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House of Commons
Science and Technology
Committee

**Communicating climate
science: Government
Response to the
Committee's Eighth
Report of
Session 2013–14**

**First Special Report of
Session 2014–15**

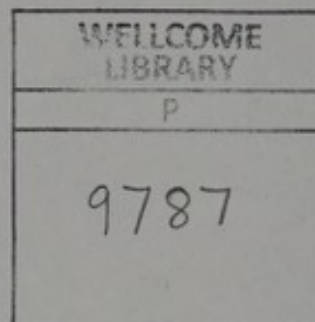
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Science and Technology Committee

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First Special Report

On 2 April 2014 the Science and Technology Committee published its Eighth Report of Session 2013–14, *Communicating climate science* [HC 254]. On 30 June 2014 the Committee received a memorandum from the Government which contained a response to the Report. The memorandum is published as Appendix 1 to the Report.

Appendix 1: Government response

Background

1. The House of Commons Science and Technology Committee produced a report *Communicating Climate Science* on 2 April 2014. This report was the culmination of a year-long inquiry into the subject. This memorandum is the Government's response to this report.
2. It should be noted that in the report there is some conflation between the concept of communications related to *the science of climate change* and communications related to climate change in a broader sense. By 'a broader sense' we mean a range of issues such as *why* a response to climate change is needed and *what form* such an appropriate response should take. These issues are, of course, informed by science but are not solely the preserve of science as they take into account political considerations, economics, international aspects etc.
3. The Government believes that in order to clearly communicate about climate change it is necessary to talk about both climate change *science* and also the actions, at home and abroad, we are taking to address climate change. In this memorandum we seek to be clear where responses to the report are, in our view, purely scientific and where responses relate to broader issues. We have tackled both issues, as both are of equal importance.

Report recommendations and responses

4. We consider that Conclusions and Recommendations 3, 4, 5, 6, 15 and 16 do not require a response from Government. Conclusions and Recommendations 3, 4, 5 and 6 are directed at independent media organisations and it would therefore be inappropriate for government to respond. Conclusions and Recommendations 15 and 16 refer to the scientific process and we believe are self-evident.
5. Responses to the other Conclusions and Recommendations are provided here.

Conclusion and Recommendation 1: In order to communicate what climate change is, the Government must agree a clear consistent and precise definition which can be related to direct observations and measurements. This should be based on Professors Slingo's and Rapley's definitions.

Our response

6. We agree that Government should be using a clear definition of climate change. We agree that a scientific definition is required. However, we also note that the term 'climate change' does not apply just to the physical manifestation of a changing climate, but also actions to address human influence on the climate. For example, a scientific definition of 'climate change' based on Professors Slingo's and Rapley's definitions does not explain the use of 'climate change' in the acronym 'DECC'. In this case 'climate change' means not just the physical manifestation but also steps taken in the UK and internationally to reduce GHG emissions and other human impacts of the climate.

7. It is possible to come up with a comprehensive and easy to understand scientific definition of 'climate change' and we believe the definition provided by the IPCC, that "*Climate change refers to a change in the state of the climate that can be identified (e.g., by using statistical tests) by changes in the mean and/or the variability of its properties, and that persists for an extended period, typically decades or longer. Climate change may be due to natural internal processes or external forcings such as modulations of the solar cycles, volcanic eruptions and persistent anthropogenic changes in the composition of the atmosphere or in land use.*" is appropriate.

8. However, we believe that this definition needs to be accompanied by a broader statement to cover how the term is commonly used. Climate scientists in DECC are considering this issue and will come up with a suitable formulation to be included in our new climate science narrative, to be finalised and made public shortly.

Conclusion and Recommendation 2: Despite the existing polling information, it remains difficult to draw firm conclusions on how public acceptance and understanding of climate change is changing in the UK. However, it is clear that a significant majority of people think the climate is changing and that human activity is at least partly responsible for this. The polling on public understanding is limited and unlikely to highlight the information needs of the general public. In its response to this report, the Government should detail how it will collect, and make available, more regular and more in depth information on the public understanding of climate change.

Our response

9. As the committee are aware, DECC currently tracks attitudes to climate change through our regular public attitudes tracker, and BIS Public Attitudes to Science 2014¹ includes attitudes to climate science in the context of other scientific topics. As part of our on-going work on improving the way we communicate the science of climate change to the public (see paragraph 10) we will consider precisely what, if any, additional information we need to collect in order to track public understanding of climate change, and whether government is the best organisation to be carrying out tracking of this kind or whether it would be best done by independent organisations, such as universities.

Conclusion and Recommendation 7: The internet and social media are increasingly used by the public when seeking to verify media reports or obtain further detailed

¹ <http://www.ipsos-mori.com/Assets/Docs/Polls/pas-2014-main-report.pdf>

information about climate change. The Government and other trusted bodies are currently failing to make effective use of internet or social media to engage with the public and provide accurate scientific information about climate change.

Our response

10. The .gov.uk website contains information on both climate science and government activities to tackle climate change. The Met Office website is a good source of material for climate science with latest science and reports as well as popular infographics and videos that are well visited and trusted by the public. DECC uses Twitter and other forms of social media to engage on a range of issues, including climate change. We are taking some specific steps to improve the communication of climate science, particularly through

10.1. Improving the presentation of climate science on .gov.uk. Refreshed pages will be comprehensive, simple and impactful.

10.2. Providing information on commonly held climate 'myths', explaining why these are untrue, and providing clarification on some key areas of climate science where confusion or misunderstanding commonly arise.

10.3. We will continue to support Met Office science content development so that the very latest science and interpretations are available in attractive, accessible and sharable formats.

10.4. Sharing and actively promoting these resources across Government, to enable policy-makers at all levels to have access to a clear and impactful description of the current state of climate science.

10.5. Establishing a science expert communications group to consider how best to further improve the communication of climate science.

11. Findings from PAS 2014 on social listening research will be used to inform future engagement activities using social media. When tracking social media conversations on climate change during the publication of the IPCC report in September 2013, debates were highly polarised and although scientific evidence was cited, this was used to back predetermined attitudes, rather than to facilitate an evidence-based discussion.

Conclusion and Recommendation 8: We consider the lack of a narrative strongly reflects a lack leadership in climate change.

Our response

12. We do not believe that there is a lack of climate change leadership in the UK. As the committee is doubtless aware, the Climate Change Act, which requires the UK to reduce GHG emissions by 80% on 1990 levels by 2050, is the most ambitious piece of climate legislation in the world. Steps we have already taken have reduced UK emissions by over a quarter since 1990.

13. We are showing leadership internationally, by pressing the EU to increase its target for 2020 to 30% and by supporting a binding domestic EU GHG target for 2030 of at least 40%

which should be increased to 50% in the context of a global climate agreement in Paris. We are also agreeing, as part of the EU, with other countries to enter the second commitment period of the Kyoto Protocol; working on changing the global political conditions; and working on the 2015 agreement.

14. It is also worth emphasising that the political and policy leadership described above is founded, in part, on the UK's world-class science and intellectual capital on climate change. In particular, since the Met Office Hadley Centre was opened in 1990 the UK has been a leader on the science and evidence of climate change and we are convinced that maintaining this position is in the interests of the UK.

Conclusion and Recommendation 9: The Met Office is an organisation seeking to have a greater role in the communication of climate science. As such we would have liked to have seen greater effort to communicate to the public on the publication of the IPCC AR5 report. It should have been more timely with information that should be far more accessible to the public at large.

Our response

15. In its oral evidence to the Committee, the Met Office was clear in saying that it could, with others, help to improve the communication of climate science to the public, possibly through the UK Climate Service partnership. It is important to emphasise however that *at present the Met Office has no formal mandate to communicate climate science to the public* though as mentioned above it already provides resources on its latest climate science in accessible and shareable formats

16. The Met Office recognises the importance of science communication and is working with DECC to see how climate science can be more effectively be communicated to the public. A Met Office secondee in DECC is part of the team supporting the improvement of climate science content on .gov.uk and the Met Office will continue to work with DECC to understand gaps in the public understanding of climate science and what the government and UK academic community can do to address these.

17. On AR5 specifically, it should be noted that the Met Office undertook a range of outreach and communication activity, including ensuring that its leading scientists were available to the media for interview and for press briefings. The Met Office external website included information on AR5, including the role and contribution of its scientists to the IPCC process and included a video to bring it to life.

18. In the build-up to the release of the IPCC Working Group I report the Met Office also published three papers on its website that provided more information on global temperature trends in a way that was accessible to a public audience. In addition, the Met Office website carried an infographic on the basics of climate science, a 'Guide to Climate Change' brochure and several blog posts on issues of interest. Leading up to the release of Working Group II, the Met Office also published a paper on its website that provided background and context to this area of science.

19. The Met Office is a highly trusted and valued organisation on both weather and climate and DECC continues to work to make sure the UK gets full value from its authoritative voice on climate science.

Conclusion and Recommendation 10: We found little evidence of any significant co-ordination amongst them [Government, government agencies and bodies at national and local levels] to communicate the science. Neither is there any indication that the Government is regarded as a primary, or even a reliable, source of information on climate science by the general public.

Our response

20. It is clear from studies of public attitudes to science that Government is not the most trusted voice on scientific issues. Scientists are trusted more than politicians and it is important that those scientific voices and the range of evidence supporting them are heard by the public. It is hard to see how any one Government could be regarded as the primary source of climate change information when there are a multitude of high quality sources of information already in the public domain, not least the IPCC and its many authors and contributors. Many will still view whatever the government produce on any contentious science issue with suspicion. Nonetheless we accept that government can help to communicate information on climate science more effectively and the Climate Science team in DECC is leading to deliver this change. We will ensure that whatever we produce is comprehensible, balanced and impactful and most importantly consistent with peer reviewed science, including the recent assessments of the IPCC.

21. Qualitative research from PAS 2014 found that the 'messenger matters' and the public are sceptical about what politicians say about science. The scientific credentials of the 'messenger' were often critical in online conversations.

Conclusion and Recommendation 11: The Royal Society is a publicly funded body with a responsibility to communicate about science. We encourage it to step up to that responsibility.

Our response

22. The Government welcomes the publication by the Royal Society, jointly with the US National Academy of Sciences, of *Climate Change: Evidence & Causes*², a key reference document for decision makers, policy makers, educators and other individuals seeking authoritative answers about the current state of climate change science. The associated webpage includes answers to a comprehensive list of frequently asked questions. We do not agree with the committee that "[the report] could have been used better to promote and communicate accurately the most up-to-date science to a non-specialist audience". We believe the report was clear and well written, and did have an impact on public understanding of climate science. We note that the report received significant media coverage. The Society has informed us that Social media activity around the report reached over 600,000 people on Twitter in the first week after publication.

23. Linked to this, later this year the Society will publish *Human Resilience to Climate Change and Disasters*³, a critical evaluation of actions that can reduce risk and enhance

² <https://royalsociety.org/policy/projects/climate-evidence-causes/>

³ <https://royalsociety.org/policy/projects/resilience-climate-change/>

resilience, including a range of engineering, technical, social, institutional and ecosystem-based solutions.

24. We welcome this attempt by the Society increase its engagement in this area, and one of the activities DECC will be actively pursuing this year with regard to the communication of climate science is to consider how the combined resources of DECC, the Met Office and the Society can be most effectively brought to bear to communicate up-to-date knowledge about climate science to the public. We accept that climate science like all sciences evolves over time and that continued efforts need to be made to ensure the very latest science is accessible and shareable

Conclusion and Recommendation 12: Successive Government efforts to create a clear narrative that ensures a discourse about climate change that is coherent, constructive and results in proper public engagement has been disappointingly limited.

Our response

25. As part of its overall overarching DECC-wide communication strategy DECC has produced a climate change strategic communications plan, which clearly sets out DECC aims and objectives for communicating about climate change over the next year.

26. To implement the strategy DECC is establishing a cross-government climate change communications group. The aims of this group are to bring about consistency of approach in climate change communications, ensuring agreed messages are used consistently and to identify opportunities for maximising communications with an emphasis on government action to tackle climate change and the benefits of a low carbon future.

27. A key output from this strategy will be an overarching cross-government narrative which all relevant departments buy into to enable DECC and other relevant parts of government to speak with one voice on the issue of climate change. This narrative will be clear that anthropogenic climate change is happening now, and poses a risk to human society. It will set out how the Government is taking action on climate change, keeping the lights on and building a stronger greener economy, and it will demonstrate how strong action to tackle climate change at home puts us in a position of authority to push for action at international level.

Conclusion and Recommendation 13: The Government's hands-off approach to engaging with the public and the media, relying heavily on scientists as the most prominent voice, has resulted in a vacuum that has allowed inaccurate arguments to flourish with little effective challenge.

Our response

28. We do not agree with this conclusion. Public concern about climate change remains high, and communication of climate science from a wide-range of sources, including the IPCC and academics is, and remains, strong. We recognise that these independent voices can be the most trusted.

29. We specifically note that where those 'sceptical' of the need for action to tackle climate change have been prominent in the media, strong scientific voices, notably Professor Brian

Hoskins from Imperial and Reading Universities and Professor Peter Stott from Met Office, have been equally prominent with, in our view, stronger arguments.

30. That is not to say that government is complacent and we will do what we can to provide clearer information on climate science. We will continue to robustly tackle inaccuracies in the broadcast and print media. And we will continue to invest in cutting-edge climate science, and expert climate scientists through our support to the Met Office and the Research Councils. However the government cannot, and should not, seek to either replace, or coordinate, the real experts. We believe this would backfire.

Conclusion and Recommendation 14: If the Government is to demonstrate its climate policies are evidence based, it needs to be an authoritative and trusted voice which explains the current state of climate science. It is important that climate science is presented separately from any subsequent policy response. We recommend that the Government work with the learned societies and national academies to develop a source of information on climate science that is discrete from policy delivery, comprehensible to the general public and responsive to both current developments and uncertainties in the science.

Our response

31. We are taking steps, as set out in paragraphs 10 and 21–23 above, to better communicate climate science through government channels. We believe that this will lead to the government being seen as more authoritative and trusted in this area. We will rigorously test what we produce, not just to ensure that it is scientifically correct but also that it is effective in communicating to those people we wish to reach.

32. We cannot accept that “climate science is presented separately from any subsequent policy response”. While we agree that the science should not be *influenced* by the policy response, and that the policy response must flow *from the science* we are sure that if individuals are presented with a very large problem (climate change) without information about possible solutions (adaptation and mitigation policy, at home and abroad) they will simply discount the problem. This form of cognitive dissonance is well understood by communications experts. Therefore we will complete our communications on climate science with a clear message that *there is something that can be done, and we (the UK) are doing something about it.*

33. It is worth noting that the outputs of the Met Office Hadley Centre are available across government to enable departments to build policies on a common evidence-based foundation.

34. Ultimately public engagement on climate change is not just about providing individuals with scientific information. It is about allowing individuals to understand how climate change is relevant to them and what they can do in their day-to-day lives to address it.

35. We welcome the recommendation to work with the learned societies and national academies to develop a source of information on climate science that is discrete from policy delivery, comprehensible to the general public and responsive to both current developments and uncertainties in the science, and we are looking at ways to achieve this.

We expect to see progress in this area, in the form of joint communications of some form, by the end of the year.

Conclusion and Recommendation 17: To achieve the necessary commitment from the public to climate policy, the Government must demonstrate a coherent approach to communicating both the scientific basis and the proposed solutions. We recommend that the Government consolidates its strategic approach to communicating climate science across all Departments, formulate the principles of that approach and make it public. All Ministers should acquaint themselves with the science of climate change and then they, and their Departments, should reflect the Government approach in person, in media interviews and online by a presenting a clear and consistent message.

Our response

36. A range of scientists, including those from the Met Office, and the Government Chief Scientific Advisor himself, are active in providing information to Ministers on climate change, including through face to face briefings. As the Committee heard, Sir Mark Walport briefed Cabinet on climate change last year following the publication of the IPCC Working Group I report. Most recently Professor Stephen Belcher, Head of the Met Office Hadley Centre, briefed DECC Ministers on the latest findings from the climate science community.

37. The ways in which individual Ministers and Departments communicate is a matter for them. However we recognise that Departments can be more joined up on this issue and see the establishment of the cross-government climate change communications group as an important step in agreeing a shared climate change narrative which can be used by central government, as well as local and regional government, and by other government agencies. The DECC Climate Science team will continue to explore opportunities to get climate scientists talking to Ministers and other decision-makers in government.



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