices: we can ignore the science and hide our heads in the sand and hope we are lucky, or we can act in the public interest to reduce the threat of global climate change quickly and substantively. The good news is that smart and effective actions are possible. But delay must not be an option. (Gleick et al, 2010, 690)

This is just one of many statements of uncharacteristic – for the science community – forthrightness. Programme makers must inevitably constrain complex scientific issues like climate change, and their political and ethical consequences, within the very limited spaces available to broadcasters. This, combined with efforts to allow audiences to ‘hear themselves’ within programming, can result in perverse outcomes in terms of public understanding. Even carefully researched and made programmes can falsely generate a sense of conflict around the science, or shade over some of the ‘inconvenient truths’ raised by it. We propose that programme makers should be more self-critical about their tendency to seek to ‘ventriloquize’ public feeling, including feelings of scepticism, and to work harder to represent the best available knowledge. The nurturing of ‘citizen science’ or welcoming of participation and debate via web 2.0 is possible in parallel with authoritative reporting on the state of peer-reviewed science. But there are substantial hazards in conflating the two. Public service broadcasters should have the confidence to explain their commitment to communicating the best available scientific knowledge and be wary of influence by shifts in public opinion or wider media commentary.

Climate science isn't finished – it is unfinishable

Newspaper coverage of the UEA stolen emails gave much more attention to the initial ‘revelations’ than to the more mundane findings of three separate independent inquiries that found the scientific work of the researchers in question to be beyond reproach. In the period since ‘Climategate’ blew up, a series of publications, investigations and reports have confirmed that the UEA scientists at the eye of that storm were acting in good faith (even if they and their institution had not fully absorbed the high expectations of openness generated by the blogosphere, and failed to respond adequately to FOI requests) (House of Commons Science and Technology Committee 2010; Oxburgh 2010; Russell, 2010).

However, statements concerning scientific consensus about the idea that the climate is changing and that humans are almost certainly responsible have

been over-interpreted by some in politics and the media. There has been a tendency to summarise climate science as 'the IPCC consensus' as if it were a centralised arbiter of the science, and that the science community speaks with one voice about a conclusive scientific fact. In the confined media spaces of broadcast and online news there is a tendency to lose the sense of the IPCC as a long-term review process reliant on a broad and diverse science base where significant uncertainties remain in many branches of the science. A wide range of academic disciplines contribute to and interact within the loosely bounded 'climate science community'. This community has evolved with the establishment of the IPCC. The IPCC itself actually amounts only to a small secretariat that works to service the gathering together, reviewing and summary of the most relevant peer-reviewed science. It is better understood as a process rather than an institution. It exists to service policymakers with the best available summary of interactions between human activity, the atmosphere, geosphere and biosphere (Weart 2008).

The main contours of argument produced by this ambitious review process have changed little over twenty years, although the boundaries of uncertainty have narrowed. Substantial investment in research has permitted much greater confidence in key areas, ranging from field observations from ecological and earth sciences through to the increased sophistication of computer modelling . With the translations by environmental NGOs and green commentators stripped away the main conclusions of the IPCC can seem distant and abstract. Nevertheless, any reading of the key conclusions of Fourth Assessment Report leaves, despite its stiff and formal style, a reader in no doubt about the stakes for humanity:

Unmitigated climate change would, in the long term, be likely to exceed the capacity of natural, managed and human systems to adapt. (IPCC WGII, 2007)

There are a number of elements of climate change as an issue that present enormous challenges to media producers, and this has resulted in uneven, ill considered and occasionally misleading representation of an intellectual problem whose significance is almost universally thought among the climate science community to lie somewhere between important and perilous.

There are opportunities, however, to use a new kind of reporting of climate change science to spearhead a fresh approach to the reporting of science as a whole. We recommend that the most appropriate way to represent climate change science is to work harder to communicate that science is a process not a result. Media talent should be applied to the challenge of communicating researchers' intellectual journeys – and summarise research

as a diverse body of ambitious and unfolding intellectual projects rather than finished objects or standalone 'facts' to be debated with climate contrarians. This would help to build trust amongst the science community, making them more willing to open up the process of their research, and in so doing expand the available cast list. This shift in emphasis can also serve to engage a wider public in the nature of scientists' work as much as its results. It will also generate a more fruitful environment for the development of citizen science and participatory online debate. This move to tell science as process rather than result makes it easier to invite people into understanding and debate of the blurred boundaries between science and policy/politics in certain key areas including climate change. We believe that this shift would be profoundly valuable in all broadcast work around science and technology stories. It is important to recognise however that it demands commitment to new approaches to editing, conduct of interviews, scripting and presenting.

While this paper speaks directly to media decision-making and governance it is worth noting that the expectations should not be one way. Criticism can be laid at the door of science and policy communities that may have sought short-cuts to public engagement by responding to the tight spaces of media production with phrases such as 'the science is finished'. The research and policy communities surrounding climate change need to invest more effort in understanding media decision-making, their own role within media framing of issues such as climate change and reflect hard on what they can do to promote more effective accounts of their findings.

Petersen et al's research into science-media interactions in relation to coverage of nanotechnologies concluded that: 'scientists need to cultivate a greater awareness of the underlying factors influencing the framing of news stories... To suggest that the "facts" should be allowed to speak for themselves is to present a limited grasp of science mediation.' (Petersen et al 2009, 526). The benefits of a new approach to climate change communications could be felt across science communications and engagement.

Investments in development of more 'process' rather than 'result' based accounts of science and technology should include measures that encourage and support staff to create time for direct contact with specialists outside the instrumental context of programme making, and time for research and reflection within production. There are existing examples of 'off-screen' interactions between science bodies and media professionals at all levels, from researchers to commissioners and channel controllers. Successful illustrations include the Real World seminars that IBT is a partner in, and the "buddying" scheme set up between the BBC and science institutions in the

wake of the 2009 Real World seminar. The Science Media Centre has sought to create bridges between these cultures with events and publications, and the BBC should consider running more in-house activities that borrow from these formats. The Real World seminars and buddying schemes have tended to focus on senior postholders. Opportunities should be sought to support parallel opportunities for younger media professionals and researchers, particularly given the role that the BBC play in supporting the early stages of careers of people that go on to work elsewhere in the media and communications.

'It is absolutely not the BBC's job to save the planet': Climate change politics and ethics

This review concerns impartiality in science reporting. However, it is important to be transparent and self-aware about those areas of science and technology where the ethical/political and scientific boundaries are blurred, or where the former have been confused with or represented as the latter.

At a debate at Edinburgh Television Festival a then-BBC editor, Peter Barron was one of two senior executives cautioning against any public service broadcaster taking a campaigning line on climate change (*Guardian* 5th September 2007). The impartiality and reputation for robust scrutiny of BBC journalism is widely recognized as one of its greatest assets. However, this intervention was in fact generated in response to a proposed *Planet Relief* BBC project that came out of BBC Vision which sought to spread factual information about reducing environmental impacts within the household through comedy and entertainment formats and talent. The *Planet Relief* proposal was to apply comedy and entertainment to the task of drawing people into thinking about climate change in a fresh way, exploring some of the ambiguities of modern life and also informing people about simple measures that people could take in their own homes to increase energy efficiency. That senior News editors anticipated that such material would have had a 'campaigning' edge reveals the degree of nervousness around the topic. It raises interesting and difficult issues about how media decision-makers struggle to acknowledge that many science-technology issues are not confined to a domain of 'neutral'/factual science or technology reporting.

In fact, they spill out across political, cultural and ethical domains. Mike Hulme, a climate scientist of twenty years standing, reflected on his own and the topic's evolution across twenty years in his *Why We Disagree About Climate Change* (2009). A central conclusion is that climate change is a cultural as much as a scientific issue – it can serve as a vessel for a range of responses

to contemporary life. Others analyzing the relations between science, politics, democracy and the media confirm the need for the latter to acknowledge that their outputs are playing with far messier issues than has in the past been acknowledged (see, for example Hajer 1997 or Jasanoff 2007).

The Edinburgh festival debate is only one brief illustration of how the BBC and other media outlets have sought to walk the border between the scientific and political/ethical/cultural dimensions of the topic. It is vital that a public service broadcaster inhabits impartial and editorially neutral terrain where they communicate the state of knowledge or summarize the state of debates. We have noted above a number of ways in which the institution can further improve its climate change science coverage. It is a mistake, however, to imagine that the boundaries are clear between science, policy and political/ethical/cultural questions, particularly for a public service broadcaster with perhaps the broadest body of platforms, programming and audience demographics in the world.

The difficulty in finding an appropriate tone at the points where science and policy issues meet broad ethical and political questions was neatly summarized by the tensions in the programming around *Live Earth*, for which the BBC was a broadcast partner in the context of its significance as a major global cultural event. The desire for BBC News to ensure that there was some critical and probing edge in the factual inserts, and the desire for BBC entertainment producers to generate a satisfying experience for viewers on popular channels on a Saturday neatly summarized the difficulties. Although an extreme example, this was demonstrated in the spectacular tonal leaps between Gavin Davies hosting carefully designed and conducted discussions of policy points in short inserts and Madonna's stage show.

The early steps in covering a complex issue in news ways will provide important learning, and we argue that experimentation is essential. Commissioners and programme makers must be made to feel confident to work with those aspects of the topic that flow from the science but belong to politics, ethics and everyday decisions. *Live Earth* represents an awkward attempt at this, in part driven by constraints imposed by external partners and also by the distinct (and in terms of the topic, perhaps inappropriate) nature of the event.

Nevertheless, *Live Earth* did represent an imaginative attempt to find ways of expressing the way that climate change requires that people, places and things distant in space or time are threatened by actions in the present. This is one of those areas where climate change subtly charges media producers and editors with a degree of editorial responsibility either by presence or absence.

By dint of the fact that climate change impacts threaten uncertain harms to people and places in the present and future, both near and far, the ethics of climate change inevitably binds the media into consideration of human rights. Explicit editorial guidelines around ethnicity, gender and disability and more implicit editorial assumptions around democracy and the rule of law run through BBC media production. Should the BBC purposefully avoid debate of the implications of climate change, and simply stick to the safer terrain of summarizing the science? The scientist who investigated Viscount Monckton's abuse of climate science came to his own conclusion about how his scientific knowledge left him with a sense of responsibility:

'We have some tough decisions to make and we can only make good decisions if we really know the science and that is *my* agenda. I also think we have more important things to argue about. The more we argue about whether or not climate change is happening the longer we delay the tough decisions we have to make to mitigate it.' (Abraham, slide 126, 2010)

Extending a point made above about extending the cast list, it is important that programme makers and the research and policy communities work to develop the willingness and skills of a diverse body of people who can contribute to debate of the political, economic and ethical dimensions of the issue. Too often media producers have either turned to their contacts book of media friendly climate change scientists, NGOs and a small stable of climate contrarians. The quality of public debate would be greatly enhanced by an investment in identifying and encouraging new voices within this broad field. These voices might come from social sciences, including economics, philosophy and history researchers; business and social entrepreneurs; political and policy talent from across the spectrum. Broadcasting about climate change has been partial in the sense that it has drawn on too narrow a cast-list both in terms of topic areas and sheer numbers. These new voices should represent a very wide body of opinion, but will need to be judged in the same way as climate science contributors for their authority and depth of engagement with the issues.

But the global nature of the issue requires that these new voices and storylines go beyond domestic concerns. Storytelling about climate change needs to acknowledge the uneven geography of impacts of climate change adaptation and mitigation. As the BBC World Service Trust note: 'African citizens are least responsible for generating the greenhouse gases that are causing the global climate to change. Yet they are already suffering, and will continue to suffer, some of the most devastating consequences of climate change' (2009, 2). A subtle but significant extension of this uneven

geography is that climate change knowledge production is concentrated in North American and European climate science, a fact that contributed to the error relating to Himalaya glacier melt dates in the IPCC 4AR.

Impartiality 'breaches by omission' have a very different meaning to that suggested by climate contrarians in the Northern hemisphere when the global nature of the issue is considered. The very different consequences of mitigation and adaptation policies and different experiences of climate change impacts. The uneven geographies of climate change demand that broadcasters invest in fuller storytelling of the particular (and particularly intense) causes, consequences and mitigation/adaptation policy choices and implications that are specific to the developing world. Barnett and Adger (2007) summarise how these will primarily affect poor countries – and the poorest within them – disproportionately. Yet it will also be important for media coverage to maintain a sharp editorial eye. On issues around climate change and security Nordas and Gleditch (2007) describe how the relatively sparse knowledge base in the global South on climate change, combined with assumptions in the North, could see, for example, national government interests represented at cost to the poorest and most vulnerable in those countries.

Recent research by the BBC World Service Trust & British Council has sought to summarise the state of public and opinion leader opinion on climate change issues in Africa. It concludes that '(c)ommunication and information provision will be central to Africa's response to climate change' (2010, 18). The BBC World Service Climate Connections package of news and factual content produced in the run up to 2009 COP15 in Copenhagen is an example of an investment of effort and imagination in expressing the global and plural nature of climate change issues. The fact of the BBC World Service global audience has attuned those commissioners and producers to these issues more quickly than their colleagues dealing with domestic audiences. Although not a BBC commission, the screening of *Hope in a Changing Climate* (BBC World, December 2009) also stood out in the context of climate related programming around the time of COP15 because it represented a positive account of environmental change issues (soil remediation experiments on three continents that carried social, economic and environmental benefits). Less immediately noteworthy, but perhaps equally significant, the programme featured a range of experts who were exclusively from the developing world. Such examples demonstrate that there are important stories and voices to be heard, but that these may be overlooked by domestic programming because they are thought to 'lack connection' for UK audiences. As previous research by IBT has shown, there are ways that creative responses by broadcasters can overcome these challenges

Conclusion

Climate change presents all media producers with demanding challenges. This is particularly true of the BBC, with its exceptionally high editorial standards, its commitment to impartiality and its diverse platforms and audiences. Yet, in the fast changing context of media production and consumption this issue also represents a compelling opportunity to explore science in new ways. It is a terrain where the media can test new approaches to storytelling and work to include new voices and themes. It is an arena within which media decision makers can evolve innovative approaches to communicating science as a practice. This is particularly important where the science carries far-reaching ethical and political implications.

In this paper, we make a number of practical proposals that could help the BBC cope with the tensions arising from communicating in particular about climate change. We are convinced that engaging directly with these challenges will have benefits across the BBC's coverage of complex issues in science and technology.

About IBT

IBT (International Broadcasting Trust) is an educational and media charity which seeks to promote high quality broadcast and online coverage of matters of international significance. IBT represents a coalition of international charities. Its members include: ActionAid, Amnesty International, British Red Cross, CAFOD, Christian Aid, Comic Relief, Concern Worldwide (UK), Friends of the Earth, Help the Aged, HelpAge International, Islamic Relief, Malaria Consortium, Merlin, MSF, ONE, Oxfam, Plan International UK, Practical Action, Progressio, Save the Children, Sightsavers International, Tearfund, TVE, UNICEF UK, VSO, WaterAid, World Vision and WWF.

The views in this submission reflect the concerns of IBT's member agencies regarding adequate common understanding of the world in which we live. These concerns are shared by millions of UK supporters of these organisations. IBT is a registered charity, number 326150.

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