



# NULLIUS IN VERBA

On the Word of No One

## The Royal Society and Climate Change

Andrew Montford

Foreword by Professor Richard Lindzen

**The Global Warming Policy Foundation**  
GWPF Report 6

## **GWPF REPORTS**

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The Global Warming Policy Foundation

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## Foreword by Richard Lindzen

Andrew Montford provides a straightforward and unembellished chronology of the perversion not only of The Royal Society but of science itself, wherein the legitimate role of science as a powerful mode of inquiry is replaced by the pretence of science to a position of political authority.

The simple chronology speaks for itself, though one cannot read it without thinking, at least, about the motivations. Already in the 19th century, gentleman scientists, like Darwin, noted the potential constraints on scientific inquiry that were associated with functioning within universities. The potential in recent years is obviously magnified by the near monopoly over science support exercised by governments. In the US, our National Academy of Science (NAS) has always had official status as adviser to the government. However, the role was relatively passive until the 1970s.

The 1970s saw a marked expansion of the National Research Council, the branch of the National Academy of Science responsible for responding to government requests. With the presidency of Frank Press (1981-1993), the staff of the NRC increased to over a thousand. Frank often boasted that The Royal Society was envious of the position of the NAS and the existence of its NRC. The global warming issue, it would appear, has offered The Royal Society the opportunity to rectify this situation.

Nevertheless, there are certain peculiarities of The Royal Society's behavior that are perhaps worth noting. The presidents involved with this issue (May, Rees and Nurse) are all profoundly ignorant of climate science. Their alleged authority stems from their positions in the RS rather than from scientific expertise. This is evident in a variety of ways.

For example, in an exchange in the *Financial Times* (April 9, 2010), Martin Rees and Ralph Cicerone (President of the NAS) defended global warming concern by noting essentially that carbon dioxide (CO<sub>2</sub>) was increasing and that climate was changing. Of course, climate is always changing, and increasing CO<sub>2</sub> must make some contribution, but none of this suggests anything alarming. The alarm results from controversial feedbacks wherein the small impacts of CO<sub>2</sub> are, in current computer models, greatly amplified. With respect to these feedbacks, Rees and Cicerone say: "Uncertainties in the future rate of this rise (referring to global mean temperature anomaly), stemming largely from 'feedback' effects on water vapor and clouds are topics of current research." That is to say, we don't even know if there is a problem. Yet, Rees and Cicerone conclude: "Our academies will provide the scientific backdrop for the political and business leaders who must create effective policies to steer the world toward a low-carbon economy."

In other words, regardless of the science, the answer is predetermined. Is this simply ignorance or dishonesty? My guess is that Rees and Cicerone were only

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mindlessly repeating a script prepared by the environmental movement.

In this report Montford documents some disturbing general trends, which one can only hope that scientists of good standing shall increasingly continue to oppose.

Richard Lindzen

## Nullius in verba: on the word of no one

"...it is an established rule of the Society, to which they will always adhere, never to give their opinion as a Body upon any subject either of Nature or Art, that comes before them."

The 'advertisement' to *The Philosophical Transactions*, 1753.

## Caveat

The fellows of The Royal Society do not give their presidents a mandate to speak on their behalf on any question. However, since presidents issue statements in the society's name they have clearly taken on the role of spokesmen for the fellows regardless.

In what follows, I take the position that the public statements of the president will be taken as being issued on behalf of the Society and that they are therefore honour-bound to speak cautiously. Once out of office their views are their own, and beyond the scope of this report.

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## Summary

For 300 years after its foundation, the Royal Society adopted a position of aloofness from political debates, refusing to become embroiled in the controversies of the day. This position was encapsulated in the Society's journal, *The Philosophical Transactions*, which carried a notice that 'It is neither necessary nor desirable for the Society to give an official ruling on scientific issues, for these are settled far more conclusively in the laboratory than in the committee room'.

In the 1960s, the society began to become increasingly involved at the interface of science and political policymaking.

With the elevation of Robert May to the presidency, the Society became highly politicised, involving itself in political advocacy and media campaigns. In 1989 it had issued the first of its highly controversial position papers on climate change, a document that eschewed the sober language of the scientist in favour of denunciations of those who questioned the reality or extent of manmade global warming.

May's political approach was continued by his successor, Martin Rees, with the Society's authority being used to try to cut off funding of sceptic groups and with Rees putting forward positions on the economics of climate change. The Society issued a series of highly political statements demanding action from politicians.

Under Rees, another combative statement on the science of global warming was issued. With the Society again adopting a political rather than scientific tone, a substantial group of the fellows were stirred into action, demanding that the Society reconsider the unscientific way in which it was addressing the global warming question, the result being a much improved position paper on global warming that reflected at least some of the critics' concerns.

Despite this, the Society has yet to distance itself from its former unscientific conduct, and the new president, Paul Nurse, has begun his term of office by staking out some very questionable positions on the role of scepticism in the climate debate.

Immense damage has been done to the reputation of the Society by its last three presidents. While the fellows' rebellion has improved matters considerably, the continuing desire of the Society's leadership to engage in political controversies represents a serious ongoing risk to the Society's reputation and an abandonment of its principles.



## Introduction

1. For over three hundred years after its foundation in 1660 as a private association of gentlemen interested in natural philosophy, the Royal Society defended jealously its independence and the right of its fellows to decide their own positions on the controversies of the day.

2. However, the post-war expansion of scientific funding was to threaten this independence and raised many difficult questions for the Society and its fellows. A 1955 article by Lord Adrian, the then president, hints that those at the helm of the Society were feeling some pressure to become more involved in the government's work, something they were keen to resist.

We have never aspired to an organized control of scientific research: even in times of grave national emergency we have preserved our status as a private body willing to cooperate with the State but unwilling to forfeit our independence...

...it seems far better for the Royal Society to keep itself outside the State organization. The larger this becomes the more important will it be for us to maintain our status as an independent body of scientists whose chief aim is the advancement of knowledge.<sup>1</sup>

3. Adrian went on to explain the role of the Society in dealing with the scientific controversies of the day, making clear that its position as the *de facto* national scientific academy of the UK was no reason for the Society to make pronouncements on one side or the other. The furthest he felt the Society could go was to issue statements about the direction that research was taking:

What is needed, however, is not an academy to pronounce on the controversial points of scientific theory but one with a reasonable knowledge of the direction in which research is leading...

It is neither necessary nor desirable for the Society to give an official ruling on scientific issues, for these are settled far more conclusively in the laboratory than in the committee room. This principle has been recognized by the Royal Society since its foundation and it is stated specifically in the advertisement to *The Philosophical Transactions* in 1753. This points out 'that the certainty of the facts and the propriety of the reasonings contained in the several papers so published must still rest on the credit and judgement of their respective authors.'<sup>1</sup> The advertisement goes on to say 'that it is an established rule of the Society, to which they will always adhere, never to give their opinion as a Body upon any subject either of Nature or Art, that comes before them.'<sup>2</sup>

<sup>1</sup> Adrian, R. The Functions of the Royal Society. *BMJ*, 10 December 1955.

<sup>2</sup> *Ibid.*

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4. The twin policies – of distancing the Society from the machinery of government and standing aloof from scientific controversies – served the Society well for over three centuries. However, state involvement in science was to grow over the following decade, and the pressure on the Society to become more involved in the political process increased to the point at which the old approach became unsustainable.

5. These changes may have arrived faster than even Adrian expected. Under his successor, Sir Cyril Hinshelwood, the advertisement in *The Philosophical Transactions* was quietly dropped and the gateway to a new era was opened. As Hinshelwood diplomatically put it:

‘Our long and, though informal, immensely important relations with the government are in the process of adaptation to the vast scale and complexity of scientific activity today’.<sup>3</sup>

## The scientific basis for policy

6. The Royal Society made its first entry into the global warming debate in the very first years of the controversy, publishing a pamphlet entitled *The Greenhouse Effect – the Scientific Basis for Policy* in 1989.

7. *The Greenhouse Effect* was a moderately worded contribution to the debate, setting out the possibility that carbon dioxide emissions were causing changes in the climate but emphasising the difficulty of detecting climatic change over natural fluctuations and the lack of knowledge of key inputs into the climate models, such as carbon dioxide sinks in the deep oceans.

8. Despite its measured tone, *The Greenhouse Effect* seems to have had a discernible effect on the attitudes of politicians and, in fact, a later president credited the pamphlet with having led to the setting up of the Intergovernmental Panel on Climate Change (IPCC), with a Royal Society fellow, Sir John Houghton, at the head of its scientific panel.<sup>4</sup>

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<sup>3</sup> Calder, N. *Technopolis*, MacGibbon & Kee, 1969.

<sup>4</sup> Web of Stories (video). Interview with Aaron Klug. <http://www.webofstories.com/play/17036?o=MS>.

## The presidency of Sir Aaron Klug

9. Ten years later, during the presidency of Sir Aaron Klug (1995–2000), the Society set up a joint committee with the Royal Academy of Engineering to look at the question of global warming and the possible responses that could be made to the problem. The panel was led by Sir Eric Ashe, the rector of Imperial College and the Society's treasurer, and included a representative of the French nuclear industry and also a later president of the Royal Society in the shape of Sir Martin Rees. It is unclear why Rees, a cosmologist, was considered a useful source of expertise for the panel.

10. The panel's report was entitled *Nuclear Energy – the Future Climate* and was published in 1999 against a backdrop of the campaign to encourage nations to ratify the Kyoto Protocol.<sup>5</sup> The report started on an optimistic note, declaring that, by and large, UK energy policy worked, and went on to observe that:

'We do not worry particularly about the lights going out',

a situation that ironically no longer pertains after ten years of promotion of the case for action against manmade global warming.

11. The report betrayed the motivations of some of those involved:

The CO<sub>2</sub> issue is real and increasingly urgent; the many emerging forms of renewable energy do merit substantial levels of R&D investment and could well become key parts of the UK strategy for sustainable energy supply; initiatives to promote efficiency and conservation do have a part to play. But, in the light of this study, the Royal Society and the Royal Academy are convinced that it is vital to keep the nuclear option open.<sup>6</sup>

12. The desire for a nuclear future has been suggested in the past as being one of the most important factors behind the early impetus for research into the greenhouse effect.<sup>7</sup> This impression was confirmed by the Royal Society report and by Klug's recollection of his fears that the failure to build new nuclear power stations was causing a loss of relevant scientific expertise in the UK. As if to emphasise this case, the report also argued for the imposition of a carbon tax – Klug wanted to call it by the rather emotive name 'the grandchildren tax' but was apparently dissuaded.

13. Klug has explained that he was pushing the global warming issue quite hard, although he noted a lack of interest from government ministers at the end of the Major government. This situation apparently improved somewhat

<sup>5</sup> Royal Society/Royal Academy of Engineering. *Nuclear Energy, the Future Climate*, 1999. [http://www.raeng.org.uk/news/publications/list/reports/Nuclear\\_Summary.pdf](http://www.raeng.org.uk/news/publications/list/reports/Nuclear_Summary.pdf)

<sup>6</sup> *Ibid*

<sup>7</sup> See for example Boehmer-Christiansen, S. A winning coalition of advocacy: climate research, bureaucracy and 'alternative' fuels. *Energy Policy* 1997; 25: 439–444.

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when Tony Blair became prime minister in 1997. Meanwhile Klug was able to maintain his own pressure on the issue in his speeches: 'Almost every year I referred to global warming', he recalled.<sup>8</sup>

14. Klug also attempted to recruit the assistance of the US National Academy of Sciences (NAS), approaching its chairman Bruce Alberts with a view to them making a joint statement on the subject of climate change. Alberts was apparently sympathetic but was unwilling to get involved because of political concerns. A US presidential election was impending at the time, and with one candidate – George Bush Jnr – having a background in the oil industry and the other – Albert Gore – making the environment a central part of his campaign, any statement by the NAS would have been seen as political bias.

## The presidency of Lord May

### 2000: The appointment of Lord May

15. In 2000, Sir Robert May took over from Sir Aaron Klug as president of the Royal Society, and was elevated to the peerage as Lord May of Oxford shortly afterwards. May was not a political appointee, being nominated via the non-partisan House of Lords Appointments Commission, a route also taken by many other figures prominent in the climate debate, including Lord Browne, Lord Turner, Lord Krebs, Lord Stern, and also May's successor at the Royal Society, Lord Rees.<sup>9</sup>

16. May had enjoyed a distinguished career as a population biologist at Imperial College and Oxford. He had also been closely involved with the early development of the environmental movement, writing a glowing review of the 'Limits to Growth' report and elsewhere expressing approval of the idea that there was an inescapable limit to man's activity set by the second law of thermodynamics, a point which would be reached in the second half of the twenty-first century.<sup>10</sup>

17. May had been Government Chief Scientific Advisor and head of the government's Office for Science and Technology for several years before taking up his position at the Royal Society. In this earlier role he had been accused of hyping climate change concerns in a personal position paper published on his department's website.<sup>11</sup>

<sup>8</sup> Web of Stories (video). Interview with Aaron Klug. <http://www.webofstories.com/play/17036?o=MS>.

<sup>9</sup> House of Lords Appointment Commission website. <http://lordsappointments.independent.gov.uk/appointments-so-far.aspx>

<sup>10</sup> The statements were published in Search, in the issues dated April and Sept 1971 respectively.

<sup>11</sup> Brignell, J. Sir Robert May annotated. [http://www.numberwatch.co.uk/sir\\_robert\\_may\\_annotated.htm](http://www.numberwatch.co.uk/sir_robert_may_annotated.htm)

## 2001: The Science Policy Centre

18. In 2001, a donation from the Kohn Foundation, a charitable body funded by a wealthy industrialist, Sir Ralph Kohn, allowed the Royal Society to set up the Science Policy Centre, an outgrowth of the “Science in Society” programme that had been set up the previous year by Klug.<sup>12</sup> In its early years, the work of the centre was directed by a later president of the Society, Sir Paul Nurse.<sup>13</sup> The advent of the policy centre appears to have been a central plank of the Society’s move from being one that shunned disputes to being one that was focused on the kinds of activity that would regularly put them at the heart of political controversies.

19. As May made clear in his anniversary address the following year, a large part of the new group’s work was going to be in the area of environmentalism:

The Royal Society has played, and continues to play, a leading role in such internationalization of scientific activities. We have been among the prime movers in creating the InterAcademy Panel (IAP), which brings together 85 of the world’s major scientific academies, most recently in the meeting on Sustainability in Tokyo last May...

...our ‘Alumni Day’ meeting...focused on Sustainability, [and] we aim to make a substantial contribution – alongside those in Whitehall with formal responsibilities – to the ‘Rio Plus Ten’ World Summit on Sustainable Development in Johannesburg next year.<sup>14</sup>

## 2001: Entry to the policy arena

20. In 2001, the attention of participants in the climate change debate was focused on the IPCC’s Third Assessment Report and efforts to secure ratification of the Kyoto Protocol. The Royal Society marked the occasion by making another break with its past as a disinterested group of scholars. From that point onwards, it was to use the authority it had built up over the previous three centuries to influence policy debates – the Society of scholars was to develop the character of an advocacy group.

21. Although there would probably have been consultation with members of the council and fellows involved in climatology, such as Sir John Houghton and Brian Hoskins,<sup>15</sup> there would have been no formal consultation with the fellows over the Society’s change in direction.

<sup>12</sup> Influencing Policy. Royal Society website. <http://www.webcitation.org/64uIN1mPj>

<sup>13</sup> Address of the President, Lord May of Oxford, AC, FRS, given at the anniversary meeting on 30 November 2001. Notes Rec. R. Soc. Lond. 56 (1), 121–129 (2002). <http://rsnr.royalsocietypublishing.org/content/56/1/121.full.pdf>

<sup>14</sup> Ibid.

<sup>15</sup> Now Sir Brian Hoskins.

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22. The signal of this radical break with the past came in the shape of a statement on global warming. This was apparently organised by the Royal Society but was issued in the name of a group of national scientific academies, including those of France, Germany, Australia, and India. The statement was entitled "The Science of Climate Change" and consisted principally of a defence of the view of the science put forward by the IPCC, a body that the statement declared represented 'the consensus of the international scientific community'. Going further, it declared its support for the IPCC's position, stating that it was '90% certain that temperatures will continue to rise', a prediction that might appear somewhat rash in the light of the apparent stalling of global warming since that time.

23. For the Society to take a position on a scientific dispute might have been seen as a break with the past, but in fact it chose to go further still, staking out a position on the vexed question of mitigation versus adaptation. This was essentially an economic argument rather than a scientific one and therefore somewhat outside areas in which the Society is recognised as having expertise. It was also one which inevitably involved entanglements in political questions.<sup>16</sup> Doubts over the need for mitigation were wrong, the academies said, and they went on to issue a call for ratification of the Kyoto Protocol and for individuals, businesses and governments to take prompt action to reduce emissions of greenhouse gases.

24. Unmistakably then, the Society had entered the policy arena. The contents of Lord May's first annual address to the Society in November 2001 only confirmed this conclusion, with May explaining his involvement in attacking President George W Bush, who had expressed doubts over global warming:

The Royal Society took the lead in organizing a quick response to President Bush's expression of his personal doubts about the science of climate change. Less than four weeks after Bush's statement, an editorial was published in *Science* (18 May 2001), endorsed by 17 of the world's major scientific academies, saying: 'doubts have been expressed recently about the need to mitigate the risks posed by global climate change. We do not consider such doubts justified...The balance of the scientific evidence demands effective steps now to avert damaging changes to Earth's climate'.<sup>17</sup>

### **2001: Working with environmentalists**

25. On the Royal Society website, it is still possible to see details of a meeting organised by the Royal Society in the wake of the IPCC's Third Assessment Report. Entitled *Climate Change: What We Know and What We Need to*

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<sup>16</sup> It should be noted that there are a few economists among the fellows of the Society, although they might also be said to come mainly from the 'global salvationist' wing of that profession.

<sup>17</sup> Address of the President, Lord May of Oxford, AC, FRS, given at the anniversary meeting on 30 November 2001. Notes Rec. R. Soc. Lond. 56 (1), 121–129 (2002). <http://rsnr.royalsocietypublishing.org/content/56/1/121.full.pdf>

Know, it was held at the Society on 12 and 13 December 2001.<sup>18</sup> These records give a strong flavour of the new direction that the Society was taking under May's leadership. The meeting was opened by Sir John Houghton, a former head of the Meteorological Office (Met Office), a fellow of the Society and the head of the IPCC's scientific panel. Houghton has been a key figure in the pushing of global warming as a major policy issue, and is believed to have been responsible for what was widely perceived as the hyping of the science in the IPCC's Third Assessment Report. The meeting was closed with a speech by May himself, perhaps an indication of the importance that was attached to the occasion.

26. Many of the attendees were prominent scientists involved in research into climate change and its impact, their names familiar to anyone who has followed the campaign to keep global warming at the top of the news agenda: Brian Hoskins, Myles Allen, John Mitchell, Julia Slingo, Martin Parry, Bob Watson, Hans-Joachim Schellnhuber, Sir David King and Mike Hulme. But this was not a scientific meeting. As well as the scientists, there were representatives from a variety of environmental NGOs, including the Worldwide Fund for Nature and Greenpeace, civil servants, representatives from the nuclear and energy-efficiency industries and an environmentally minded oil executive in the shape of Mark Moody-Stuart.<sup>19</sup> Also on hand was the BBC's environment analyst Roger Harrabin, who was to speak on the difficulties of communicating climate change science. Harrabin has been one of the most frequently criticised environmental journalists in the UK, accused of being too close to environmentalists and of failing to question scientists closely enough. He has also been instrumental in attempts to have sceptic voices sidelined at the BBC, organising a seminar of NGO staff and BBC decision-makers to address what some perceived as a 'false balance' in the corporation's output.<sup>20</sup>

27. Some time after the meeting took place, Houghton issued a report outlining its conclusions.<sup>21</sup> Although details are somewhat sparse, it is possible to get a sense of the mood of the participants. For example, the conclusions of the 'Communicating Climate Science' section were as follows:

Efforts to manage climate change will not succeed until we are able to convey the idea that individual behaviour can make a difference. Education and communication will have a key role to play and it was suggested that the media continues to be an effective way for scientists to reach the general public. Other stakeholders such as local authorities and environmental pressure groups also have an important role in communicating climate change science.

...the science can provide compelling arguments that the public can

<sup>18</sup> See the programme at [www.webcitation.org/64u8kOD7r](http://www.webcitation.org/64u8kOD7r)

<sup>19</sup> Moody-Stuart has called for a ban on 'gas guzzlers'. See <http://news.bbc.co.uk/1/hi/sci/tech/7218002.stm>.

<sup>20</sup> A direct link can be traced between Harrabin's seminar and the recent BBC report that concluded that too much time was devoted to sceptic views.

See <http://www.bishop-hill.net/storage/BBC%20Science%20review%20submission%20Final.doc>

<sup>21</sup> <http://www.webcitation.org/5ymW4EJnC>

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accept once they have reached a threshold of engagement. Scientists and communicators were urged to avoid claiming certainty where there is none. The point was made that communication will only succeed by telling the story clearly, correctly and repeatedly in different ways and regularly arguing for the need to reduce emissions...

28. The overwhelming impression is not of a meeting struggling with the science, but with an advocacy movement struggling to get a grip on the political agenda. The meeting was a strange one to be found under the roof of the Royal Society.

### **2005: A Guide to Facts and Fictions about Climate Change**

29. In 2005, the Royal Society issued another position paper on climate change that was very much a low point in the Society's history. It was remarkable for its aggressive stance towards those who questioned any aspect of the officially sanctioned IPCC view of climate science. The document was written by Sir John Houghton, who had been in charge of writing the IPCC's scientific report in 2001, and Sir David Wallace, a physicist and the Society's treasurer. Entitled *A Guide to Facts and Fictions About Climate Change*, the document took issue with claims that evidence in support of the global warming hypothesis was exaggerated and that scientists were underplaying the uncertainties in their understanding of the climate.<sup>22</sup> It presented what it said were twelve misleading arguments put forward by sceptics, although it did not provide any citations to allow readers to assess these arguments on their own terms or indeed to determine if they really formed part of the sceptic case.

30. The tenor of the document is of swatting away unscientific criticism from politically motivated attackers, but many of the counterarguments it outlined were rather tenuous. For example, one of the allegedly misleading claims by sceptics concerned the reliability of climate models, arguments which Houghton and Wallace paraphrased as follows:

There is no reliable way of predicting how temperatures will change in the future. The climate is so complex that it is hard to predict what might happen. The IPCC's climate scenarios are developed by economists not scientists and are often misleadingly presented as predictions or forecasts, when they are actually just scenarios – the most extreme of which are totally unrealistic. The IPCC's findings are dependent on models that are badly flawed. No climate model has been scientifically validated. The IPCC 2001 predictions showed a wider uncertainty range than that in earlier reports.<sup>23</sup>

31. Far from demonstrating that these claims were misleading, however, the authors actually went on to support them: the very first sentence of the

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<sup>22</sup> Royal Society. Climate Change Facts and Fictions, 2005. <http://bit.ly/dcHHDi>

<sup>23</sup> Ibid.



Society's response was in full agreement with the sceptic critique, noting that 'Climate change is complex and not easy to predict...'.<sup>24</sup> The rest of Houghton and Wallace's piece had little to say by way of disputing the difficulties of modelling the Earth's climate and failed to touch on the other criticisms made.

32. The story was the same for what Houghton and Wallace called 'Misleading arguments 6' - the claims that scientists had been exaggerating the dangers of climate change by linking individual extreme weather events to climate change and that the impression of increasing weather damage was due to social and economic change rather than any difference in the climate. A close reading of the Royal Society's alleged rebuttal reveals that they actually had no disagreement with what sceptics were saying, noting that individual weather events could not be ascribed to global warming and that socioeconomic factors were indeed a factor.

33. The picture that emerges from the analysis above is clear. By presenting their response as a rebuttal of misleading claims rather than seeking areas of agreement, the Society managed to sow discord where there was in fact a measure of harmony. This approach might have been useful for the purpose of maintaining political pressure, but did little to advance the public understanding of the science or to enhance the reputation of the Royal Society or of British science.

### **May 2005: media campaign**

34. Not content with issuing this rather misleading report on climate change, the Society also attempted to stifle debate on the subject of global warming. Shortly after the publication of *Facts and Fictions*, Wallace sent a letter to senior members of the press in an attempt to discourage them from reporting sceptic opinions – once again the Society was using its authority to advance only one side of a scientific debate. The contents of Wallace's letter were lampooned in an article in *The Daily Telegraph*:

I've had a letter from Sir David Wallace, CBE, FRS. In his capacity as treasurer and vice-president of the Royal Society, he writes: 'We are appealing to all parts of the UK media to be vigilant against attempts to present a distorted view of the scientific evidence about climate change and its potential effects on people and their environments around the world. I hope that we can count on your support.'

Gosh! The V-P of the Royal Society! How could anyone not support such an eminent body, especially as Sir David warns: 'There are some individuals on the fringes, sometimes with financial support from the oil industry, who have been attempting to cast doubt on the scientific consensus on climate change'.

<sup>24</sup> Royal Society. *Climate Change Facts and Fictions*, 2005, <http://bit.ly/yDZ5i7>

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I say! A conspiracy as well. Definitely time to rally round, chaps, and repel fringe individuals. To help us do so, there's a 'guide to facts and fictions about climate change written in a non-technical style' that even non-members of the Royal Society can grasp.<sup>25</sup>

35. It was perhaps a sad day to see the Royal Society treated with such ridicule, but very hard to avoid the impression that Wallace and Houghton had brought it upon themselves.

### **June 2005: national academies letter**

36. Ahead of the summit meeting of the G8 industrial nations at Gleneagles in 2005, the Royal Society was signatory to a public challenge to political leaders. Although the Society's press release declared that this was an unprecedented step,<sup>26</sup> the document was in essence little different from the joint academies letter of 2001 (see above). The new statement was endorsed by the academies of all the G8 countries, plus China, India and Brazil, and declared that the evidence of the cause and effect of global warming was now highly persuasive:

...the scientific understanding of climate change is now sufficiently clear to justify nations taking prompt action.

37. The pressure put on the political leaders was enormous. The scientists demanded that politicians recognise the science, set up a study to examine targets for greenhouse gases, identify mitigation steps that could be taken immediately and encourage 'clean energy technologies and approaches to energy efficiency', which could then be shared with other countries. They ended with a thinly veiled request for money, calling for world leaders to:

...mobilise the science and technology community to enhance research and development efforts, which can better inform climate change decisions.<sup>27</sup>

38. Alongside making official demands on politicians, May also engaged in less formal pressure tactics, regularly making reference to global warming in his public utterances. In one particularly outspoken interview with the Times, he launched another stinging verbal attack on George W. Bush, whose administration May saw as dragging its feet on climate change policy:

Lord May of Oxford, President of the Royal Society, attacked the US position on global warming as 'misguided', pointing out that Mr Bush had repeatedly overruled his own scientists' advice. 'President Bush has an

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<sup>25</sup> Collins, N. Global warming generates hot air. Daily Telegraph, 16 May 2005. <http://www.telegraph.co.uk/comment/3616946/Global-warming-generates-hot-air.html>

<sup>26</sup> Royal Society Press Release, 7 June 2005. Clear science demands prompt action on climate change say G8 science academies. <http://royalSociety.org/News.aspx?id=1302>

<sup>27</sup> Royal Society statement: Global response to climate change, 7 June 2005. <http://royalSociety.org/policy/publications/2005/global-response-climate-change/>

opportunity at Gleneagles to signal that his administration will no longer ignore the scientific evidence and act to cut emissions,' he said. 'It is clear that world leaders, including the G8, can no longer use uncertainty about aspects of climate change as an excuse for not taking urgent action to cut greenhouse gas emissions.'<sup>28</sup>

39. May's outburst brought an immediate response from the head of the US National Academy, Bruce Alberts, who objected to May's comments and accused him of having misled the public by suggesting that the Bush administration had failed to accept the NAS's advice. He accused May of presenting the findings of the NAS, and their exact recommendations on cutting greenhouse gases, in a way that 'considerably changed our report's meaning and intent':

'As you must appreciate,' the letter continued, 'having your own misinterpretation of the US Academy work widely quoted in our press has caused considerable confusion, both at my Academy and in our government.'

'By advertising our work in this way, you have in fact vitiated much of the careful work that went into preparing the actual G8 statement.'

Dr Alberts then warned that future collaborations between the academies could be at risk.<sup>29</sup>

40. May, however, was unrepentant, suggesting that the NAS had been leant on and insisting that he had faithfully represented their findings:

I can understand that the Academy may have received criticism for re-stating its position so clearly and so appropriately now. It is clearly not a politically convenient message for the US Government.'<sup>30</sup>

### **December 2005: the end of May**

41. May's term of office as president ended in December 2005. Under his leadership the Society had dramatically changed the way it dealt with science and public policy and there is little doubt that his efforts had an important effect on the debate in the UK. As the BBC's Roger Harrabin recalled some years later, May's single-minded certainty over global warming and the accumulated authority of the Royal Society that he carried with him made him a man who was very hard for anyone to argue with:

I remember Lord May leaning over and assuring me: 'I am the President of the Royal Society, and I am telling you the debate on climate change is over'.

<sup>28</sup> Henderson, M. Nations told 'curb greenhouse gas to fight warming'. The Times, 8 June 2005. <http://bit.ly/yEM7Oi>

<sup>29</sup> Knight, S. Anti-Bush gibe by Royal Society sparks climate change row. Times Online, 5 July 2005. <http://bit.ly/wmYX3u>

<sup>30</sup> Ibid.

Lord May's formidable intellect and the power of his personality may have made it hard for others to find a corner from which to dissent. 'The debate is over' was a phrase used in order to persuade Tony Blair that policies were needed to tackle the rise in CO<sub>2</sub>.<sup>31</sup>

42. As he neared the end of his term of office, May launched further fierce attacks on those who questioned aspects of the global warming hypothesis, most notoriously in an interview in *The Guardian*, in which he stooped to a fairly crude characterisation of his opponents:

On one hand, you have the entire scientific community and on the other you have a handful of people, half of them crackpots. Nevertheless, this is still presented as an unresolved battle. That is simply not true. It has been resolved. Only the details of climatic change's impact have still to be worked out.<sup>32</sup>

43. May's final action as president of the Society – his valedictory address to the fellows – was once again treated as an opportunity to push the global warming message and his speech included his most outspoken attack on sceptics to date.

44. Much of what he said covered the same ground that he had done over the course of his term of office, although perhaps with a renewed determination to avoid mentioning the uncertainties. For example, where the IPCC had said that 'most of the observed warming over the last 50 years is likely to have been due to the increase in greenhouse gas concentrations', carefully hedging its attribution with expressions of uncertainty, May gave a summary of the science that sounded more like a press release from an environmental NGO:

But make no mistake, climate change is undeniably real, caused by human activities, and has serious consequences.<sup>33</sup>

45. However, even those most familiar with May's hyperbole must have been surprised by the diatribe he launched at those who questioned any aspect of climate science:

Not surprisingly, there exists a climate change 'denial lobby', funded to the tune of tens of millions of dollars by sectors of the hydrocarbon industry, and highly influential in some countries. This lobby has understandable similarities, in attitudes and tactics, to the tobacco lobby that continues to deny smoking causes lung cancer, or the curious lobby denying that HIV causes AIDS. Earlier, when some aspects of the science were less well understood, they denied the existence of evidence that human inputs of carbon dioxide and other greenhouse gases were causing global warming. More recently, there is acknowledgement of anthropogenic climate change,

31 Harrabin, R. Harrabin's Notes: Getting the message. BBC website, 29 May 2010. <http://www.bbc.co.uk/news/10178454>

32 McKie, R. 'There is going to be no magic solution'. Interview with Lord May. <http://www.webcitation.org/64uDIcQOE>

33 May, R. Anniversary address to Royal Society 2005. <http://bit.ly/wjbrSO>

albeit expressed evasively, but accompanied by arguments that the effects are relatively insignificant, and/or that we should wait and see, and/or that technology will fix it anyway.<sup>34</sup>

46. The use of the term 'denial' is widely seen as highly offensive, being seen as a deliberate attempt to compare climate sceptics to holocaust deniers. It is notable that even some of the most vocal critics of global warming scepticism, such as the historian Naomi Oreskes, eschew the use of the terms 'denier' and 'denial' because of these offensive connotations. Clearly such niceties were not a concern to Lord May, and it must have surprised the fellows who heard the speech to hear such language from a president of the Royal Society.

47. May's suggestion that sceptics were being heavily funded by the hydrocarbon industry is also highly debatable, with little firm evidence to support such an idea ever having been put forward. The numbers that have been advanced by advocates of this theory are often exaggerated by conflating donations for climate change work and donations for other purposes.

48. May ended his speech with a further call for political action:

We need countries to initiate a study into the consequences of stabilizing greenhouse gas concentrations at, below, or above twice pre-industrial levels, so that the international community can assess the potential costs of their actions or lack of them. Such an analysis could focus the minds of political leaders, currently worried more about the costs to them of acting now than they are by the consequences for the planet of acting too little, too late.<sup>35</sup>

49. Such a study of the economics of climate change was not long in coming.

## The presidency of Lord Rees

### The appointment of Rees

50. In March 2005, Sir Martin Rees was selected by the Society's council to take over as president.<sup>36</sup> Rees's name was then passed to the fellows for approval, the single name on the ballot paper, in accordance with a procedure that is

<sup>34</sup> May, R. Anniversary address to Royal Society 2005. <http://bit.ly/wjbrSO>

<sup>35</sup> Ibid.

<sup>36</sup> Curtis, P. Rees expected to win Royal Society presidency. Guardian 29 March 2005. <http://www.guardian.co.uk/education/2005/mar/29/highereducation.uk2>

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set out in the Society's rules<sup>37</sup> – fellows are permitted to cross out the name of the person proposed and write in an alternative, but the council does not put forward alternative candidates.

51. Shortly after being selected, Rees was elevated to the peerage, becoming Baron Rees of Ludlow.

52. Rees is an eminent cosmologist, but by the time of his election had a strong interest in 'sustainability' issues, having published a book on the subject in 2003.<sup>38</sup>

### **2006: Rees on the Stern Review**

53. In 2005 the UK government commissioned a report on economic questions related to climate change from a team lead by Sir Nicholas Stern,<sup>39</sup> an economist and academic.

54. Three months before the report's publication, and despite the fact that economics is not central to its remit, the Royal Society issued a statement calling for economists to take 'a bigger and more constructive role in dealing with the threat of climate change'. At the same time the Society attacked a report by the House of Lords Economic Affairs Committee that addressed economic aspects of climate change.<sup>40</sup>

55. When the report – *The Economics of Climate Change* (hereafter *the Stern Review*) – was published in October 2006, the official launch was held at the Royal Society, where Rees shared the platform with Stern, Tony Blair and Gordon Brown.

56. The *Stern Review* was accepted uncritically by politicians and the media, who presented it to the public as final evidence of the need for action on global warming, despite the considerable reservations of both economists and scientists.<sup>41</sup> One commentator said of Stern's review:

Stern deserves a measure of discredit for giving readers an authoritative-looking impression that seemingly objective best-available-practice professional economic analysis robustly supports its conclusions, instead of more openly disclosing the full extent to which the Review's radical policy recommendations depend upon controversial extreme assumptions and unconventional discount rates that most mainstream economists would consider much too low.<sup>42</sup>

37 Royal Society Statutes and Standing Orders. <http://www.webcitation.org/64uDSwtY>

38 Rees, M. *Our Final Century: Will the Human Race Survive the Twenty-first Century?* Arrow Books, 2003.

39 Now Lord Stern of Brentford.

40 Royal Society statement. Economists also need to tackle climate change. 14 July 2006. <http://royalsociety.org/News.aspx?id=1468>

41 See for example: 'The Stern Review: A Dual Critique'. *World Econ.*, 7(4), 2006.

42 Weitzman, M.L. (2007). 'A Review of the Stern Review on the Economics of Climate Change'. *J. Econ. Lit.*, 45(3), 703–724. <http://www.cepe.ethz.ch/education/EnergyPolicy/Weitzman.pdf>.

57. Despite this, on the day of its publication, Rees and a number of green activists were quoted in the media speaking out in support of the review. It appeared that, like May, Rees intended to use his position at the head of the Society to advance a political and economic agenda. His comment was as follows:

This should be a turning point in a debate which has pitted short term economic interests against long-term costs to the environment, Society and the economy.<sup>43</sup>

### 2006: The campaign against ExxonMobil

58. Under Rees, the Royal Society was involved in a concerted campaign to try to cut off funding to organisations that questioned the reality, the extent or the impact of global warming. Bob Ward, the Society's press officer at the time, was at the forefront of these efforts. In April 2006, a memo that Ward had written for circulation within the Society was 'leaked' to *The Guardian*. The document addressed what Ward saw as attempts by sceptics to undermine the forthcoming Fourth Assessment Report of the IPCC. Although Ward was subsequently at pains to point out that the memo was also critical of the extreme claims that had been made about global warming by Greenpeace, it was actually focused on critics of the IPCC, such as *The Daily Telegraph* and *The Daily Mail*, and in particular targeted funding of sceptic groups by ExxonMobil.

59. Ward's memo was subsequently published in *The Guardian*, under the headline 'Scientists fear new attempts to undermine climate action',<sup>44</sup> although it is not clear which scientists shared Ward's concerns. A few months later, Ward met with officials from ExxonMobil and used the occasion to again apply pressure on the company to end its funding of sceptic groups, and it appears that his efforts were successful.<sup>45</sup>

60. Ward subsequently wrote again to ExxonMobil, objecting to its portrayal of the science of climate change in its Corporate Citizenship brochure, and once again the letter was published at *The Guardian*. Ward's specific objection was to a statement ExxonMobil had made that the attribution of any warming of the planet to manmade carbon dioxide relied on 'expert judgment rather than objective, reproducible statistical methods' and that the extent to which mankind was to blame was 'very difficult to determine'. According to Ward's later explanation, these statements were 'not consistent with the scientific literature',<sup>46</sup> although as others later pointed out, the advancement of ideas

<sup>43</sup> Rees, M. Quoted in 'Final Piece in the Jigsaw'. *Guardian Online*, 31 October 2006. <http://www.guardian.co.uk/environment/2006/oct/31/greenpolitics.climatechange>

<sup>44</sup> Adam, D. Scientists fear new attempts to undermine climate action. *Guardian* 21 April 2006. <http://www.guardian.co.uk/science/2006/apr/21/greenpolitics.environment>

<sup>45</sup> Pielke Jnr, R. Bob Ward Comments on Royal Society Letter. *Prometheus blog*, 4 October 2006. [http://cstpr.colorado.edu/prometheus/archives/science\\_politics/000947bob\\_ward\\_comments\\_on.html](http://cstpr.colorado.edu/prometheus/archives/science_politics/000947bob_ward_comments_on.html)

<sup>46</sup> Ward, R. Letter to Exxon Mobil, 4 September 2006.

<http://image.guardian.co.uk/sys-files/Guardian/documents/2006/09/19/LettertoNick.pdf>

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that question the scientific literature is the very essence of science.

61. The objections of Ward and the Society to ExxonMobil's assertion that attribution of global warming to carbon dioxide relies upon expert judgement is also interesting. Despite the Society's protestations, ExxonMobil's view is in fact widely shared, including by scientists who are not sceptics – readers may like to refer to the comments of Mike Hulme on this subject below (see paragraph 117).

62. In his letter, Ward made further protests about ExxonMobil's funding of organisations that had, in his view, been misinforming the public about global warming. It appears that Ward had been analysing all of ExxonMobil's corporate gifts in the USA and he now requested details of similar donations in Europe so that he could 'work out which of these have been similarly providing inaccurate and misleading information...'. This was a strange activity for the Royal Society to be involved with.

63. *The Guardian* reported some of Ward's remarks at the time and these did little to counter the unfavourable impression given above. It appeared that the forthcoming IPCC report would attempt to nudge the public into taking action on global warming and that the Royal Society saw itself as assisting this effort:

It is now more crucial than ever that we have a debate which is properly informed by the science. For people to be still producing information that misleads people about climate change is unhelpful. The next IPCC report should give people the final push that they need to take action and we can't have people trying to undermine it.<sup>47</sup>

64. Ward's letter brought a furious reaction from a group of climate scientists that included several of the most prominent sceptics, who accused the Society of attempting to close down debate on climate science and of jeopardising private investment in science:<sup>48</sup>

...for the first time in history, the Royal Society is shamelessly using the media to say emphatically: 'case closed' on all issues related to climate change. With all due respect, how can this be?

...many of us find Mr. Ward's comments particularly mean-spirited and unbecoming of the Society and the scientific community. It is personally and professionally insulting to imply as Mr. Ward clearly does that those of us that have worked on projects funded by private or corporate means have falsified, omitted, or manipulated research data and evidence in order to satisfy our patrons. Good people can arrive at different conclusions, Mr. Ward. Is there even a single member within the Royal Society that at one time during their careers has not accepted a scholarship, grant or other

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<sup>47</sup> Adam, D. Royal Society tells Exxon: stop funding climate change denial. 20 September 2006. <http://www.guardian.co.uk/environment/2006/sep/20/oilandpetrol.business>

<sup>48</sup> The letter can be seen at the website of Prof. Roger Pielke Jnr at [http://cstpr.colorado.edu/prometheus/archives/science\\_politics/000947bob\\_ward\\_comments\\_on.html](http://cstpr.colorado.edu/prometheus/archives/science_politics/000947bob_ward_comments_on.html).



source of funding to advance their own intellectual pursuits? Are we to assume that they have altered their findings to meet the whims of their funders?<sup>49</sup>

65. Ward was subsequently asked by Professor Roger Pielke Jnr, a researcher in the area of science policy, about the details of what had happened. Pielke Jnr asked if Ward had engaged in his pursuit of ExxonMobil on a freelance basis or whether it was driven by official policies and decisions at the Royal Society. The only explanation that Ward gave was that the Society's policy unit consulted 'fellows and other senior scientists' on science policy issues and that major initiatives in the area required the approval of the Council. His words are subject to many different possible interpretations.<sup>50</sup> The extent of the involvement of officers of the Society in Ward's activities are therefore unclear, although the Society's executive secretary, Stephen Cox, was subsequently quoted in a newspaper report about the affair, apparently quite comfortable with the campaign against ExxonMobil.<sup>51</sup> It remains unclear why Cox, an administrator rather than a scientist, should have been representing the Society in the media in this way.

66. Ward, who left the Society shortly afterwards, has disputed rumours that he was sacked.<sup>52</sup> It should be noted that in the Society's annual meeting a few weeks later, Rees was fulsome in his praise for Ward's work,<sup>53</sup> suggesting official approval of the campaign against ExxonMobil.

## February 2007: Lockwood and Fröhlich

67. In 2007, the Society took what may have been its boldest step to distance itself from its previous position as the impartial overseer of scientific disputes when it appeared to accuse a prominent scientist of misleading the public.

68. Henrik Svensmark is a researcher at the Danish National Space Centre who has been developing the theory he calls 'cosmoclimatology' since the late 1990s. The essence of the theory is that the sun influences the Earth's climate not only by way of its direct irradiance but also because it diverts the flow of cosmic rays – charged particles from outer space – hitting the Earth. According to Svensmark's theory, cosmic rays seed low clouds and so a change in solar output will alter cloud cover, thus affecting the climate.

69. In January 2007, Svensmark published a major review of his theory in the journal *News and Reviews in Astronomy and Geophysics*. At around the same time, he and Nigel Calder, a science writer and a former editor of *New*

49 Quoted at: Pielke Jnr, R. Bob Ward Comments on Royal Society Letter. Prometheus blog, 4 October 2006. [http://cstpr.colorado.edu/prometheus/archives/science\\_politics/000947bob\\_ward\\_comments\\_on.html](http://cstpr.colorado.edu/prometheus/archives/science_politics/000947bob_ward_comments_on.html)

50 Ibid.

51 Hundley, T. Letter from London: Legacy of Newton and Darwin fuels defense of modern science. Chicago Tribune, 10 November 2006.

52 Pielke Jnr, R. Bob Ward Comments on Royal Society Letter. Prometheus blog, 4 October 2006. [http://cstpr.colorado.edu/prometheus/archives/science\\_politics/000947bob\\_ward\\_comments\\_on.html](http://cstpr.colorado.edu/prometheus/archives/science_politics/000947bob_ward_comments_on.html)

53 Rees, M. Speech to the Royal Society. 30 November 2006. <http://rsnr.royalsocietypublishing.org/content/61/1/75.full>

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*Scientist*, published a book entitled *The Chilling Stars*, which set out the theory in more detail and in a more popular form.

70. The story of Svensmark's theories gained extensive publicity and in due course mainstream scientists fought back. A rebuttal was issued by Mike Lockwood and Claus Fröhlich, the former a researcher at the Rutherford Appleton laboratory and the latter based at the World Radiation Center in Switzerland. The paper was accepted for publication in July 2007 and immediately received considerable play in the media as it was alleged to show that Svensmark's theories were incorrect. Several of the newspaper articles discussing the Lockwood and Fröhlich paper revealed that the Royal Society had issued its own statement in support of Lockwood and Fröhlich. Some of this was extraordinary:

At present there is a small minority which is seeking to deliberately confuse the public on the causes of climate change. They are often misrepresenting the science, when the reality is that the evidence is getting stronger every day. We have reached a point where a failure to take action to reduce carbon dioxide and other greenhouse gas emissions would be irresponsible and dangerous.<sup>54</sup>

71. The statement appears to have been intentionally left rather vague, but in the circumstances could easily be interpreted as an attack on Svensmark's integrity. Given that the cosmoclimatology theory has been published in a series of papers in the peer-reviewed literature, the Royal Society's statement was a remarkable step.

72. In recent years a growing body of experimental work, in particular the recently published experimental results from the CLOUD experiment at the European Organisation for Nuclear Research (CERN),<sup>55</sup> have provided strong support for Svensmark's position, even if the magnitude of the effect of cosmic rays remains disputed. The decision to lend support to Lockwood and Fröhlich and to denigrate their opponents therefore appears to have been a rash one.

### **March 2007: The Great Global Warming Swindle**

73. The polemical television documentary, *The Great Global Warming Swindle*, was an outspoken attack on mainstream climate science, which set out a variety of sceptical positions on climate change in a highly accessible documentary format. The director, Martin Durkin, interviewed many scientists sceptical of the IPCC consensus as well as obtaining quotes which, despite coming from staunch upholders of the IPCC consensus, appeared to cast severe doubt on whether that consensus was quite as secure it seemed.

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<sup>54</sup> The statement does not appear on the websites of either the Society or its publishing arm, but was widely reported at the time. See for example: Highfield, R. Sun not responsible for climate change. Daily Telegraph, 11 July 2007. <http://www.telegraph.co.uk/science/science-news/3300177/Sun-not-responsible-for-climate-change.html>

<sup>55</sup> Brumfiel, G. Cloud formation may be linked to cosmic rays. Nature.com, 24 August 2011. <http://www.nature.com/news/2011/110824/full/news.2011.504.html>

74. Reactions to the programme suggest that it had been seen as highly damaging to public perceptions of climate science and the Royal Society immediately stepped into the breach, with Rees issuing a statement in defence of the climate mainstream the morning after the film was broadcast.<sup>56</sup> While this statement appeared to admit the existence of legitimate dissenting views on climate science, the very fact that it was issued at all suggested a public relations exercise in support of the mainstream – using the Royal Society's authority as the UK's academy of science to counter the impact of Durkin's film. So while Rees's statement was comparatively mildly worded, it left no doubt of the Society's position:

Global temperature is increasing. This warming threatens the future health and well-being of many millions of people throughout the world...If present trends continue the projected climate change will be far greater than that already experienced. Greenhouse gas emissions are something that we can and must take action on...Those who promote fringe scientific views but ignore the weight of evidence are playing a dangerous game.<sup>57</sup>

75. In the wake of the broadcast, upholders of the mainstream position on climate change sent a large number of complaints to the UK broadcasting regulator, Ofcom, claiming that scientists had been tricked into taking part, that the science had been misrepresented, and questioning the integrity of some of those who had taken part. In the event Ofcom upheld a complaint that one scientist had been misled about the nature of the programme and that another had not been given the opportunity to respond to criticism but ruled that the public had not been materially misled over the science.

76. Once again, Rees felt it necessary to make a contribution to the public war of words, issuing a further statement that disputed the Ofcom decision:

TV companies occasionally commission programmes just to court controversy, but to misrepresent the evidence on an issue as important as global warming was surely irresponsible. 'The Great Global Warming Swindle' was itself a swindle. The programme makers misrepresented the science, the views of some of the scientists featured in the programme and the work of the Intergovernmental Panel on Climate Change.

The science of climate change is complex; however the weight of scientific evidence shows that global warming caused by human actions is happening now, and is set to continue. There is certainly a need for ongoing debate on climate change and on what we are going to do to tackle it but this programme made little or no contribution to that debate.<sup>58</sup>

<sup>56</sup> Royal Society press release, 9 March 2007. The Royal Society's response to the documentary 'The Great Global Warming Swindle'. <http://royalsociety.org/News.aspx?id=1521>

<sup>57</sup> Ibid

<sup>58</sup> Royal Society press release, 21 July 2008. Royal Society response to OFCOM decision on 'The Great Global Warming Swindle'. <http://bit.ly/Amxn72>

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## July 2007: Climate Change Controversies

77. In 2007, the Society decided that its 2005 position statement on global warming, *A Guide to Facts and Fictions about Climate Change*, was in need of updating. The decision is believed to have been prompted by the showing of *The Great Global Warming Swindle* and therefore appears to have been an attempt to rebut criticisms of mainstream climate science.

78. The new document, entitled *Climate Change Controversies*,<sup>59</sup> was issued shortly after the appearance of the Fourth Assessment Report. Its purpose and tone were similar to the 2005 original, as the introduction makes clear:

This is not intended to provide exhaustive answers to every contentious argument that has been put forward by those who seek to distort and undermine the science of climate change and deny the seriousness of the potential consequences of global warming. Instead, the Society – as the UK's national academy of science – responds here to eight key arguments that are currently in circulation by setting out where the weight of scientific evidence lies.<sup>60</sup>

79. Unlike *Facts and Fictions*, however, the Society was rather more reticent about the document's authorship, noting only that it was 'compiled with the help of the Royal Society Climate Change Advisory Group and other leading experts'. The Royal Society Climate Change Advisory Group is an informal grouping of scientists working in the area, including Sir John Houghton and Professor Phil Jones, the man at the centre of the Climategate affair.<sup>61</sup>

80. The ground covered was rather similar to *Facts and Fictions*. For example, recent temperature rises were said to be 'larger than can be accounted for by natural factors alone' although without any elaboration – unlike the earlier document, the Society eschewed the use of citations for the claims it made.<sup>62</sup>

81. Some of the claims made in the document were remarkable. For example, issue was taken with what it said was the misleading claim that 'Computer models which predict the future climate are unreliable and based on a series of assumptions'. In fact the normal criticism made of climate models is that they rely heavily on parameterisations – more or less accurate guesses at factors that cannot be modelled in detail – so the Society was in fact not addressing the key criticism made. However, their response explicitly accepted the use of such assumptions and defended the criticism of

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59 Royal Society. Climate Change Controversies – a simple guide. <http://royalSociety.org/Climate-change-controversies-a-simple-guide/>

60 Ibid.

61 I was told by the Royal Society in 2009 that the group at that time was: Prof John Pyle FRS, Prof Peter Cox, Prof Sir Brian Hoskins FRS, Prof Tim Palmer FRS, Prof John Mitchell FRS, Prof Chris Freeman, Dr Simon Lewis, Dr Y Malhi, Dr J A Lake, Dr Nicole Augustin, Prof John Houghton FRS, Prof John Shepherd FRS, Prof Harry Bryden FRS, Prof Rick Battarbee FRS, Prof Carl Wunsch ForMem, Dr Philip Reid, Dr Richard Kirby, Prof Alastair Fitter FRS, Prof Nicholas White FRS, Prof Joanna Haigh, Prof Nick McCave, Prof Martin Parry, Prof John Reynolds, Prof John Harries, Prof Keith Shine FRS, Prof Peter Liss FRS, Prof Chris Rapley, Dr Carol Turley, Prof Michael Lockwood FRS, Prof Nigel Weiss FRS, Prof Phil Jones, Prof Chris Folland, Dr Giles Harrison and Dr Ed Hill.

62 Royal Society. Climate Change Controversies – a simple guide. <http://royalSociety.org/Climate-change-controversies-a-simple-guide/>

unreliability by saying that the models had 'become increasingly accurate', a statement that might have been seen as damning with faint praise were it not for their conclusion:

[Climate models] do, however, give us a reliable guide to the direction and magnitude of future climate change. The reliability also continues to be improved through the use of new techniques and technologies.<sup>63</sup>

82. This was an extraordinary claim. The IPCC had last issued predictions in 2000, ahead of the Third Assessment Report, and so by 2007 there were seven years against which to test the central prediction of a planet warming at 2°C per century. During that time there had been no recorded warming at all, so a claim that the models were 'reliable' was at least questionable, if not rash. The history of the following four years, with still no warming observed, suggests the latter.

83. It is also notable that Mike Lockwood, the scientist involved in the dispute over Svensmark's cosmic ray hypothesis of climate change, is a member of the Royal Society Advisory Group on Climate Change and was presumably therefore involved in drafting *Climate Change Controversies*. In that document, Svensmark's cosmic ray theory appeared as 'Misleading Claim 7', where it was described as 'speculative'. It was said that the effect, even if real, was too small to explain recent warming, a position that Svensmark disputes. The Society had allowed its authority to be used to promote one side of an ongoing scientific dispute.

### **August 2007: broadening the focus on climate change**

84. In August 2007, it was reported that the Kohn Foundation was going to make a further substantial gift to the Royal Society, this time with a specific focus on global warming. Their generosity on this occasion was to fund the creation of a Climate Change Unit within the Science Policy Centre.<sup>64</sup> As the *UK Fundraising* website reported:

The pledge will enable the Royal Society to broaden its focus on climate change to include issues such as alternative fuels for transport, new technologies for mitigating climate change, adaptation to the impacts of climate change, as well as socio-economic issues arising from the effects of climate change.

85. The report went on to quote Sir Ralph Kohn, explaining the reasons for his new gift:

The deeply worrying problems which we face as a result of climate change require expert handling and who better than the Royal Society to take a

<sup>63</sup> Ibid

<sup>64</sup> Royal Society Annual Review 2007–8.

[http://royalsociety.org/uploadedFiles/Royal\\_Society\\_Content/about-us/reporting/Review\\_of\\_the\\_Year\\_-\\_2007-2008.pdf](http://royalsociety.org/uploadedFiles/Royal_Society_Content/about-us/reporting/Review_of_the_Year_-_2007-2008.pdf)

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leadership role to deal with the issues involved.<sup>65</sup>

## 2010: The Royal Society and Climategate

86. In 2009 the data, computer code, and thousands of emails of climatologists at the University of East Anglia were released onto the internet. The disclosures led to an international furore, since they were alleged to show that scientists had engaged in suppression of dissenting views, data manipulation and breaches of UK freedom of information legislation.

87. In the wake of the disclosures, Rees was approached by authorities of the university with a view to the Society lending its name to an inquiry the university was organising. Rees's questionable role in these events has been described elsewhere.<sup>66</sup>

## Rees's campaigns

88. Throughout Rees's tenure as president, the Royal Society had issued statements on climate change before each of the annual political summit meetings on the subject. In each of these the Society made demands for action:

- in 2006, it was said that climate change concerns should not fall by the wayside in G8 energy discussions
- in 2007, sustainability, energy efficiency and climate protection were demanded
- in 2008, climate change adaptation and the transition to a low carbon economy was addressed
- and in 2009 the subject was climate change and the transformation of energy technologies for a low carbon future.

89. Towards the end of 2009, another statement was issued, timed to coincide

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<sup>65</sup> Lake, H. Trust grants £1 million to Royal Society. Fundraising.co.uk website, 13 August 2007. <http://www.fundraising.co.uk/node/162784>

<sup>66</sup> Montford, A. The Climategate Inquiries. GWPF, 2010. <http://www.thegwpf.org/images/stories/gwpcf-reports/Climategate-Inquiries.pdf>

with the closing stages of the Copenhagen conference. It was entitled 'Preventing Dangerous Climate Change – The Need for a Global Agreement', a formulation that rather betrayed the Society's straying into the political sphere. It was both scientifically dubious and far outside the scientific realm of expertise of the Society.<sup>67</sup>

90. For example, the document claimed, remarkably, that there was 'no such thing as safe climate change', a position that might be construed as an eccentric belief that the Earth is currently at some kind of climate optimum. The document went on to state, without citation, that

...the global temperature increase to date (about 0.75°C) is contributing to effects that are impossible to adapt to in some regions, notably small low-lying islands and coastal areas.

91. The allusion is presumably to sea level changes in places such as the Maldives and Tuvalu, but whether or not the sea has risen in these areas is hotly disputed and the idea that islanders have been unable to adapt to these putative changes could best be described as 'speculative'.

92. The rest of the Royal Society document was based only on the output of climate models.

## 2010: The rebellion of the 43

### The beginnings of the rebellion

93. It was against the background of the run-up to the Copenhagen conference that the first signs of dissent about the Royal Society's direction appeared among the fellows. Since the beginning of the Society's involvement in the science of global warming, discontent about the path taken by May and Rees had never been aired in public. However, with the issuing of *Facts and Fictions* and *Climate Change Controversies*, the increasingly unscientific tone of the Society's activism finally produced a reaction. A small group of fellows began to feel that something had to be done.

94. As one unidentified fellow later explained to the BBC, the tone of the *Climate Change Controversies* document was the principal bugbear:

This [document] appears to suggest that anyone who questions climate science is malicious. But in science everything is there to be questioned – that should be the very essence of the Royal Society. Some of us were very upset

<sup>67</sup> Royal Society press statement. Preventing dangerous climate change. December 2009. <http://www.webcitation.org/5yn7Eo5R2>

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about that.<sup>68</sup>

95. The identities of most of the rebels is not known, although *The Times* identified Sir Alan Rudge, a former chairman of the Engineering and Physical Sciences Research Council, as being one of the prime movers.<sup>69</sup> *The Daily Mail* later identified Professor Anthony Kelly of the University of Cambridge as being involved too.<sup>70</sup> Rudge and the other rebels apparently simply emailed their immediate contacts within the Society to ask for their backing for a complaint. In other words there was no systematic survey of opinion within the Society and because of this, the rebels only represented a small fraction of the Society's fellows – 43 out of 1,450 – but were still able to present themselves as a valid body of opinion within the fellowship.

96. It is understood that most of the rebels were physical scientists. Their motivations are, of course, unknown but for some of those taking part, the impetus may have come not from an objection to the global warming hypothesis per se, but to the unscientific nature of, and lack of balance in, the Society's pronouncements in the area.

### **The letter to council**

97. In the autumn of 2009, the rebels put in a request to council asking that *Climate Change Controversies* be rewritten in order to abide by the Society's famous motto of 'nullius in verba'. This was necessary, they said, in order to protect the reputation of the Society – its position on climate change did not reflect the balance of informed opinion on the subject. They also felt that the Society should review its processes for arriving at public statements.

98. The idea that the fellows might need to be consulted on the statements issued in their name appears to have been anathema to some within the Society, confirming the impression that the leadership had been putting forward their own opinions as representative of the views of the fellows. As another unidentified fellow told the BBC:

This is a very serious challenge to the way the Society operates... In the past we have been able to give advice to governments as a Society without having to seek consensus of all the members.

There is very clear evidence that governments are right to be very worried about climate change. But in any Society like this there will inevitably be people who disagree about anything – and my fear is that the Society may become paralysed on this issue.<sup>71</sup>

68 Harrabin, R. Society to review climate message. BBC website, 27 May 2010. <http://www.bbc.co.uk/news/10178124>

69 Webster, B. Rebel scientists force Royal Society to accept climate change scepticism. *Times*, 29 May 2010. <http://bit.ly/x0ykff>

70 Firth, R. Royal Society issues new climate change guide that admits there are 'uncertainties' about the science. *Daily Mail*, 7 October 2010. <http://www.dailymail.co.uk/sciencetech/article-1316469/Royal-Society-issues-new-climate-change-guide-admits-uncertainties.html>

71 Harrabin, R. Society to review climate message. BBC website, 27 May 2010. <http://www.bbc.co.uk/news/10178124>



99. The news of the review reached the media at the end of May 2010 and attracted considerable attention. Many of the details about what had been going on in the background began to emerge at this time.

### The revision panels

100. Responsibility for the new document on climate change was handed to the Physical Secretary of the Society, Professor John Pethica. Parallel panels were set up to draft the text. The members were largely well-known climatologists, the mix leavened by a materials scientist in the shape of Michael Kelly, an environmental policy expert, Susan Owens, and the statistician, David Spiegelhalter. It was reported that both teams included at least one member who was either sceptic and/or agnostic on the subject of climate change. As the lone statistician on the panel, Spiegelhalter had an important role to play, since many of the most heated disputes in climate change revolve around statistics. Unfortunately, Spiegelhalter's expertise is in the area of biostatistics, an area that tends to involve quite different techniques to those used in the Earth sciences. The lack of an expert in time series analysis could therefore be seen as a weakness in the panel.

### The new paper

101. The new paper, entitled *Climate Change: A Summary of the Science* finally appeared in October 2010. It adopted an entirely different approach to the question of communicating the science of climate change.<sup>72</sup> Gone were the accusations of 'misleading arguments' and the insinuations of dishonesty in those who questioned the global warming hypothesis. In their place was a much more scientific document, which set out on a scale of certainty what was known and not known about the climate system. The greenhouse effect, the rise in carbon dioxide levels and the warming of the globe were most certain, climate sensitivity and attribution of the warming less so, with great uncertainty over the influence of clouds and the ability of models to predict the future, particularly at a regional scale.

102. The paper generated considerable press interest because of the change in tone compared to the Society's earlier position. For example, the BBC said:

[The Royal Society's guide to climate change] has been updated partly as a result of complaints by 43 of the Royal Society's members who were concerned about the tone of its previous guide.

That was a point-by-point rebuttal of arguments put forward by those who doubt climate change is man-made.

But for many members of the Society, it was too strident and did not fully

<sup>72</sup> Harrabin, R. Society to review climate message. BBC website, 27 May 2010. <http://www.bbc.co.uk/news/10178124>

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acknowledge areas of uncertainty...

The new guidance, which still states there is strong evidence that the Earth's warming has been largely caused by human activity, but sets out the science in a more measured way and acknowledges areas where there are uncertainties.<sup>73</sup>

103. Although the new document was much more balanced than those that had gone before, the Society chose to present its new paper as a development of their previous papers rather than what it actually was – a radical change. The Society was therefore able to avoid addressing the failings of *Facts and Fictions* and *Climate Change Controversies*. The failure to distance itself from its earlier unscientific output leaves the Society open to criticism. Only by admitting that it had left the scientific path in previous decades, the Society will be able to rebuild trust and restore its reputation.

## The presidency of Sir Paul Nurse

### Horizon

104. Lord Rees stood down as president of the Society in November 2010 and was replaced by Sir Paul Nurse, the distinguished geneticist and Nobel laureate who had previously headed up the Society's "Science in Society" project. Despite his expertise being in biological sciences, Nurse had been one of the many prominent scientists who had chosen to speak out on the subject of climate change.<sup>74</sup>

105. Shortly after taking up his new role, Nurse presented an edition of the BBC's Horizon programme called 'Science under Attack', which, although it purported to be about distrust of scientists in general, in fact was almost entirely about climate change, with only a short segment considering other areas.<sup>75</sup>

106. Nurse took as his theme the idea that climatologists were under a sustained political attack and expressed his concern that some people might think that the global warming hypothesis had been exaggerated and that these attacks were justified. A large section of the programme was given over to a defence of the global warming hypothesis, with evidence for the

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73 Ghosh, P. Royal Society launches new climate change guide. BBC Online, 22 November 2010. <http://www.bbc.co.uk/news/science-environment-11438570>

74 Paul Nurse, Biology in the 21st Century. Speech at the launch of the Society of Biology, 25 March 2010. <http://www.Societyofbiology.org/filegrab/documents/4131b7c6e67ad72392be160542351754/SirPaulNurse-remarks-25Mar2010.pdf>

75 The Horizon programme was broadcast during Nurse's term of office and in fact Nurse was introduced as president of the Society. It appears to have been filmed partly while he was president-elect. I have therefore taken the view that on balance Nurse's appearance was made on behalf of the Society.

'consensus' position presented by a NASA scientist named Bob Bindschadler. The focus of this section of the programme was the large quantities of data collected by Bindschadler and his colleagues and the atmospheric models which were based on it. The model output shown to the viewers, however, appeared to be derived from weather models rather than climate models, thus making its relevance to the debate somewhat moot. In another section of the programme, Bindschadler embarrassingly claimed that manmade emissions of carbon dioxide dwarfed natural ones, when even the IPCC's own figures show that the opposite is true, an error that was later acknowledged by Bindschadler. However, with Nurse and the programme makers failing to pick up the mistake at the time, the integrity of the programme can hardly have been enhanced and inevitably the authority of the Society was again struck a blow.

107. Another lengthy section of the programme looked at the Climategate affair, with Nurse blaming the events at the University of East Anglia (UEA) for causing much of the distrust of scientists that has emerged in the recent past. As part of the programme, Nurse visited the University of East Anglia, his alma mater and the home of the Climatic Research Unit (CRU), the organisation which had been at the centre of Climategate and whose director, Professor Phil Jones, had been the subject of the most serious allegations.

108. In one remarkable segment, Nurse and Jones discussed the 'hide the decline' email, one of the most notorious of the Climategate disclosures. The scientific issues in play in the 'hide the decline' incident are relatively simple, relating to decisions Jones had taken in preparing a graph of historic temperatures reconstructed from tree ring and other proxy data. This was to be used on the cover of a report for the World Meteorological Organisation (WMO). Part of one of the data series Jones wanted to use was behaving in an aberrant fashion, suggesting that the whole series was unreliable. Jones had chosen to truncate it, replacing the aberrant data with figures from another dataset. Similar techniques were used to hide the same problem in the IPCC reports.

109. Despite the allegations being relatively straightforward, Nurse, in his role as interviewer, failed to challenge Jones on the details of what had happened. In particular, an insinuation from Jones that the problem was restricted to the rather obscure WMO report and a suggestion that all was well in the CRU's scientific papers were both allowed to go unchallenged.

110. Throughout this section of the programme, Nurse not only failed to criticise Jones but appeared highly sympathetic, describing Climategate as 'the greatest scientific scandal that never happened', and claiming that the 'independent reviews...said splicing the temperature data wasn't misleading, but this technique should have been made plain'.<sup>76</sup> This characterisation of the inquiries is remarkable on two different counts. Firstly, as has been widely noted, the evidence that the inquiries were anything but 'independent' is overwhelming and with the Royal Society's involvement in the deception now

<sup>76</sup> A transcript of the programme is available at: [https://sites.google.com/site/mytranscriptbox/home/20110124\\_hz](https://sites.google.com/site/mytranscriptbox/home/20110124_hz)

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made public,<sup>77</sup> for Nurse to claim otherwise is disturbing.

111. In addition, Nurse's representation of the findings of the reviews appears to be a carefully spun retelling of the story. The Russell panel, which had been responsible for examining the 'hide the decline' episode, concluded that truncating and splicing data was not misleading per se, but that CRU's failure to disclose that this had been done meant that their output had in fact been misleading. The actual wording of the Russell report was as follows:

On the allegation that the references in a specific e-mail to a 'trick' and to 'hide the decline' in respect of a 1999 WMO report figure show evidence of intent to paint a misleading picture, we find that, given its subsequent iconic significance (not least the use of a similar figure in the IPCC Third Assessment Report), the figure supplied for the WMO Report was misleading. We do not find that it is misleading to curtail reconstructions at some point per se, or to splice data, but we believe that both of these procedures should have been made plain – ideally in the figure but certainly clearly described in either the caption or the text.

112. Nurse therefore left the viewer with a rather different impression of the panels' findings from what had actually been said in their reports.

113. Another aspect of the Climategate affair that Nurse examined was the impact of Freedom of Information requests. The CRU scientists had been widely criticised for failing to respond to these requests and the Information Commissioner had reported that there was compelling prima facie evidence of a criminal breach of the legislation. Only the statute of limitations had prevented him from bringing a case against the CRU staff concerned.

114. Nurse's take on the affair was remarkable, suggesting that FOI requests were being used to harass the scientists – basing this claim on a sharp rise in these requests in the months running up to Climategate. This was a story that had been put forward by UEA itself on a number of occasions, but has been shown conclusively to be untenable. In his evidence to the House of Commons Science and Technology Committee inquiry into the affair, the former Information Commissioner Richard Thomas noted that the number of requests sent to UEA was not high compared to other institutions and had anyway been prompted by the university's refusal to comply with informal requests and with earlier FOI requests – on transparently false pretexts.<sup>78</sup> In addition, there is an exemption in the FOI legislation allowing public bodies to reject vexatious requests, and indeed UEA had taken advantage of these exemptions in the past. However, they did not do so with the series of requests for information that were received shortly before Climategate, since such a case would never have survived appeal – all were essentially asking for the same thing. When the university eventually responded, all requesters were sent an email pointing them

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<sup>77</sup> Montford, A. The Climategate Inquiries. GWPF, 2010.  
<http://www.thegwpf.org/images/stories/gwpf-reports/Climategate-Inquiries.pdf>.

<sup>78</sup> UEA claimed first that they could only release the data to academics, but when the request was reiterated by an academic, they changed the story, arguing that the data was held under confidentiality agreements. Requests for copies of the confidentiality agreements have revealed that these agreements are largely mythical.

to the same webpage, so the response can have taken only an hour or so to deal with.

115. Despite the fact that the claims that UEA had been harassed being untenable, Nurse once again left the viewer with the clear impression that CRU was the innocent party in the events leading up to Climategate.

116. One of the most remarkable claims that Nurse made in the programme was a suggestion that the uncertainties of climate science were reducing all the time. According to Professor Mike Hulme, a prominent upholder of the global warming consensus, this statement was simply incorrect:

I do not recognise his claim that 'climate science is reducing uncertainty all the time'. There remain intractable uncertainties about future predictions of climate change.<sup>79</sup>

117. And as Hulme went on to explain, by portraying sceptics as unscientific and misguided and by emphasising the IPCC consensus, Nurse had misled viewers over the way that consensus had been reached:

...when defending consensus in climate science – which he clearly does – he should have explained clearly the role of...subjective...expert knowledge in forming such consensus.

118. It was not only outsiders who felt that the Horizon programme had been less than satisfactory. It is understood that in the wake of the broadcast a significant number of fellows wrote to Nurse to complain that he had overstepped a mark in terms of tone of the broadcast and the way he had dealt with sceptic views.

### **The campaign against freedom of information**

119. In the wake of the Horizon programme, Nurse made further forays into the area of climate science, discussing issues surrounding the Climategate affair in several TV interviews. In particular he took issue with the use of freedom of information legislation to extract data and code from reluctant scientists. In a speech reported in the Guardian he claimed that climate scientists were being intimidated by FOI requests:

I have been told of some researchers who are getting lots of requests for, among other things, all drafts of scientific papers prior to their publication in journals, with annotations, explaining why changes were made between successive versions. If it is true, it will consume a huge amount of time. And it's intimidating.<sup>80</sup>

<sup>79</sup> Hulme, M. BBC Horizon's "Science under attack". <http://mikehulme.org/wp-content/uploads/2010/12/Science-under-attack.pdf>

<sup>80</sup> Jha, A. Freedom of information laws are used to harass scientists, says Nobel laureate. Guardian 25 May 2011. <http://www.guardian.co.uk/politics/2011/may/25/freedom-information-laws-harass-scientists>

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120. Little of this statement is correct, and in fact so far removed were Nurse's comments from the actualities of freedom of information legislation that Maurice Frankel, the director of the Campaign for Freedom of Information, felt moved to correct him:

Deliberate attempts to 'intimidate' scientists, if that is what they are, can be refused under the Freedom of Information Act's safeguards against vexatious requests. Unreasonable requests for all pre-publication drafts of scientific papers can be refused under an exemption for information due for future publication. Explanations of why changes to successive drafts were made do not have to be provided unless they exist in writing. Multiple related requests from different people, if they are co-ordinated, can be refused if the combined cost of answering exceeds the act's cost limit.<sup>81</sup>

### **A wider political role**

121. In September 2011, Nurse gave an interview to Nature magazine in which he appeared to formalise the Royal Society's transformation into a political body.

Nurse wants the Society to have a stronger voice on the big policy questions of the day. 'The Royal Society has a responsibility to provide advice on difficult issues, even if they are contentious,' he says.

He hopes to boost the Society's role in government decision-making by fostering greater involvement of its roughly 1,500 fellows and foreign members in preparing reports, potentially with the help of more policy staff. Nurse also wants to expand the number of authoritative and influential reports on key issues, such as nuclear power, climate change and the definition of life.<sup>82</sup>

122. One former Royal Society Research Fellow who commented on Nurse's article pleaded for the Society to remain above the political fray:

Great science will truly inform government policy while informed opinions on science can only fuel debate. Personally I enjoy both of these aspects of being a scientist though I know which one of these actually counts. Please do not turn The Royal Society into another policy-driven quango...

123. However, the following day Nurse reentered the political fray, launching an attack on what he saw as 'anti-science' attitudes in the US Republican party.<sup>83</sup> It appears, then, that a policy-driven quango is exactly what Nurse intends the Society to become.

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81 Frankel, M. Scientists could use FoI law safeguards. Letter to Guardian, 27 May 2011. <http://www.guardian.co.uk/science/2011/may/27/scientists-freedom-information-law-safeguards>

82 Brumfiel, G. Nurse takes Royal Society's Pulse. Nature 477: 258. <http://www.nature.com/news/2011/1110913/full/477258a.html>

83 Nurse P. Stamp out anti-science in US politics. New Scientist 14 September 2011. <http://www.newscientist.com/article/mg21128302.900-stamp-out-antiscience-in-us-politics.html>

## Funding

124. In the 50 years since Lord Adrian warned of the dangers that a flood of government money represented to the Royal Society, all of his worst fears have come true. Despite repeated claims that the Society is independent of government, the reality is rather different. Although the fellows still have to pay subscriptions to the Society, the total raised in this way is dwarfed by sums routed through the Society by government – recently of the order of £40–50m per annum. Although much of this sum passes through the Society to grant recipients, £2.4m per year remains within the Society itself, supporting the salaries of administrative staff.<sup>84</sup> This figure represents over 40% of the unrestricted funds of the Society.

125. Staff numbers have grown rapidly in recent years, with the Society now having 146 permanent employees compared to just 117 in 2005/6. Until recently the Society published detailed breakdowns of its staff numbers by function. In 2007/8, the last year for which the analysis was published, only 15 staff were working on grant distribution,<sup>85</sup> suggesting that considerable amounts of taxpayer funding are actually going to support the other activities of the Society covered by the grant-in-aid – including the 16 people working on science policy, 7 in education and 7 in public relations.

126. The Society's role as a conduit for scientific funding also looks more like a means of government control than an efficient way of distributing taxpayers' largesse: there are funding councils aplenty that could do the job as well, if not better.

## Conclusions

127. As the Society's independence has disappeared, so has its former adherence to hard-nosed empirical science and a sober detachment from the political process. Gone is its former focus on natural philosophy as a way to solve the world's problems and in its place is a new science that seeks to conjure up, in the words of Mencken, 'an endless series of hobgoblins' – a stream of

<sup>84</sup> Royal Society, Trustees Report 2010.  
[http://royalsociety.org/uploadedFiles/Royal\\_Society\\_Content/about-us/reporting/TrusteesReport\\_10.pdf](http://royalsociety.org/uploadedFiles/Royal_Society_Content/about-us/reporting/TrusteesReport_10.pdf)

<sup>85</sup> Royal Society, Trustees Report 2006.  
[http://royalsociety.org/uploadedFiles/Royal\\_Society\\_Content/about-us/reporting/TrusteesReport06.pdf](http://royalsociety.org/uploadedFiles/Royal_Society_Content/about-us/reporting/TrusteesReport06.pdf)

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apocalyptic visions with which to assail the public. Gone are the doubts and uncertainties that afflict any real scientist, to be replaced with the dull certainties of the politician and the public relations man. As one of the fellows interviewed in the wake of the rebellion of the 43 said:

“I can understand why this has happened – there is so much politically and economically riding on climate science that the Society would find it very hard to say ‘well, we are still fairly sure that greenhouse gases are changing the climate’ but the politicians simply wouldn’t accept that level of honest doubt.”<sup>86</sup>

128. The ability to speak scientific truth to the powers that be is the Society’s only *raison d’être*, but even this has now been usurped: there is nowadays a network of science advisers throughout the government machine – if the government and the bureaucracy already have scientists’ advice on tap, why should they need the Royal Society? The answer is, of course, that the Royal Society is an independent voice – or at least it was until swamped with taxpayers’ money, when it became something more akin to a government department. Without its independence, there is no point in the Royal Society.

129. The reputation of the Society is now on the line – the fellows and much of the general public know that there is something seriously amiss and that the leadership do not speak for everyone within the organisation. Each year that temperatures refuse to rise in line with the nightmare scenarios trumpeted by one president after another, the risk grows that the Society becomes a laughing stock. If government money is a drug of which the Society cannot or will not rid itself, its leadership could at least remind itself of those words of Lord Adrian over 50 years ago:

“It is neither necessary nor desirable for the Society to give an official ruling on scientific issues, for these are settled far more conclusively in the laboratory than in the committee room.”

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<sup>86</sup> Harrabin, R. Society to review climate message. BBC website, 27 May 2010. <http://www.bbc.co.uk/news/10178124>





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