

**British Pugwash Group response to call from the UK Parliament House of  
Lords  
Select Committee on Science & Technology to submit evidence to the  
Mitchell inquiry into Science and International Agreements.**

**Introduction**

This response has been prepared by members of the British Pugwash Group (BPG)<sup>1</sup>. The British Pugwash Group is the coordinating body for the UK participation in the international *Pugwash Conferences on Science and World Affairs*<sup>2</sup>. The Pugwash movement largely consists of scientists and academics with very substantial international contacts, at both professional and personal level, and who are therefore closely in touch with the thinking and expertise of scientists and technical professionals around the world. The movement was started nearly 50 years ago by a group of distinguished scientists, including Albert Einstein and Bertrand Russell, in response to their conviction that international affairs (and particularly, though not exclusively, issues of war and peace), were much too important to be left to the politicians. They took the view that practising scientists could, and should, participate actively in the processes which led to decisions with international consequences. It is therefore appropriate that their descendents in the British Pugwash Group should respond to this request for evidence issued by the House of Lords Select Committee on Science & Technology.

**Scope of this inquiry**

The call which the Select Committee has issued only rather implicitly defines the scope of its inquiry. This paper therefore begins by seeking to clarify our understanding of the scope. It is (almost) self-evident that all relevant government processes should be based on the scientific method, in the sense of being based on facts established by objective procedures, and tested by being subject to independent and open scrutiny by experts. Politicians and Civil Servants generally recognise the importance of this, and in many spheres can apply this approach without having to draw on the special skills of professional scientists. However there are an increasing numbers of areas of public life where those special skills are (and are in many cases perceived to be) required. All major UK Ministries now have qualified scientists on their staff: some have a post such as Chief Scientist, in recognition of the need for those special skills to be represented at the highest level, and some run major establishments (government laboratories or research institutes) in order to ensure that they have access to such skills as required. We assume that the present inquiry is not concerned with this 'normal' government process, or is concerned only to the extent that is required to clarify the limitations of the 'normal' process. This inquiry is concerned with the measures which government takes (or should take) to broaden the reach of its access to scientific expertise to include individuals or institutions which lie outside government.

The call is also less than explicit about the meaning to be given to the term 'international agreements' in the title of the inquiry. In the modern highly-integrated world, almost every act of government is to some extent governed by international agreements, if by that term we include legal or financial constraints which national

---

<sup>1</sup> For further information see [www.pugwash.org/uk](http://www.pugwash.org/uk)

<sup>2</sup> For further information see [www.pugwash.org](http://www.pugwash.org)

governments have accepted. However the list of ‘Agreements’ which the Committee offers as examples in its call are all drawn from a small sub-set of such agreements – ie those which are embodied in a Treaty, Convention, Protocol etc - ie a document which gives that Agreement a special status within its sphere of application. In our view, there is a danger in restricting the discussion in this way. Many of the agreements which bind governments, or which are central to the formation of government policy on a particular topic, are not embodied in such ‘special status’ documents, but are in the form of contracts, aid agreements, or simply policies adopted by government following some form of consultation with experts (for example, but not necessarily at some international or EU meeting). Such agreements are quite as important as (and often far more important than) agreements in ‘special status’ documents. Accordingly in our comments below, we have not felt ourselves to be restricted to the narrow sense of ‘agreement’ implicit in the Committee’s Annex.

Another possible inference from the list of Agreements cited in the Annex is that the Committee is particularly interested in Agreements in the areas of Health and Environment. While we would fully endorse the importance of these areas, we believe that the Committee should have regard to the entire range of government activity, and should certainly include such areas as:

- Military and defence policy
- Policing and anti-terrorist policy
- Economic and political issues
- Education
- Transport
- Energy policy
- Big Science (including Space)

In some of these areas, government policy tends not to be encapsulated in ‘special status’ documents, but they are no less important for that.

### **Existing mechanisms for the involvement of non-government scientists**

BPG is aware of a wide range of mechanisms by which the UK government is currently seeking to involve scientists who are not directly in its employ in its decision-taking processes. These include:

- Public enquiries and consultations (such as the present inquiry), at which scientists are invited to give evidence
- Consultations with non-governmental bodies, such as the Royal Society or Professional Associations which can reasonably be expected to speak for Science (or for a sector of it)
- Consultations with commercial firms possessing scientific expertise
- Consultations with NGOs and other Pressure Groups which represent one view on a topic of public concern
- Appointment of Consultants to advise on specific topics, or ad hoc discussions between government officials and individual scientists
- Sponsorship of research at Universities or elsewhere where the relevant expertise is to be found
- Interactions between Members of Parliament and their constituents

In all the above examples, the term ‘consultation’ may, but does not necessarily, describe a two-way process: it may involve a government briefing (such as that

periodically offered by the FCO to NGOs) or the submission of solicited or unsolicited inputs to government from an interested party.

The diversity of this range of mechanisms is both a strength and a weakness. In theory it makes it likely that all possible points of view on any issue can be fed into the government process. However it tends to overload the capability of central government to process all this input, and it greatly increases the likelihood that the inputs will to some extent be contradictory and/or of unequal quality, and hence creates a need for a process of evaluation and synthesis which some government departments are currently hard-pressed to implement.

The above mechanisms all operate as between individual British scientists (or groups of scientists) and the British government. Some of them also operate, though generally less effectively, as an input to the EU process of governance, and some (though typically even less effectively) as an input to international agencies within which so much international policy is currently formulated (and in due course embodied in draft 'special status' documents which national governments are then invited to endorse).

One aspect of all these mechanisms which requires special consideration is the time-scale on which they operate. Almost all governmental agreements evolve over a period of time, in some cases over a period of many years, before a 'special status' document is signed. The national government policy is however often in effect decided much earlier, since government cannot pursue all possible options until the last minute. So those mechanisms which come into play at an early stage in the decision-taking process are disproportionately significant. This means that the large scale public consultations often occur too late in the process to be of much real significance in policy formation, except on the rare occasions where they demonstrate major widespread disquiet with the trend of policy. A second window of opportunity for effective interaction is during the process of international negotiation, when a scientific input to the negotiating team may be very important.

### **Concerns over the way in which these mechanisms currently operate**

Members of BPG, and occasionally the Group as a whole, have been involved in almost all the mechanisms of interaction with government listed above, and have extensive first-hand experience of the strengths and weaknesses of the current system. Although we would generally endorse the view that the current system has considerable strengths, we would like to high-light some of its more significant weaknesses.

1. It is difficult to prove that the system does not respond unduly strongly to vested interests. A good example of this problem is the current debate over genetically modified crops. The scientific case for has been eloquently presented by representatives of the companies which stand to benefit from their widespread introduction. The case against is less well coordinated, and tends to be voiced by individuals or pressure groups who do not have strong scientific credentials.
2. Many of the issues cut across the administrative dividing lines within government, and there is often no strong mechanism to ensure that the decisions are taken on a sufficiently broad front. An example of this problem is energy policy, where environmental issues (eg limiting CO2 emissions) and meeting the country's energy needs in a diverse, flexible and cost-effective way involving balancing

considerations which are within the remit of several different government departments. In this case, a partial solution has been developed in the form of the cross-departmental Sustainable Energy Policy Network. Whether this fully meets the need is debatable.

3. There is no public forum where conflicting views are routinely debated to the point where a clear scientific consensus has emerged before government policy is frozen. An example here is the issue of missile defence. The government has issued a consultation paper, and has invited responses (and the BPG has submitted a carefully-argued response) but the public debate on this has not taken off, perhaps in part because government has been unenthusiastic for it to do so.
4. There is not a consistent approach within government to distinguishing cases where it can formulate and implement a defensible policy using the scientific resources at its own disposal from cases where it has a need of independent or expert scientific advice from outside. In some cases (eg in the fluoridation of water debate) it seems to take the advice of its inside experts (counting the MRC as inside for the purposes of this argument) and ignore reasoned objections from outside: in other cases (eg the possible connection between badgers and tuberculosis) it establishes extensive outside consultation, even at the expense of decisive timely action in the face of a potentially serious threat.
5. The mechanism works less well when security issues prevent the government from participating in the debate in an open manner. An example of this is the issue of what steps the UK should take to protect itself against nuclear terrorism. The government (and indeed many expert individuals) understandably wish to avoid making the terrorist's task easier by disclosing options or counter-measures, but without some such disclosure, the debate is rather unreal.
6. The mechanism can be seriously inhibited when one of the UK's political allies has taken its policy stand before the UK has formed its view. An example is the abrogation of a number of arms-control treaties by the US: it is striking how little informed debate there has been in the UK about these issues.
7. There is no satisfactory mechanism in the UK to protect 'whistle-blowers' – ie scientific experts who have inside knowledge of a serious failure in government decision-taking, but whose liberty or livelihood is threatened if they seek to bring this to public (or even to government's) attention. The sad case of David Kelly (and of his colleagues in the intelligence community) seems to be an example of this: an older, but still notorious, case in another country is that of the Israeli nuclear expert Mordechai Vanunu.
8. A slightly different issue is the case where scientists who are in government employ, but who happen to have expert knowledge on issues which are not within their current responsibility, are inhibited from making their contribution to informed discussion.
9. There are some specific problems in the policy-making mechanisms of the EU. The voice of science is significantly less well represented in the Brussels bureaucracy than in UK government, even in those Directorates General which have a scientific mission. Most of the consultation mechanisms discussed above either do not exist, or do so in a very attenuated and ineffective form. Brussels is inclined to claim that it relies on the Member States to provide this input, but the mechanisms for such an input are not well developed. An example of the consequences of this is the TACIS programme, which has been extremely ineffective during most of its life.

10. The situation is even worse in relation to issues which have been assigned to even more international bodies for resolution – eg the G8 or the Disarmament Conference. An example of an issue where the input from the UK scientific community needs to be heard is the disposition of weapons-grade plutonium.

### **Possible mechanisms to improve the consultation process**

It is clear that no one change in the present mixture of mechanisms could hope to address all the concerns listed above. However the following group of measures seem worth considering:

1. Create and sustain within the government apparatus a willingness to listen to scientific opinion from whatever source. This might involve identifying points of contact within Ministries etc to whom such advice should normally be addressed, and ensuring that these respond at least as thoughtfully as a Member of Parliament would respond to a communication from a constituent. It would also involve creating a mechanism within Departments for analysing such advice and taking it into account in the formulation of policy, especially at the early stages in policy formation, and during an international negotiation. It might also involve creating a mechanism by which individuals who wish to make a point anonymously can be sure that if they do so their confidence will be respected. It might also involve the establishment of a ‘Scientific Ombudsman’ with a remit to monitor complaints that these procedures are not being implemented effectively.
2. Identify those bodies outside government which can be relied upon to provide authoritative and independent advice in various areas of concern, and ensure that these are effectively consulted whenever a new policy issue which requires such advice first arises. To be effective, such consultation may well involve the organisations being consulted in the expenditure of significant expert time, and there should be a mechanism (and budget) to permit such effort to be compensated. Such advice should always be sought if there is the likelihood of public concern that government is being unduly influenced by commercial or political vested interests, and wherever possible the advice should be made public. When such consultation takes place, the government’s conclusions should be fed back to the expert bodies so that they can comment on those conclusions before the policy is finalised. We are aware that the FCO has taken a useful step in this direction by holding regular NGO Forums on specific topics. These could usefully be publicised better. They do not however fully meet the need for in-depth consultation of the kind advocated here.
3. Create an inter-departmental body responsible for ensuring that appropriate consultation takes place when the scientific issues involved cross departmental boundaries.
4. Establish a mechanism to permit scientists who have regular dealings with the EU, or with the issues which the UK government has delegated to the EU, to communicate to the UK government their concerns about the way in which the process is being managed within the EU.
5. Establish a mechanism to permit scientists who have regular dealings with international bodies such as the G8, the United Nations Agencies etc, or with the issues which the UK government has delegated to these Agencies, to communicate to the UK government their concerns about the way in which the process is being managed.

6. Make much greater use of the Internet as a means of creating a sense of openness in this area of public policy. The ongoing Hutton enquiry has provided a good illustration of what is possible.

### **Comments on the specific questions raised by the Select Committee**

#### *a) How is the need for scientific advice recognised?*

The need arises if either the relevant Department lacks the in-house expertise or it needs to be seen to be avoiding a bias towards vested interests. It should be able to make these judgements for itself, but as noted above the Department does not always seek outside advice when that would be appropriate. So there should be a mechanism by which outside voices can encourage it to seek outside help. Suggestions 1,2,3 and 6 above would be relevant.

#### *b) To what extent does scientific information and evidence go through a peer-review/quality control process?*

There is not at present a systematic approach within government to peer-review/quality assurance of the kind which for example is implemented by respectable scientific journals. To improve this situation, suggestions 1,2 and 3 are relevant.

#### *c) How should international agreements deal with scientific uncertainty, having regard to a precautionary approach? Is there a need for consistency between agreements on the treatment of scientific uncertainty, and if so is there sufficient consistency?*

In general, the UK government is fairly good at adopting the precautionary principle, balanced against un-reasonable expenditure. But a review process such as that suggested in 2 would help it to maintain that balance.

#### *d) How are competing views on scientific issues addressed and incorporated into agreements and implementation of agreements?*

Departments which have a strong in-house scientific capability tend to use their own judgement in such cases. This can on occasion lead to a decision which with hindsight proves to be wrong. To reduce the risk of such mistakes, suggestions 1,2,3 and 6 are relevant.

#### *e) What role does the scientific community in the United Kingdom play in contributing to the scientific input used in formulating, applying and implementing international agreements, and how might that role be enhanced?*

As noted in the section on Existing Mechanisms above, there are lots of ways in which the scientific community currently plays a role. They could be enhanced in the ways suggested in the last section.

#### *f) In areas where the EU has assumed competence to negotiate international agreements, what arrangements are in place to ensure that the EU's position is based on an appropriate scientific foundation?*

As we noted in para 9 on p4, we are very critical of the way in which the UK seeks to (fails to) influence EU policy. Suggestion 4 is intended to make a small contribution to that very large problem.

25 September 2003