

# *Adapting Institutions to Climate Change*

Sir John Lawton, Chairman

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Walker Institute for Climate System Research



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on Environmental Pollution



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## About the Royal Commission

- The Commission was established by Royal Warrant in 1970
- It is independent of Government
- 12 Members, supported by a full-time secretariat

Our Terms of Reference:

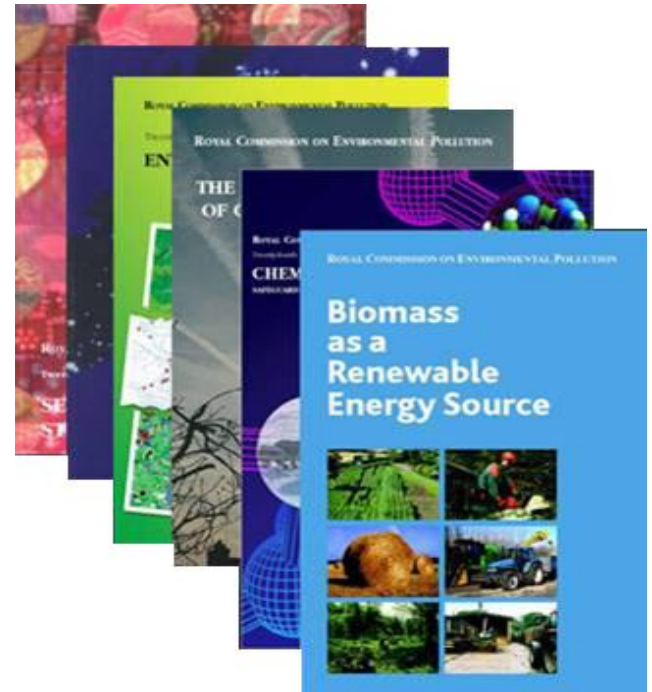
**“To advise Government and Parliament on matters, both national and international, concerning pollution of the environment, the adequacy of research in this field, and future possibilities of danger to the environment.”**



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## About the work of the Royal Commission

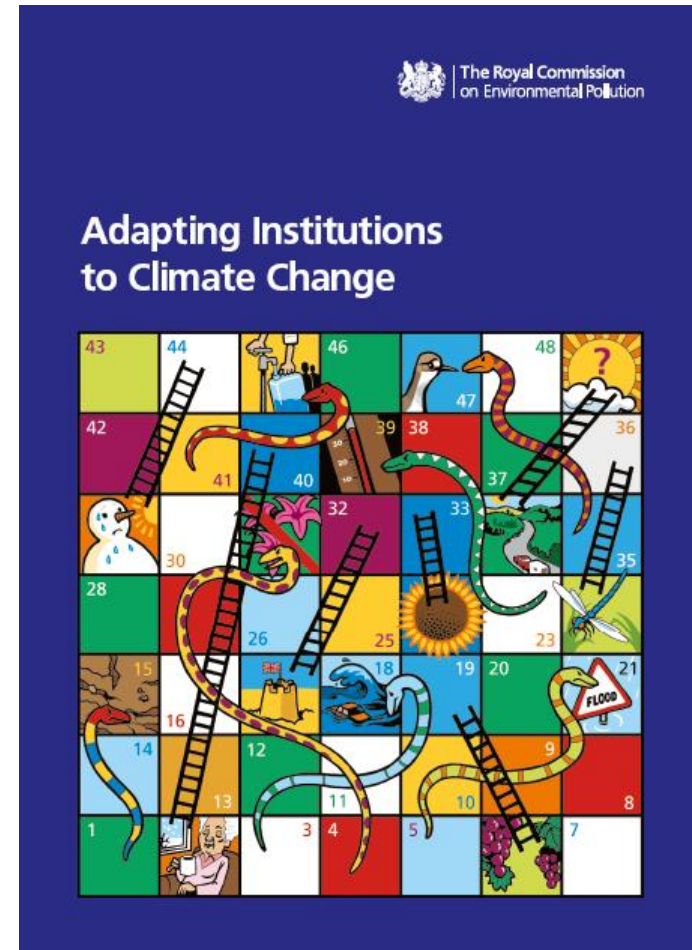
- Published 28 reports and 4 special reports to date
- 'Committee of experts' rather than an 'expert committee'
- Members have backgrounds in the natural sciences, law, social sciences, industry & business, medicine and economics





# Our latest report: Adapting Institutions to Climate Change

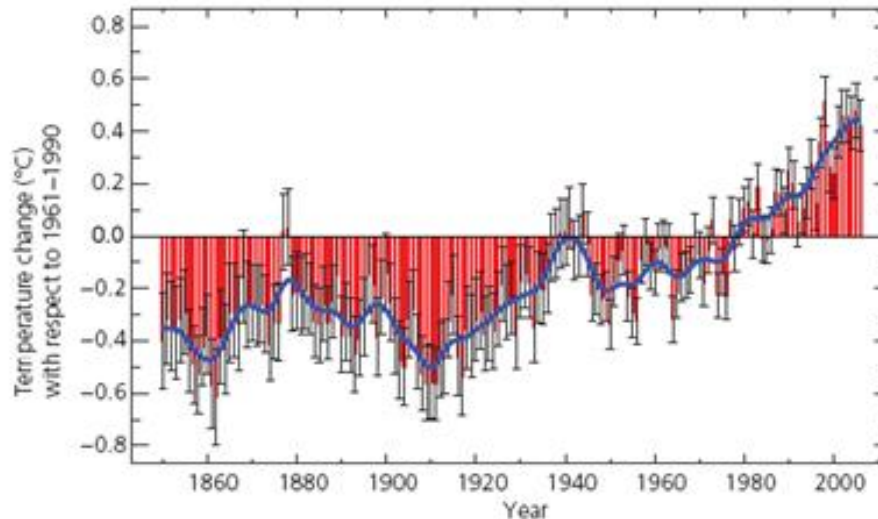
- Why we chose this topic
- Definition of an 'institution'
- Outline of presentation





## Climate Change

- UK climate is already changing
- UK is projected to have warmer, drier summers and warmer, wetter winters
- Global temperature could rise by as much as 4°C by 2100





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## Climate change and adaptation

- Even if we reduce our greenhouse gas emissions we will still need to adapt to the climate change from historic greenhouse gas emissions
- What is adaptation?
  - To reduce exposure to the risk of damage
  - To develop the capacity to cope with unavoidable damage
  - To take advantage of new opportunities



## The impact of climate change

- Reduced water availability and quality
- Increased risk of drought and floods
- Increased rate of coastal erosion
- It will be impossible to maintain *status quo* for nature conservation





## **Adaptation is difficult**

- Local impacts need local solutions
- No end-point
- Uncertainty about the magnitude and local impacts of climate change
- Complex institutional arrangements
- Need a step change in how address adaptation – traditional ways of working will not be enough
- Need to build adaptive capacity, welcome progress but more action needed



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## The challenges for institutions

1. Uncertainty
2. Complexity
3. Path dependency
4. Equity and Efficiency





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## Addressing the challenges

How to build adaptive capacity

1. Framing
2. Implementing
3. Learning



## Framing

Framing the question of adapting to climate change is difficult, easy to do wrongly. Five key elements:

- The role of climate in relation to the **key missions** of an institution
- The role of other relevant actors in **partnerships**
- Competition** with other goals
- The tendency for **short-termism** in decision-making
- The existence of **different values** and **interests**



## Implementing

Making the decision to take action and then doing it

Key issues to consider:

- **Up-scaling** local and small scale initiative
- **Enabling mechanisms** for adaptation goals
- **Engaging** public support
- **Co-ordination** between actors
- **Resources** – people, money and finance
- **Distribution** of costs



## Learning

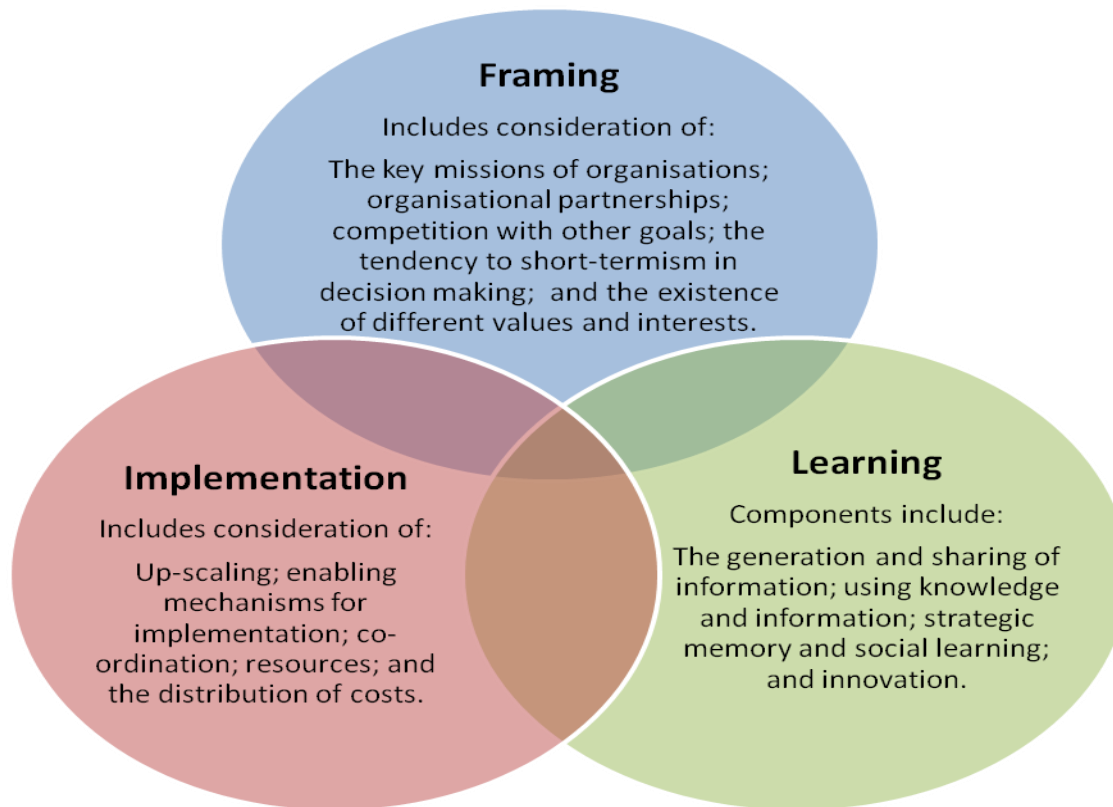
Learning is essential if the challenges of framing and implementation are to be effective and manageable

Key elements include:

- The **generation and sharing** of information
- Use of **information and knowledge**
- Strategic memory** and **social learning**
- Innovative** approaches



# The circles of adaptive capacity





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## Ten questions on adaptation

No blueprint for adaptation but...

...to help organisations who have not yet started to think about adaptation we have developed 10 questions which will aid in framing the problem and implementing actions.



## Ten questions on adaptation cont...

1. Have you identified the possible range of impacts of climate change on the activities and responsibilities of your institution or business, and their timescales?
2. Do you understand the nature of, and the limitations in, the climate projections in UKCP09?
3. Do you understand that adaptation to climate change is an open-ended process, not a single action that will solve your problems or reduce your risks?
4. Have you framed the questions and issues to be addressed adequately, so as to avoid tacking the wrong problem, or making matters worse? Do you understand how the risks posed by climate change interact with, and might change, the other risks your organisation has to respond to?



## Ten questions on adaptation cont...

5. Have you identified options for adaptation, and devised flexible plans and strategies that can deal with uncertainty?
6. Are you embedding consideration of adaptation into your core business? Is there the right accountability for actions at the most senior levels of your organisation?
7. Are the objectives and aims of your institution fit for purpose in a changing world? Are you aware of the powers and duties affective your institutions?



## Ten questions on adaptation cont...

8. Who are the significant other stakeholders (including members of the public) with whom you need to interact to deliver adaptation? Are there barriers (perceived or real) that might make collaboration difficult? How do you plan to negotiate these barriers?
9. Do you have mechanisms in place to listen and respond to alternative views on the ways of dealing with climate change, new ways of thinking, and ways of evaluating the success of past actions in relation to climate change?
10. Do your organisation's planning and investment cycles allow for new insights and information about climate change to be taken into account?



## Recommendations

- Provide a framework to help organisations build adaptive capacity
- 24 recommendations, across:
  - The policy framework
  - Specific institutional arrangements
  - Resources to build capacity
  - Equity
  - Public engagement
- The role of the Adaptation Sub-Committee



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## **The policy framework – An adaptation test**

**•We recommend an 'adaptation test' appropriate to the circumstances should be integrated into public and private decision making. The objective of this test should be to reduce exposure to the risk of damage through climate change; to develop the capacity to cope with unavoidable damages; and to encourage organisations to take advantage of new opportunities.**



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## **The policy framework – Duties on public bodies**

- We recommend **the Climate Change Act 2008 should be amended to impose an adaptation duty on public bodies of the kind included in the Scottish Climate Change Act or the Greater London Authority Act.**



## **Institutional arrangements**

Our recommendations in this area cover:

- The importance of the planning system in delivering successful adaptation
- Lessons from exemplars:
  - Organisations should embed adaptation in their objectives
  - Flexible policy frameworks will enhance an organisations ability to respond
  - Important to have a cross-sectoral approach to policy making and implementation



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## **Institutional arrangements cont...**

Land use planning system recommendations included:

- **Local authorities should ensure planning departments are adequately resourced and organised to enable their responsibilities in relation to adaptation to be met.**
- **The Adaptation Sub-Committee should scrutinise planning policy guidance to assess and advise on the recognition within spatial planning of the importance of adapting to climate change. The Sub-Committee should also scrutinise the activities of the Infrastructure Planning Commission in the context of adaptation to climate change.**



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## Institutional arrangements

Lessons learnt from our exemplars resulted in recommendations including:

- **Organisations, including those subject to statutory duties, review and where necessary revise their mission and objectives from an adaptation perspective. For priority reporting authorities, the Adaptation Sub-Committee should scrutinise these reviews, and where necessary recommend revisions, to their mission and objectives.**
- **In implementing EU directives, including those on conservation, governments should utilise the flexibility inherent in the directive in order to facilitate adaptation.**



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## **Resources to build capacity**

Our recommendations in this area cover:

- Organisations should have/develop the necessary resources to build adaptive capacity
- The importance of knowledge transfer



## Equity

- The costs of climate change will be distributed unevenly – socially, temporally and geographically
- Difficult decisions - especially around flooding and coastal erosion
- Public compensation is not straightforward and may not capture e.g. community disruption
- We recommend **the Adaptation Sub-Committee should explore the range of options available to address issues such as the loss of community, business and employment, and the disruption to health, educational and social services which may be a direct or indirect consequence of climate change.**



## Public engagement

- The impacts of climate change will be local as will adaptation decisions.
- Defra, environmental regulators and local authorities, and the equivalent for the Devolved Administrations, should pay urgent attention to the presentation of national and regional narratives or stories which describe what climate change will mean for institutions, communities and individuals and the relevant adaptation priorities.**
- Public authorities should make greater use of discussion-based public engagement much earlier in decision processes, to help frame the issues relevant to adaptation and to gather public concerns and views to inform decision-making.**



## Conclusion

- Adaptation to climate change is difficult, complex and full of uncertainties
- But we can't afford not to take action now
- Some progress already but a step change needed
- Want adaptation planning to be embedded throughout institutions