

Evidence

An assessment of lessons learned in the communication and dissemination of emerging scientific issues to environmental policymakers

Project summary SC090005/S1

For science to influence government environmental policy effectively, scientists really need to present their findings in a format that policymakers can use and understand, says a team of European researchers.

To do this, scientists and policymakers need to communicate closely with each other throughout the lifetime of a research project in order to develop a better understanding of each others needs. They may also need to employ a dedicated 'translator' to convert scientific results into the language of policy.

Although policymakers are increasingly consulting scientists and utilising scientific evidence when drawing up environmental policy, science and policy often do not make very natural bedfellows. The problem is that science and policy (and scientists and policymakers) come from very different worlds, have very different priorities and express themselves in different ways.

Science tends to deal with specific questions, often without taking the wider context into consideration. Scientific findings are often inconclusive or only relevant under specific conditions, and there is usually significant debate on the meaning and relevance of these findings. Scientists are good at communicating with fellow scientists, especially those in their own field, but are poor at communicating with others.

In contrast, policymaking is influenced by politics, which means ideological controversies, opposing views and vested interests. Furthermore, policymakers don't just take account of science, but also economics, public opinion and political priorities. Also, policymakers tend to require firm evidence within short timescales, which science is often simply unable to provide.

As a result, the whole science-to-policy process is not always particularly effective, potentially leading to inadequately informed and incompletely deliberated decisions. So SKEP (Scientific Knowledge for Environmental Protection) ERA-NET, a European network of 17 environmental ministries and agencies, decided to ask a team of European researchers to find ways to improve this process.

Managed by the UK Environment Agency, this project involved the researchers first conducting a comprehensive literature review of the science-to-policy process. Using the findings from this review as a guide, the researchers then carried out in-depth case studies of five real-world examples of the science-to-policy process, as well as a further four mini-case studies.

These nine case studies covered a wide range of different initiatives, both successful and less successful. These included: the role played by the Intergovernmental Panel on Climate Change in influencing climate change policy; a Swedish effort to encourage consumers to switch from products containing hazardous chemicals to environmentally friendly alternatives; and how scientific evidence collided with other forms of evidence in determining policy on tuna fishing in the Mediterranean.

The researchers developed narratives for each of these initiatives and also interviewed the key stakeholders, after which they cross-compared these case studies to isolate common themes and patterns. From this, they drew up six recommendations.

1. Identify your target audience by mapping the communication landscape.
2. Develop an understanding of your target audience.
3. Encourage co-production of knowledge, dialogue and learning between researchers and policymakers.

4. Develop adaptive management mechanisms to open policy windows where new knowledge can be fed into the policymaking process.
5. Use translators, in one form or another, to bridge the gap between stakeholders and to facilitate dialogue between them.
6. Deal with uncertainty or scientific conflicts by identifying common grounds for progress.

The essential themes are that in order to understand each other better scientists and policymakers should communicate more. Most importantly, making sure that scientists understand what kind of information policymakers require and policymakers understand what kind of information scientists can provide. This may necessitate the intervention of a profession translator, such as a science journalist, to liaise between the two camps.

In addition, the researchers advise that scientific findings need to be presented to policymakers at the right time, when there is the best chance of them feeding into policy. Either the results need to be provided at a time when policy is being reviewed or need to provide the impetus for such a review to take place. Furthermore, although any uncertainty or controversy in the findings should be admitted, areas of consensus and certainty should be emphasised.

This summary relates to information from project SC090005, reported in detail in the following output(s):

Report: SC090005/R1

Title: An assessment of lessons learned in the communication and dissemination of emerging scientific issues to environmental policymakers.

Part 1. Comprehensive Report

ISBN: 978-1-84911-187-4

March, 2010

Report Product Code: SCHO0310BSHE-E-P

Report: SC090005/R2

Title: An assessment of lessons learned in the communication and dissemination of emerging scientific issues to environmental policymakers.

Part 2. Recommendations Report

ISBN: 978-1-84911-188-1

March, 2010

Report Product Code: SCHO0310BSHG-E-P

Internal Status: Released to all regions

External Status: Publicly available

Project manager: Neil Veitch, Evidence Directorate

Research Collaborator: Scientific Knowledge for Environmental Protection (SKEP) Network

www.skep-network.eu

This project was part-funded by the Environment Agency's Evidence Directorate, which provides scientific knowledge, tools and techniques to enable us to protect and manage the environment as effectively as possible.

Further copies of this summary are available from our publications catalogue: <http://publications.environment-agency.gov.uk> or our National Customer Contact Centre:
T: 08708 506506
E: enquiries@environment-agency.gov.uk.

© Environment Agency.

