**The use of science in UK international development policy : Government response to the Committee's thirteenth report of session 2003-04 : second special report of Session 2004-05 / House of Commons, Science and Technology Committee.**

House of Commons

Science and Technology Committee

# The Use of Science in UK International Development Policy: Government Response to the Committee's Thirteenth Report of Session 2003–04

## Second Special Report of Session 2004–05

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## The Science and Technology Committee

The Science and Technology Committee is appointed by the House of Commons to examine the expenditure, administration and policy of the Office of Science and Technology and its associated public bodies.

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A list of Reports from the Committee in the present Parliament is included at the back of this volume.

### Committee staff

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# Second Special Report

On 26 October 2004 the Science and Technology Committee published its Thirteenth Report of Session 2003–04, The Use of Science in UK International Development Policy. On 13 January 2005 the Committee received a memorandum from the Government which contained a response to the Report. The memorandum is published without comment as an appendix to this Report.

# Government response

## Introduction

The Government welcomes the publication of this report. The inquiry has helped raise the profile of science and technology for international development across Government and within the UK academic community. It has contributed to policy development within DFID, in particular the appointment of a Chief Scientific Adviser. It has strengthened the links between Government funders of research. The Government looks forward to the Committee's continued interest and involvement in the application of science and technology to international development.

The response to the Committee Report has been led by DFID, with contributions from the Office of Science and Technology (OST), the Department for Trade and Industry (DTI), the Foreign and Commonwealth Office (FCO), the Department for Environment, Food and Rural Affairs (DEFRA), and the Department for Education and Skills (DfES). The Research Councils UK (RCUK), UK Trade and Investment (UKTI), Her Majesty's Treasury (HMT) and the British Council have also been consulted.

The Conclusions and Recommendations of the Select Committee are addressed point by point. In some cases responses to recommendations are amalgamated.

## List of recommendations and Government responses

### *Importance of science and technology for development*

**1. Science and research can engender a culture of inquiry, openness and respect for evidence that can have positive spill-over effects on the wider community. Indeed, a scientific, or evidence-based, approach to policy making is an integral component of good governance. (Paragraph 15)**

We agree. The Government is prioritising its science spend within its new 10 year science strategy. The Strategy sets out plans for increased investment in science and innovation. DFID's focus is on reducing poverty and on the Millennium Development Goals, and the Department recognises the fundamental contributions science and technology can make to these. The Government's 2000 White Paper, "Eliminating World Poverty: Making Globalisation Work for the Poor" (Cm5006), said there was a need "to focus more UK and global research efforts on the needs of the poor" and committed "to seek to increase public and private sector research for development". Since then DFID's Central Research

Department has been established, with a Research Funding Framework that sets out an increasing budget for DFID-sponsored research over the next 3 years. To reflect the importance of science in wider DFID policy and programmes, the Department has recently appointed a Chief Scientific Adviser, a new senior position in DFID.

**2. In order to develop, every country requires access to, and the ability to utilise, scientific and technical knowledge. (Paragraph 16)**

We agree. For small and less-developed countries, regional institutions can be particularly valuable.

**3. We welcome the fact that the UK Government has now explicitly stated its commitment to the application of science, technology and research to international development. (Paragraph 18)**

We are pleased that this has been recognised by the Committee.

## *DFID Approach to Funding*

### *Direct Budgetary Support*

**4. DFID has not provided us with a satisfactory description of how its needs for science and technology advice are changing as a result of the increased use of direct budgetary support, or any convincing evidence that it has made a formal assessment of this. It is troubling that DFID have not considered the full ramifications of this significant policy shift. We recommend that it does so. We regard scientific and technological capability as an important part of good governance. It should therefore be a condition of budgetary support. (Paragraph 22)**

While DFID is making increased use of Poverty Reduction Budget Support (PRBS), in 2003/04 it amounted to only 20% of total bilateral aid. DFID's policy paper of May 2004 (available on its website) clearly states that PRBS is not an end in itself. In most countries DFID uses, and will continue to use, a mix of aid instruments. Decisions on the share of budget support will depend on country circumstances, and judgements in each country will be made on the appropriate mix to ensure that the instruments work in a complementary manner.

The Government agrees that it is important to work with partner governments to ensure that due consideration is given to strengthening science and technology capability within their strategic planning processes. However, it feels it would be inappropriate to make this a condition of budgetary support. DFID's draft policy paper on conditionality (available for comment on its website) emphasises that aid terms and conditions must support, not "buy" reform. Donors can support developing countries as they think through their policy choices, but should not seek to use their financial support to impose their own views.

We do however recognize, from on the ground experience, that science and technology can play short, medium and long-term roles in poverty reduction. For example, intermediate technologies can produce immediate benefits in improving water sullies and sanitation, medium term benefits can arise from breeding new drought resistant crop varieties, while building science and technology capacity can yield returns in the longer term.

**5. We are concerned that the ability of science, technology and research to contribute to progress towards the Millennium Development Goals is being hampered by the Poverty Reduction Strategy process, as currently implemented. (Paragraph 24)**

**6. We conclude that DFID has given insufficient consideration to how best to help developing countries identify their requirements for scientific and technological advice and research, and how to ensure that science, technology and research are represented appropriately in developing countries' Poverty Reduction Strategy Papers. Since Country Office staff are unlikely to have the full range of technical expertise or experience required to supply effective independent advice, DFID should work together with other donors to develop specific guidance on best practice in this area. (Paragraph 27)**

Poverty Reduction Strategies help governments focus public policy and public expenditure on the actions necessary to promote development and achieve the Millennium Development Goals. They aim to enhance country ownership and leadership of the development process and provide a framework for delivering more coherent donor support.

As the fifth anniversary of the PRS initiative is reached, recent reviews have noted that developing countries, supported by the international community, need to do more to focus on growth and economic development in PRSs. Given the central role of science and technology in supporting growth, emphasis on these issues is likely to grow.

The Government agrees that this is an area for a concerted approach with other donors. DFID will be working with the World Bank and others to help developing countries improve their policy analysis and reforms focused on accelerating growth

**7. Sustainable capacity building is a slow process and investment is therefore needed now if developing countries are to have any chance of developing the necessary capabilities in science, technology and research in coming years. In view of the short-term perspective of Poverty Reduction Strategy Papers, there is a case for DFID, in collaboration with other major international donors, to develop capacity building strategies with each country. For those countries where national science, technology and research systems are so weak that capacity building will not make an impact for the foreseeable future, DFID needs to have a coherent and transparent strategy to help them identify their priorities in science, technology and research, and to ensure that these are appropriately represented in developing country Poverty Reduction Strategy Papers. (Paragraph 29)**

DFID's Science and Innovation strategy, to be developed in 2005, will address this question. The Government agrees that capacity building is a long-term process, which requires careful design and forward planning. It believes that it is for the country, rather than donors, to develop a capacity-building strategy. While many developing countries have developed long term vision statements, it is true that the links between these and PRSPs are not always clear. These links can be strengthened by working in partnership with countries and other donors to identify key constraints and resource needs; and increasing the incentives for countries to own their planning systems by giving them more control over the use of aid.

### *Short–term aid versus long–term capacity building*

**8. We urge DFID to develop clear guidelines to inform decisions on the balance between short–, medium– and long–term aid provision, as well as clear country–specific policies with respect to this balance. (Paragraph 31)**

The Government notes the recommendation of the Report and, in particular, shares the concern to improve the predictability of longer-term finance. DFID is currently analysing how it might improve the predictability of its aid, and is also examining best practice in the balance of aid instruments for different country environments.

### *Interpretation of the Millennium Development Goals*

**9. We are pleased to hear DFID acknowledge the importance of science, technology and research for achievement of the Millennium Development Goals, but we are not convinced that these words have been translated into policy or practice. We remain concerned that technology–intensive areas such as infrastructure, energy, water and sanitation are at risk of being neglected by DFID and other donors due to their omission from the headline Millennium Development Goals. (Paragraph 35)**

The links between infrastructure and the Millennium Development Goals (MDGs) have been stressed over recent years. Examples include DFID's policy paper on infrastructure *Making Connections*; the WELL briefing papers on water; and the Transport Research Laboratory's paper on transport and the MDGs. DFID has just funded and finalised a paper on Infrastructure and its complementarity to the MDGs which was presented at a recent workshop of the Development Assistance Committee of the OECD. DFID continues to promote these important links in its work with developing countries, and with other donors.

### *Multilateral funding routes*

**10. We fully agree with the Secretary of State that rigorous evaluation of the effectiveness of funding channelled through different multilateral agencies is "a perfectly rational, sensible thing to do", and are therefore surprised that DFID is only now beginning to adopt such an approach. (Paragraph 37)**

**11. It is not acceptable that 25% of DFID's funds have been potentially allocated to development programmes that are widely perceived to have been of dubious effectiveness. DFID has responsibility for ensuring that the multilateral routes through which UK aid is channelled represent good value for money for UK taxpayers. DFID's past failure to monitor its multilateral investments has been a hindrance to ensuring that this expenditure makes an effective contribution to meeting DFID's objectives. (Paragraph 39)**

Over the last three years DFID has pushed all of its multilateral partners to introduce new policies for poverty reduction and robust management systems for delivering development results. All partners are now committed to the MDGs and have made considerable progress with internal reforms to drive effectiveness.

The World Bank and Regional Banks (accounting for around 14% of DFID spend) have new results-based country planning approaches and have backed this up with strong peer review and quality assurance systems for policy development. It should also be noted that a number of multilateral agencies now have Science and Technology Strategies.

The EC has also made considerable progress with its ongoing programme of reforms. There is now proof of real progress in terms of speedier delivery and improved portfolio performance across regions and sectors. This has been recognised by the OECD/DAC in its most recent peer review of EC aid (summer 2004). Equally, the House of Lords European Union Committee's inquiry into EC aid states that "significant improvements" in aid management and organisational effectiveness has been achieved, and that the Commission is to be commended for its efforts. There is more to be done and together with other Member States we are calling for a continuation of current reforms to build on positive progress but also to identify needs for further reforms.

DFID has Institutional Strategies with all its main multilateral partners which spell out objectives for reform in the management systems and policies of the multilaterals. Through these Strategies DFID already monitors policy change and effectiveness. In addition, it has put in place better comparisons of effectiveness between multilateral agencies. DFID is now tracking the three areas of most concern for each agency and reporting on this publicly in its annual Autumn Performance Report.

### *Public–private partnerships*

**12. We support DFID's increasing emphasis on the role that public–private partnerships can play in facilitating research for development where costs would otherwise be prohibitively high, or there would be no incentive for private sector involvement, and where the benefits are clear for the developing country partners. (Paragraph 43)**

We welcome the Committee's support for Public-Private partnerships. DFID's Research Funding Framework identifies public private partnerships as a key mechanism, especially in health and agriculture. DFID commissioned a study on "Leveraging Private Sector Research" as part of the preparation process for the development of its Research Funding Framework.[1]

## *Scientific and Technological Expertise in DFID*

### *In–house expertise*

**13. It is hard to understand how DFID can be content that it has adequate expertise in science and research when it is not monitoring the numbers of staff who have relevant qualifications or a background in research. This must change. We believe that the current levels of scientific and technical expertise are insufficient to ensure that DFID can behave as an intelligent customer for science, technology and research. There is a**

1 http://www.dfid.gov.uk/research/newresearchbgprivate.pdf

**pressing need for DFID to increase the number of in-house staff with a research background, particularly in the natural sciences. (Paragraph 54)**

**14. We conclude that DFID is failing to utilise key sources of scientific and technological knowledge. DFID needs to have a critical mass of in-house expertise to identify its own needs for science, technology and research and the most appropriate sources of such advice. DFID's increasing dependence on outsourcing of research management and the erosion of the cadre of scientific and technical staff mean that it is no longer in a good position to do so. (Paragraph 56)**

As noted in paragraph 70 of the report, DFID does now have the capability to monitor the scientific and technical qualifications of its staff and the numbers who have a background in research.

DFID's approach to staffing is based on what is required to enable the Department to deliver its objectives. In considering future requirements it will take full account of the in-house expertise needed to operate as an intelligent customer for scientific research and for sourcing scientific advice. In research management, DFID agrees with the Committee on the need for further capacity and has doubled the professional staff in the Central Research Department primarily by external recruitment. The Department does not have any plans at present to further increase the number of in-house staff but will regularly consider staffing requirements in specific disciplines in the light of advice from the new Chief Scientific Adviser.

DFID also has access to external advice. The Government's Chief Scientific Adviser, Sir David King, is a member of DFID's new Programme Advisory Group and DFID is part of various Government Research Funders' Forums (Environment Research Funders' Forum, Funders' Forum for Health Research in Developing Countries, and Education Research Funders' Forum) as well as a member of the new Global Science and Innovation Forum. This brings cross-Government scientific expertise into DFID. DFID's links with the Research Councils will also provide access to scientific expertise. DFID benefits from scientific interchange with international organisations such as the World Health Organisation (WHO) and the Food and Agriculture Organisation of the United Nations (FAO). In addition to its own staff, DFID uses highly qualified external experts for scientific advice.

**15. DFID would derive much benefit from the secondment of scientists into the Department and we recommend that it takes active steps to implement this practice, particularly in existing areas of weakness. (Paragraph 57)**

DFID will actively consider the use of inward secondments where appropriate to meet requirements for scientific and technically qualified staff.

### *Chief Scientific Adviser*

**16. We welcome the announcement that DFID has finally decided to appoint a Chief Scientific Adviser and are pleased that our work helped DFID to reach its decision. However, the review to establish a need for a Chief Scientific Adviser in DFID was superfluous in view of the stated Government policy. It also came far too late in the day.**

**The fact that it took so long for DFID to accept the need for a Chief Scientific Adviser was in itself indicative of a weak scientific culture in DFID. (Paragraph 59)**

The Secretary of State welcomed the Committee's advice on the appointment of DFID's Chief Scientific Adviser when he appeared before the Committee. The review itself was a necessary part of DFID's process to establish new senior posts.

**17. The DFID Chief Scientific Adviser should be a natural scientist with extensive development expertise. (Paragraph 61)**

This was a requirement of the job description advertised. Professor Gordon Conway FRS, has now been appointed.

**18. In order for a DFID Chief Scientific Adviser to be effective, the position should be full time and a team of scientifically–literate support staff will be essential. If the Chief Scientific Adviser is not granted the necessary resources, or is not given a central role with seniority commensurate with the highest ranking Chief Scientific Advisers in other Departments, DFID's decision to appoint a Chief Scientific Adviser will amount to little more than tokenism. (Paragraph 62)**

In line with most other Government Departments, and including the Government's Chief Scientific Adviser himself, this is a part time post. The part time element enables Chief Scientific Advisers to retain their connection to the scientific world and this is considered good practice. This is a very senior post, reporting to the Permanent Secretary, supported by a small cabinet and appropriate resources. The Chief Scientific Adviser will work closely with DFID's Heads of Profession.

### *Policy Division*

**19. We support DFID's decision to adopt a cross–disciplinary approach within the Policy Division to address specific problems in developing countries. However, a significant proportion of DFID's partners, including many developing country governments, operate on a sectoral basis. DFID therefore needs to ensure that its partners have information about, and access to, the relevant contact points within the cross–disciplinary teams. (Paragraph 64)**

Over the last year DFID's Policy Division has taken considerable steps to ensure that partners understand the workings of the Division. We have put in place a dedicated communications unit that is responsible for producing material to explain the Division to our partners and others. This has included a directory of 'who does what' in the Division, a pamphlet describing policy priorities and personal letters to partners explaining staff changes following senior appointments in May.

**20. We are alarmed by the picture presented by the evaluation report of the Policy Division reorganisation and the evident weaknesses in DFID's attempts at change management. In view of the pace of change within the department, we sincerely hope that DFID has learned the lessons of this traumatic reorganisation. (Paragraph 65)**

The lessons have been learnt for change management following the reorganisation of Policy Division. An example of this can be seen when the Division announced plans to

strengthen its senior management earlier this year. The changes were planned and communicated effectively to staff and others.

**21. The downgrading of the Chief Adviser positions has caused consternation in the development sciences community. We do not understand the rationale for this decision and take it as further evidence of DFID's urgent need for a Chief Scientific Adviser. We consider that it was ill-advised for DFID to undertake this additional reorganisation of the Policy Division prior to the completion of the review to determine whether to appoint a Chief Scientific Adviser and consideration of what staff would be required to support him or her. (Paragraph 66)**

DFID believes that the new structure will provide robust and effective support to the use of science within DFID. In addition to the Chief Scientific Adviser, a new Sustainable Development Group within Policy Division, lead by an SCS grade Group Head, is supported by three senior level heads of profession specialising in environment, livelihoods and infrastructure.

**22. We can only surmise that research has not received the attention it merits in DFID in the past. We hope that this new arrangement will indeed be an improvement. DFID will also need to take care that separation of the Policy Division and Central Research Department does not impede the interaction between research and policy-making in DFID. (Paragraph 67)**

The increase in research budget and staffing confirms the importance given to research by DFID. There will be further increases in the research budget in future. DFID recognises the need for very good channels of communication between Policy Division and Central Research. In the planning process for 2005/06 we are identifying a whole range of valuable connections between Policy Division teams and research programmes.

## *Country Offices*

**23. We are pleased that DFID now realises the importance of monitoring the scientific and technical qualifications of its Country Office staff. It is not before time: these staff play a central role in the Poverty Reduction Strategy process and the commissioning of country-specific research and policy analysis. It is a major failing that DFID has not put in place proper systems to ensure that Country Offices are staffed by people with the necessary background and expertise to support developing countries effectively, particularly in the light of the move towards the Poverty Reduction Strategy Paper approach. We recommend that DFID establish minimum levels for the numbers of staff with appropriate scientific and technical qualifications in each country or, where appropriate, region. (Paragraph 70)**

DFID has devolved the responsibility for setting the staffing in country offices to the respective Heads of Office. Staffing plans are constructed in consultation with the Heads of Profession in each of DFID's 10 professional advisory groups. The skills mix in each case is based on the needs of the programme. DFID has no plans to set minimum levels for the numbers of staff with appropriate scientific and technical qualifications.

### *Knowledge management*

**24. We appreciate that DFID considers the research that it commissions to be for the global good, but it should be axiomatic that such research will also be utilised for the development and refinement of DFID's own policies. (Paragraph 71)**

The Government agrees. DFID is developing knowledge management systems to better inform a wide range of development practitioners and developing country partners of the outcomes of DFID-funded research. Improved use of this information by DFID's own staff is an area that the Communications Team in CRD is encouraging. It is also an area of interest to DFID's new Chief Science Adviser.

**25. DFID needs to provide greater technical support to its Country Offices. (Paragraph 74)**

The Heads of Profession are responsible for maintaining and upgrading the technical skills of DFID staff in country offices (as elsewhere).

**26. DFID and its clients are not getting the most out of the research it commissions due to the poor links between the Central Research Department and the Country Offices. We recommend that the Central Research Department work more closely with the Heads of Profession and regional departments to ensure that Country Offices receive the information they require, in a readily digestible form. (Paragraph 74)**

The Government agrees. The new DFID Chief Science Adviser will work closely with Heads of Profession and regional departments, particularly in the development of DFID's Science and Innovation Strategy. Central Research Department is also working with the Heads of Profession and DFID's internal Information Systems Department to help to make information more readily available to country offices (and advisory groups more generally). DFID's new research contracts will reflect this need and DFID is already funding systems to make its research more accessible globally, such as ID21. As mentioned above, these systems will be equally relevant to DFID's own internal professional staff.

**27. We recommend that DFID stipulates in its research contracts that researchers must make their research results, including any large data sets collected, publicly available within a reasonable period following completion of the work. (Paragraph 75)**

The Government agrees. In addition, DFID is in the process of developing a research portal that will enable long-term access to the outputs of research funded by DFID. The research portal will adopt international standards and norms, for example in the use of internationally agreed metadata, that will enable other systems, such as those managed by the United Nations, to find and point to relevant DFID information via the Internet.

## *DFID Approach to Science, Technology and Research*

### *Lack of Scientific Culture*

**28. We are not persuaded that DFID has fully grasped the cross-cutting nature of science, and the breadth of the contribution that it can make to meeting international development objectives. (Paragraph 77)**

DFID is committed to using science and technology to contribute to poverty reduction and achievement of the Millennium Development Goals. The appointment of a Chief Scientific Adviser and the increase in DFID's research budget demonstrate this commitment. DFID funds the full range of science, from social to natural, and adopts multidisciplinary approaches within our research programmes. DFID's professional advisers cover the full range of science and work in cross-disciplinary ways.

**29. The ten-year investment framework represented one of the most significant developments in UK science for several years. The fact that DFID gave only a cursory contribution reinforces the idea that DFID does not consider itself to be a department that has a significant involvement in science and research, and further highlights the need for DFID to have a high level staff member responsible for cross-Government liaison on science, technology, innovation and research. By failing to engage properly in these discussions, DFID may have missed an important opportunity to make the case for increased funding for science, technology and research in DFID (Paragraph 78)**

DFID's contribution was considerably larger than is implied here. DFID participated in discussions on this issue when it was first raised by the Office of Science and Technology (OST), and was one of the first five Departments to ask OST if we could help take the process forward. By way of contribution to the consultation process, DFID set out its priorities for the next ten years in correspondence with the Secretary of State for Trade and Industry and the Chief Secretary, and sent HM Treasury an early version of the draft research strategy so they were aware of the Department's plans. The letter highlighted the importance of joining up the full range of UK Government research to bear more directly on the fight to eliminate poverty. It also noted the importance of promoting international collaboration, giving priority to building science and technology capacity in developing countries, and the importance of turning research findings into actual innovation and impact on the ground.

Part of the role of the new Chief Scientific Adviser is to build stronger links with the UK Research Councils and with bodies such as the Wellcome Trust, The Rockefeller and Gates Foundations.

**30. We reiterate that natural and social science both have roles to play in international development, as do basic, applied and operational research. (Paragraph 80)**

The Government agrees. DFID has both a Chief Scientific Adviser (a natural scientist) and a Chief Economist (a social scientist). DFID also has wide-ranging Advisory Groups that include networks of natural and social scientists. DFID's funding focuses on applied and operational research but that in turn requires basic research which in Britain is funded largely by the Research Councils. The Government recognises the importance and relevance of each to poverty reduction.

**31. We congratulate DFID for having sponsored some excellent research programmes that have made worthwhile contributions to poverty reduction. Regrettably, DFID has not always recognised the value of the work that it sponsors. It is impossible for DFID to gain the full benefit of the research that it commissions until there is widespread appreciation amongst its staff of the true worth of science and research for international development. (Paragraph 82)**

The Government welcomes the Committee's recognition of the excellence of some of DFID's research programmes. Good research programmes are the product of careful design, management and monitoring, for which some of the credit is due to DFID's own scientific staff. DFID is not primarily seeking benefit for itself in the research that it sponsors; success is measured in terms of the relevance of research to developing country needs and the ease or otherwise by which new knowledge and technologies are adopted by and benefit poor people.

### *Evidence–based policy making*

**32. We conclude that DFID has failed to devote sufficient attention to evaluation of research. DFID must ensure that its past deficiencies in evaluation of research are rectified. We welcome the fact that DFID is strengthening its evaluation department and is now undertaking evaluations of two major research programmes in renewable natural resources and engineering, and also note that DFID's recent publications, such as the new HIV/AIDS Strategy, *Taking Action*, place greater emphasis on evaluation. However, resolving this problem will require a culture change within DFID as well as good intentions and the increased resources already at its disposal. (Paragraph 86)**

The establishment of a single Central Research Department provides an opportunity to learn from this past practice and to create a new culture. DFID's Research Managers are working closely with colleagues in the Evaluation Department on procedures for evaluation in DFID research programmes. The CRD is also participating in international exchanges amongst development research donors about best practice in determining the outcome of research – which is DFID's prime concern in evaluation.

DFID has established a new Division with a dedicated Director responsible for Communication and Knowledge Sharing. The Director, who has recently assumed her duties, will be responsible for both the Central Research Department and the enhanced Evaluation Department. It is envisaged that this post will assist the process by which lessons learned are taken into account in policy debates and with the alignment of both DFID's research and evaluation programmes.

There is already greater engagement in evaluation processes by staff and the inclusion of findings in policy debates. The targeting of studies on areas of current concern together with the production of impact evaluations real time has meant a greater willingness by staff to engage with the process and to enhance the development of a culture of lesson sharing and learning within the Department.

### *Funding international research organisations—the case of CGIAR*

**33. It is not for us to form a judgement on whether or not DFID was right to increase its investment in the Consultative Group on International Agricultural Research from £10 to £20 million per annum. However, we are surprised and disappointed by DFID's inability to provide concrete evidence for the basis of this decision. It is unacceptable for DFID to make an investment of this scale without being able to provide a considered justification. (Paragraph 88)**

The Government does not accept the Committee's conclusion. The UK is a founder member of the Consultative Group on International Agricultural Research (CGIAR) and DFID is closely engaged in its governance, organisation and management. We consider that DFID's influence has helped to strengthen the poverty focus of the CGIAR and the emphasis it gives to capacity building. Substantial evidence is available on the impact of the CGIAR and agricultural research more widely. A benefit-cost analysis of the CGIAR since inception[2] and more specific poverty impact assessments[3] (to which DFID contributed) have shown significant impacts, a high proportion of which have accrued to poor people. The CGIAR is potentially one of the most important parts of the global agricultural system from the perspective of poor people, and will have increasing importance as the world adapts to population growth, urbanisation, increased competition for water, and climate change. The constituent centres of the CGIAR are the primary sources of new science-based innovations for developing country agriculture. In recent years they have been responsible for significant technological breakthroughs of relevance to small farmers in Africa. These include new high yielding rices and bananas, drought resistant maize and biological approaches to control of cassava pests and the devastating weed Striga.

The CGIAR oversees the work of the 15 international agricultural research centres. DFID funds the centres rather than the CGIAR itself. In making these investment decisions, DFID is informed by external programme and management reviews of the centres commissioned by the CGIAR to provide an independent assessment of their performance; by active engagement in the CGIAR's governance systems; by sharing experience with other CGIAR members, for example through the European Initiative for Agricultural Research for Development; and by maintaining close professional contact with the individual centres and the UK scientists who sit on their Boards. The decision to increase funding to a level broadly in balance with DFID's commitments to its directly commissioned agricultural research programmes reflects the widely held and evidence based view, implicit in paragraph 42 of the Committee's report, that the CGIAR system has for many years been underfunded.

## *Research Strategy*

### *Consultation process*

**34. Whilst we realise that DFID's decision to open the draft Research Strategy for consultation gave the opportunity for those who so wished to comment on it, we are concerned that the original consultation process caused so much disquiet amongst the development sciences community. Irrespective of whether the lack of consultation affected the quality of the draft Research Strategy, by creating the impression that it was not interested in utilising the extensive experience of leading development scientists in the UK, DFID has damaged its relationship with the UK research base. (Paragraph 91)**

2 Benefit-cost meta analysis of investment in the International Agricultural Research Centers of the CGIAR. Science Council and FAO, October 2003.

3 Impacts of agricultural research on poverty: findings of an integrated economic and social analysis. IFPRI, 2003.

The Government accepts that this could have been handled in a more sensitive way. DFID did however undertake a process of dialogue with the UK academic community and have had positive comments on the final version of the funding framework. In total five drafts of the Research Funding Framework were produced with the OST, Sir David King and selected international development research funders amongst others commenting on these before they went to public consultation. DFID's Central Research Department will now be broadening its processes of consultation in implementing the Research Funding Framework. The Chief Scientific Adviser will play an important role in relationships with the UK (and global) academic community.

**35. It is highly regrettable that DFID appears to have given so little attention to gaining developing country input to the Research Strategy. DFID's failure to incorporate the views of developing countries into the Strategy makes a mockery of its claim to follow a demand-led approach and calls into question the value of the Strategy. (Paragraph 92)**

The Research Funding Framework explicitly recognises that DFID needs a more extensive process of consultation in the process of drawing up the next research strategy. DFID is meanwhile consulting developing countries on the way of implementing the broad strategies in the framework - for example DFID has commissioned from a network of developing country institutes a scoping study of developing country demands for areas of research within the climate change topic.

Nevertheless, DFID does not accept that the views of developing countries are completely unrepresented in the current framework. Some of the consultation—albeit less than we would aim for in —was direct, through comments from developing countries to the open consultation on DFID's website, and through a sample of DFID Country Offices asking developing country partners for their views on the penultimate draft. More was indirect, through wide consultations with key members of the scientific and development communities in the UK and with DFID advisers, who themselves have extremely good links with developing countries.

### *Future research topics*

**36. DFID's decision to focus research in a limited number of areas is sensible and we are broadly supportive of the priorities identified. However, we urge DFID to take into account the enabling role of engineering and technology in meeting the identified priorities. (Paragraph 93)**

The Government welcomes the Committee's support for the priorities identified in DFID's new Research Funding Framework.

The major priorities will indeed give major weight to technologies and engineering—especially in climate change, killer diseases, and sustainable agriculture. DFID's future investments in engineering and technology research will also be informed by the evaluation of the current Engineering Knowledge and Research programme, the report of which is due early in 2005. The Central Research Department is currently scoping for themes for future programmes in energy and water and sanitation.

One example of DFID taking account of these issues is the transport sector. Central Research Department is currently commissioning the Transport Knowledge partnership (TKP), a global transport initiative to connect the demand for transport knowledge with high quality information available. In Cambodia and Vietnam DFID research programmes have put into practise new technology for converting local materials such as clays into road materials. This, and skills transfer, has assisted local communes in remote locations to construct and maintain their own roads and paths, and develop a sense of ownership of their asset. These techniques are now incorporated into the Asian Development Bank's loan applications from the Cambodian government. This type of innovation is incorporated into the Transport Knowledge Programme, getting sustainable solutions into place.

**37. It is a source of alarm that DFID did not seek to learn the lessons of its £200 million investment in the Renewable Natural Resources Research Strategy Programme prior to the development of a new Research Strategy. This is suggestive of poor planning and management. DFID's decision to develop a new Research Strategy at this time, in the absence of key information and a DFID Chief Scientific Adviser, was imprudent. (Paragraph 94)**

The Renewable Natural Resources Research Strategy (RNRRS) has been closely monitored throughout its implementation in line with the findings and recommendations of a study conducted by independent specialists in 1997 which looked at ways of "Monitoring the Impact of DFID Renewable Natural Resources Research Strategy for 1995–2005".[4] This concluded that "the RNRRS already has a well-structured and comprehensive system, and that few, if any organisations have developed more substantive approaches".

Internally the RNRRS has been monitored through DFID Evaluation Department and by nominated DFID lead advisers acting as members of each research Programme Advisory Committee (PAC). In addition a large number of external reviews have been commissioned to identify, describe and quantify the benefits achieved which are attributable to DFID research. External evaluation on scientific quality and use of biometrics has also been conducted.

Most recently a review was carried out[5] to summarise and synthesise knowledge on the impact and lessons learned of investments by DFID and other organisations in natural resources research on productivity, livelihoods and poverty reduction. This document, among others, was commissioned as a background paper to inform development of the new research strategy.

It was always intended that the RNRRS would be subjected to a more in depth assessment of achievements towards its conclusion. A major evaluation is currently underway and is due to report early in 2005. The evaluation will inform the design of new agricultural research programmes which DFID expects to commission during the 2005/06 financial year. The present programmes were designed to deliver a range of research products and

4 Brown, D, Poate, D, Ticehurst, D, Henderson, S and Smith, D (1998) Achieving Sustainable Livelihoods through DFID renewable Natural Resources Research, NRRD, DFID.

5 Flint, M and Underwood, M (2002) Synthesis Study of the Impact of RNRR Programmes

technologies relevant to the livelihoods of poor people in developing countries and to promote their take up and adoption over a ten-year period culminating in March 2005. They are producing increasing numbers of examples of real impacts on poverty. One of these is cited in figure 2 of the Committee's report ("Pest control"). The programmes have been extended to March 2006 principally to provide more opportunity to promote their products and to avoid any loss of momentum during the design of new programmes.

### *Wider approach to research*

**38. We agree that DFID would benefit from horizon scanning activities and encourage DFID to learn from the experience of other Government departments. (Paragraph 95)**

The DFID Chief Scientific Adviser has an annual budget of £1 million for horizon scanning, and DFID is looking to horizon-scanning to influence long-term priorities and assessment of risk. DFID has had informal discussions on horizon scanning with both MoD and DEFRA (where the horizon-scanning work was in part done by an ex-DFID employee).

**39. A high priority for DFID's new Chief Scientific Adviser must be to develop a coherent policy on science, technology and research that encompasses issues such as the provision of scientific and technical advice to DFID and the effective use by DFID of scientific knowledge and research results to promote innovation. (Paragraph 96)**

The Government agrees. One of the first tasks for the new DFID Chief Scientific Adviser is to do that, contributing to the development of DFID's Science and Innovation Strategy.

## *Capacity Building in Developing Countries*

### *The need for capacity building in developing countries*

**40. We believe that capacity building in science and technology can yield a panoply of benefits for both North and South, including stronger research and education systems in developing countries, and the fostering of international relations. (Paragraph 101)**

The Government strongly agrees that capacity building in science and technology can yield many benefits for countries in the North and the South. DFID will provide further support through an increased emphasis on science and technology capacity building in its new Development Partnerships in Higher Education Programme, scheduled to start from April 2005. DFID's Chief Scientific Adviser has a strong interest in this issue as part of DFID's Science and Innovation Strategy.

**41. Whilst we agree that access to knowledge is vital, the capacity to utilise knowledge needs to be developed in tandem if any benefits are to be derived from the availability of new information. This requires both human resources and physical infrastructure. (Paragraph 102)**

We agree. The focus by DFID country offices on wider capacity issues such as public sector reform, governance and service delivery will help to create the enabling environments needed for this to happen. For example, improving the ability of Ministries to use research

results will be a key aspect of the joint DFID/Wellcome Trust programme for health research capacity-building in Africa.

### *UK commitment to science and technology capacity building in developing countries*

**42. We firmly believe that the UK has an obligation to support capacity building in science and technology for development and welcome the fact that the Government has now affirmed its commitment to do so. (Paragraph 103)**

The Government welcomes the Committee's acknowledgement that Science and Technology capacity building is an explicit part of the 10 year Science and Innovation Investment Framework, which affirmed the Government's long-term commitment in this area. This is a priority for DFID's new Chief Scientific Adviser.

**43. DFID should commit significant extra funding specifically for capacity building, over and above the existing research budget. In addition to the funds for capacity building that are currently channelled through the central research budget, DFID Country Offices should play a much greater role in capacity building. However, a major collective international effort with a long-term horizon is vital for sustainable science and technology capacity building to be effected on the scale required. DFID should take advantage of its leadership roles in NEPAD and the Commission for Africa, as well as the forthcoming UK Presidencies of the G8 and EU, to call for an international science and technology capacity building strategy supported by the necessary resources. (Paragraph 106)**

As the Committee reports, NEPAD is in close discussion with the Commission for Africa about science and technology. In response to this, the Commission for Africa will be examining ways of supporting Science and Technology, particularly as part of a resurgence of higher education in Africa. DFID agrees that capacity-building goes well beyond the research budget, but believes the best way forward is country-by-country. The wider constraints to African scientific institutions are rooted in the lack of long-term recurrent finance and wider public sector capacity constraints. These must be addressed at the national policy and planning level rather than through externally driven initiatives in particular sectors. The needs, existing international architecture and current support for different aspects of science and technology also vary considerably, making a single Africa-wide initiative inappropriate. The Africa regional institutions will have a key role to play in establishing collaboration and economies of scale in science and technology but they must be allowed to set their own agenda and priorities for finance with their member states rather than through earmarking of donor finance.

### *Trends in capacity building*

**44. Technical assistance must play a valuable role in capacity building, providing that training and other forms of support for developing country nationals are included as an integral component of the assistance. (Paragraph 109)**

The Government agrees. Technical assistance constitutes 35% of DFID's bilateral aid budget, and includes a requirement to train developing country nationals.

## UK training schemes and scholarships

### Commonwealth Scholarship and Fellowship Plan

**45. We are encouraged by the innovative approaches being applied to the Commonwealth Scholarship and Fellowship Plan. In particular, we support the introduction of split-site and distance learning awards. (Paragraph 112)**

**46. We are pleased that the Commonwealth Scholarship Commission continues to recognise the importance of doctorates for development of expertise in scientific subjects, despite the fact that PhDs are significantly more expensive than taught postgraduate courses. We also commend the Commonwealth Scholarship Commission for following a demand-led approach, and for ensuring strong representation of science and technology in the review process for award applications. Paragraph 113)**

**47. We welcome the approaches that the Commonwealth Scholarship Commission is adopting to improve the quality and impact of the training it delivers. However, whilst the development of centres of excellence can undoubtedly have a positive impact on the wider region, care must be taken to ensure that concentration of resources in one institution or area does not distort the balance of capacity in the region or country as a whole. (Paragraph 116)**

The Government welcomes the encouraging comments by the Committee on the Commonwealth Scholarship and Fellowship Plan and will ensure that the Plan remains at the cutting edge of providing opportunities for study in science and technology. In particular, we appreciate the support for many of the new and innovative measures currently being introduced, whilst recognising that full evaluation of these will take several years. The Government and the Commission note the point raised in paragraph 47 of the Committee's conclusions and recommendations and will work together to avoid any such imbalances, which will be taken into account in future policy development. The resources devoted to these programmes at present, however, represent only a tiny proportion of the Commission's budget, and are thus highly unlikely to have such an impact in the short-term.

### Higher Education Links Scheme

**48. DFID should be more sensitive to the impact of changes in its policy and funding arrangements on UK organisations and researchers, and their counterparts in developing countries. (Paragraph 121)**

We welcome the Committee's positive comments about the development benefits of higher education links. DFID regrets that its consideration of the Review Report recommendations took much longer than envisaged. DFID will ensure that both UK and developing country partners are consulted in the design of the new scheme.

### Chevening Scheme

**49. It is disappointing that the FCO has not been at all thorough in its past evaluation of the Chevening scheme. (Paragraph 124)**

The independent review of FCO scholarships to which the FCO has drawn the Committee's attention in its Memoranda of 22 March and 21 May was commissioned substantially with a view to introducing improvements to the Chevening Programme. The FCO explained in its 22 March Memorandum the role of annual receptions for alumni in monitoring the careers of Chevening alumni. That addressed the question of how the subsequent employment of scholars was monitored. On broader evaluation of Chevening, the FCO explained in its 21 May Memorandum that analysis of scholar statistics was undertaken based on questionnaires completed both by scholars and by FCO Posts. The FCO recognises that further work on alumni follow-up is needed to address the weaknesses identified in the review and is accordingly developing evaluation methods both for the academic scholarships and for the new professional fellowship stream of the Programme. The Foreign Affairs Select Committee recently concluded that "the revitalisation of the Chevening Scholarships proposed by the Foreign Office is a welcome one, which will give it greater flexibility and allow it to be more responsive to the United Kingdom's wider diplomatic needs".

### *Dorothy Hodgkin Postgraduate Awards*

**50. PhD fellowships, although more expensive than those for taught courses, are essential for building the depth of expertise and range of skills required for effective research in many scientific and technological subjects. (Paragraph 125)**

The Government agrees. The 2004/5 tranche of Dorothy Hodgkin Postgraduate Awards consists of 130 top-level students from emerging countries. The OST has just announced an expansion of the programme with funding for a further 2005/6 tranche, and will again be encouraging high quality candidates from emerging and developing countries.

### *Capacity building of national science and technology institutions*

**51. Investment to strengthen the whole system of innovation in developing countries is required to make research more effective. Capacity building of national research systems must therefore encompass reinforcement of knowledge transfer and dissemination mechanisms. (Paragraph 132)**

We agree. DFID investments in this area include support for the African Agricultural Technology Foundation (AATF) using the local private sector to bring innovations to market, and the Programme for the Enhancement of Research Information (PERI), using the Internet to give developing country researchers free access to scientific journals. DFID will also advocate for international bodies, ranging from the CGIAR to the WHO, to focus on promoting national systems of innovation and their access to information.

### *Information and Communications Technology capacity*

**52. Investment in Information and Communications Technology, for example to grant institutions in developing countries reliable access to the internet, is money well spent and we encourage DFID to give such support high priority. Failure to address inadequacies in ICT infrastructure and equipment can negate the benefits of other investments in capacity building: effective science and research require access to the**

**global pool of knowledge, and isolated researchers are likely to flounder without both scientific and moral support from their peers. For the same reasons, DFID should also continue to support networks that include researchers in developing countries. (Paragraph 135)**

DFID makes considerable investment in programmes like the programme for the Enhancement of Research Information (PERI), Access to Global Online Research in Agriculture (AGORA), Health Internetwork (HINARI), Science and Development Network (SciDev.net) and Global Development Network (GDNet), three of which were commended in the recent Committee report on "Science Publication: free for all?" These programmes build networks and the capacity of developing country scientists, information managers and journalists to improve the reach and impact of global public goods research. They also help developing country researchers to publish results of their own research. DFID invests significant resources in ensuring that relevant high quality information is readily available on the web at low or no cost to developing country scientists. DFID is also funding a scoping study for the possible development of a Research Africa newsletter, which would resource networks of research managers in Africa.

### *Laboratory equipment and infrastructure*

**53. We believe that capacity building requires a holistic approach including thorough consideration of the infrastructure and equipment that will be available to the developing country researchers on completion of their training. In the case of split-site or in-country training schemes, it is clearly essential that adequate facilities are in place during the training. We urge DFID to explore further opportunities for the provision of laboratory equipment to developing countries; where this does occur, the equipment must be of a standard sufficient to support high quality research and the necessary training and instruction provided to render the equipment genuinely useful and to maintain it. (Paragraph 136)**

DFID funds project-specific equipment where appropriate but sees this as part of broader institutional support rather than as a stand-alone programme of provision of laboratory equipment.

### *Technology transfer/capacity building in the private sector*

**54. We believe there is also an important role for public-private partnerships at a local level. (Paragraph 137)**

We agree, and see the African Agricultural Technology Foundation (AATF), to which DFID has committed £5m over 3 years, as an important precedent. The Ugandan NAADS (National Agricultural Advisory Services) is another pioneer of effective public-private collaboration.

**55. Science and technology capacity building in the private sector would complement efforts to strengthen science and technology capacity in the public sector and is vital for stimulation of innovation, and thus economic growth, in developing countries. (Paragraph 138)**

The Government agrees DFID invests in many mechanisms that support the local private sector in developing countries. These include micro-credit schemes, regulatory environments, third-party arbitration courts to enforce contracts, liberalisation policy, fiscal and tax reforms. At project level, DFID does indirectly support the development of science and technology capacity in the private sector. Professor Conway's experience with the Rockefeller Foundation will be invaluable in taking this recommendation forward.

**56. As the Government's policies stand it is impossible for developing countries to trade their way out of poverty. (Paragraph 140)**

We agree that meeting the costs of complying with ever more stringent standards represents a new challenge (though not the only, or even the main, challenge) for many developing countries. This is particularly the case in new higher value export commodities such as horticulture, fish and livestock products where market prospects are good. This is problematic for small-scale farmers who are usually least able to meet the cost of changing production methods and to prove they meet new standards.

Standards are imposed both formally by national and regional level authorities (such as the UK's Food Standards Agency) and through internationally agreed and binding processes such as the FAO's Codex Alimentarius or the World Organisation for Animal Health. But standards are also imposed by the private sector through organisations like Eurepgap over which public authorities have little if any control.

The danger of Sanitary and Phytosanitary measures (SPS) being used as a new "non-tariff barrier" is recognised in the Doha agreement and prohibited, but proving what is unfair from a tough action implemented in the public good will always remain difficult. Further, there is little governments can do to oblige private companies to import goods that they believe to be "unsafe".

The recent DFID trade strategy process has established the importance of this issue for developing country partners. DFID is already supporting research and programmes of support with private sector and government in countries such as Kenya and Nicaragua. It is also supporting multilateral organisations such as UNCTAD, UNIDO and the EC in such work. It has played a catalytic role in supporting the inter-agency Standards and Trade Development Facility, providing an initial £250,000 to support the development of this capacity to analyse and implement standards. But in addition it is also important that developing countries participate more effectively in both informal (private sector) and formal standard setting process. DFID is working closely in both areas.

**57. We believe that in the more scientifically advanced and higher income developing countries there is much to be gained from building the capacity of the public and private sector to develop and manufacture drugs to meet the needs of people in developing countries. (Paragraph 141)**

In June 2004, the Government produced a policy paper *Increasing Access to Essential Medicines in the Developing World: UK Government Policy and Plans.* Pharmaceutical companies in developing countries, particularly India and China, already play an important role in producing low cost medicines. Under the right conditions, production of drugs in other developing countries, including countries in Africa, may provide important

additional support to increased access to low cost medicines in the future. Key issues to address in developing such approaches include: appropriate regulatory capacity and oversight to ensure product quality and consistency; the viability of low cost pharmaceutical markets in developing countries; technology transfer and expertise to support developing country production and; for proprietary medicines, compliance with international agreements on intellectual property.

To explore this complex area, DFID has supported a number of studies related to developing country pharmaceutical manufacturing. These include studies addressing (i) the development and future of the pharmaceutical industries in India and China, particularly after the domestic implementation of the TRIPS agreement in 2005 (ii) drug registration and regulation in developing countries (iii) the evidence base for domestic production and greater access to medicines in developing countries.[6] DFID is now working with country, donor, multilateral, industry and NGO partners to disseminate this research and to identify implications and opportunities for increasing access to medicines.

In addition, the UK Government will 'encourage active dialogue between industry and developing country governments to explore how best to work together to increase access to medicines, including through the use of TRIPS compliant licensing models in developing countries. Where appropriate, we will encourage the further use of voluntary licensing and the transfer of technology to developing countries, in order to facilitate access to medicines.'[7]

### *Brain drain*

**58. The failure to address the brain drain of health workers from Malawi to the UK has been a highly damaging example of lack of Government co-ordination. We believe that in cases where there is clear evidence of a brain drain of scientists, researchers or health professionals from developing countries to the UK, the UK Government should institute arrangements for direct compensation for the loss of capacity in the relevant sector. (Paragraph 144)**

Ideas for compensating developing countries for the loss of skilled workers face significant political and practical obstacles to implementation. Calculating the costs and benefits for individual migrants would not be straightforward: some may receive further education, training or career development opportunities in the receiving country which benefit the individual; others may find that their skills are underutilized in the receiving country. Sending countries may benefit from remittance transfers, trade or business links established through transnational networks. Migrants may move on to other developed or developing countries. So administrative arrangements for administering any compensation scheme would be extremely cumbersome. A better approach would be to encourage temporary skill mobility schemes which share the benefits of migration more equitably among sending and receiving countries.

6 These studies are available at http://www.dfid.gov.uk/aboutdfid/organisation/accessmedicines.asp

7 Available at http://www.dfid.gov.uk/pubs/files/accessmedicines.pdf

DFID has recently announced a £100 million programme of support to the health service in Malawi. The programme will help provide free antiretroviral treatment for more people living with HIV from next year, fund measures to reduce mother and child deaths and invest in better training and higher salaries for doctors, nurses and other health workers. To help fill the current level of vacancies, the programme will also fund volunteer doctors and nurses who will start arriving in six months to fill critical posts.

**59. Determining the extent of any brain drain of scientists, researchers and scientific and technical support staff from developing countries, and understanding the consequences of this migration for international development, require further research and data collection. At the very least, UK Government departments should monitor the numbers of migrants from developing countries in their employment and the destinations of developing country award holders for scholarships that they sponsor. However, a far more powerful evidence base could be built if other countries were willing to engage in a long-term international study of the mobility of scientists and researchers from developing countries. We recommend that DFID take the lead in calling for the initiation of such a study by the UN or another international agency. (Paragraph 146)**

The Government agrees that this is an area which requires further research. In 2001, DFID commissioned the International Labour Organisation (ILO) to conduct research on the impact of high skilled migration from developing countries. A series of thematic and country studies was produced together with a synthesis paper. The key finding was that positive feedback effects (eg remittances) can often outweigh any initial negative impacts. An OECD study in 2002 on the international mobility of the highly skilled noted that the costs and benefits of skilled migration are hotly debated but argued that it can generate global benefits by improving knowledge flows, research, innovation and entrepreneurship; and that in the right circumstances, benefits can arise for sending countries (eg high tech investment in India and East Asia fostered through trans-national migrant networks). The World Bank, as part of a recently launched research programme on international migration, has commented that the balance of costs and benefits of the brain drain, brain gain or brain waste for sending countries remains largely unknown and requires much more research. In this context, they are supporting work to improve the quality of cross-country data on skilled migration. As part of the preparations for a High Level Dialogue on international migration and development in 2006, the UN Secretary General has been asked to present a comprehensive overview of studies and analyses on the various aspects of migration and development, including the effects of the movements of highly skilled migrant workers. The proposed World Economic Forum "brain drain in Africa" workshop at Davos is another recognition of the very real concern in this area. We await with interest any recommendations from the Commission for Africa.

## *Co-ordination*

### *Defra*

**60. We commend Defra for the inclusion of a requirement for capacity building in its contract with the Hadley Centre and believe that all Government departments should incorporate capacity building requirements into their contracts for science, technology**

**and research for development where appropriate. It is, of course, necessary to then provide adequate funding to support the capacity building activities. (Paragraph 151)**

We are pleased that Defra has been recognised for its initiative with the Hadley Centre. The Hadley Centre's work in capacity building is exemplary. Nevertheless, whilst we can encourage a capacity building clause in contracts for science, technology and research for development, we should assess these on a case by case basis.

### *FCO*

**61. There is clearly scope for better alignment and co-ordination of FCO and DFID activities. Although we welcome the willingness of the FCO to explore these opportunities, we regret the fact that this has not happened before. As well as coordination between the central Government departments, there is much to be gained from interaction between the FCO and DFID at country level. (Paragraph 155)**

The FCO and DFID cooperate very closely in many countries on development policy. There has been limited coordination on science and technology issues because the FCO's Science and Innovation Network (SIN) has only expanded into the developing and transitional countries mentioned by the Committee (paragraph 152 of the Report) within the last one to three years. The two departments have started a dialogue on S&T at senior official level and both are members of the Chief Scientific Advisers Committee (CSAC) and the former Chief Scientific Adviser's International Committee (CSAIC), which is now the Global Science and Innovation Forum. The appointment of a Chief Scientific Adviser in DFID helps to ensure that this dialogue is developed both in the UK and at country level. At the multilateral level the FCO stands ready to help DFID in its new role representing the UK on the UN Commission on Science and Technology for Development.

A good example of joint working already taking place is the UK-Canada-Africa meeting on Science for Capacity Building to be held in London in January 2005. DFID, OST, the British High Commission in Ottawa, Canadian High Commission in London and the Canadian International Development Research Centre are supporting this workshop. Sixty high-level participants from government, academia and industry from the three continents, will discuss perspectives on science capacity building, examine internal structures to support it, and draw recommendations to feed into the Commission for Africa and the G8 process.

The FCO is also exploring with UK providers of scholarships, fellowships and other awards, and their administrators, whether there is support for a new Committee, on which all would be represented, to coordinate areas of mutual interest such as promotion of synergies in marketing, administration and alumni follow-up.

### *UK Trade and Investment*

**62. It is essential that DFID can benefit and learn from developments in thinking in other Government departments. The DTI has invested significant resources in strengthening its understanding of, and ability to promote, innovation in the UK. This knowledge could also be profitably utilised for informing the UK approach to development. Since UKTI does not seem to be a natural conduit for dissemination of**

**this information to DFID, we recommend that the Director General of Innovation at the DTI takes responsibility for sharing this knowledge with DFID. (Paragraph 159)**

The Secretary of State for International Development is a member of the Secretary of State for Trade and Industry's Cross-Departmental Ministerial Group on Science, Innovation and the Knowledge Economy (SIKE). The remit of the SIKE group is to promote science, innovation and wealth creation across government. Membership includes the Director General for Innovation at the DTI. A senior officials' Steering Group supports the work of the Ministerial Group, and DFID's Chief Scientific Adviser will be the permanent DFID member of the Steering Group. The secretariat for SIKE is run jointly by DTI's Innovation Group, the Office of Science and Technology and DfES.

### *OST*

**63. Science and technology for international development should be a priority for OST and we congratulate Sir David King, whose personal input and enthusiasm have played a key role in moving this issue up the UK Government agenda. (Paragraph 161)**

The Government thanks the Select Committee for this acknowledgement. OST reaffirms that science and technology for international development is a priority, especially given the themes under the G8 and EU Presidencies in 2005. OST presently has a secondee working with the Commission for Africa to help science and technology to be fed into the recommendations as appropriate.

### *British Council*

**64. We believe that closer collaboration between scientifically qualified staff in the British Council and DFID Country Offices and the FCO science and technology network could yield mutual benefits and reinforce the UK's scientific contribution to international development. (Paragraph 164)**

The FCO and British Council science officers already cooperate closely in all countries where they are working and they look forward to developing that cooperation with DFID country offices.

### *UK Funders' Forum*

**65. The Funders' Forum could be a very useful vehicle for promoting co-ordination of UK-funded research for development. In view of the large numbers of potential participants, we recommend that the Funders' Forum be subdivided by sector or theme to prevent it becoming too unwieldy. However, we remain highly concerned that DFID has not made sufficient provision for eliciting input from developing countries and do not see that the Funders' Forum as proposed will ameliorate this problem in any way. (Paragraph 168)**

The question of the best arrangement for linking UK Funders in the long-term will be considered at an initial meeting of a broad range of UK funders in 2005. We agree that a division by sector is well worth examining, and indeed DFID already participates in both the Environment Research Funders' Forum and a new Funders' Forum for health in

developing countries. The Funders' Forum is explicitly a UK body, and not intended as a way of collecting input from developing countries, which we agree requires different instruments.

### *Co-ordination with other international bodies*

**66. DFID should build on the international respect that it commands for promulgation of best practice amongst aid agencies. We urge DFID to speak out against any examples of poor practice that it encounters in science, technology or research for international development. (Paragraph 170)**

The Government agrees, and notes too the respect the Committee commands, as demonstrated by the urgent response of the institution researching in Malawi to the Committee's criticisms. Sometimes the most effective route for DFID will be a private word rather than a public one.

## *UK Research Capacity*

### *Erosion of UK research capacity*

**67. The quality and strength of UK research has been instrumental in building the reputation of the UK in international development. If it is not averted, the current erosion of the UK development sciences research base will severely undermine the ability of the UK to play its full part in international development in years to come. The Government should not sit back and watch this happen, never mind contribute to the process of erosion. (Paragraph 174)**

The Government is committed to ensuring a strong science base across all disciplines, supported by the skills to underpin it, as set out in the 'Science and Innovation Investment Framework 2004–14'. That is why we have set in place a raft of measures at every stage of the education system – from primary schools to universities. We aim to ensure that we have highly skilled scientists and engineers, not only to maintain and develop our international competitiveness, but to also enable the UK to play its full part in international development in the future.

The Research Councils share the Committee's concern about the erosion of UK research capacity and are working to maintain and strengthen the UK research base in development science. Highlights include:

a) EPSRC's collaboration with HEFCE, SHEFC and other partners on a programme to enhance capacity in selected and 'fragile' sub-disciplines, where it is judged that it is probable that national strategic needs would not otherwise be met. Developing capacity in international development research in the engineering and physical sciences could be included within this programme.

b) BBSRC does not fund research projects in universities or institutions situated in developing countries, but much of the research it funds in the UK, especially in the areas of agriculture and management of natural resources, is taken forward by researchers and their institutions with contacts in developing countries. BBSRC–

sponsored institutes collaborate with developing countries, often in association with national or international funding agencies. BBSRC provides support to grant holders in the UK for initiating and developing collaborative activity, in order to help access funding opportunities.

c) ESRC currently supports centres and groups focusing research on global poverty, well-being and equality in the developing world, and migration and population. It also supports research programmes concerned with world economy and finance and non-governmental organisations, both of which have a significant focus on developing world issues.

d) AHRB's collaboration with ESRC and HEFCE to develop research and training programmes focusing on the Chinese and Arabic-speaking world, and its funding of a research programme on Diasporas, including their role in migration and development.

e) MRC's investment in capacity building and direct research activities for biomedical research, especially in the area of clinical trials for HIV, Malaria and TB, is increasing, not least through the UK contributions to the European and Developing Countries Clinical Trials Partnership (EDCTP) via the EC, and through additional partnership activities of MRC and DFID coordinated through the UK Funders Forum for Health Research in Developing Countries. The Forum is developing synergy between the research agendas of MRC, The Wellcome Trust and DFID, has jointly hosted a UK initiative for developing HIV vaccines as part of the global response to HIV supported by G8, and has agreed a common framework for working together to respond to global development initiatives.

f) NERC is concerned about the reduction in UK expertise in areas related to natural resources and engineering in developing countries. Nevertheless, activity is maintained in these areas, often with international finance institutions or EU funding. NERC Research and Collaborative centres are particularly well placed to respond to future initiatives on climate change and impacts on populations and habitats in Africa, earth-observation, and on the sustainable use by indigenous communities of agricultural, mineral and water resources.

### *Untying*

**68. DFID should not have chosen to pursue a policy that the Government's Chief Scientist now believes could be so damaging, without consideration of measures that could be taken, if not by DFID then by other Government departments, to minimize the negative impact of this policy on the UK. (Paragraph 176)**

The Government stands by its decision to untie research funding, as part of the decision to untie development aid. We believe that the benefits of untying are very great. The Committee's report observes that the benefits of untying include the potential for having the best people in the world working on a particular problem (irrespective of nationality); the prospect of improving capacity in developing countries (companies from South Africa, India and Uganda won DFID contracts for the supply of services last year); and

encouraging other donors to follow suit. Untying can make aid more efficient (research[8] indicates that untying lowers the cost of many goods and services by 15–30%) and can have a positive impact on partner governments' ownership over research and development in their own countries – particularly where DFID uses their procurement systems.

But DFID continues to make extensive use of the UK development sciences research community. As noted in the Committee's report, approximately 72% of contracts issued since the introduction of the International Development Act 2002 have been won by British and British-led groups. Moreover, British-led groups have won most of the sizeable contracts for research since 2002. The UK has strong technical experience in a variety of critical international development areas; the UK research community's comparative advantages in a global market for expertise should ensure that it continues to win much of DFID's competitively contracted work.

Discussions are underway between DFID, the Research Councils and the HEFCE on whether further action can be taken to promote UK capacity.

**69. We consider that DFID was rash in untying research funding without eliciting firm commitments from other countries that they would also adopt that policy over an agreed timescale. The current situation poses a threat to the sustainability of the UK development sciences research base and has therefore resulted in feelings of distress and disappointment towards DFID in the research community. Having taken this course of action, DFID must now redouble its efforts to persuade other countries to untie their research funding. (Paragraph 179)**

By untying all our aid without waiting for other donors to follow, we have been able to put greater pressure on others than would have been possible before the decision to untie. This policy is working. Several of the Scandinavian donors have fully untied their aid. Large donors such as the US and Germany have untied important parts of their programme (the US's Millennium Challenge Account aid will be untied and this is a significant gain at $1bn per year). The EU has agreed to untie all aid on a reciprocal basis. This means that, for example, in Vietnam the EU would agree to open its aid to American companies if the US would open its aid to European companies. The UK is using this reciprocal system as an example to push forward a further round of untying in the OECD DAC. This will be a slow process but it is working, and it is only possible as we have already made the decision to untie all aid, including research.

There are some indications that other donors are also specifically interested in untying their funding for research. DFID will encourage and promote such efforts.

### *EU Framework Programme*

**70. We believe that the UK Government should, as many other governments do, provide matching funding to cover the overheads of EU Framework Programme research awards. (Paragraph 182)**

8 cited on OECD website in July 2001 Policy Brief entitled "Untying aid to the least developed countries"

The Government remains convinced that its policy on the recovery of the Full Economic Cost of research activities by public research bodies is essential for the long-term health of the UK science base. This sustainability initiative is accompanied by substantial increases in funding to research institutions, both in the form of block grants (QR, SRIF) and via increased funding for Research Council projects, which itself further frees up QR. These increases will give Higher Education Institution more public funds than they have at present to apply to the costs of participation in EU Framework research if they so wish. But, ultimately, whether or not to participate in EU-level programmes remains a matter for individual research institutions to decide. However, the Government is committed as part of the 10 year Science and Innovation Framework to seeking an increase in the proportion of the total cost of research projects to be paid under Framework Programme funding.

Research Councils have previously argued that the European Commission should provide full economic costs (FEC) of research within FP7. The Commission has generally argued that Framework funding is designed to stimulate collaboration and match national or institutional contributions. UK government funding cannot automatically be used to match project funding won from EU research programmes, since UK funders have their own peer-review mechanisms which they wish to maintain. However:

a) increased funding for development research focused on UK research institutes and organisations will maintain the UK skills base and capacity to compete for EU funding and international grants, even if these are not funded at FEC;

b) there may be an opportunity for an 'ERA-Net Plus' in FP7 devoted to International Development Research (in part or whole). These instruments will provide a mechanism to integrate national and commission funding for research projects which are selected using internationally agreed procedures.

The recently published UK-position paper on the initial approach to the 7th EU research and development Framework Programme (FP7)[9] highlights the fact that the international dimension of the Framework Programme should be strengthened, with the Millennium Development Goals taken into account in deciding the main areas of the programme. This was as a direct result of DFID and OST working closely to promote the international development agenda.

### *Move towards in–country training*

**71. We strongly encourage the building of North–South partnerships in science, technology and research. (Paragraph 183)**

The Government agrees. As noted by the Committee, the Government funds schemes such as the Higher Education Links Scheme, Chevening Programme and the Dorothy Hodgkin Postgraduate Awards, which contribute to North-South partnerships. DFID has also built links between Northern and Southern Institutes into its new Research Programme Consortia, whereby a bid for such a consortia must include at least three developing country partners.

9 <http://www.ost.gov.uk/ostinternational/fp7/ukpaper.pdf

In addition, OST coordinates UK bilateral relationships with a number of emerging countries – notably India, China, South Africa and Brazil – that stimulate North-South partnerships in science, technology and research, using a variety of mechanisms to promote partnerships e.g. joint commissions, networking schemes and focal point activities.

### *Research Assessment Exercise*

**72. The lack of recognition awarded to development sciences in the Research Assessment Exercise has marginalised the development sciences community and helped to compromise the sustainability of some research institutions and groups. Future Research Assessment Exercises must use appropriate criteria and assessors with relevant expertise to ensure that much greater credit is given to all high quality development sciences research and capacity building activities, and the development sciences community needs to be reassured that this will be the case. Academics must be properly rewarded for engaging in capacity building activities and spending time working in developing countries in a way that contributes towards sustainable development. (Paragraph 185)**

The Government recognises that the RAE is a complex issue. There is an ongoing process to consider how the RAE may better serve the needs of all government departments. The Research Councils will continue to propose that the RAE gives greater recognition to and incentives for research that informs policy and practice. The establishment of a specific panel for the 2008 exercise on development studies will help resolve some of these issues.

The DfES does not however accept that the RAE has done less than could reasonably be expected to give recognition to research in development sciences. The purpose of RAE is to assess excellent research, in all academic fields, through a process of peer review. The outcome is used as a basis for allocating funding in keeping with the government's commitment to maintaining a national research base of world class excellence that is also dynamic, flexible and responsive to national needs. The Government recognises that national needs include contributing to world development. The contribution of research to national needs is assessed as part of the RAE, and all work submitted for assessment is considered by appropriately qualified experts including people equipped to consider it from a practitioner or user perspective. The four UK HE funding bodies are currently developing the framework for the next RAE to be conducted in 2008. The funding bodies have asserted their commitment to ensuring that this exercise gives due recognition to research excellence, measured against appropriate criteria, across the full range of academic activity and including in applied and interdisciplinary research. Particular attention will be paid to ensuring that the assessment panels have access to advice from well qualified additional specialist advisers on research in sub-disciplinary and interdisciplinary fields not covered by the personal expertise of their core membership.

### *UK Research Councils*

**73. The scientific community must take care that disillusionment with DFID's approach to science does not lead it to be universally dismissive of DFID's work.**

**Effective development sciences research is wholly dependent on a thorough understanding of the development context, as well as the science. (Paragraph 193)**

The Government agrees. This enquiry has already prompted enhanced engagement through existing mechanisms for example: through dialogue between Research Councils and DFID on concordats and other mechanisms including the International Development Research Funders' Forum.

The Research Councils commend the recent establishment of a Funders' Forum for Health Research in Developing Countries, involving DFID, MRC and the Wellcome Trust. The Research Councils are also pleased that DFID has become an active member of the Environment Research Funders' Forum (ERFF).

**74. It is very regrettable that the Engineering and Physical Sciences Research Council chooses to exclude international development from its mission. (Paragraph 194)**

The first strand of EPSRC's mission is to "Promote and support, by any means, high quality basic, strategic and applied research and related postgraduate training in engineering and the physical sciences". Within this framework, EPSRC does support UK-based researchers to carry out international development-related research although the research portfolio is small. EPSRC has not been regarded as the main source of funding in this area and has not proactively sought international development research. At the moment, EPSRC does not fund research undertaken by research groups from outside the UK.

The EPSRC also contributes indirectly to the long-term prosperity of developing countries through training of overseas researchers as well as the transfer of trained people and knowledge from the UK.

Some EPSRC-funded research, for example in energy, transport, urban development and water treatment and provision, offers the potential for adaptation in an international development context. This is an area which EPSRC are investigating for future directed research support. The multinational character of many of the companies collaborating in EPSRC-funded research in areas such as water management and waste treatment enhances the opportunities for direct knowledge transfer to the developing world. EPSRC will seek to work with others with international development expertise to take this forward including DFID and NGOs.

**75. We are of the view that the UK Research Councils can play an important role in funding research for international development and consider that such research is highly likely to deliver additional, incidental benefits for the UK. The Research Councils should adopt a clear and consistent approach to the funding of scientific and technical research for international development. (Paragraph 196)**

The Research Councils have already set out a clear position on international development in their original evidence, including the need to sustain a core of expertise in development-related science within UK Universities and Institutes, and the need for greater effort to stimulate and facilitate partnership between UK scientists and counterparts in developing countries.

The Research Councils fund research based on scientific excellence, some of which is relevant to international development. This includes projects/programmes dedicated to issues that are uniquely important in developing countries or regions, but also includes projects/programmes on issues which are of mutual benefit to both developed and developing countries, for example impacts of climate change or disease. All Research Councils, with the possible exception of PPARC, contribute to the science base for international development, and to the training of scientists and technicians from developing countries. The Research Councils and DFID are now working more closely, largely stimulated by this Inquiry.

There will of course be room for improvement, but the Research Councils would like to highlight the good results that have been achieved by some of the existing collaborative mechanisms. For example, through the long-term investment in biomedical research being made by the MRC, particularly in The Gambia and Uganda, in partnership with Gambian and Ugandan Governments and DFID. Much of this has been delivered and continues to deliver evidence directly relevant to policy and practice both nationally and internationally. This success is largely possible because of direct funding provided by DFID to MRC under a long-standing Concordat.

### *Responsibility for UK research capacity*

**76. The fact that no single person or department is taking responsibility for science and technology of relevance to international development has undoubtedly had a detrimental impact on the UK development sciences research base. Even though DFID did not consider it to be within its remit, it could and should have done more to raise awareness across Government of the serious problems being experienced by development sciences researchers in the UK. Nevertheless, DFID does not exist to promote the interests of the UK, and we believe that it would therefore be inappropriate for DFID to take a leadership role in maintaining UK research capability. The most logical arrangement would be for OST, through the Chief Scientific Adviser, to take responsibility for cross–Government co-ordination and, through RCUK, for the maintenance of the UK skills base in development sciences. (Paragraph 197)**

With the appointment of the DFID Chief Scientific Adviser, DFID clearly has a role in taking responsibility for science and technology of relevance to international development. DFID also has an interest in sourcing the highest quality scientists to undertake its research, many of whom will be UK-based. In addition, DFID has a role to play in communicating research needs for the international development agenda. As the Committee notes, DFID's role is not to promote the interests of the UK, but it does have an interest in the health of the UK research-base and participates in cross-Government discussions on the issue. The OST, with support from the Research Councils, and DfES (with support of HEFCE) has a role in monitoring the health of sciences/disciplines across the breadth of the UK research base, including those which contribute to international development issues. The Research Councils have indicated their concern for the UK development sciences research base, and the need to maintain and, if financially possible, strengthen it. This includes the maintenance of the UK research capability.

DFID, the Research Councils, HEFCE and OST are currently in dialogue over how to align the UK research base with the needs of international development research. The working group that the Select Committee proposes in para. 202 (and referred to again under Recommendations 77 and 78) should identify how and by whom the international development research base should be co-ordinated, built and protected.

### *Development Sciences Research Board*

**77. We propose that a cross-cutting Development Sciences Research Board be established with a mandate to award grants for development sciences R&D to UK-based institutions. (Paragraph 198)**

The Government recognises the need to ensure that funding for international development research is effectively coordinated and distributed. However, we would wish to avoid duplication of existing administrative mechanisms, including those of the Research Councils for addressing interdisciplinary issues and for managing cross-Council programmes.

The Government intends to adopt the Select Committee's suggestion (paragraph 202) of establishing a small working group of representatives from the Research Councils, OST and DFID, plus others, to assess what objectives an "advisory" Development Sciences Research Board might fulfill, what form it might take, and what additional funds would be appropriate specifically for international development research in the context of the 2006 Spending Review. The group will be chaired by Sir David King.

**78. We believe that the recent substantial increases in the aid budget would be complemented by a commensurate increase in the availability of funding for development sciences R&D in the UK, in order to strengthen the evidence base available for international development policy-making, and to safeguard the UK's ability to maintain a leadership role in this field. We estimate that an initial budget of approximately £100 million per annum would be required for the Development Sciences Research Board to fulfill its role effectively. (Paragraph 201)**

We acknowledge the recommendation for additional funds, over and above the current science budget and alongside the aid budget, that would strengthen the UK research base for international development, with incentives for applied research to complement the more basic research already funded. The proposed working group will examine this and their conclusions will be considered as part of the 2006 Spending Review.

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