

Royal Commission on Environmental Pollution

“Institutional Capacity for Adaptation to Climate Change – Synergies, Gaps, Conflicts and Incentives”

Report from a seminar held in the Innovation Centre in Reading, 18 September 2008 in support of the study on Adapting the UK to Climate Change.

The seminar was attended by around fifty people including the Members of the Commission and Secretariat. The guests were officials from UK governments (including the devolved administrations and local authorities), academics and researchers, representatives from non-governmental organisations and industry. The discussions were conducted under the Chatham House rule. The Commission is indebted to all of those that attended and made the event a lively and useful discussion.

For its study, the Commission is focussing on the institutional arrangements necessary for the UK to adapt to changes in the natural environment brought about by climate change. To help illustrate what these arrangements might be, the Commission is seeking evidence relating to three aspects of the natural environment: biodiversity, nature conservation and protected areas; sea-level and coastal zones, and; freshwater.

The comments here represent a summary of the discussion at the seminar, including the flipcharts and sticky-notes that were used in all sessions. The comments do not necessarily reflect the view of the Royal Commission on Environmental Pollution.

Finally, the Commission would like to thank the Innovation Centre team that facilitated and supported this event for their involvement in the planning and delivery of what was a hugely valuable event. The seminar taught the Commission a lot about the issues, and hopefully encouraged engagement between different parts of the community involved in adapting to climate change.

Process for the day

The attendees at the seminar were allowed to self organise into table-groups of about 6-8 people, including one Member of the Commission on each table – they were encouraged to sit with people they did not know. The day was facilitated by the Innovation Centre, which led the day through a series of exercises. The first exercises were designed to identify a range of issues relating to the three exemplar areas (biodiversity, nature conservation and protected areas; sea-level and coastal zones; freshwater) and to identify the institutional actors with responsibility in these areas. The table-group then selected which of the issues they wished to work up in more detail by exploring what those institutional actors currently do, and what should happen in an ideal world, and to include in this an analysis of the differences between the present and ideal states, and any specific blockers. Following this, the attendees then rearranged themselves into groups of 3-4 people, and peer-reviewed the examples from other table-groups, and added comments along

the lines of 'yes, and...' or 'no, but...' and any other related examples, generalisations or linkages that could be made between different issues. The output of this was a series of worked-through examples of specific issues with some context, an analysis of who the actors are, what they should do and what needs to be addressed to achieve change. Transcripts of the examples are provided at Annex A.

In addition to these group exercises, all attendees were invited to provide suggestions of: '*something that mustn't be overlooked is...*'; '*an organisation that mustn't be overlooked is...*'; '*the most important thing for the RCEP to consider is...*'; and; '*what the RCEP will find most challenging is...*' which were collected together for the Commission to reflect on in conjunction with the set of issues that the groups had developed. At the end of the day, all attendees were invited to provide some final thoughts based on '*something I have learnt or which has struck me...*' and '*a message to RCEP...*'. All of these individual suggestions are provided at Annex B.

Overall Summary

Nothing that the Commission learned at the seminar has diminished the problem that adapting to climate change is a big issue that pervades all aspects of society, and is, therefore, inherently complex and challenging. Even within the marginally narrower examination of institutional arrangements drawing on the three exemplar areas for illustration, the interconnections, subtleties and complexities have the potential to confuse and frustrate anyone seeking to 'understand the problem' and develop a 'plan of action'. This underlines the nature of adapting to climate change, and the type of analysis and approach that is required to address the question of how to adapt to climate change – complexity defines the adaptation agenda. There are, however, some common themes that emerge and these are explored below.

The three exemplars were accepted and recognised by most attendees as being problems, which meant that there was relatively little discussion about the nature of the impacts. Instead, the discussion was very quickly focussed on institutions, actors and capacities necessary to address them.

The issues identified from the seminar can essentially be reduced down to three main themes that apply across most of the issues that were raised, and are certainly broadly applicable across the three exemplars. First is the issue of spatial planning and management, which can cover a range of issues from protected sites for nature conservation and habitat connectivity, through to management plans for coastal zones and managing water throughout the whole of a river catchment area. Secondly, there is the question about institutional capacity to act, and in particular, the need for further information and research in order to support analyses such as cost-benefit analysis, or identifying equitable means of treating actors and individuals as a result of the impacts of climate change. Linked to this, and common to most discussions surrounding any challenging subject, is how to make sure information, knowledge and plans are successfully communicated and understood between different actors and sectors of society – there is commonly a call for 'more and better communication'. The third main theme is that the situation is complex and interconnected, complicated further by the

evidence and information required by decision makers often not being available or conclusive. The first two themes arguably feed into the third and drive the observation from many of the discussions that in adaptation there is, ultimately, a need for a mechanism for decision making despite a whole range of problems, and there is a need to make decisions quickly.

Spatial planning and management

Many of the issues that arose from the groups were strongly linked into the need to plan and manage the use of space according to a range of needs, and in this sense spatial planning and management should be taken as the broadest definition ranging across all scales from full national planning policy through to local level actions.

A theme that was identified by several groups was the need for strategic objectives for adaptation to be balanced with local delivery of adaptation actions. This applies, for example, to coastal defence and management where action (such as protection or managed retreat) is obviously taken at a local scale, but in order to ensure that there is coherent action for the whole of the coast, there needs to be a nationally agreed plan. The need for a coherent plan can also be applied to the issue of habitat connectivity and protected sites.

It should not, however, be assumed that a national plan for adaptation can be arrived at simply, and a significant gap in the UK capacity to adapt is lack of national debate about what should be protected and how, which is in contrast to some other countries such as the Netherlands where there has been significant national debate.

In many cases it seems that the aim of some individuals and organisations is to preserve the status quo, be it the designation of sites, the native biodiversity of the UK, the ability to build in flood-plains, or the coastline as it has existed for the recent past. This was very much challenged by the seminar, with all of these issues being scrutinised, for example 'what is a designated site for, and does the designation serve the stated purpose?' In many cases, the presumption to preserve the status quo is something that could be challenged through greater debate and participation at local and national levels.

Habitat connectivity needs also to be included in spatial management requirements, as it provides benefits for species that don't necessarily have a protected area, and will be moving as a result of the changing climate. It is possible that some of this connectivity could be provided through multiple uses of land, for example, the railways provide corridors of land across the country. However, it is not clear how effective corridors are, and the situation for freshwater species and habitats is more difficult as they are less able to move.

Regulations and policies already exist for spatial management and the provision of habitats to protect biodiversity, and these can be national or EU in origin. A major concern is that these rules need to be flexible enough to change as the climate changes and the impacts on the UK become apparent. Furthermore, as new rules are developed, these too need to be designed with flexibility in mind to allow for the changing environment. Habitat protection in particular was felt to be a particular example of inflexibility as it often depends

on a particular species being present, and yet that species may shift its range in response to climate change. It was suggested that there should be a system that values the overall services that an area provides rather than single aspects of that area, or that land could be designated for biodiversity 'opportunities'.

For shoreline management and planning it was argued that it is not possible to manage the natural resources without simultaneously managing the social and economic consequences of doing this, and there is currently no mechanism for doing this. The need for central planning was strongly argued for, with enforced implementation at the local level. It is not clear how such central plans should interact with other local plans, for example, Regional Spatial Strategies, Local Development Frameworks and so on.

The management of freshwater is currently quite fragmented, and there could be better incentives for landowners to manage the uplands for water and flood risk management. There is a very heavy reliance on the Environment Agency to deliver everything with regards water and flood management, which may be unrealistic. At present, local authorities can't easily spend money on measures upstream of them that will better manage flood risks – there is a disjuncture between administrative and natural boundaries. Integrated catchment water management would provide a means of managing water from the uplands, through urban areas and through to the coast.

So ultimately, the way in which the use of space is planned and managed is an issue of great importance for any discussion of adaptation. There is already extensive legislation and regulation in this area, and the question has to be whether these already offer the provisions necessary to adapt to climate change, or are additional measures required? Some comments from the seminar suggested that because the planning act dates from 1947 it is very much in need of review, and other comments were that the scope of planning should be broadened to include more than just development (i.e. water and biodiversity management). Whatever happens, there needs to be central direction on some issues, with coordinated local implementation.

This also leads to the observation that a range of actions at a range of scales will probably be required for adaptation, reaching from European levels, through national and regional and down to local levels. Central coordination and guidance is required for some issues, but in many cases adaptation actions are very much implemented at the ground level.

Institutional capacity, information, communication and research

Regardless of the issue under consideration, several of the groups identified institutional capacity as an issue, although in some cases it is not necessarily clear what this might mean. Is 'institutional capacity' another shorthand way of branding a whole range of issues in a way similar to 'need more leadership' or 'need better communication'? However, what can be identified from the seminar is that many of the issues to do with adaptation will require a range of different kinds of information, different kinds of analysis and understanding of the interconnections between issues in order to support decision making processes. It is not clear, therefore, that there are enough

people with the right skills in the right places to be able to make decisions relating to adaptation, and so it is perhaps fair to say that there is a significant problem with 'institutional capacity'. One of the challenges for the RCEP was also identified as being whether or not it would be possible to understand real institutional capacity rather than just the theoretical capacity. For this reason, it is useful to explore the different areas of institutional capacity in a bit more detail.

The seminar identified some cases where a lack of understanding was considered to be a blocker, or where there were calls for further information and research. Correspondingly there were also calls for more communication, or better communication between actors, better use of existing research or better understanding of what information is already out there. Whilst this issue is common to most complex issues, it can't be ignored, and indeed if the existing information can be harnessed better to support adaptation then the institutional capacity of the UK to adapt could be greatly increased. A key question, however, is how to achieve this?

Several of the examples worked through by the groups identified the issues of cost-benefit analysis, equity and compensation – particularly in association with coastal change. One suggestion was that compensation for losses to coastal change should be based on a sliding-scale formula to take account of different factors, such as whether or not people exposed themselves to the risk. The current policies are based around risk assessment, and the cost-benefit analysis is conducted by large organisations, possibly with less understanding of individual needs, and there needs to be more recognition of property rights and equity. Another complication is that the cost-benefit analysis inevitably keeps changing, especially for coastal areas, as the value of land and property changes. The overall suggestion is that within the framework of a national strategy for how the coastal environment should be managed, there needs to be an understanding of how local and individual values will be accounted for, and recognition that not all values can be monetised. It seems that this issue is identified most clearly in the discussions about sea-levels and coastal zones, but the immediate question is should these observations be extrapolated to other areas for adaptation? Can cost-benefit analysis be appropriately applied to other situations where things are valued, but not necessarily in monetary terms, for example ecosystems services, biodiversity, or upland water management?

Decision making in complex situations with incomplete or inconclusive information

So, from the above theme on capacity, information and communication, the trend is clear in that the adaptation debate is complex, and made more so by lack of awareness or inconclusive information. This prompted several of the groups to identify the difficulty of making decisions under these conditions, and in particular the need for a mechanism that would enable rapid decision making. In some cases, different actors are trying to work together, but there are no institutional mechanisms that enable a final, coherent decision to be made. And there is no mechanism for resolving conflicts or breaking stalemates. How does the UK decide what the overall strategy for adaptation

should be, and how do strategies in one sector, such as coastal management, impact on other sectors? And how do decisions get made that allow the flexibility to change as new information becomes available, or as the environmental conditions change? To complicate matters further in some cases, vested interests are likely to be obstructive to developing a mechanism that encourages coherent decisions to be made.

So the key issue that can be identified from the seminar is the need for a mechanism that enables adaptation decisions to be made, despite incomplete, inconclusive or possibly conflicting information, all of which will be complicated by conflicting agendas, different interests and non-convergent sets of values. This applies to all three of the exemplars, and is possibly true of adaptation across all sectors. The challenge is how to address this? There were few specific examples of a mechanism for doing this, but the one example that was highlighted was that of the Thames Estuary 2100 Project, which is based on a set of decision pathways that can be followed according to the available evidence. It is disappointing that there were no additional solid examples, and it is important, therefore, to examine this example rigorously to see how applicable it may be to other situations, recognising that the seminar has highlighted a need for strategic direction set at a national level, with local implementation.

Transcripts of the Worksheets Detailing the Issues Identified by the Table-Groups

The text below is a transcript of the issues that the different table-groups recorded relating to specific issues that they identified, and also includes the comments made on each during the peer-review sessions. These have been grouped into the three exemplar areas with an additional 'other' category, although it should be noted that the groups were not split into teams that were tasked to work on the exemplars.

Biodiversity, nature conservation and protected areas
Connectivity/Resilience of Ecosystems – corridors and porosity

Why?

- Existing legislation may be barrier
- Could be addressed in land use planning
- Useful for species without reserves
- Current goals inappropriate
- Dynamic climate > need for movement
- Link to physical fluxes/connectivity

Key Actors:

- Conservation agencies
- National Farmers Union
- Railways
- Fishermen
- DCLG
- Defra (land & sea)
- Individual farmers, fishermen, land managers
- NGOs

Other Actors:

- Public and users, householders
- Media
- ADAS etc

What's happening now?

- Not enough of an agenda through grants etc to encourage connected semi-natural habitat
- Little cooperation between individual land managers
- Broad statements on land use planning system about ecological corridors, but how much is it put into practise?
- Local capacity? Protection tends to focus on specific sites rather than wider areas > limiting movement and change.

What should happen?

- Appropriate incentives under Environmental Stewardship for habitat connectivity/ecosystem services
- Oxfordshire vision – specific sites protected within protection for much larger landscape area
- Shared vision for organisations – management as well as planning
- Public involvement and ownership
- Ability to respond to change that comes from outside e.g. intertidal erosion rather than development – new concepts of what it means to 'protect' an area? Need more dynamic approach and ability to accommodate change.

Differences/Blockers

- Lack of awareness
- Economic incentives

- Lack of cooperation
- Difficulties of organisations developing a shared plan for an area/landscape
- 'Frozen in time' preservationist approach to the environment.

Yes and/no but:

- Yes, but what evidence is there for the effectiveness of corridors in different situations/taxa?
- Yes – how about invasives?
- What sort of matrix/corridor/network?
- How do we know whether a habitat is functionally connected for different species?
- Yes but what about conflicting interests > increasing demand for agricultural production?
- Yes but another barrier is community concepts of landscape/wild areas
- Do species respect corridors?
- Yes but what about freshwater species/habitats that have limited ability to move e.g. fish or 'trans-catchment corridors'?
- Yes but what about spatial scale? Should we protect things that are rare here but common elsewhere? Depends on genetics?
- Huge waste of money "connecting" species of wider countryside, that are spreading anyway
- Who is responsible for looking after the corridor?
- How do plants use corridors?
- Need risk assessment and cost benefit analysis of when this is best solution

Other examples/generalisations

- Awareness and cooperation generally applicable
- Incentives to encourage good practice/innovation is a general issue

Designation of protected sites for biodiversity – static designations based on species (often). Will change with climate change.

Why?

- Species composition will change – for better/worse
- Is legal framework appropriate/flexible enough?
- Potential conflicts between European/National legislation?
- Evidence basis for decision making unclear

Key Actors

- Conservation agencies
- Central government
- EU
- Land owners

Other actors

- International Agreements (Convention on Biological Diversity)
- Users of areas/local stakeholders
- National Parks
- Conservation NGOs

What's happening now?

- Multitude of tailored designations driven by specific legislation. Static system.
- Players are government, statutory agencies, EU, some public input through consultation. Currently no requirement to consider climate change.
- Bureaucratic attention to detail can miss big picture

What should happen?

- Ask whether we need designations
- Fundamental review of what we need designation for.

- System that values ecosystem services and biodiversity makes it worth a land owner's while to protect and enhance/allow them to develop
- Better more sophisticated understanding of networks/connectivity issues
- More holistic approach to designation
- Capacity to incorporate emerging understanding

Blockers:

- Inertia – legal and conservatism amongst conservationists
- Pride in designation – sense of failure to designate
- No easy replacement mechanism at present
- Lack of ecological understanding
- Over valuing rare?

Yes and/no but:

- Agree we need to question our motives for why we do what we do e.g. conserve
- Any designation system is 'end state' – climate change is not 'end state'
- Need to understand coupling between biological and broader physical systems in order to predict changes. Actors should include scientists
- Need multi-purpose not just biodiversity as primary purpose
- How much "gardening" i.e. how long should we maintain bog water levels as climate change dries out a site?
- Need to identify the appropriate scale at which capacity is needed – not clear
- Designate land for biodiversity "opportunities"
- Yes but assumes perfectability (near) of scientific understanding, and assumes that science can/will drive rational coordinated management regime
- Absence of scientific input to debate – science IS a key player
- Balance value of protected sites vs. wider landscape. NCC > NE?
- Yes and need to preserve wild land without necessarily specific designation (listing of species)
- Import continental species to fill "empty" south England sites?
- Yes and designated sites could be based on functional ecosystems (which may change!)

Other examples/generalisations

- Legislation! (too static)
- Are there benefits from merging of Agencies responsible for environmental management and conservation?
- Similar to Natura 2000 sheet (coastal protection)

To ensure that the planning system does not have a negative impact on the ability of ecosystems/species/habitats to adapt to climate change

Why:

- Species and habitat are in legislative framework, but have low priority. And ecosystems are not included in spite of government signing up to Millennium Ecosystem Assessment
- Planning systems is a key tool in determining the path of adaptation

Key Actors:

- EU Water Framework Directive
- *Government Department policy advice/Devolved Administrations – e.g. planning bill*
- Committee on Climate Change
- *Regional and local authorities and RDAs*
- Public Sector Agreements
- Conservation Agencies
- Environment Agency

- *National Park Authorities*
- Major NGO' s e.g. RSPB, National Trust
- Military (MOD)
- Farmers/land owners
- Academia

What happens now?

- Planning too sectorally focussed and too process-based

What should happen?

- Need overarching planning guidance on measures to address climate change (both mitigation and adaptation)
- Guidance should have better influence on implementation
- Longer time frames
- Needs to be more proactive
- Integrated spatial planning system (e.g. Netherlands)
- National Adaptation Strategy with natural environment at the core

Blockers:

- Devolution – need clear UK guidance for devolved administrations to work within
- Understanding boundaries between planning units
- Conflicting and overlapping planning responsibilities

Yes and/no but:

- Revise the purpose of the 1947(!) Planning Act – broaden scope of planning
- Need to recognise local difference in geophysical and ecological terms
- Educate planners: risk approaches; to move from an adversarial system, and; to broaden scope of goals
- This is about non-protected ecosystem resources
- Bring back DETR!
- Planning needs to recognise the services that land/habitat can provide even if it is not formally designated – it can still be important for adaptation
- Where does protecting biodiversity come in Joe Public's agenda?
- Tensions if population increase due to northwards migration

Other examples or generalisations:

- Resolving conflicts between actors and their objectives
- Need Devolved Administrations to collaborate to agree guidelines to operate within

Biodiversity – can our biodiversity/conservation legislative/policy framework still “work” in the face of climate change?

Why chosen?

- We have currently a static approach to conservation which is based on where things are – that will soon be where they were!
- Reveals social expectations around the environment. People's view of “what is natural”.

Key actors:

- Government – Central and EU – statutory frameworks for conservation
- Landowners (public, private and NGOs)
- Agencies that implement framework (Natural England, Environment Agency, National Parks etc)

Other Actors:

- Local conservation organisations
- Local people

Management of an area – setting priorities for adaptation vs. biodiversity vs. livelihoods

Why chosen?

- How do we decide as a society how to adapt? And the priorities for land-use options?
What are we managing it for?

Key actors:

- Local authorities
- Central Government (Treasury)
- Land owners
- Financial institutions/insurers
- Research community
- Society

Other Actors:

- NGO's

Protected areas (conservations/designations) – continued ability to deliver biodiversity conservation objective in a changing climate

Why chosen?

- Legacy of a static/fixed environment
- Issues of fragmentation/connectivity
- Designations of management specific to certain features
- Legislative/policy structures and assumptions predicated on fixed environment

Key actors:

- EU
- Natural England
- Countryside Council for Wales
- Scottish Natural Heritage
- Department of the Environment (NI)
- Defra
- National Parks
- Wildlife Trusts
- Landowners (including farmers)
- Local authorities
- UK Biodiversity Action Plan

Other actors:

- NGO's e.g. RSPB
- United Nations
- Visit Britain (tourism)
- Rural Businesses

Sea level and coastal zones

Shoreline management planning – adaptation

Why chosen?

- Can't manage natural resources without managing the social and economic consequences and having mechanisms to do this
- Because there is currently no mechanism for delivery
- Lack of coordination between institutions e.g. development planning
- Trade-offs, winners and losers, most vulnerable people suffering the most from potential consequences.

Key actors:

- Environment Agency
- Defra
- Local communities
- Local authorities

- Natural England
- The intended Marine Management Agency

Other actors

- Network Rail and other infrastructure bodies

What happens now?

- Expectation of coastal stability
- Questioning legacy of defence
- No support for compensation to move/abandon
- No mechanism for stakeholder engagement/lack of understanding in coastal communities about coastal dynamics and down coast effect
- Unhelpful planning system e.g. building happens in high risk areas
- Short term planning/vision/economic focus
- Vulnerable people most affected
- Impasse on SMPs - lack of acceptance and adoption by Local Authority's

What should happen?

- Adaptive management – continual review/flexible > amend/other policy/actions
- Planning/policy needs to be more precautionary (PPS20) and take into account long term risk
- Educating/empowering local councillors/committees/citizens/developers/landowners
- Compensation for people affected now! (then no need for compensation in the long term if you have planning/policy and education/empowerment (see above))
- ICZM (at all levels) and setting up institutional arrangements to enable fair coastal change
- Independent committee (permanent Pitt Review department/team)

What's the difference/blockers?

- ICZM integrated at all spatial levels/scale and between organisations and within organisations (e.g. Environment Agency)
- Blocker - present institutional arrangement (hard to change)
- Perceptions/expectations of coastal stability/hard protection (organisational and public)
- More outcome oriented policy like 'Making Space for Water' (alongside delivery processes that ensure fair outcomes)
- Adaptive management – allows flexible policy and takes account of other drivers/targets
- Examples of best practise
- Need for monitoring/strong science

Yes and/no but:

- Step changes needed not just progressive – proactive change
- Pro-active prediction for strategic retreat
- Local interest in staying/National interest in paying for – CONFLICT!
- Can't handle by "business as usual" approach
- How do we make difficult choices rapidly?
- Need a cross-government group to consider issues and make decisions
- Need local participation in discussions
- Ultimately these are political decisions which politicians need to own and defend

Other examples or generalisations:

- Look at what the Dutch do
- Not dissimilar conflicts from locally unpopular land uses (e.g. waste incinerators)

Coastal planning – how we should be making decisions about managing our local coast in a changing climate

Why chosen?

- Not just sea level rise, also wind and wave direction and strength

- Conflict of interests between (and within) local and national but also not necessarily good tie-ups between people experiencing risks; people paying for decisions; and people taking the decisions.

Key actors:

- All local stakeholders (users, residents, etc)
- Central government (across UK)
- Local authorities
- Environment Agency
- Nature Conservation Agencies

What happens now?

- Multiple sources of funding for coastal management (central government, local authorities, non and statutory bodies) each with different responsibilities and stakeholders
- Not democratic but consultative – loud voices have power
- Some direct action takes place, often illogically due to frustration

What should happen?

- Top down central planning, central resource allocation, enforced implementation
- No compensation for those who chose to 'expose' themselves since 2000
- People who are disadvantaged should receive some compensation (not 100%) under well-defined conditions e.g. a sliding scale based on formula
- Local level?

What's the difference/where are the blockers?

- No central plan for whole of UK coast. What must be protected for the benefit of the nation?
- No clear criteria for resource allocation
- Need for an institutional body/capacity to collect funds from winners to compensate losers from plan. Winners = those who are protected and inland. New tax arrangements? What about other climate hazards? How are losers funded from those?
- Have not had a national debate about 'how important is our coast and how should we manage it?' Lessons from the Dutch? This has to be the very FIRST step.

Yes and/no but:

- Yes but we have no institutional or legal mechanism for a central plan
- Engagement and funding scientific community
- Yes but need is for national strategy to address adaptation
- Actors – insurance agencies
- Yes, but how do you take into account views of future generations and changing values?
- Failure to plan for low frequency, high impact events
- Yes but...not coping with current coastal processes let alone changes from climate change
- Institutional "processes"/structures needed to create space for negotiation and discussion – no mechanism in place to do this.

Other examples/generalisations:

- North Norfolk Coast/Broads – no recognitions of multiple values of different groups
- Example: National Trust in Northern Ireland have assessed risk to all their coastal properties
- Example: North Norfolk District Council – coastal management plan (long-term perspective, aligning with LDF policies, community engagement) etc

Sea Level Rise – the role of government and government agencies in determining coastal policies in relation to private responsibilities and interests

Why chosen?

- This is crucial to the success and acceptability of adaptation schemes. Gaps and conflicts in the institutional coverage of estuarine and coastal policies exist.

Key actors

- Government departments and devolved administrations
- Vulnerable communities
- Major land owners
- Insurers
- Economic regulators (e.g. OFWAT)
- Marine planners and other planners and Regional Development Agencies

Other Actors

- Power companies
- Water companies
- Grid operators
- Port authorities
- Property companies/developers
- Agencies

What is happening now?

- Several conflicts e.g. development and regeneration of areas in risk zones
- Gaps in coordination when making decisions e.g. Thames Gateway
- Gaps in awareness –risks not properly communicated and understood

What needs to happen?

- Longer term planning needed > needs to be more strategic and integrated
- More information to public about risks. Relevant bodies need to assess risk and engage others who are involved in decision making (this has to include communities)
- Need flexible decision making systems to deal with uncertainty

Barriers

- Acceptability and application of evidence/data
- Decision makers/planners must be able to use tools like UKCIP08
- Lack of coherent framework for assessing risk?
- Need more stakeholder led decision making
- Silo thinking

Yes and/no but:

- Assess risk in partnership – must recognise conflicts in goals
- “Government won’t defence YOUR house” > equity; deal between UK and individual
- Current policies based on risk assessment and cost-benefit analysis by large institutions. Needs more recognition of property rights and equity interest
- Add Environment Agency and Local Authorities to key actors list, and Crown Agents
- Why should we suppose that more “stakeholder led decision making” will help overcome fragmentation of decision making?
- Lack of mechanisms for dispute resolution/mediation etc
- Yes and need to understand different values that different actors have...this will determine what successful and/or acceptable
- Climate is only one of multiple environmental and socio-developmental stresses – how would these be factored in?
- Lack of coherent framework for criteria for intervention/non-intervention

Other examples/generalisations:

- Understanding risks: relevant; personal; analogues; “what if...?”
- Government strategic statement is needed e.g. East Anglia will not be protected
- Communication information and risk is a general issue that applies to all issues, but this information must be made relevant to individuals and organisations
- Yes – long term and public view of managed retreat is missing here

Coastal – Protect or abandon – are the present coastal policies adequate for enabling these discussions to be made?

Why chosen?

- Huge uncertainty in assessing risk
- Cost benefit analysis keeps changing (price of farmland)
- Equity – linked to property rights
- Impact on non-coastal areas (expansion of housing, distribution of spend)
- Expectations attached to property rights raises issues re. Equity, investment
- Different approaches to adaptation (e.g. resilience, predict & provide) – when use which?
Do we have capacity to make that decision?

Key actors:

- Environment Agency
- Insurance and finance
- Local communities affected
- Infrastructure (e.g. new power stations)
- Property developers

Other Actors:

- Representatives of vested interests
 - National Farmers Union
 - Conservation organisations

What happens now?

- No mechanism to make decisions. No coastal strategy. So conflict and piece-meal actions
- This leads to coastal realignment, local social unrest, economic loss, loss of community identity
- Economic redistribution/social inequity, currently based on cost/benefit analysis

What should happen?

- How do people value the coast, multiple use values
- Managing contradictory values. Develop frames, enable constructive interaction of these values. Compensation/restitution

Blockers

- Wrong framing
- Adversarial governance structures
- But we need them
- No space for coming together of vested interests

Yes and/no but:

- What is due to climate change or due to 'other' reasons? Attribution - who's to blame
- Coastal management has land-use impacts beyond the coast
- Compensation not only financial e.g. habitats, food production
- Do you stop building on coastal sites now? Cost/benefit
- Early 'compensation' more cost-effective
- Abandoning is a distribution of a burden – demands compensation?
- Who should ultimately decide?
- How to handle unforeseen/unintentional consequences
- Good because allows decisions to be more explicit and considered
- Understanding local values for coast, OK but need regional/national perspectives – can't just be local decision making

Other examples/generalisations

- Equitable 'relocation'
- Distributional questions/burdens and benefits occur constantly

- Socio-economic drivers for more development in south east where climate change impacts greatest so need to counteract – prevent south east overload

Coastal habitats – EU Nature 2000 designations end state objective but physical change

Why chosen?

- Institutional arrangements not in place yet nationally and internationally
- Not agreed concept/vision

Key actors

- EU
- National Government
- Local Authorities
- Land Managers

Other Actors

- NGOs
- Public

What happens now:

- An eternal designation
- A fixed end state (habitat and/or species) – no mention of climate change
- A fixed location
- Driven by EU legislation (but different Member State interpretations)
- Primary purpose is to maintain 'interest' – but there may be ancillary benefits

What should happen:

- Multiple purposes must be considered and made explicit in the balanced decision making. Must include climate change adaptation
- Flexibility (geography, scale) and dynamic
- Local knowledge and national overview

Difference/Blockers

- Lack of knowledge
- Uncertainty
- Added complexity makes decision making difficult
- Changing goalposts

Yes and/no but:

- Yes – institutional arrangements are in place, but will they do the job we need them to?
- Connect to SMPs
- Can we trade/move coastal biodiversity with UK and Europe wide?
- Are there tensions between arrangements for land and water habitats? Do these make adaptation difficult?
- Yes but community involvement

Other examples/generalisations

- Coastal habitat becomes marine – can designation still apply?
- When is a loss of one habitat a gain for another, and who decides? E.g. freshwater wetlands becoming saltmarsh (fens)
- Role of Water Framework Directive River Basin Management Plans – can have integrated approach from head waters to coastal zone
- The environment is inherently dynamic, what degree of change is acceptable?

Freshwater

Freshwater flooding reaction – political response is reaction to public reaction.

Institutional issues – insurance and development context

Why chosen?

- Deflecting attention of Environment Agency to visible but not always effective action.
Financial waste

Key actors:

- Environment agency
- Local authorities
- Department for Communities and Local Government

Other Actors:

- Media
- Financial institutions
- Insurance companies
- House builders

What happens now?

- Political pressure to do something – satisfy public/media demands to be seen to do something. Knee jerk.

What should happen?

- Cost effective evaluation
- Catchment planning
- Enable individuals and organisations to take responsibility (through regulation, guidance, finance, support)
- Rethink relationship between insurers and society

Blockers:

- Building standards (new build and retrofitting – private and public housing)
- Insurance
- Money
- Trust – especially regarding contractors (skills to adapt property to flood risk). Also wider issue with government/finance industry

Yes and/no but:

- Join ground and surface water investigations (this is what should happen).
- Yes but political pressure to reduce cost
- Integrated catchment water management (natural and urban environment)
- Realistic funding and continued engagement of scientific community (actor)
- Conflict between policy and planning e.g. demand for housing and allowing them to be built in vulnerable locations
- Yes but...political pressure can work towards facilitating societal change in attitude about what we want to happen
- Is the civil contingency process working to help here?
- Yes but...not just cost-effective evaluation – must consider all sustainability issues
- Encourage use of grey water and rainwater especially in new housing
- Risk of not adapting is not always costed and therefore not taken into account
- Yes but...cost effective across what sort of timescale?

Other examples/generalisations

- Example – York council (admin authorities) can't spend money managing the flood risk upstream: disjuncture between administrative and natural boundaries
- Thames Estuary 2100 project – adaptation pathways allow flexibility
- Pitt!
- Freshwater – demand management measures are a key part of the solution
- Bring in compulsory water metering

Upland Water Management – 70% of water supply from upland areas; majority owned by private landowners; effects on water quality, supply and flood risk (and biodiversity)

Why chosen?

- Land management challenges when mostly in private hands. What arrangements do we need to provide incentives/challenges for right practices?

Key actors:

- Private landowners/users
- Water companies
- Conservation agencies (Natural England etc)
- Environment agency

Other actors:

- Downstream water users
- Uplands recreational users

What happens now?

- Not much a few pilot studies (Peatscapes; Moors for a Future)
- Agri-environment schemes
- Stewardship schemes

What needs to happen?

- Better incentives for private landowners to manage uplands for...water, flood risk, biodiversity etc
- Need organisational structures which assign value to different land types and/or management regimes
- Intervention example – rural land use planning
- Market examples – those experiencing risk, paying for those that manage risk .g. water company paying for land management to improve water quality or local authority paying for land management to stop downstream flooding

Yes and/no but:

- Integrating people or functions lack power of authority – only can influence
- Will the River Basin Management Plans encourage a more integrated approach to upstream-downstream management?
- Institutional disjuncture if following Pitt, local authority has flood management role, what levers do they have over farmers, environmental stewardship schemes who are upstream?
- Lack of ways to manage potential tensions and conflicts between way different parties view Public Service Agreement responsibilities
- How can local authorities influence? If they get new powers, need to build partnerships e.g. with Natural England to shape local environmental stewardship
- “Better incentives” implies we know how to manage uplands better. But “a few pilot studies” implies that we don’t know what to incentivise.

Other examples/generalisations:

- Individual perspective on flooding is to want drainage to be extremely efficient downstream but as slow as possible above their property
- Need to justify non-risk affected paying for others’ risk/impacts (local authorities)

Freshwater – lack of capability to predict and manage excess of water in geographical and temporal extent

Why chosen?

- Big economic and societal issue
- Knock-on consequence important not just “main event”
- Distribution nationally uncertain. Arrives suddenly unexpected consequences in urban and rural areas
- Lack of clarity on responsibilities and their coordination and public perceptions

Key Actors

- Water companies

- Insurance
- OFWAT
- Home builders, construction in general
- Research community

Other Actors

- Government departments – don't forget transport
- Planners
- Big engineering companies and consultancies
- Farming and building (erosion and land management)

What happens now?

- Predictions too imprecise to make management effective > predictions of excess water events
- Inadequate institutional capacity to manage in integrated way and incorporate existing and new knowledge
- Perception of too much reliance on the Environment Agency

What should happen?

- Apply partnership working principles > local authorities have these
- Incentivise good practices and innovation
- Predictions:
 - Capturing learning from existing knowledge – more effectively and faster
 - Require active dialogue between relevant parties
 - Involve practitioners in scoping of research – avoid linear model
- Resource delivery mechanisms e.g. for vulnerable people

What is the difference/blockers?

- Vested interest and silo mentality
- Inability to take on new ideas > individual and institutional overload
- Abdication of responsibility/blame culture
- Financial constraints
- Conflicting obligations/lack of responsibility
- Categories = all

Yes and/no but:

- People (decision makers and local communities) forget what 'Space for Water' was for and concrete it over...
- Restrictions on land-management/use to preserve flood resistance
- Local autonomy vs. Central Government Direction
- Lack of responsibility to resource that change
- Yes but...knowledge base exists but lack of resource to implement change
- Different response according to sector
- Environment Agency put into reactive position without adequate resources
- Adversarial approach to manage supply is poor. Environment Agency < Water Company > OFWAT
- We don't know what we are adapting to. Don't know the science
- Need to think longer-term for infrastructure discussions

Other examples/generalisations

- Look at OFWAT plans now
- Social equity, poor live in flood prone areas
- Tewkesbury/Worcester – 2007 and 2008
- Preserve land space for flooding

Freshwater – Management of freshwater cycle/water supply

Why chosen?

- Growth of demand in already water-stressed areas
- Conservative sector – but needs radical change
- Expectations of supply
- Expectations of environmental need
- Expectation of flood protection
- Requirements on water companies to provide certain levels of service
- Perception of what is an extreme event – will have to change to be 'business as usual'
- Cross-sectoral: lots of things impact on water management e.g. changing farming practices, building

Key actors:

- Water companies
- Environment Agency
- OFWAT
- Environmental Organisations
- Water Users

Other actors

- Farmers

Flooding freshwater/inland

Why chosen?

- Value of land/property at risk
- Huge economic impact
- Equity/transfer of problems to other areas
- Impacts on ecology of rivers
- Institutions broken down on dealing with this now. Especially sustained 'after-care' e.g. 2007 floods some people still not back in their homes
- Not coping with current climate – how will we cope in the future?
- Significant health impacts
- Most impacted often are the poorest/least able to cope
- Flooding in large part caused by e.g. poor drainage/poor infrastructure

Key actors:

- Insurance
- Environment Agency
- Local flood groups
- Local authorities
 - Problem – different bits are dealing with different issues

Other actors

- Health community
- Water companies

Other

Linkage between biological and physical systems – erosion, water flow groundwater, ocean nutrient fluxes etc, sediment transport, ground instability

Why?:

- Currently managed as discrete systems – need to be joined up
- Weakens ability to assess risk
- Risk is transferred and not considered holistically
- Small local events can add up to big expensive ones
- Land use planning system has limited power

Key Actors:

- Funding agencies

- Delivery agencies & mechanisms
- Local authorities
- NFU/CLA & members
- Advisers of land managers
- British Geological Survey
- Crown Estates
- Water companies
- Soil survey
- Local performance framework

What happens now?

- Doesn't happen when many actors are involved
- Geographic boundaries
- Geographic institutions
- Geographic disciplines
- Financial constraints – Nxfew

What should happen?

- Individuals challenging their own goals
- Business as usual + extra costs > do the day job better
- Value non-constituted bodies – ownership, control, approach, ££
- Recognise +'s and –'s of "lead"
- Trust and flexibility of "agenda"
- Impose metrics for researchers and agencies and departmental performance. Include stakeholder engagement on metrics

Differences

- £ needed for extra work
- (on individuals) cultural shift in how interdisciplinary work
- Cleverer and longer term objectives
- RAE metrics "better":
 - Cross disciplinary
 - Links
 - ...etc

Blockers

- Inertia
- Very difficult area
- Funding
- Scientists
- Narrow minds
- Nobody responsible for this change
- Leadership

Yes and/no but:

- Is this about linking different science/research systems?
- Too ambitious
- Need more explanation on how big a barrier funding is for this to happen
- Water Framework Directive – is this addressing this?
- Water Framework Directive addresses only parts of this issue i.e. supporting good ecological quality
- Yes but structure of government is sectoral (silo!) – can't/don't want to reinvent Government. So have to find ways of working together.
- How do you prioritise issues?

Other examples/generalisations:

- Catchment scale science projects do happen – security of long term funding will always be an issue
- Can we encourage different actors to join up? Why aren't they joined up?
- Example of shared goals and “cross-system” working – Catchment Sensitive Farming
- Comparison with Dutch Adaptation Strategy – based on a spatial planning approach

General mandatory duties to monitor and account for adaptation

Why chosen?

- Sits alongside CSR (Comprehensive Spending Review?)
- Relates to all other examples
- Necessary to prioritise climate change (c.f. health and safety/pensions)
- Need to increase awareness through training etc
- Create a regulatory level playing field
- Currently patchy and largely voluntary
- Need to seek out opportunities from adaptation

Key Actors/Other actors

- **BERR** as part of 'better regulation' agenda
- **Defra**
- Committee on Climate Change
- CBI etc
- Audit Commission
- Auditors and regulators

What happens now?

- Patchy, voluntary.
- Limited report obligation in Climate change Bill.
- Not enough priority

What should happen?

- Attitude change raising awareness
- Consultation
- Regulatory framework of obligations = H&S, Pensions
- Standard setting, knowledge support
- Training
- Cost/resource allocation
- Companionship [?] mitigation
- Enforcement

Blockers

- Attitudes, regulatory (resistance, uncertainty, costs, burden)

Yes and/no but:

- Yes bit, complex issue
- How easy is it to attribute change to climate change and thus know the level of adaptation required?
- Already an OFWAT(?)
- How would this fit with SDC duties on Depts?
- Need to ensure adaptation is sustainable and embed adaptation in broader sustainable development
- Will take time for consequence of bill to work through – needs to be kept under review
- Defra's Adapting to Climate Change programme is helping to encourage action across government
- Yes but government required to write a strategy on how it will use new powers in climate change bill to require public bodies to adapt – opportunity to improve

Other examples/generalisations

- Similar to requirements on sustainable development placed on government departments and agencies
- Government or societal responsibility
- What are the 'trigger points' that signal the need for environmental intervention?
- Relationship between: tipping point vs. critical threshold vs. precautionary approach
- Who do you want training for?
- What do you mean by enforcement? Who will enforce?

Effecting and sustaining institutional change – stop falling back into comfort zones. Big strategic and development decisions, trade-offs between sectors like farming and housing creating pressures on water. Making hard decisions when conflict cannot be resolved.

Why chosen?

- Different actors have different priorities e.g. RSS (Regional Spatial Strategies?) housing vs. water quality
- Parties are trying to work together, but no institutional mechanisms to make final coherent decisions
- Need to bring change, not just debate issues

Key actors:

- River basin management plans
- Water resource management plans and OFWAT
- Her Majesty's Government
- Regional Development Agencies
- Local authorities
- MAA's
- Environment Agency (pan departmental leadership needed)
- Planning decisions

Other actors

- Social sciences

What happens now?

- Reliance on consensus, lowest common denominator, buck-passing on who pays
- Danger of Water Framework Directive infraction proceedings if development goes ahead
- Improving institutional structures e.g. development of River Basin Management Plans and review of Regional Spatial Strategies with examination in public

What should happen?

- A final 'court of appeal' that joins up planning system with infrastructure funding decisions
- Regional level planning process > creating a connect with infrastructure investment e.g. water, so that conflict can be resolved through investment paid for by the community?
- Scale issue e.g. should River Basin Management Plans carry through RSS priorities and influence OFWAT?

Differences/Blockers

- Joined-up processes of decision-making that don't assume that the developer pays, and which allow strategic trade-offs e.g. between housing and farmers/industry
- Too many vested interests against meeting housing need – the most vulnerable may not have a very strong voice
- If the local development framework or RSS says you need housing, is that helped – more emphasis on furthering what we do want rather than slapping proposals down?

Yes and/no but:

- How to manage conflicts between regions?
- Need a unifying framework
- Organisations understanding and considering issues outside their own remit

- Important to consider social and environmental costs/benefits as well as economic trade-offs
- System to allow trade-off or “who pays” decision between value of environment and value of societal benefits
- Conflict can be resolved so court of appeal must be last resort/idea

Other examples/generalisations

- Institutions and frameworks need to be flexible and adapt as evidence base develops
- Possible model approach in Hampshire Incinerator case (Petts et al) (may address issues identified)
- Dutch strategic planning approach and tools may help
- How to engage with people and communities – not just thinking in terms of “sectors”?

Local adaptation as opposed to central direction

Why chosen?

- Conflicting priorities. What do we mean by effective adaptation?

Key players

- Central and devolved government
- Local authorities
- Land owners
- Investors

Accommodating a growing population in resilient housing (and low carbon and low water use). i.e. mitigation and adaptation avoiding maladaptations.

Why chosen?

- Reducing vulnerability and avoid enhancing social exclusion.
- What are ecotowns? Are they really taking climate change mitigation and adaptation into account?
- Need for flood resilient communities
- Need to reduce energy demand from housing, and water demand
- Impacts of climate change on water resources most severe in south east and south west where demand for housing is high

Key actors:

- Department for Communities and Local Government
- Local authorities, planning
- Housebuilders Association/Federation
- Royal Institution for Chartered Surveyors
- Utilities (e.g. water companies)

Other actors:

- Defra
- Insurers
- Mortgage companies
- NGOs – social and environmental
- Housing associations
- Department for Work and Pensions

Transcript of the Individual Comments Made to the Commission

Before the group working started, each individual was invited to provide comments to the Commission on the subjects:

- Something that must not be overlooked is...
- An organisation that could be overlooked is...
- The most important thing the RCEP should consider is...
- What I believe the RCEP will find most challenging is...

Once the group working had been completed, individuals were again invited to provide comments reflecting on the day, on the subjects:

- Something that I have learnt or that has stuck me is...
- My message to the RCEP is...

Something that must not be overlooked is...

Links between systems (=mutual dependence, co-vulnerability etc)

Skills and capacity to respond to new scenarios

Skills in the UK on adaptation

Skills base for adaptation

Flexibility to be delivered locally

Most adaptation is local / individual but requires external framework to enable / facilitate and not counteract

Inter sectoral relationships

Role of voluntary sector organisations

Broader context of technical change

Fisheries policy is for fish catching or coastal communities?

Our moral / ethical responsibility to developing world

Impact of climate change on social inequality

Social justice issues

Social equity and justice

How poor people will adapt to adaptations

Often the vulnerable low income who lose out from poor adaptation e.g. lack insurance can't afford water bills, can't afford housing, cant' escape from heatwave

ICZM strategy for UK

How we, as a nation, decide what we want from natural systems

The role of land use and its effect on the natural environment

Flexibility in adaptation actions

The role of the individual

The financial framework in which individuals make decisions, which is highly short term

The economics

Devolveds

Different actions paying for build and operate is a barrier to adaptation

Implications of land use change

Mitigation and adaptation need to go hand in hand - they interact

The interrelationship between mitigation and adaptation

The international context and the key role of the European Commission in directing legislative response

Involvement of business

The role of the public
Public buy-in
Engaging younger citizens
Role of education
PFI therefore current failure to adopt but future potential
Coordination of evidence
Each sector is different but if adaptation is to be sustainable must be able to coexist with other sectors
The time element - how long do you try to maintain status quo and when do you try to take radical action
Existing demonstration policies
Inter/dependencies between institutions
When the do nothing option is appropriate
EU overseas territories - greatest biodiversity risks, UK institution arrangements are inadequate
Effects direct or non-direct from outside UK
Links with areas outside study topics
Changing institutional arrangements doesn't always = better outcomes
Health
Urban influences extend everywhere
The small groups with a small voice
Building ecosystem resilience "business unusual"
Health and coping with climate change - heatwaves, water supply, flooding, stress, depression - instrumental capacity to engage vulnerable people
Well being of the community - how long a time frame does this encompass
Interlinkages with indirect impacts
Procurement supply chains
Public expectations that the coast is stable and fixed

An organisation that could be overlooked is...

English Heritage
National Trust
DCSF - Schools
Youth / education
Armed forces incl. MOD estate
Crown estate
District councils
European Commission
Utilities
Wildlife Trust
Welsh Assembly
CBI
Coastal communities
Womens Institute
Fisheries organisations and other stakeholders in the marine environment
FWAG
Institute of Ecology and Environmental Management
Small local groups or even individuals
Community groups / local voluntary groups
Charities which fund research
Other land owners
Private sector managers of public facilities

Accountants
Auditors
British resort association
Recreation gps
CDM traders
Social care units in LA's
Those on benefits
Representatives of the poor!
RCCP's
Rural climate change forum
Companies insuring against domestic flood risk; reinsurance
Mortgage lenders and those supporting housing market in flood risk and eroding areas
Government department who do not have a strong role in the natural environment
Economic regulators
Individual home owners and how they are helpful to adapt
Church / faith groups
Royal Entomological Society
Visit Britain
Professional bodies e.g. IOB, Civil Engineers
Land-based sectoral interests e.g. NFU
Farmers
Leisure users of natural resources
Regional climate change strategies e.g. National Parks, Cities, Regions
Herp. Conservation Trust
Organisations linking environment and health (e.g. Countryside Access)

The most important thing RCEP should consider is...

Adaptation is for life, not just for Christmas
How to maintain a flexible approach responsive to ongoing change
Resilience
Prioritising adaptation in busy / resource limited institutions
Resource / priority planning
The economics of adaptation
Alignment of future and existing spending plans
Resourcing / costs
Coastal strategies to protect high value infrastructure
Sea level rise
Possible change in political will
Voluntary vs compulsive governance
Commitment from government to drive adaptation forward
Integration between sectors and thus institutions
The potential for partnership to develop and deliver adaptation
How institutions can work together
How to achieve institutional connectivity
Interactions between the institutions
How the various institutions can work together
Who will co-ordinate between institutions
Uncertainty (how institutions respond)
Adaptation to climate change is not just an environmental issue
Impact of adaptation on mitigation
Synergies with other sectors

That adaptation to climate change is difficult to attribute
How do we know which adaptation measures will work?
Adaptation is highly contextual
What does adaptation mean?
Land use strategic planning - place of Nature Conservation
How do people value the natural environment?
Development of risk assessment framework / guidelines that can be adapted widely
i.d. no regrets policy
What is happening elsewhere by others
Build on existing work, don't repeat
Interconnection of issues
Aspects of current governance which will or may hinder appropriate adaptation measures
How to be inclusive
Infrastructure planning commission
How to take an integrated whole systems approach to adaptation

What I believe RCEP will find most challenging is...

How to define the scope of the study
The scope - climate change impacts everywhere everything
Dealing with the complexity, range and scale of the issues
Ensuring adaptation is not considered in isolation to wider goals / objectives
Information on likely impacts
The lack of evidence and huge volume of opinion
Mapping who is doing what and how they link together
Present disconnect / mismatch between relevant policies / organisations etc
Working from the local to the national and the national to the local perspectives
Forward thinking over sufficient timescales
Gaining a comprehensive view of any issue - need thought experiments
Catchment and other local areas
Understanding real institutional capacity as opposed to theoretical
Green fatigue
Proliferation of issues
The bias towards mitigation at EU and national policy levels
Uncertainty risk assessment
Finding time to focus on the main issue!
Timing of report to have impact early enough
Pace of change needed
Wide range of views and large number of organisation
National boundaries, legislation and parochial attitudes to non-natives
Contributing to a moving area where institutional arrangements are being developed
Government departments trying not to tread on other's territories
Lead departments and problems of funding work institutionally or new structures from lots of different agencies
Vested interests in keeping the status quo of institutional arrangements
Lack of co-ordination and integration within institutions / sectors
Overcoming a benefit - cost mentality
Distributional factors
Coming to conclusions on how best to deal with uncertainty

Who pays for adaptation?

Persuading government to commit to allocating resources

Target based culture and lack of good adaptation indicators

Engaging with organisations that will influence local responses

Policy integration between sectors

What are we actually adapting to?

Changing culture / funding to enable interdisciplinary research

transcending between predict and provide vs building flexibility

Something that I have learnt or that struck me is...

That climate change is so often seen as a science based rational issue but institutions / organisations / processes are based on human interaction etc and we need social scientists input
Not many social scientists here?

Commonality of view that there are behavioural issues at the heart of this must be tackled or we will revert to business as usual that cut across all sectors

Who is going to pay and will they keep paying?

The need to make adaptation an economic / people / society issue, not just an environment issue

Regardless of exemplar the themes are common

The issue of adaptation at different scales

The big debate will be on central vs local control ... it strikes me this will be hard to resolve

Adaptation is a mainstream place-shaping issue. It is not something separate. It is about the core business of local service continuity, social justice, risk management and places that are good to live in
Lack of knowledge about key issues e.g. what happens in practice in water regulation

The number of institutions involved and how they need to be mapped

Concerns over institutional capacity of research community were more widely held than I expected

Lack of engagement with research findings

Metrics for changing institutional behaviour should be the only answer to collaborative working and decision making

The importance of getting adaptation into the planning system

The key role of planning regulation in both the mitigation and adaptation of climate change

Many of the theory questions are common across a number of sectors - social equity, land use, lack of institutions to facilitate action

All institutions / organisations will have actors and need to be engaged. No easy feat.

Role of self-interest in adaptation in contrast to mitigation

The difference in altruistic intentions between mitigation and adaptation

Almost universal reference or need for integrated thinking rather than individual sectoral adaptation approach

Many people here are very unaware of all the adaptation research / initiatives ... a communication issue?

A lot of activity is already happening... but we need to be able to share info and practice much more

Good to know who the players are in this debate, which can only encourage integration

Building organisational capacity is vital, difficult, needs wide collaboration, outstanding leadership and capacity building in all sorts of agencies

The massive replication of concerns / plans - need mean of disseminating plan

There is a very powerful assumption that co-ordination and information are the key solutions, is this really true?

Great to see plenty of others concerned about getting message out to all in society

If work adaptation, mitigation and SD together - a winning formula may be possible, but it will be hard work and need a champion

No-one has suggested that the status quo is remotely fit for purpose

That there is a recognition that present institutional arrangements are sometimes constraining / blocking progress on adaptation
Value of dynamic models of climate change and biodiversity in making better environmental decisions
RCEP needs to be very clear as to its institutional rather than sectoral focus
Don't forget experience from abroad e.g. Dutch and coastal management
Multiple appearances of resolving differences in goals - need way to compromise / share agenda
Struck by scale and complexity of task - I knew but not so clearly
How far the climate change adaptation agenda has moved on - from questions of what adaptation is and impacts to how we actually tackle it together
Research is important but will never answer all the questions. Adaptation has to occur under uncertainty

My message to the RCEP is...

You must strike a balance between integration and visibility - learn lessons from the SD agenda re: political traction
Start from a basis of what's important / what we value not what the problems are
Any adaptation scheme requires a robust holistic scientific understanding of the impact of a potential climate change.
Please could recommendations include a list of quick, easy, hits. NB there are lots of these!
Please not only set out key institutional changes but also a manifesto of the key top actions to make this happen in a sustained effective manner
Recommendations to be achievable not blue sky
Adaptive management is key to successful, sustainable adaptation. Continuous review is needed as science emerges
Getting cross-sectoral collaboration / consensus building or a common vision for adaptation is essential. Methods to achieve this will require involving psychologist / social scientist too.
Remember there is 50-100 years of research on drivers of social change. It would be a shame to ignore it e.g. risk / psychology / economics / geography / sociology etc
Make sure we develop joined up science upon which to base our adaptation
Please include behaviour change and demand management in your recommendations. Institutions are needed to understand issues and make decisions but people use natural resources
Please move quickly before events overtake you or get done before you
Internationalise biodiversity priorities
As we are all members of institutions are we the best judge of institutional capacity?
Resolve the mitigation / adaptation interface. Get max value for investment
Illegitimi non carborundum
Become climate change sceptics!
In building institutional capacity for adaptation we need to address the integration of all sorts of organisations through real partnerships. This will be a challenge to values, cultures and the way different sector differ in detailed use of language and implication
There is a surprising degree of commonality in describing the issues but not so in the solutions. Please simplify, clarify and promote any good ideas you come up with
I hope you'll be able to tell us: how we can coordinate adaptation, at what scale should we focus? How do we identify incentives to encourage appropriate action?
Adaptation will cost money, who pays?
Recognise that we are not talking exclusively about adaptation to climate change: delivery adaptation is more complicated than this
We need to be clear what we are trying to influence and why? The study must pay attention to this or it will stray
Strong institutions on adaptation mean strong local institutions, working within effective frameworks that promote cooperation and banging heads together. Central government can sort out structures and finance, but in the end adaptation is based in the community and individual
Adaptation approaches are based on implicit values / priorities. These should be made explicit

Integrated, holistic approach to adaptation and mitigation is essential. Whether across institutions, sectors...

Good luck!

Still haven't dealt with longer term issues - 100 years forward thinking horizon scan of future issues that will be affected by decisions today

What are we adapting for? Important question what are priorities for land use

Is the research base sufficiently focussed on the adaptation agenda?