

Understanding Risk in Everyday Policy-Making

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Programme on Understanding Risk

The Programme on Understanding Risk is a major research programme (2001-2005) funded by the Leverhulme Trust. It is hosted at the University of East Anglia with further work being conducted by research teams at Cardiff University, The Institute of Food Research and the University of Liverpool. The Programme conducts research on the social dynamics of contemporary risk issues, involving topics such as public risk perception, risk communication, stakeholder involvement and governance. The Programme makes it an explicit aim to provide social research which is relevant to Government, NGOs and Business. For more information about the Programme on Understanding Risk please visit the Programme's website at <http://www.risks.org.uk>, or contact the team at the following address:

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Foreword

Early in 2004, a conversation started between Defra and members of the Leverhulme Trust's 'Programme on Understanding of Risk'. It centred on the changing role of risk in society and the resulting implications for government. Clearly not a new topic, but we had recently been involved in the GM public debate, which most definitely gave it a renewed sense of urgency.

On our part, whilst Defra unarguably holds considerable expertise in both the science and politics of risk, we needed to find new ways to challenge all policy makers to improve their knowledge of the processes and structures designed to ensure a more integrated approach to framing risk.

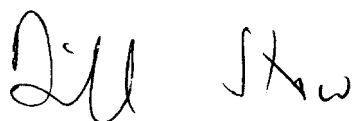
At the same time, our practical experiences of dealing with risk were not always well reflected in the increasing body of risk literature that argued for government to adopt more socially robust practices. Improved engagement with the academic community seemed attractive, enabling more informed understanding of the day-to-day challenges that we face in seeking to be effective risk managers.

In September 2004, Dr. Kevin Jones joined Defra on secondment from the Programme with the task of facilitating a joint learning process between government and academia on issues of risk as they relate to chemicals, GM, radioactive waste and nanotechnology. This report sets out his findings, and I hope that it will provide the backcloth for both further improvements in risk management practices in Defra, and continued critical but mutually supportive collaboration between us and the academic community.

In order to maintain momentum, a number of initiatives are now underway that build upon the secondment:

- the appointment of an expert in social understandings of risk, to develop nanotechnology policy, as well as to provide advice to and challenge other policy makers on best practice risk management and communication;
- the recruitment of a doctoral student to evaluate in greater detail our treatment of risk in particular policy areas; and
- a wider evaluation of the expertise that will be needed over the coming years in Defra to deliver effective policy.

With time I am confident that we will be able to add to these items and in doing so it is my hope that a fully integrated and critical understanding of the concept of risk will incrementally become an almost unspoken part of what it means to make and deliver effective environmental policy.



Bill Stow
Director General Environment
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Abstract

This report is the outcome of a secondment between the Department for Environment, Food and Rural Affairs (Defra), and the Leverhulme Trust's 'Programme on Understanding Risk' (PUR). Beginning a dialogue between social scientists and policy makers, it addresses issues of environmental risk, and the processes involved in their governance. More specifically, this report enquires into how the governance of risk is evolving in the day-to-day policy making activities of the Department. This process is assessed against a backdrop of social scientific advice about risk. Policy makers are encouraged to adopt more socially attuned perspectives of hazard, while social scientists are challenged to find ways of engaging with practice and making advice relevant to policy contexts. Key recommendations call for:

- I. the development of risk approaches that lead and structure policy processes, as opposed to conforming to pre-existing practice;*
- II. the building of capacity in accessing, mediating between, and applying a wider range of expertise and knowledge in the policy process;*
- III. the continued development of engagement practices in ways that encourage publics and stakeholders to inform policy, thereby potentially conferring legitimacy on processes of governance;*
- IV. the translation of best-practice in risk governance into advice to Ministers;*
- V. policy makers to take greater control in developing ideas of risk and risk-based practices within the Department.*

Acronyms

ACRE – Advisory Committee on Releases to the Environment
AEBC – Agriculture, Environment and Biotechnology Commission
BSE – Bovine Spongiform Encephalopathy – ‘mad-cow’ disease
CEER – Climate, Energy and Environmental Risk Directorate
CGMP – Chemicals and GM Policy Division
CoRWM – Committee on Radioactive Waste Management
CSF – UK Chemicals Stakeholder Forum
Defra – Department for Environment, Food and Rural Affairs
FMD – Foot and Mouth Disease
PFOS – Perfluorooctane Sulphonate
PUR – The Leverhulme Trust’s Programme on Understanding Risk
RAS – Radioactive Substances Division
WTO – World Trade Organization

1.0 Introduction

1 Risk has recently become a key concept in the everyday language of government, and of the Department for Environment, Food and Rural Affairs (Defra)ⁱ. It is a multi-faceted term that may refer to specific hazards, but also to new approaches to environmental protection, food safety, as well as the other core business within the Department. This report will discuss how ideas of risk are being developed at Defra, and specifically within the Department's Climate, Energy and Environmental Risk (CEER) Directorateⁱⁱ. The aim is to develop an understanding of how better risk practices are being developed at the policy level and in the everyday practices of the Directorate.

1.1 Widening Approaches to Risk and Environmental Governance

2 CEER is involved in the difficult business of building and maintaining a governmental basis for environmental protection and public safety across a multitude of complex and contentious topics. Key areas of work in the Directorate include: the regulation of novel technologies, such as GM crops and nanotechnology; dealing with longstanding concerns about the impact of hazardous chemicals on the environment; and the mounting problem of how to contend with Britain's stockpiles of radioactive waste. Each of these issues presents difficult scenarios for civil servants who are being asked to uncover the probability and impacts of potential hazards on the natural environment, while concurrently considering a host of other social factors, ethical issues and legal commitments. The Department's mandate is not simply to do away with environmental hazards, but to integrate environmental protection with social progress and well-being. It is, as the Prime Minister and the Environment Secretary recently put it, a task that involves nothing less than "improving the current and a future quality of life."ⁱⁱⁱ

3 It is this difficult undertaking of coping with technical complexity within socially complex and often tendentious contexts where Defra and its predecessors have in recent years received heavy criticism. Following controversial issues such as mad-cow disease (BSE), Foot and Mouth Disease (FMD) and the regulation of GM crops, these criticisms have raised difficult questions about the government's ability to deal adequately with potential hazards, as well as to generate public confidence in its actions. In response to these criticisms, the rise of the language of risk demarcates an attempt by government to improve the way in which Departments address their mandates. Partly, these processes involve attempts to enhance the quality and use of scientific and technical expertise available to policy makers involved with risk assessment and regulation^{iv}. Furthermore, policy makers are being asked to move away from approaches to environmental governance rooted in the perception that hazards are solely technical matters, and to develop socially robust risk practices. To some extent, this involves the recognition that Defra needs to rebuild social legitimacy in its actions. What is more, the Department is being encouraged to become more adept at

recognizing, and contending with risk issues within their social and political contexts.

4 In summary, the difficult task of policy makers is to deliver advice that is able to take account of a variety of aspects of risk, and make that advice applicable to a range of social and political contexts. That is, to take decisions which make use of various forms of expert knowledge; are able to engage with a range of contentious social perspectives of hazards; and hold the confidence of the public. All of which must be accomplished while still working within the bounds of the political and legislative structures, constitutional arrangements and ministerial relationships with which policy makers are often most comfortable and familiar and which constrain their freedom of manoeuvre.

1.2 Secondment – Between Research and Practice

5 This report is the outcome of a four month secondment arranged between CEER and the Leverhulme Trust's Programme on Understanding Risk (PUR). The secondment was established with the intention of bringing together social scientists interested in issues of risk and environmental governance with policy makers in the Directorate. This may at first appear to be a rather modest aim. However, such relationships have seldom been explored fully by either party. Social scientists may well be criticized for too often preferring to address risk and environmental policy from outside government, rather than engaging directly with the people and processes involved. Likewise, Defra has not always been good at opening itself up to proactive critical relationships with the social sciences, and is only now becoming aware of the significant shortfall of expertise it holds in this regard.

6 The secondment has, therefore, been guided by the need to build a relationship of mutual benefit between both parties and to encourage a process of joint-learning with the aim of advancing approaches to environmental governance. In practice this has meant, on the one hand, applying social scientific expertise on a day-to-day basis, assisting policy makers in developing good risk management and communications practices. On the other hand, the secondment has enabled PUR to inform its research work through the unique access it has been granted to the policy-making process.

7 Mindful of the purpose of the secondment, this report is not intended as an exercise in critical social analysis of the use of risk in the Directorate. Nor is it intended to be added to the growing pile of toolkits and advice documents offering practical advice on creating better risk management practices in Defra. Instead, the report lies in-between, outlining the beginning of a conversation between policy makers and academics in the social sciences. It seeks to encourage more socially aware approaches to risk, pointing to areas of this dialogue where both parties can learn from each other, and where the development of further expertise and engagement should be developed^v.

1.3 Structure

8 In terms of structure, the report is divided into three primary sections.

9 Part One addresses some of the perspectives offered by the social sciences to issues involving the governance of risk. Although not intended as a comprehensive review of the literature in the field, the purpose of this section is to help elucidate and contextualize issues of risk, as well as to draw out areas of critical interest to government. Additionally, a short explanation of how these perspectives have directed the focus and method of the secondment is provided.

10 Part Two outlines how issues of risk and governance are being handled in the day-to-day work of policy makers in CEER. It addresses the development of what is often referred to by strategic planners as a 'culture of risk' in the Directorate. Furthermore, it argues that if the Directorate is to be successful in contending with environmental hazards the concept of risk must be given greater weight in shaping the policy process. Specifically, it encourages policy makers to give greater meaning to practices centred on the use of advice and expertise, stakeholder and public engagement, and the drafting of advice to decision-makers

11 Part Three of the report addresses some of the barriers to achieving best-practice in risk governance at Defra, how they impact policy work within the Directorate, as well as how they might be overcome. In particular, an argument is made that calls for policy-makers to take greater control of ideas of risk within the Department. Furthermore, social scientists are challenged to find ways of assisting these processes and make a positive contribution to risk governance at the policy level.

12 Finally, as a note to the reader, throughout the report a series of text boxes are included where it is beneficial to extrapolate upon a key argument or concept. These boxes either refer to specific case studies comprising key areas of work within CEER, or to discussion topics raised by policy-makers about what a piece of advice might mean in practice.

2.0 Risk, Governance and the Public – Social Scientific Perspectives

13 'Risk', despite its apparent straightforward meaning, is a term that is multifaceted both in use, and its implications for how policy makers approach environmental governance. Within CEER the term is used in relation to a variety of highly politicized contexts and governmental processes, alongside straightforward definitions of hazard. Risk can refer to a general approach to environmental governance^{vi}, as well to more specific methods and tools for assessing hazards^{vii}. It is also used to identify management practices highlighting the need to avoid disruptions to the implementation of business within the Directorate^{viii}. Moreover, as the Directorate seeks to build closer relationships with stakeholders and the public, risk refers to a variety of communication and engagement exercises.

14 Because of the complexity and routine usage of the idea of risk, it is possible to lose track of its implications for how policy-makers approach hazard issues. It is, therefore, worth taking a step back from the above, overlapping, usages to consider the impetus behind the development of the concept in government, and why it is used with increasing frequency in the day-to-day work of policy makers. It is in this regard that social scientific approaches to risk can be of some benefit.

2.1 Placing Risk in Social Context

15 At the most basic level, social scientific perspectives remind us that environmental issues are simultaneously real, as well as relative. In other words, risks concern actual hazards, but the ways in which hazards are defined, understood and acted upon involve complex social processes^{ix}. In order to address environmental issues appropriately, policy makers must be able to openly and competently contend with both of these aspects of risk.

16 Sociologists such as Ulrich Beck and Anthony Giddens help us to understand how risks can be understood as social phenomena. They argue that risk is becoming an increasingly prevalent part of contemporary society. It demarcates an evolution in society in which concerns over the environment, and the associated hazards to society, reflect a growing awareness of the impact of human development on the natural world. It is not necessarily the case that the world we live in today is more dangerous than that of the past, but society is increasingly aware of the negative consequences created through human action. The extent of human impact on the natural world, advances in science and technology and the rapid globalization of modern society are all hallmarks of this shift in approach to hazard^x.

17 As a consequence of modern development, the concept of risk inherently questions the ability of society and its institutions to control, manage, or even account for, the repercussions of development. It raises a

series of awkward questions that differ substantially from the types of progressive assumptions which have dominated social relationships with the material environment since the industrial revolution. Are the potential gains associated with development worth the potential risks? How well do we understand the consequences of our actions on the environment? What are the limits of our knowledge? What are the limits of our ability to manage, or rectify the consequences of our actions? Simply, while it has been common to relate science and technology with progress, Beck and Giddens suggest that a growing awareness of risk begins to question these assumptions.

18 These questions comprise a focal point around which a wide range of social and political contestations are played out. Risks, Steve Rayner further reminds us, are cultural abstractions that, “are defined, perceived and managed according to principles that adhere in particular forms of social organization.”^{xi} Why are some risks prioritized in society, while others are largely ignored? Why do controversies develop around certain technologies, and not others? Why do governments choose to act on some risks and not others?^{xii} These are all questions that challenge governments to look at how they identify and approach issues of risk. Moreover, they highlight the inconsistent, political and contentious nature of risk. Certainly, risks cannot be boiled down to simple equations of statistical possibility and pre-defined consequences. Even the definition of costs and benefits can prove contentious. Risks, in other words, are not easily rationalized. The Directorate’s experience with the regulation of GM crops would certainly give some weight to this argument^{xiii}.

19 These social scientific perspectives point to at least two general consequences for policy makers involved in the governance of environmental hazards. Firstly, they are being challenged to make decisions in uncertain contexts, to balance risks against each other, to account for principles of precaution, and to prepare contingencies in case things go unexpectedly wrong. Secondly, the concept of risk challenges policy makers to develop an awareness of the political and social values shaping risk perceptions, including their own. The aim is to be able to use this awareness to create sound and legitimate policy in contexts where it is impossible to rationalise fully a regulatory approach to risk.

20 Taking on this challenge is by no means a straightforward task as such arguments run against many of the structures and cultures of governance in the UK. Legislated agreements and formal political associations are often based on scientific certainties and statistical probabilities, leaving little room for more socially contextual approaches to risk to be brought into the policy-making process. Likewise, policy-makers and decision-makers are generally more familiar and comfortable with dealing with rationalized approaches to risk. As a consequence, traditional approaches to risk unsurprisingly remain both persistent and durable in environmental governance. It is important to recognize this point as what often might appear as straightforward arguments run against deeply embedded methods and approaches to environmental governance.

21 With this last point of caution in mind, let us consider the implications of socially contextualised approaches to risk in relation to two key aspects involved in the process of environmental governance: i) the application of knowledge and expertise; and ii) engagement with the public.

2.2 Perspectives on Knowledge and Expertise

22 Central to a policy-maker's capacity to understand and construct appropriate policy responses to a hazard is their ability to access and apply specialized forms of knowledge. While in some cases the Department may itself host internal sources of expertise, more often than not expertise is gained from external sources. The use of advisory committees and the solicitation of external advice are routine practices across the Department. The importance of maintaining access to knowledge and expertise has recently been further articulated in the publication of the Department's science strategy for the next ten years. In general, Defra's approach to knowledge and risk argues that the more informed the Department's perspective of risk the better the chance of constructing an appropriate policy response to a hazard.

23 However, sociologists would suggest that where risks are concerned, the relation of knowledge and good governance is not as straightforward as might first appear. To recall, one of the core arguments put forward above suggests that the idea of risk implies contexts in which knowledge is routinely limited, uncertain and contested. The implication of which is that traditional models of governance based on a belief that risks could be rationally and objectively understood and accounted for are no longer perceived to be applicable. Issues of uncertainty and the limitations of scientific knowledge are the subjects of routine media and social speculation. Scientists, and the authority of scientific knowledge, are called into question. Moreover, scientists may even be perceived as culpable in creating risks themselves, particularly when associated with corporate interests.

24 In the past, governments have failed to recognize adequately the limits of scientific knowledge in understanding and directing policy making around risk issues. As such, government has rightly been criticized for ceding its authority in dealing with risks to science^{xiv}, and the counsel of expert advisory bodies in particular^{xv}. This approach is critiqued on several counts: 1) it has often led governments to speak in terms of certainty, therefore either disguising or ignoring the inherent uncertainties associated with risk; 2) it often fails to recognize the political nature of scientific evidence; 3) it has ignored and alienated other types of knowledge in the decision-making process, including that of the public; and 4) it has often used science to disguise political judgements. These were certainly all hallmarks of government's handling of BSE, and oppose what can be considered best-practice in the use of knowledge in managing risk.

25 These critiques do not mean that science is any less important in today's society, or that policy makers should not try to use the best scientific knowledge available. It does however compel governments to become more aware of the limits of science, both in terms of what it can tell us about hazards, but also in terms of the legitimacy of experts as decision-makers. Instead, policy makers will have to play a more active role in applying expert advice within social and political contexts. In practice, this implies determining what the role, limitations and function of that knowledge will be. This may mean looking to other forms of expertise in decision-making, or opening difficult, contentious and uncertain decisions to wider democratic involvement.

2.3 Risk and the Public – The Importance of Engagement

26 Alongside the relationship between risk and knowledge, social scientists argue that risks pose significant challenges for how governments relate to the wider public.

27 Policy makers will be familiar of the criticisms of 'deficit modelling' of the public understanding of risk and science, as well as 'decide – announce – defend' approaches to communication. These approaches are based on the assumption that there is an "intellectual deficiency in people's understandings [of risk] as measured against some objective or authoritative body of scientific knowledge.^{xvii}" This assumption has led governments to adopt paternalistic and often derisory attitudes towards public risk perceptions: 'the public are irrational'; 'public concerns are the result of scaremongering and perpetuated by a cynical media'; 'the public won't understand the truth about risks.' Engagement, in this frame of thinking, is a process of seeking to correct public attitudes and deliver the objective truth to the public. Communication, in other words, is reduced to a monologue where the public has very little role or value other than in adopting the opinions of government (Refer to Discussion Point One).

28 The consequence of this approach has been to encourage public scepticism in overly technocratic processes of risk governance, and in experts, policy makers and government officials. Moreover, the deficit framing of risk issues has been short sighted so far as it fails to acknowledge the potential input of a wider range of stakeholder and public knowledge in the shaping and development of policy. In other words, government, by adopting deficit modelling, has itself been deficient in two primary ways: i) it has undermined the legitimacy of risk policy by sometimes failing to gain wider public trust in its actions; ii) it has failed to question how engagement can allow policy makers to inform better their approaches to risk.

Discussion Point One – How Can the Public be Knowledgeable?^{xvii}

In general, despite the development of engagement exercises in government, policy makers remain, at times, sceptical of the ability of the public to contribute to the policy-making process. This is not the same as saying policy-makers reject engagement outright. However, the perceived role of the public in these contexts is often limited, and as a consequence the type of deficit assumptions described above can persist, often in spite of best intentions.

In order to challenge these assumptions it is important to clarify what social scientists mean by the public. Rather than seeing the public as a unitary and generalized body distinguishable, for example, from experts, sociologists will often speak of multiple publics. In other words, we all make up some part of the public. Thus, the goal of engagement isn't necessarily to get a representative view of the general public, or access all elements of the public, but to engage those public with a particular interest, knowledge or experience of a risk issue. It is not difficult to see that farmers, for example, have knowledge relevant to the regulation of GM crops, that consumers have something to say about food safety, that abattoir employees can offer input into animal disease control, or that communities living close to waste facilities have important concerns about the management of radioactive materials.

Such knowledge may not resemble the types of expert advice civil servants are more accustomed to dealing with, and certainly they do not enjoy the authoritative status of science. However, this does not make public knowledge any less valuable to processes of governance. Being willing to explore a variety of public perspectives, including those of experts, can be beneficial in:

- informing policy makers about public attitudes towards risk;
- giving policy makers a more detailed contextual understanding of how risks and risk governance impact the public in everyday life;
- offering policy-makers access to the experiential knowledge of members of the public who are routinely involved in some element of a risk scenario;
- informing the ways in which policy-makers understand and apply other forms of expert knowledge;
- generating legitimacy in governance, if the public feels they have been allowed to play a meaningful role in the process.

The task for policy makers is to be open-minded when dealing with the public and to develop the skills and aptitudes that will allow them to tap into these various types of knowledge and make best-use of what they offer.

29 As policy makers in CEER can attest to, decision-making can be a stressful process and engaging the public can appear to increase pressure and complicate procedures. However, engagement is increasingly becoming a necessity as risks more regularly fall under public scrutiny, and where policy makers are being asked to make decisions in contexts of uncertainty. The challenge for policy-makers is therefore to involve the public throughout the policy-process, both to encourage legitimacy in decisions, as well as to generate greater knowledge about a risk.

2.4 Summary – The Challenge of Risk

30 In summary, social scientific perspectives can offer policy makers an enhanced understanding of risk, as well as suggest ways decision-making processes can evolve to better contend with hazards. To restate, the perspective outlined above argues that:

- risks should be seen as more than statistical probabilities of real consequences. How we define, understand and act upon risks involve complex social processes;
- risks are inherently uncertain, to various degrees, independent of the quality of scientific advice available to a policy maker;
- contending with risks necessarily involves making decisions that are potentially contentious and disputable.

31 Policy makers are, therefore, challenged to:

- be able to make robust decisions in contexts of routine uncertainty;
- regain authority over the decision-making process by mediating between a variety of sources of knowledge instead of deferring decisions to science alone;
- incorporate the public, at a variety of levels, into these processes so as to better inform policy, engender openness in decision-making, and encourage legitimacy in environmental governance.

32 Defra has begun to make considerable progress in many of these respects. As such, many of the ideas articulated above will likely reaffirm aspects of the Department's evolving strategies for contending with risk. This is certainly the case in the Department's publication of its science strategy and the development of evidence-based decision making where wider approaches to knowledge are advocated. Likewise, the Department is now routinely involved in public engagement^{xviii}. However, how the progress hoped for in taking these steps forward is being achieved at the policy-level is not always clear. Thus, keeping in mind the impetus behind these changes discussed throughout this section, the remainder of the report will examine how ideas of risk are being pursued in the day-to-day work of CEER.

3.0 A Culture of Risk in Practice?

33 As part of evolving governmental approaches to environmental governance, it is commonplace for managers in the Department to speak of the “need to embed a culture of risk” amongst policy makers. Indeed, when asked to identify the barriers to achieving best-practice in managing risks, strategic directors spoke of the difficulty of getting civil servants to adopt new frameworks and approaches to environmental governance. Although this axiom is often repeated, what precisely such a process means, or involves, remains ambiguous. Certainly part of the rationale behind the establishment of this secondment is to seek to find ways in which a focus on risk can be engendered in policy-making. Yet, what is clearly communicated in the emphasis on culture is that the matter of dealing more effectively with environmental and public hazards involves more than simply implementing a series of new practices, advice documents and toolkits. *Rather a ‘culture of risk’ suggests the need to make risk awareness part of the day-to-day frameworks of understanding and practice applied by policy makers.*

34 Certainly, contending with ‘risks’ has always been an essential part of environmental governance. Policy makers hold considerable expertise in drafting policy and regulation, and are able to do so across a wide range of technically complex topics. Moreover, few, if any, of the policy makers working in CEER can be unaware of the consequences of the social and political contexts in which they are working. Biotechnology, and the highly visible conflicts which surrounded its regulation, may have proved difficult and uncomfortable for the Directorate, but they have made policy makers more socially aware. Events such as the ‘GM-Nation?’ debate and the routine use of stakeholder engagements have contributed to a growing expertise in contending with risk in a broader social context. This expertise continues to grow across the Directorate, and includes large scale processes such as the CoRWM engagement on the management of radioactive waste, but also involves more routine policy consultations.

35 While the following sections takes on somewhat of a critical tone, it is important to preface this discussion by acknowledging the positive steps taken by the Directorate in building novel approaches to risk. This includes innovating engagement processes, such as those mentioned above, however, progress is also being made in day-to-day policy work. The recent employment of a ‘risk communicator,’ has encouraged change in the Directorate and provided civil servants with an important resource in developing policy. Likewise, where government has been heavily criticized for closing off policy-making processes to outside scrutiny, CEER is taking steps to be more open to external evaluations. This secondment and report demonstrate a greater willingness to enter into critical, and hopefully constructive, dialogues with a wider variety of perspectives.

36 CEER, in other words, has taken the initiative in redressing how issues of risk are dealt with in government, and taken several positive steps along this learning curve. However, further progress remains to be made. The

remainder of this report addresses how CEER can build upon the steps it has taken, in order to make risk a more central and meaningful aspect of its business – to engender a ‘culture of risk’.

3.1 Perceptions of Risk in CEER

37 Asking civil servants in CEER about how aware they were of ideas of risk and their implications for policy-making, most would confess to a certain amount of ignorance. While aware of the language of risk, it is common for policy makers to see this discourse as the property of Defra’s strategic centre. Risks, several policy makers acknowledged, were clearly a central part of their jobs, but could be dealt with intuitively on a day-to-day basis. There is no doubt that the association of the language of risk with managerial processes of change in Defra has created concerns that risk is simply becoming yet another part of an already complex bureaucratic process. As one policy-maker argued, “In the past nobody had to draw a scheme for me, it was obvious that I had to deal with risks.”

38 Although suggestive, the hesitancy of policy makers to take-up the language of risk does not necessarily infer that they are not involved in processes aimed at better practice around uncertain hazards. Having an awareness of risk and risk practices intuitively embedded in the policy-making process is surely what is being called for in encouraging a culture of risk. Likewise, it is necessary to acknowledge that the Directorate has been proactive in implementing a host of novel processes intended to build capacity to contend with the uncertain and socially contextual nature of risk. Practices such as stakeholder engagement and public consultation are now necessary parts of the process of implementation, and are supported in EU policy and the UK’s commitments under the Aarhus convention. Yet, in looking at the meaning and values given to these processes it is possible to suggest that risks are not always being given the credence policy makers are being asked to. I do not wish to suggest that risks are being ignored, but rather that they continue to take a backseat to more traditional policy-concerns in deriving an approach to environmental governance.

39 Policy-making activities continue to be dominated by an adherence to process and structure, rather than by risk concerns in the first instance. A great deal of the policy work in CEER is driven by a host of international commitments, treaty obligations and legal requirements. Policy makers spend a considerable amount of time seeking to construct policy within these strictures and under the pressure of rigid timelines and political scrutiny. This work comprises a fairly narrow and confined method of building environmental policy. As a senior manager in the Directorate pointed out, the emphasis in the Directorate on translating EU directives into national policy rarely challenges policy makers to have to engage directly with risk issues. As a consequence, risk is often deferred to external governmental organizations, enforcement agencies or expert advisory groups. The pressures guiding the work of policy makers are not the implications of the concept of risk, as

described earlier in this report, but those of adhering to the dictates of a particular directive, meeting the implementation deadline, and ensuring that the policy is robust enough to withstand legal challenge. It is unsurprising that the concept of risk is not leading environmental policy, but is being squeezed into the policy-making process where space permits.

40 Thus, although practices associated with best-practice in contending with risk have become routine in many parts of the Directorate, the disengagement of risk from policy can mean that they are viewed as burdensome by policy makers. One civil servant described risk initiatives as attempting to “force people into an overly bureaucratic straightjacket.” Consequently, such exercises are potentially reduced to a mechanical part of the policy process. How consultation and engagement might inform the Directorate’s understanding and approach to a risk issue, what they can substantively contribute to the policy, and how potential controversies and future stumbling blocks can be reconciled by a policy are all questions that receive little attention in all but the most high profile of cases. The priority in pursuing these activities is ensuring that one has all the bases covered, to borrow an American expression, or as one policy-maker remarked, “to tick all the boxes.” In other words, the value of the exercise is reduced to that of conducting the engagement or consultation in the first instance, not of the substance revealed in the practice itself.

41 Such perceptions suggest that a culture of risk isn’t being fully developed under the constraints of current policy pressures. Consequently the potential of risk-based practices is not being fulfilled. Moreover, without adequate attention being paid to the implications of risk, in some cases what at first might appear as good practice may be propping up old ways of doing things. This is certainly not what is being asked of government, including the narrow, inflexible and overly technocratic approaches to hazard for which Defra and its predecessors have been heavily criticized (Refer to Case Study 1).

3.2 Giving Meaning to Practice

42 Within the Directorate there is a need to generate greater meaning in the risk-based practices currently being innovated in CEER. In other words, I suggest that the driving forces guiding the development of risk approaches in the Directorate should be motivated, to a greater extent, by the imperatives discussed in Section Two above. Returning to these arguments, let’s consider how CEER is meeting the challenges of risk in its approach to expertise and engagement, as well as in translating the outcomes of these processes into the provision of advice to decision-makers.

Case Study 1 – Achieving a Policy-Statement on Genetically-Modified Crops

The Directorate recently celebrated the success of concluding a policy-statement that structures the UK's regulatory approach to GM crops. The statement outlines a case-by-case basis for regulating individual crops, neither banning them altogether, nor offering industry a green light. It further embeds a principle of consumer choice into crop regulation, including the labelling of products containing GM materials. For most civil servants the policy-statement marked an end to what had been a period of tumultuous political and public debate. It offers a structured approach on how to proceed with regulation and for most policy makers draws a line under the controversies surrounding the risks of biotechnology preceding the statement. There is no doubt that the controversy over GM was stressful for policy makers, often opening them up to intense scrutiny and criticism from all sides of the debate. It is of little surprise, therefore, that most policy makers speak with a sense of relief at achieving a statement.

However, the ways in which the processes leading to the policy-statement are sometimes valued in the Directorate raise questions about the integration of risk issues with policy decisions. Success is in large part perceived in terms of achieving the policy-statement itself and not always connected to what was achieved in the processes leading up to it. These valuations persist despite the development of a series of pioneering exercises intended to contend with scientific and social contestation over the risks of GM crops. Engaging with a wider range of expertise and opinion through the establishment of the AEBC, responding to scientific uncertainties by implementing the FSEs, and encouraging greater public participation through the GM-nation debate, each marked a substantial departure from traditional methods of policy-making.

Yet, such deviations can leave policy makers frustrated and critical of these processes, at times downplaying their substantive impact. For example, the AEBC is sometimes valued for its advice, but more so as an exercise in demonstrating openness to wider risk issues. Some emphasise the value of the GM-nation debate as a means of openly contending with the political issues surrounding biotechnology, and not necessarily for the contribution made by the public to the policy. Likewise, most would agree that the FSEs were of scientific value, but it is also suggested by some that they served as a means of delaying a policy-decision until political issues could be reconciled.

Of course, this presentation of the GM-crop case overstates the frustrations of policy makers, much of which can undoubtedly be attributed to the stresses of coming through what surely must have been a demanding process. Furthermore, it is not the intention here to make the argument for, or against, the merits of the AEBC, FSEs or public debate, or the place to provide an analysis of this nature. However, by contending with such expressions openly, it is possible to highlight the need to generate reflection in the Directorate on the substantive contribution of risk-based approaches to policy-making. In other words, it is necessary to question how risk-based practices contribute to a better, more informed policy, as well as where such processes fell short of expectations and how they might be improved upon. The aim is to build risk awareness into policy-making, not as a response to social controversy, but as a means of generating more informed, legitimate and appropriate policy.

This is an important point as the Directorate moves towards generating a policy on nanotechnology over the coming years. While there is concern that nanotechnology be dealt with in a way that doesn't replicate the political problems of the GM-case, this usually refers to the need to avoid getting bogged down in a public controversy. However, if the intention is to build a culture of risk in policy-making within CEER, the emphasis should be placed on learning from the GM-case so as to be able to better anticipate and contend with a wider range of risk issues, and create a more informed and robust nanotech policy.

3.2.1 Applying Expertise

43 Over the relatively short duration of this secondment it is clear that within CEER policy makers remain most comfortable in dealing with technical appraisals of risk. However, attitudes towards the role and limits of scientific knowledge are varied. In a minority of instances policy makers saw their roles purely in terms of translating the best scientific advice into policy, while ensuring that this advice was kept free of political interference. For example, the determination of safety was often cited as having to be kept separate from social and ethical issues as it was on this basis that the legal robustness of the policy would be tested. The majority of policy makers, however, were less rigid in the relationship they drew between science and policy. Some put forward a model of policy-making that places an emphasis on getting the science right in the first instance, and then working to reconcile this with social, political or ethical issues in building policy. Furthermore, policy makers were often socially reflexive in their approach to science, describing their role as one of arbitrating between competing perspectives of hazard. In other words, for the most part policy makers were not technocratic in their approach to science, but found value in science while, in part, recognizing the sometimes uncertain and political nature of that knowledge.

44 However, policy makers were often less active in thinking about how other types of knowledge can interact with scientific expertise in contributing to the day-to-day construction of risk policy. How the acceptability of risks are determined, the weighing of risks and benefits, and understanding and responding to evolving public perceptions of risk are all issues of relevance to policy makers which fall outside the scope of science. Although in some contexts policy makers will seek legal and economic advice, this is not always the case, there is little consultation with other sources of social, ethical or political knowledge in the day-to-day work of policy makers.

45 At a strategic level, the Directorate is introducing novel methods that do seek to incorporate a wider range of knowledge into the policy-making arena. This includes the recent appointment of a social scientist in the Directorate with specific expertise in the areas of public risk perceptions and risk communication. Likewise, attempts to encourage the interaction between scientists and other forms of expertise are being pursued through the inclusion of so-called 'lay members' on scientific advisory panels (Refer to Case Study 2).

Case Study Two – Lay-Membership on Advisory Committees

Within CEER attempts are being made to reassess how expert advisory committees are constructed and how they fit into the policy process. Part of this evaluation has been to weigh the potential benefits of embedding non-scientific members, often referred to as 'lay-members', on expert advisory committees. More often than not these members are envisioned as holding expertise and competence in non-scientific areas.

These potential changes are not without their headaches for policy makers. Difficult issues include: (1) how the scientists already sitting on these committees will react to a non-scientist coming on board; (2) whether non-scientists will be able to engage with the complex technical advice being considered by the committee; (3) the extent to which lay members should be charged with raising wider political and social arguments that underpin technical assessments of risk; and (4) whether or not lay members are in fact the best means of addressing wider expertises in the policy making process.

However, in spite of these difficulties, there are some good reasons to widen the scope of expert advisory panels. In this sense government is being asked to learn from past mistakes and to respond to recent criticisms of the ways in which advisory committees have been constructed and run. Scientific advisory bodies have been perceived to be too closely aligned with industry, subject to political interference and uncritical in their approach to contentious issues. Moreover, they have been criticized for not being prepared, to pay enough attention to issues of uncertainty, offer precautionary advice, or consider alternative/critical scientific opinions^{xix}.

It is within this context that the workings of advisory committees should be understood and the potential benefits of lay-membership considered. Firstly, non-experts, so to speak, can be very adept at identifying, or following-through on discussions of uncertainty, or in questioning scientific assumptions about risk. In this sense, lay membership can play an important challenge role in committees, furthering the quality and durability of the advice offered. Secondly, lay-members can play an important role in asking expert committees to seek to understand the advice they give in relation to social and political contexts. Where it might be possible to speak of the objectivity of scientific knowledge in the laboratory, the separation of advisory processes from their social contexts would be naïve. Advisory committees would be well served by reflecting on the political contexts of their advice, and should become more comfortable in discussing these with government and the public. Thirdly, widening the scope of expert committees beyond scientists encourages such bodies to be more open and transparent in the work they do, and the processes and justifications leading up to a particular recommendation. Finally, if allowed to play an effective role in each of these capacities, government may be able to draw on advisory bodies as a means of encouraging greater legitimacy and social robustness in the policy process.

46 These are novel processes in governance and despite holding some potential it remains unclear how effective, or meaningful in a policy-sense, they will, or can be. If attempts to widen the Directorate's knowledge base are to comprise a meaningful approach to risk, policy makers will need to contend with a series of key issues in delineating their approach to knowledge:

- What types of knowledge are relevant to the work of CEER and how can policy makers access this expertise?
- What are the roles and limits (i.e. in terms of legal robustness) of different forms of knowledge in informing policy and decision-making?
- How can a wider knowledge base inform the Directorate's understanding and application of other forms of expert advice, including that offered by scientific advisory bodies?
- How are alternative forms of expertise valued and trusted by the wider public, and how do they impact upon the legitimacy of a policy or regulatory decision?

3.2.2 Engaging Stakeholders and the Public

47 Processes of communication between policy makers, stakeholders and the public comprise one area in which Defra may be able to access a wider range of knowledge about risks. Within CEER there is now a clear attempt to engage the public across a myriad of issues, at different parts of the policy process, and through a variety of methods. The Directorate is learning from its experiences with some being more successful than others.

48 While progress is certainly being made, the full potential of these exercises has not been fully explored by policy-makers. In large part, this is a consequence of an overarching concern with the desire to generate public confidence and legitimacy in policy and decision-making. Alternatively, little value is given to the potential cognitive gains to be derived from engagement exercises. Simply, policy-makers do not always enter an engagement asking what they might gain in terms of an understanding of a risk, or potential solutions to a hazard problem. This may at times contribute to the relegation of engagement to simple bureaucratic exercises, as opposed to processes guiding policy maker's approaches to risk. As engagement develops in CEER there is a need to evaluate much more systematically how participants are informing policy-making, and how open the process has been to encouraging meaningful and influential participation.

49 While it is certainly correct to be concerned with social legitimacy in engagement - clearly a cornerstone of effective risk governance - the Department at times adopted a fairly narrow approach to achieving this end. Specifically, the focus has been on the potential business risks associated with social and political controversy. A great deal of concern is being expressed about the potential for public attitudes to generate impediments, or surprises, which will disrupt the policy process. Managing risks in this way

involves taking steps such as engagement and public consultation to avoid appearing closed to public scrutiny and having decisions questioned and viewed as illegitimate as a consequence^{xx}. As one commentator suggested, “[engagement] is about getting the job done. If you don’t get people on board they will sink the boat.”

50 It is not the suggestion here that engagement within the Directorate is exclusively perceived in these terms. However, the Department’s recent focus on business risks does raise questions about whether openness and transparency, despite being good practice, can reduce deficit approaches to decision-making on their own.

51 Moving beyond paternalistic and negative approaches to the public implies the need to engage the public in an open two-way dialogue. It is not enough for the public to simply be present in policy-making, but legitimacy is born out of the possibility of having public voices heard and finding room for these consultations to impact the policy-process. This is not the same as suggesting that decision-making should be turned over to the masses. Clearly the public would expect government to make decisions on controversial issues. The task is, therefore, to find ways in which the public can be engaged in meaningful ways, while negotiating between various public perspectives, and to take decisions in controversial contexts, not in spite of them (Refer to Discussion Point Two). Of Course, the danger of not broadening approaches to legitimacy is to risk having engagement discounted in public on the basis that it is disingenuous, non-productive, or even cynical.

Discussion Point Two – What type of Engagement, When and with Whom?

When developing an engagement exercise it is important for policy makers to ask what type of engagement to run, at what point in the policy process it should be initiated, and with whom they should be engaging. Indeed, these questions were routinely raised over the context of this secondment by policy makers looking for advice in developing their capacities in engaging the public. However, while some social scientists do sometimes seek to develop models of engagement, there are not necessarily any clear-cut rules for answering the above questions.

Engagement exercises can involve large numbers of the general public, stakeholder groups with a particular interest about a risk, or even individuals with personal experiences and knowledge of a hazard. Different methods might be suitable for some contexts and not others, or similarly might apply to different parts of the policy process. Engagement, in this sense, is better understood as a continuous process in policy-making as opposed to a discreet activity fenced-off at a particular point of the policy process.

The application of engagement as a flexible tool that is applicable to a variety of policy contexts is precisely the type of expertise this report is calling for policy makers to develop in their day-to-day work. Guiding this development should be the aims of legitimacy and informed policy making, not conforming to specific methods and ‘box-ticking’ exercises. Simply, while social scientists can offer advice about what can be gained from engagement, and even on methods of consulting the public, within government, it is policy-makers that must develop the skill-sets needed to implement them in their day-to-day work.

52 All this is to suggest that engagement is not a panacea in and of itself. Policy makers need to ask how engagements can be generated that encourages the maximum possible involvement from stakeholders and the public. Furthermore, it is necessary to expand notions of openness and transparency to the ways in which engagement can inform regulatory advice and decision-making (Please refer to Case Study Three).

53 In this respect policy makers in the Directorate can now draw on the wealth of experience being generated through the development of engagement as a routine part of the policy process. While not all engagements are as successful as might be hoped, some good examples are being developed in CEER. This includes recent consultations around the development of the REACH^{xxi} strategy for regulating hazardous chemicals, and in helping local communities to remediate the hazards posed by natural forms of radiation^{xxii}. Such positive examples demonstrate an active interest in working with stakeholders and the public, and in permitting such engagements to shape policy and the activities of the Department. As these processes continue to develop it is important for policy makers to identify when and how such engagements are being successful, and when they might be falling short.

54 Whether evaluating a past engagement, or considering a future exercise, it is worth keeping the following questions in mind if meaningful legitimacy is to be achieved:

- What clear roles are there for the public, or stakeholders, in informing the policy-making process?
- What types of knowledge, expertise or experience can members of the public bring to an issue?
- What are the limits, or barriers, to this input, and have these been communicated and discussed with the participants?
- What can the public, or stakeholders, expect to get back from an engagement process themselves?

Case Study Three – Engagement and the Regulation of Hazardous Chemicals

One of the core policy areas in CEER involves the regulation of hazardous chemicals, many of which have been in use for a number of years. As is characteristic of much of the work of the Directorate, the regulation of risk is multifaceted involving international treaty obligations, scientific risk assessments and a range of social and economic concerns. The concerns of industry, NGOs, affected communities and the interests of society more widely are all considered when taking a decision on how to regulate a specific chemical.

In order to address some of these concerns and generate public and stakeholder confidence in the regulatory process, the Directorate hosts routine meetings of the UK Chemicals Stakeholder Forum (CSF). The forum is an advisory body that reports to the Secretary for Environment, Food and Rural Affairs, and is comprised of stakeholders from a variety of backgrounds and with divergent attitudes towards chemical regulation. The core work of the CSF involves the consideration of a list of chemicals of concern, based on criteria of persistence, bio-accumulation and toxicity.

(Case Study Three cont.)

While certainly successful in holding a variety of interests together around this important policy area, the CSF has been the subject of some criticism. At times, it has been perceived as overly cumbersome, slow, or ineffective in regulating what are very dangerous chemicals. Some frustration has been born out of the fact that over the first three years the CSF only managed to consider ten chemicals out of an original list of one hundred and ten. Thus, while the CSF looks to be a success in bringing a wider variety of perspectives into discussions around chemical risks and giving a sense of legitimacy to these processes, concerns can be raised about the potential regulatory influence of the process.

In contrast, parallel approaches to regulation in the Directorate, and more direct forms of engagement have been more successful in coming up with timely regulatory policy. An example involves the Government's recent decision to phase-out the use of perfluorooctane sulphanate. PFOS is a surfactant with a variety of applications ranging from fire-fighting foams to chrome-plating processes. It is also widely associated with some cancers and recognized as persistent and bio-accumulative in the environment. The decision to phase out the use of PFOS was coordinated by policy-makers working directly with industry, and with some input from a wider range of stakeholders. Importantly, the regulation of PFOS involves a derogation strategy, negotiated with industry and user groups, allowing for a phasing out period so that alternatives can be found.

By contrasting these two methods of regulation and engagement it is not the intention to advocate one process over the other. Rather they raise questions about the relationship between engagement, or the depth of engagement, and the ability to produce effective and timely policy. Do the experiences of the CSF suggest that one of the consequences of a wider engagement process is a stunting of the policy process? Likewise, has the success of coming up with a relatively quick policy on PFOS come at a cost to public legitimacy in a process which was in large part negotiated between government and industry?

In order to begin to answer these types of questions and evaluate engagement practices in the Directorate, it is important to address what engagement substantively meant in each of these cases. Certainly early on in the CSF process, the engagement was dominated by scientific discussions of risk, usually relating to information supplied by industry. As one commentator described, this often left the discussions beholden to industry and dependent on their timelines for delivering information. S/he says, "industry talks a good game, but that doesn't mean they will necessarily deliver." Furthermore, as a result, issues of social, economic, or wider environmental importance have not featured highly on the Forum's agenda. In contrast, the PFOS process developed from an agreed scientific basis, instead focussing on the negotiation a series of socio-economic and political judgements. This included comparisons of risk and benefit, the economic costs to industry of phasing out usage, societal need and what levels of usage were acceptable and which were not.

The link between engagement and policy influence, particularly in relation to time, is not as straightforward as it may appear. Rather, in evaluating the evolving practices of engagement in the Directorate it is important for policy-makers to interrogate the more substantive aspects of these processes. On the one hand, this means examining the contexts in which stakeholders are best able to bring their perspectives forward and contribute to a policy debate in a constructive fashion. On the other hand, it means addressing the ability of engagement, and subsequent policy decision, to address issues of public and social concern. Would the CSF have been better served and better able to make a contribution to policy and engender legitimacy in the process if members had been allowed to widen the scope of the discussion beyond science and the influence of industry? Would the PFOS regulation be made more socially robust if negotiations of risk, benefit and continued+ usage been opened to a wider range of stakeholders?

3.2.3 Risk and Democracy – Offering ‘Risky’ Advice

55 A final issue to be raised when considering how to give meaning to practices aimed at encouraging risk-based processes of policy-making, concerns the translation of risk-based processes to political advice. This is a process that is poorly understood in the social sciences, and the relationship between civil servants and political masters is seldom given any attention in risk research. However, policy makers clearly identify this relationship as being of importance with regards to their approach to risk.

56 Civil servants describe a complex relationship between themselves and ministers. In terms of communicating advice about risk issues, many policy makers suggested that speaking about uncertainty, or the “what ifs” was part of regular discussions with ministers. Similarly, it was pointed out that processes of engagement and consultation were becoming routine parts of the decision-making process and were being increasingly supported by ministers, particularly in controversial contexts.

57 However, some policy makers also suggested that best-practice in dealing with risks could often be challenged in the relationship between policy and political decision-making. Politicians were described, on one occasion, as liking clear-cut answers to questions of risk so as to generate a solid platform on which to base a decision. In other words, it is the reduction of risk to a discourse of scientific certainty in assessing hazard that is sometimes perceived as the type of advice most coveted by Ministers.

58 Furthermore, civil servants, at times, expressed a degree of discomfort in advising Ministers on the wider social and political aspects of risks. This was particularly true in terms of offering advice derived from engagement and consultation exercises. Socio-political issues were described as the sole property of politicians and the authority and legitimacy of decision-making viewed as the consequence of democratic systems of elected representation. Simply, where policy makers felt comfortable in relaying scientific information to Ministers in the form of advice, they did not express as a great a confidence in relaying other forms of knowledge and information.

59 Thus, while it is clear that the Directorate is ever more involved in a host of processes aimed at increasing openness, broadening its knowledge base, and encouraging wider consultation, it is less than clear how well connected they are to decision-making. In other words, the consequences and impact of those processes beyond generating an appearance of transparency and engagement remain vague and generate doubts about whether they will reinvestigate public confidence as they are intended to do.

60 The relationship between best-practice on the policy-floor and its translation into effective advice should be a subject that is given greater attention, both by policy makers and by academics. From an academic point-of-view, the impact of political figures in securing public confidence remains

poorly understood. Likewise, within government these questions are seldom asked openly and given specific attention and the advice giving process has remained, for the most part, closed to public scrutiny.

61 However, it is clear that democracy and legitimacy can take place at many different levels in the governance of risk issues. In other words, democracy may be found in formal systems of elective representation, but should also be encouraged in generating more inclusive forms of governance and decision-making. In making a closer examination of the relationship between policy-making and political decision-making it is necessary to generate a greater understanding between these two levels of democratic participation. The aim should be to encourage the development of a system of advice that incorporates principles of best-practice in risk governance, and addresses risk across the broad range of issues implied by the term.

62 When providing advice to Ministers the following questions should be considered:

- Does the advice reflect the full range of risk issues discussed in the lead-up to the development of a policy-position?
- Does the advice offer an evaluation of multiple perspectives of risk, including those provided by a wide range of sources of expertise and knowledge?
- Does the advice communicate the outcome and what was learned and achieved through engagements with stakeholders and the public?
- Is information provided concerning the legitimacy of proposed piece of advice and the sources of information guiding it?

3.3 Summary

63 Briefly, let's return to the question that opened this section of the report – 'is CEER developing a culture of risk?' On the one hand, it is clear that significant changes are beginning to take place in the Directorate which have brought risk into the day-to-day language and actions of policy-makers. However, on the other hand, I have argued that risk continues to take a back seat to traditional policy concerns. In other words, there is a danger that risk will simply become part of ongoing processes of environmental governance, rather than taking a leading role in directing the evolution of the way CEER approaches its business.

64 So, as one policy-maker enquired, at what point can the Directorate be said to have a culture of risk? The argument put forward above suggests that this will be achieved once the implications and challenges of the term defined in Section Two of this report are translated into practice. Instituting new ways of doing things, such as using alternative sources of knowledge and engaging with the public, is an important step in the right direction, however, it is essential to explore the full meaning and potential of these processes. Making the questions bulleted throughout the above section part of the day-to-

day intuitive practice of policy-makers in CEER will greatly contribute to this process. Summarizing, these are questions that challenge policy makers to:

- take on the role of knowledge brokers, mediating between various perspectives and sources of expertise in constructing policy;
- make engagement a routine part of policy-making, and build legitimacy in decision-making by being willing to listen and learn from stakeholders and the public; and
- translate best-practice in risk governance into Ministerial advice, offering perspectives on risk that reflect its socially contextual and complex nature.

4.0 Moving Risk Forward in Governance and the Social Sciences

65 So far this report has presented an image of what social scientific perceptions of risk might imply in shaping governmental approaches to environmental hazards. Furthermore, it has argued that although much of the substantive basis to achieving best-practice is already being put in place within the CEER, greater meaning should be given to these exercises. Simply, the hope is that, through a wider approach to risk and through processes of open and engaged governance, more robust and legitimate practices can be encouraged amongst policy makers.

66 Yet, achieving these aims is clearly not a straightforward process. As mentioned at the outset of this discussion, environmental governance is a complex and highly structured process with established ways of governing risk. There are many barriers to achieving what might be considered ideal practice around issues of risk. Most of these have been touched upon in the above discussion. However, it is worth bringing them together here to help look at ways forward in developing ideas of risk and practice, both in Government and in the social sciences.

67 Barriers to achieving ideal-practice include:

- the pre-eminence of a policy-system based on enacting legislation and external directives, in contrast to a system where policy makers have a direct and first-hand engagement with risk issues, in their broad sense;
- political commitments and obligations that discount wider risk analysis as a basis of decision-making, and confine decision-making to science based modes of analysis (an example might be the Government's commitments to the principles of the World Trade Organization);
- a lack of perceived relevance amongst policy makers of wider risk-based approaches to environmental governance; and
- an organizational reluctance to follow through on the potential implications and benefits of risk-based practices including broadening notions of expertise, engagement, and advice.

68 Clearly these are substantial barriers, and the first two points in particular would appear to be very difficult to overcome, at least in the short-term. However, it is in regard to the final two points where this report has focussed its attention and argues that progress can be made.

69 While this report has not sought to be a tool-kit, it has offered some advice challenging how policy-makers approach risk. The remainder of this report will look at how this advice can be developed and made best use of in the Directorate. Firstly, CEER is challenged to work towards making the development of risk the property of policy-makers themselves, and not just that of the strategic centres in the Department. Secondly, it challenges social scientists to engage policy-makers in aiding this process.

4.1 Making Risk the Property of Policy Makers

70 Within the Department, novel approaches to risk and associated practices of communication and engagement are seldom approached by policy makers as part of the expertise they apply in creating policy. Rather, risk is usually seen as the property of the strategic centre, including inter-departmental risk initiatives, as well as the Department's communications Directorate and own strategic risk programmes. Moreover, there is only limited interaction between branches holding specific risk and communication expertise and those involved directly with policy-making. Where a relationship does exist, it is limited to the production of a variety of advice documents and tool-kits for policy makers, most of which appear to have little impact in day-to-day practice.

71 The separation of expertise in risk and expertise in policy-making within the Department appears counterproductive to encouraging best-practice in the governance of risk. Returning to the idea of a culture of risk, it is worth noting that anthropologists are often very critical of overly-simplistic definitions of culture. They would argue that cultures are not discreet entities that are easily delineated, or separated from social context. Rather, they are understood better as processes involving the interplay of people, ideas / knowledge and action^{xxiii}. Cultures evolve in practice; they cannot be externally generated and imposed on a context.

72 This distinction is important so far as it suggests that novel approaches to risk must developed by policy-makers, not imposed as models of governance. Contending with risk should be encouraged in the values and expertise of civil servants, and practiced through everyday relations within government. Developing governments' capacities in governing risk, in other words, is best achieved by encouraging new ideas about risk in relation to the expertise policy makers already hold.

73 Simply stated, policy makers should be encouraged and enabled to take greater ownership of ideas of risk and processes of communication and engagement. By building expertise in these areas, novel perspectives of risk can become built into routine forms of policy-making. The policy makers in CEER clearly hold a tremendous wealth of expertise in policy-making as a process, not just in the specific hazard cases they are involved with. It is this expertise that can make risk and wider social approaches to environmental government relevant to Governments. This is what was being asked of policy makers in section two of this report when the argument of giving meaning to practice was advanced. Simply, if the structures of government create barriers to best-practice in governing risk, policy makers are in the best position to find space for progress to be made (Refer to Discussion Point Three).

Discussion Topic Three – ‘Isn’t all this risk-talk simply idealism?’

Responding to advice about risk, policy makers routinely questioned whether all the talk about risk engagement was simply a form of idealism that didn’t reflect the realities of the policy process. Facing barriers to best-practice, policy makers questioned what the point of exercises such as engagement was if they remained largely divorced from the eventual decision-making process. Another way of putting this is to ask how concepts of risk can shape policy processes already heavily committed to the dictates and processes of organizations such as the World Trade Organization (WTO), or as spelled out in the UK’s obligations to the EU.

Observing the actions of policy-makers, however, makes it clear that policy-makers routinely craft policy in ways that negotiate between treaty obligations and UK interest. The implementation of EU directives into UK policy easily exemplifies these processes, where the eventual policy document resembles a negotiated settlement as opposed to a direct translation. Furthermore, in many cases policy-makers in Defra have taken a lead in developing global environmental policy.

It is the skill and aptitude of civil servants in negotiating policy construction through a variety of political and regulatory contexts, which are needed in developing risk-based forms of governance. Making engagement meaningful so as to inform decision-making requires policy-makers to find the spaces in the process for it to do so. Likewise, having alternative forms of knowledge compete against rigid technocratic models of governance requires policy makers to argue for this to be the case. Social scientific advisors and strategic managers in Defra can help policy-makers understand the potential of risk-based environmental governance, but it is policy makers who must take on the responsibility of making them meaningful.

4.2 Making Social Science Relevant to Policy makers

74 While policy makers should be encouraged to take the lead in promoting risk governance, there is still room for input from the social sciences. On the one hand, social science clearly has a role in critically positioning itself outside of the concrete practices of government. However, building on this secondment there is a substantial need for academics to make their research relevant to the policy-context. On the one hand, there is an ongoing role to be played in assisting the Directorate in understanding how they continue to progress in these areas. However, there is also a need to assist policy makers in understanding how best-practice can be pursued, particularly in light of the barriers facing these processes.

75 It is not the responsibility of this report to identify specific social scientific research projects to be conducted within the Department. However, this secondment has suggested several research themes that would benefit social scientific perspectives of risk and government and could contribute to making social scientific advice of greater relevance to policy makers.

- I. There is a general need for social scientists of risk to become more familiar with the policy-processes, and the motivations and barriers shaping the UK government's approach to risk. In other words, policy makers have something to teach social scientists.
- II. It would be helpful to continue to follow the development of risk within the cultures and practices of Defra. This would be useful in informing social scientists about where expertise can be best targeted and of greatest impact in improving practice, as well as helping the Department monitor progress. For example, the application of lay-members on expert advisory committees has generated many questions about the benefits of these types of exercises in improving the robustness and legitimacy of the advisory process.
- III. A pressing need exists to understand how best-practice in risk governance can be understood within the confines of governmental structures. For example, if policy makers are legally bound to scientific risk assessment, there is a need to understand how broader risk approaches can be best pursued in these contexts. This would include generating an understanding of how these barriers impact upon perceptions of legitimacy and trust in environmental governance.
- IV. Finally, while social scientists and civil servants would agree that issues of legitimacy and trust in environmental policy are of central importance in governing risk, considerable uncertainty exists about how this can be achieved in practice. How are ongoing processes of openness and engagement impacting public attitudes towards risk and government? How can these processes be improved so as to generate greater public trust? How do public perceptions of legitimacy in politicians influence public confidence in Defra? These are all important questions that require further attention.

76 Each of these areas suggests that a continued dialogue, or process of mutual-learning, between policy makers and social scientists could be beneficial for both parties

5.0 Conclusions and Recommendations

77 This report, and the secondment upon which it is based, set-out to develop an understanding of the development of risk within the everyday policy-making activities of CEER. The aim of which has been to better inform practice within the Directorate, as well as to challenge social scientists to learn from policy-makers and the day-to-day practice of government in shaping their advice.

78 The Directorate has clearly made substantial gains in adopting risk as a core principle in approaching its various areas of responsibility. Implementing experimental processes of engagement and consultation, the promotion of risk awareness and risk communication amongst policy makers, and a readiness to listen to external criticism and outside advice, all point to a willingness on the part of the Directorate to challenge its approach to environmental governance. These changes comprise an interesting and valuable contribution to understanding how best to address hazards in what is an increasingly complex and contested environmental and social context.

79 Building on these successes this report can make five general recommendations for improving best practice in risk governance within CEER:

- I. While it is important to continue to develop policy-making activities that seek to account for risk, it is also necessary for the Directorate to work towards giving greater meaning to these practices. In other words, it is necessary for these practices to begin to structure how the Directorate approaches its business, as opposed to restricting risk within pre-existing models of governance.
- II. Although science should continue to play a vital role in contributing to risk policy, policy makers need to become more willing to explore a wider variety of sources of expertise. The Directorate would be well served by developing relationships with a wider range of external sources of expertise. Furthermore, the capacity to mediate between different perspectives and knowledges in building policy should be encouraged amongst civil servants.
- III. CEER should continue to take a lead in promoting engagement as a central tool in creating policy. However, greater attention should be paid to what engagement can contribute to policy in terms of cognitive gains, as well as in terms of social legitimacy. Clearly these two elements of engagement are linked.
- IV. The progress being made in CEER in developing ideas of risk is potentially hampered by a disjuncture between the construction of policy and the communication of advice to ministers. It would be helpful for policy-makers and Ministers to work together to find ways of translating best-practice in risk governance on the policy floor, to the types of advice given to decision-makers.

- V. While it is important to continue the strategic development of concepts of risk in Defra, policy-makers should play a greater role in developing these ideas and in designing methods of contending with risk. Policy-makers hold a tremendous amount of expertise both in terms of risk issues, but also in developing policy in contexts complicated by a host of other political obligations and legal requirements. Where significant structural barriers threaten the development of best-practice in the Directorate, policy-makers are best-suited to negotiate these hurdles.

80 Part of this secondment has involved an attempt to build a relationship between social scientists working with risk, and policy-makers involved in the day-to-day regulation of hazards. To this end, this report would suggest that there remain significant areas where this relationship can continue to be encouraged and developed. Without going into specific details, three areas of further engagement and enquiry stand out in this report:

- I. The development of risk initiatives could be better served if social scientists showed more willingness to explore the structural and political barriers to achieving what might be considered 'ideal' models of governance. Policy makers face considerable barriers to developing best-practice in risk governance and more research is needed into what these are, their impacts on the policy-making process and how they can be overcome.
- II. Although already a popular topic amongst social scientific perspectives of risk, the relationship between different approaches to governance and social legitimacy requires further attention. In particular, advice is needed that is able to assess and offer practical advice on how policy-makers can best engender public confidence in their actions.
- III. A significant need for social scientists to take a more active role and make their advice practically relevant to policy-makers exists. Simply, social scientists should be more willing to get their hands dirty, and Defra should continue to find spaces where social scientists can contribute to the policy-making process.

81 As the hazards of environmental degradation become increasingly relevant to society, and consequently to government, new ways of contending with risk are needed. In a complex social and physical environment, solutions are required that both protect against hazard and meet the evolving social values and expectations of British Society. Through this secondment, and the dialogue engendered here between policy-makers and social scientists, this report has sought, in some small way, to help these processes develop.

Appendix A – Methodological Approach

(1) As mentioned in the introduction to this report, the secondment between Defra and the Programme on Understanding Risk (PUR), constructs a role for the social scientist that is not purely research oriented. Alternatively, the researcher is in some way committed to being involved in the practice of the hosting organization, and to a degree to its cultures, processes and personnel. Within academic circles, this approach to research is often referred to as ‘action research.’

(2) Although sometimes derided in academic circles as being of limited value because of the loss of objectivity and purity of the research experience, action research approaches do offer some considerable benefits to the researcher. Fox, citing Schensul, outlines several such benefits, including^{xxiv}:

- drawing together different perspectives and areas of expertise around a common topic, or problem;
- enabling practitioners, in this case policy-makers, to direct and influence the research process;
- influencing practice by directly working with practitioners and by formulating recommendations which are relevant within specific contexts of practice;
- giving researchers significant access to the key bodies, institutions and individuals centred around a particular issue.

(3) The experience of this secondment supports these claims and has provided a unique and productive research setting to pursue issues that which are both politically sensitive and of immense social importance.

(4) At the same time, this methodological approach is challenging for the researcher. There is a danger, for example, of losing a critical voice in these debates through the researcher’s commitments and associations to the organization in question. Certainly, this was a conscious concern of researchers on the PUR from the outset, as risk topics are highly politicized and contentious, with social scientists and governments not always seeing eye-to-eye on how they can best be governed. Moreover, engaging topic areas in practice can be an intimidating process for the researcher as it implies the need to develop new forms of expertise and to adapt one’s own knowledge to work in coordination with that held within the hosting institution. Within CEER, for example, it was easily evident that policy-makers hold a tremendous amount of expertise about specific risk contexts and the business of Government, to which the researcher has had to adapt. However, these challenges should not be seen as necessary detriments to the research process. The purpose of this secondment has been precisely about the need for academics and policy-makers to bridge some of these barriers.

(5) In practice, it is impossible to speak of a single methodological approach to data collection in this project. Instead, throughout the secondment at least three approaches have been adopted at different times. Principally, the secondment has come close to resembling a more pro-active

form of ethnographic fieldwork which has emphasised participation in policy-making alongside more traditional forms of observation. Secondly, recognizing the constraints proposed by the relatively short duration of the secondment, as well as by the complexity and size of CEER, the use of semi-structured interviews with selected participants has also been employed. These interviews can be divided into two streams: i) interviews with the CEER's 'heads of branch' – policy makers directly responsible for regulating specific risk cases, or aspects of risk regulation in the Directorate, and ii) interviews with strategic managers working to develop risk-based governance in Defra. Thirdly, policy-makers were given the opportunity to comment on the arguments and conclusions put forward in this report through a morning series of workshops and discussions. The final draft of this report thus reflects many of the comments and questions raised by participants.

(6) Analytically, this report does not follow any particular academic approach to contending with the data, such as discourse analysis, for example. While social scientists will, hopefully, find this report to be of academic interest, the primary goal here has been to communicate the outcomes of the research process to policy-makers so as to be of practical consequence in their day-to-day practices. This said, it is proposed that a more detailed analysis of the secondment can be developed with the co-operation and continuing relationship between Defra and PUR.^{xxv}

Notes

ⁱ The Department for Environment, Food and Rural Affairs (Defra) holds a range of responsibilities in the United Kingdom. In general, the Department is mandated with providing the governmental basis for sustainable development and in doing so brings together a variety of economic, social and environmental concerns. Core areas of work in the Department include environmental protection, rural affairs and all aspects of farming and food production (but not food safety). Defra is also an active player in developing EU policy in these areas and in pursuing its agenda of sustainability internationally. <http://www.defra.gov.uk>

ⁱⁱ CEER is part of Defra's Environment Directorate General and is responsible for several core policy areas. The Directorate consists of seven divisions formed around several key hazard issues. These include climate change and sustainable energy policy, radioactive substances, novel technologies such as biotechnology and nanotechnology, and chemical hazards. Although this report hopes to be pertinent to the Directorate as a whole, the author has been principally involved with the work of the Chemicals and GM Policy Division (CGMP) and the Radioactive Substances Division (RAS). Please refer to Defra's organizational chart for more information about the Department's structure and the Environment homepage for information about the above mentioned policy areas.

<http://www.defra.gov.uk/corporate/orgchart.pdf> / <http://www.defra.gov.uk/environment>

ⁱⁱⁱ Defra 2004. 'Delivering the Essentials of Life, Defra's Five Year Strategy. Crown Copyright'. London: Crown Copyright.

^{iv} Defra 2004. 'Evidence and innovation: Defra's needs from the sciences over the next 10 years'. London: Crown Copyright.

^v Please refer to Appendix A for a brief discussion of the methodological approaches adopted during this secondment.

^{vi} Cabinet Office (2002) *Risk: Improving government's capability to handle risk and uncertainty*. Crown Copyright.

^{vii} DETR 2000. 'Guidelines for Environmental Risk Assessment and Management'. London: The Stationary Office.; Pollard, S. and Guy, J. 2001. 'Risk Assessment for Environmental Professionals' in Taberham, J. (ed.). London: The Chartered Institution of Water and Environmental Management.

^{viii} The Risk Programme, T.R. 2004. 'Risk Management Assessment Framework: A tool for departments'. London: Cabinet Office.; DEFRA 2002. 'Risk Management Strategy'. London: Department for the Environment, Food and Rural Affairs.

^{ix} Irwin, A. 2001. *Sociology and the Environment: A Critical Introduction to Society, Nature and Knowledge*. Cambridge UK: Polity Press.

^x Some key texts include: Beck, U. 1992. *Risk Society: Towards a New Modernity*. London: Sage. Beck, U. 1998. 'Politics of Risk Society' in Franklin, J. (ed.) *The Politics of Risk Society*. Cambridge UK: Polity Press.; Giddens, A. 1990. *The Consequences of Modernity*. Cambridge UK: Polity Press. Giddens, A. 1998. 'Risk Society: The Context of British Politics' in Franklin, J. (ed.) *The Politics of Risk Society*. Cambridge UK: Polity Press.

^{xi} Rayner, S. 1992. 'Cultural Theory and Risk Analysis' in Krinsky, S. and Golding, D. (eds.) *Social Theories of Risk*. London: Praeger.

^{xii} The following scenario described by Niklas Luhman provides a farcical account of risk assessment, but in spite of its humorous tone clearly presents an argument for the need to understand how hazards are socially perceived and enacted:

"In Sweden it was politically opportune to evacuate a large number of Lapps by helicopter for the duration of missile testing in their area, although the probability and extent of loss in the event of a helicopter crash were far greater than the possibility that a single person in a sparsely inhabited area would be struck by falling debris. But the one was apparently assessed as a risk, while the other (moreover quite incorrectly) only as a danger." Luhmann, N. 1993. *Risk: A Sociological Theory*. Berlin: Walter de Gruyter & Co.

^{xiii} For a more detailed account of the politics of risk involved in the debate over agricultural biotechnology please refer to: Jones, K.E. 2004. 'The Politics of New Agricultural Technologies: Contesting Risk, Science and Governance' *The Department of Human Sciences*. London: Brunel University.

^{xiv} Ezrahi, Y. 1990. *The Descent of Icarus: Science and the Transformation of Contemporary Democracy*. Cambridge MA: Harvard University Press.

^{xv} Jasanoff, S. 1990. *The Fifth Branch: Science Advisors as Policy Makers*. Cambridge MA: Harvard University Press.

^{xvi} Michael, M. 1996. 'Ignoring Science: discourses of ignorance in the public understanding of science' in Irwin, A. and Wynne, B. (eds.) *Misunderstanding science? the public reconstruction of science and technology*. Cambridge UK: Cambridge University Press.

^{xvii} Irwin, A. and Wynne, B. 1996. 'Misunderstanding Science? The Public Reconstruction of Science and Technology'. Cambridge UK: Cambridge University Press.

^{xviii} DEFRA 2004. 'Evidence and innovation: Defra's needs from the sciences over the next 10 years'. London: Crown Copyright., p. 17. Team, S.S. 2004. 'Evidence-Based Policy Making: If it exists, what makes it robust?' in DEFRA (ed.).

^{xix} These failures were apparent throughout government's use of expert advice in managing BSE for over a decade, despite scientists' best-intentions and pretensions of objectivity. Scientific advisory committees were revealed to be overly assumptive in their approach to risk issues, unable to recognize and address areas of uncertainty, open to political and market influence, and overly defensive of mainstream scientific opinion in the face of criticism. As a result, scientific advice was incorrect in its risk assessment of BSE and in the regulatory advice which was derived on this basis. Please refer to: Jones, Kevin E. 2004. "BSE and the Phillips Report: A Cautionary Tale about the Uptake of 'Risk'" pp. 161-186 in Stehr, N. (ed.) *The Governance of Knowledge*. New Jersey: Transaction Books.

^{xx} For example, please refer to Defra's list of its top threats which identifies the development of a major controversy as a threat as well as public perceptions of a lack of transparency and openness in Government.

^{xxi} REACH demarcates a strategy of regulating chemical hazards involving the registration, evaluation, authorisation and restriction of potentially hazardous substances, with the intention of improving the protection of human health and the environment. In negotiating REACH, Defra has been involved in regular processes of consultation with stakeholders, allowing a number of social, economic and technical contributions to help shape the policy framework. Furthermore, such participation is set to continue as part of the evaluation and regulatory process. For more information about REACH and Defra's consultation with stakeholders in developing the strategy, please refer to the following webpage.

<http://www.defra.gov.uk/corporate/consult/reach/index.htm>

^{xxii} Radon is a radioactive gas produced when naturally occurring uranium in rocks (primarily granite and limestone) and soil decays. In concentrated amounts radon is a known carcinogen and is implicated in the development of lung cancer. In the past, members of CEER have worked closely with local communities to remediate these risks by encouraging testing, through educations and in assisting members of the public to take steps to reduce radon concentrations in the home. <http://www.defra.gov.uk/environment/radioactivity/radon>

^{xxiii} Vayda, A. 1994. 'Actions, Variations and Change: The Emerging Anti-Essentialist View in Anthropology' in Borofsky, R. (ed.) *Assessing Cultural Anthropology*. New York: McGraw Hill.; Bauman, G. 1996. *Contesting Culture: Discourses of Identity in Multi-ethnic London*. Cambridge UK: Cambridge University Press.

^{xxiv} Fox, N.J. 2003. 'Practice-based Evidence: Towards Collaborative and Transgressive Research'. *Sociology* 37: 81-102.

^{xxv} I would like to acknowledge the support made policy-makers in CEER and for allowing their jobs to be scrutinized. Throughout this experience I have greatly enjoyed the willingness of members of CEER to engage critically with the ideas discussed in this report, and to challenge their roles in environmental governance. Also, thanks to Dr. Colin Church and Dr. Chris Snary at Defra, and Prof. Alan Irwin (University of Liverpool) and Parmjit Kang (Brunel University) for their support of this project and helpful comments on the report.