



British Ecological Society

Response to the Office of Science and Technology's Review of Science in Defra

British Ecological Society

April 2005

Introduction

1. The British Ecological Society, founded in 1913, is an independent learned society, registered as a charitable body, and with an international membership of over 4,000. Its principal objectives are to advance and support research in ecology, promote ecological education and provide science policy advice.

General Comments

2. The Society welcomes the opportunity to provide comments to the Office of Science and Technology's review of the Department for Environment, Food and Rural Affairs. Overall, the British Ecological Society fully supports Defra's commitment and actions towards using science to underpin decision-making. We hope that this review will enable Defra to improve its activities in this area.
3. Although outside of the scope of this review, it is important to note that Defra has significant science needs, and that those needs are only going to increase. Therefore, Government and European Union funding for science needs to reflect this demand by ensuring adequate support for ecological and other sciences so that Defra can access relevant and timely information and advice. It is important that Defra's science budget increases in real terms so that its funding of policy relevant research can meet its demands for science. The Society welcomes the Environment Research Funders' Forum as a mechanism for ensuring that research funding is better coordinated.

Science Strategy

4. The BES welcomed Defra's publication of its Science Forward Look. The Society hopes that the Defra's next Science Strategy will provide a clear strategic direction for Defra's scientific activities. It is also important the Science Strategy informs the wider scientific community what science Defra needs to deliver its strategic goals.
5. The Society hopes that the new Defra Science Strategy provides both a clear framework for science and allows for sufficient scope for emerging scientific issues to be developed as they arise. It is important for the Science Strategy to show clearly

how Defra's high level commitments flow through to the research projects and other activities it funds. It should also indicate how the effectiveness of science application will be monitored and evaluated.

Horizon scanning

6. The BES strongly welcomes Defra's commitment and leadership in 'horizon scanning.'¹ However, there is concern that there is a need for clearer links between horizon-scanning research and policy-driven research, so that it can be seen how the results of horizon-scanning research are evaluated in terms of their potential relevance to policy and how they are incorporated into other research areas or taken forward in other ways.
7. Horizon scanning at Defra could also have greater consideration for 'target outcomes', which allow for objective assessment of future scenarios and also for cross-cutting themes which have implications across policies and activities. Issues, such as climate change, need to be identified with respect to Defra policy objectives, such as reducing biodiversity loss. This would allow Defra to assess the significance of impacts and risks, as well as directing research towards mitigating the effects in an integrated and cost-effective way.
8. Crucial to effective horizon-scanning is funding research in emerging areas and retaining a core of skills and knowledge which can be called upon if needed. This was identified in the Defra Forward Look, with specific reference to taxonomy. However, the Society is concerned that not enough is being done to ensure that there will be a next generation of taxonomists.

Reviews existing research and identifies opportunities for future research

9. The BES believes that Defra can do a better job of harnessing existing research and identify opportunities for future research. The BES recommends that Defra could begin using systematic reviews as process for analysing existing research to inform policy development and identify gaps in the research to inform future research priorities. Scientists within the Society have been developing the methodology and practical application of an evidence-based framework for utilising ecological research. The Centre for Evidence-Based Conservation (CEBC) has been leading this process with respect to nature conservation practices.¹ BES members at the CEBC and other research centres would be able to help Defra either incorporate this methodology into their activities or as a source of external expertise.

Commission and manages new research

10. This is an established part of Defra's science activities. The BES recommends that Defra review its commissioning procedures in order to ensure that the best researchers apply for Defra projects.

¹ Centre for Evidence-Based Ecology: www.cebc.bham.ac.uk. See also: www.conservationevidence.com

Ensures the quality and relevance of the work it carries out and sponsors

11. The BES strongly welcomes Defra initiative to develop the Science Quality and Priorities Team; external peer review of completed Defra funded research; and to launch a new code of practice to assure the quality of research processes used in research that they fund.

Uses the research and scientific advice, for example in formulating policy

12. Defra can do more to use research to provide the scientific basis for decision making. Central to this activity is retaining a core of active scientists' trained and skilled in providing policy-relevant advice and incorporating them into the policy-making process.
13. The Society strongly supports the need for future policies to be evidence-based to improve decision-making. Defra could make better use of existing research if it were to develop greater capacity for reviewing and disseminating scientific evidence, so that Defra's scientific advisory functions operate in concert with the policy and delivery elements.
14. The BES and other learned societies are a significant resource that can support scientific advice for Defra that has so far been under utilised.

Publishes results and debates their implications openly

15. The Society welcomed the results of the Farm-Scale Evaluations being published in a peer-reviewed journal and the recent G8 climate change conference at the Hadley Centre. However, the Society believes that Defra can do more in this area.
16. The BES believes that there is scope for Defra to encourage researchers it funds to publish in peer-reviewed journals, which would reach the wider scientific community. Defra could also do more to engage with the scientific community through organising or sponsoring science conferences to bring scientists together to discuss one of its priority areas.
17. Due to legislative developments data and results of Defra funded research should be accessible. However, Defra could look at ways of publishing the data and results of the research it has funded on its website.

Shares, transfers and manages knowledge

18. Defra's non-departmental public bodies – the Environment Agency, the Forestry Commission and the proposed Integrated Agency – are a significant source of specialist scientific knowledge. Defra needs to ensure that the Integrated Agency is adequately resourced so that it can provide knowledge and expertise to Defra.

Has implemented the guidance contained in Guidelines 2000 and the Code of Practice for Scientific Advisory Committees

19. No comment.

Uses, maintains and develops scientific expertise (including both capacity and capacity building)

20. The BES welcomes Chief Science Adviser's initiative to be Head of Science Profession for Defra. We hope that the Chief Science Adviser's initiative will result in a greater support for scientists, especially by improving their career structure, within Defra.
21. It is also important that Defra encourages, and makes provision for, its scientific staff to take part in professional development through participating in learned societies' activities such as publishing and meetings, as well as in policy discussion.

Example of good practice

22. One area of Defra Science that should be cited as a good example of best practice is in the field of farmland bird research. In this context Defra developed a clear, overall science strategy in relation to meeting the Farmland Bird PSA target. This was done through an effective and open working partnership between scientists from Defra, English Nature and NGOs such as the British Trust for Ornithology, The Game Conservancy and RSPB. A systematic review of research requirements led to a clear setting of priorities and the commissioning of new research to meet these gaps. A great deal of this research has been published in peer reviewed journals and, notably, a recent conference proceedings (*Ibis* 2004 vol 146 supplement 2). Furthermore, the results from the research have been used to directly inform policy with respect to the development of options within the new Environmental Stewardship Scheme (ELS and HLS).

Further information

23. Should the Office of Science and Technology have any queries regarding this response then please contact Nick Dusic, BES Science Policy Manager.

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