

# Preparing for climate change: A new National Adaptation Programme

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**Monday 5<sup>th</sup> February 2018**  
**Macmillan Room, Portcullis House**

Chair

**Mary Creagh MP**

Chair, Environmental Audit Committee

Speakers

**Prof. Dame Julia King, Baroness Brown of Cambridge**

Chair, Adaptation Sub-Committee, Committee on Climate Change

**Liz Parkes**

Deputy Director, Climate Change and Business Services, Environment Agency

**Dr Mike Morecroft**

Principal Specialist, Climate Change, Natural England

**Prof. Jason Lowe**

Head of Climate Services for Government, Met Office

**Dr Richard Benwell**

Head of Government Affairs, Wildfowl and Wetlands Trust (WWT)

## **Panel Summary**

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**Chair Mary Creagh MP opened the discussion by stressing the importance of adaptation in the face of the systemic, and potentially accelerating, effects of climate change; while recognising its relatively intangible nature in comparison to issues such as plastic pollution.**

**Professor Jason Lowe laid out the evidence for human induced climate variation, and the ways in which state-of-the-art climate science can project and help plan for future weather extremes.**

Over the past century in the UK we have seen an increase in average temperature of 1°C, but potentially more relevant to adaptation is the increase in extreme events over the same time period. Nine out of the ten warmest years on record have happened since 2002, and seven of the ten wettest winters have occurred since 1998. Comparing these trends with modelling of natural variability reveals a considerable human influence.

The most recent set of Met Office projections set out in UKCP09 present climate outcomes for different emissions pathways on a local scale. Although natural variability dominates UK projections in the near term, there is a future trend towards warmer, wetter winters and hotter, dryer summers. In addition, sea level will continue to rise, though uncertainty is high; we can expect increases between 25cm-1m within the century.



Through simulations, climate science is helping to better estimate the chance of climate extremes in the near future. Seasonal forecasts now are able to play a useful role in decision making.

UKCP18 will be launched later this year, and will provide global projections for a number of plausible emissions scenarios, overlain with weather-scale resolution (<5km<sup>2</sup>) projections for the UK. Furthermore, the range of climate variables modelled will be extended beyond temperature and rainfall, to help people plan more effectively.

**“The type of warm summer that we saw across Europe in 2003, we would see as common by the 2040s.”**

**Prof. Jason Lowe**

**Baroness Brown of Cambridge, Prof. Dame Julia King took stock of the achievements and pitfalls of the last National Adaptation Programme cycle, and shared her hopes for the next phase.**

Reflection after the end of the first phase, she feels, highlight the strength of the methodical approach and processes. However, the actual impact on reducing risk has been weak. Indeed, across key areas outlined in the last Climate Change Risk Assessment (CCRA2), most notably surface water flooding and deterioration of the natural environment, risks have increased rather than decreased. She pointed to a lack of key targets and adequate measures of success, hindering progress.

For the next phase, the CCC would like to see clear priorities for adaptation which answer the four questions: what, how, who and when. This means objectives that are outcome focused, measurable, time bound and that have clear ownership. Baroness Brown suggested that the government may need to prioritise a smaller number of risks and opportunity areas as a result of funding constraints, but these decisions should be clearly explained and reflect impacts and urgency.

She expects the NAP to have considerable cross-over with the recently announced 25 year environment plan, and welcomed the first environmental PM speech for 17 years and the emphasis on natural capital approaches. The CCC will be working with Defra to strengthen the criteria for success, in order to ensure government are clear on targets and can demonstrate an increase in resilience in the NAP. Questions remain surrounding how exactly the NAP and 25YEP will come together, whether there will be sufficient cross-governmental commitment to the actions required, and which bodies will be charged with monitoring progress. Baroness Brown pointed particularly to the need to ensure new homes are fit for the future, and improving building standards, responsibility for which lies with the new Ministry for Housing, Communities and Local Government.

Finally, she raised concerns around the effect of exiting the EU on environmental legislation, and stressed the need to maintain consistency of approach right across the country following devolution.

**“This time round we need a coherent programme, with real milestones, real ownership, and real investment.”**

**Prof. Dame Julia King**

**Liz Parkes spoke about the NAP from the perspective of the Environment Agency, and the benefits of an adaptive-based approach to planning.**

She stressed the importance of taking into account the full plausible range of climate scenarios when making decisions about major projects, pointing out that current global commitments will not keep warming to below 2°C. The EA has used an adaptive methodology for the Thames Estuary 2100 project on plans for flood risk management, which has been applied to a number of projects since. Key techniques include identifying 'low or no-regret actions'; understanding the lead time for decisions; being well-informed; and having regular review points and clear accountability. Collaboration is key, in order to understand all the risks, interdependencies and vulnerabilities - we are only as strong as our weakest link. Finally, Liz called for a place-based dimension to decision making, considering the impacts of climate change and non-resilience on people and communities.

**“We need to make sure our policies, programmes and investment decisions take into account the possible extent of climate change.”**

**Liz Parkes**

**Dr Mike Morecroft suggested that restoration of natural processes should form a central role in building climate resilience.**

He pointed out the obvious links to the natural environment in CCRA2, as well as the less obvious environmental dimension to all risk areas. Because of this, multiple policy areas must be connected if we are to adapt to climate change. Impacts on the natural environment matter not only in their own right, but also because of the impact they have on people. Furthermore, we need to treat the natural environment and the way we manage it as part of the solution, not the problem – it is not just a passive recipient of harm.

Building on the framework of the last NAP - which looked at building resilience, accommodating change, and ecosystem based adaptation – we should focus on restoring natural processes, which cuts across all of these. Much more work can be done on providing benefits for people at the same time as the environment, through ecosystem based adaptation. Examples such as natural flood management and urban cooling show that integrating urban and natural environments can provide multiple benefits.

Natural England conducts activities from science and monitoring through to practical applications, but it is also important to close the circle and learn from experience. Dr Morecroft shared some practical lessons, including the need for: upskilling of people, expertise; bringing together scientific and practical knowledge; accountability; and permission and resources to test new approaches, and learn from failures.

Finally, researchers are learning increasingly that nature based solutions do work - so the environment should be at the heart of adaptation.

**“We need to treat the natural environment and the way we manage it as part of the solution, not the problem – it is not just a passive recipient of harm.”**

**Dr Mike Morecroft**

**Dr Richard Benwell examined the scope of the adaptation programme, particularly pointing out the lack of a baseline from which to build.**

He began by framing climate change as a multiplier of huge risks that we already face, including biodiversity loss, flooding, drought, and invasive species; and described a policy and legislative gap in planning to reverse current and historic environmental decline. This principle should form the foundation from which the NAP could build, focusing on additional or increased risks.

Dr Benwell highlighted the key milestones over the next 6 months which could address this policy gap, but which also present risks of it worsening.

- The EU Withdrawal Bill could mean a loss of environmental laws and directives, or bring about a new statutory body for environmental protection, enshrining sustainable development and polluter pays in decision making
- The Agriculture and Fisheries Bill could hasten decline of wildlife unless solid commitment to invest in nature is made, on top of strong regulatory baseline for protection – but could give life to idea of public money for public goods, subsidised by private capital using polluter pays
- The 25-year Environment Plan has potential to be transformative if ideas like net gain and restoring natural processes are used wisely, but targets are underdeveloped and lack ambition – e.g. a weakened Water Framework Directive target for water quality. In planning, net environmental gain could be a source of capital for green infrastructure, or undermine the mitigation hierarchy and allow full fungibility between different environmental assets – a ‘nightmare scenario’.

He argued that time-bound targets for ecology need to be set in statute as part of a new Environment Act, backed up by an Environment Commission - a baseline from which the NAP could define future multiplying requirements. For example, natural capital accounting should be put on an equal footing with conventional treasury thinking – and then let NAP anticipate the need to build on this with ideas like intergenerational equity.

Finally, Dr Benwell compared the adaptation programme to that of mitigation, where economy-wide, legally binding targets and a narrower focus have meant the CCC main committee is able to scale up ambition beyond an overall trajectory for improvement. The adaptation agenda, on the other hand, struggles due to lack of a common political consensus on the need to restore nature. There are real implications for investment and progress without a strong legal mandate for action.

**“If we take the opportunities in the next six months to set a strong legal mandate for action... then the NAP can stop trying to do everything and serve its real purpose.”**

**Dr Richard Benwell**

## Q&A Summary

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### How to measure success/progress in adaptation? Why aren't we developing targets? – MC

- BB - Where we can measure targets more easily, such as in flooding, progress is made more quickly. The ASC struggle to identify the important parameters to measure, and the goals that should be defined. A problem of too much data?
- RB pointed out that many indicators/targets exist (especially from EU), but these are not afforded legal purchase, and could be better aggregated
- JL highlighted the importance of addressing vulnerability and exposure in addition to hazard; MC added effective translation so risks and goals are tangible for policymakers and the public

### Social impacts of climate change, e.g. Cape Town drought? - Katherine Knox, University of Manchester

- LP acknowledged the importance of social science and the need for effective public communication, especially on water scarcity, considering the near-term risk of drought in the south east of England
- Public communication is outside of the remit of the ASC, but it has made numerous recommendations to the government, and works with other bodies to encourage it - BB
- JL – Met Office is increasingly recognising the value of integrating social science, looking beyond effective communication to behavioural barriers and better decision making

### Regulation vs voluntary measures - Nick Pyatt, Trioss Ltd

- RB reiterated the risk of losing regulations during EU withdrawal – the evidence is that voluntary approaches do not work as well as regulatory approaches – e.g. reporting powers
- MC – no sign of an Environmental Protection Act, despite recommendations, concerned about loose language used in the 25YEP, withdrawal deeply worrying, progress not helped by quick turnover of ministers
- LP and MM agreed on the need to make sure regulations do not bring unintended consequences. Important to avoid box-ticking and ensure positive engagement – thoughtful interventions are what is needed

### Community engagement and inequalities in vulnerability – Andy Kerr, Scottish Centre of Expertise on Climate Change

- BB – we are beginning to get leadership from cities to build resilient, pleasant places to live; need to nurture good planning

### Operational vs strategic planning - are we planning effectively for the worst, e.g. in London? – Prof. Chris Rapley, UCL

- LP – as climate change impacts worsen, some decisions may actually become easier in terms of where investment is best placed
- JL – there are some areas where there are deep uncertainty and flexible adaptation can apply to this

**Period of the NAP sits between Biodiversity 2020 and possible Biodiversity 2040 – what can the NAP do for wildlife? – Olly Watts, RSPB**

- RB would like to see the UK taking a negotiating mandate proportional to the ambition of leading the world on natural environment restoration to Beijing; plus a set of multipliers from the NAP – with clear targets
- MM – restoring whole working ecosystems as part of a nature recovery network rather than focusing on individual species. To do this pragmatically though, this has to be integrated with land use, especially around food and farming policy, and we need to communicate the wider value to people, working with local communities

**Role for citizen science – James Pearce-Higgins, British Trust for Ornithology**

- MM – the BTO does fantastic work and would like to see that recognised. It is difficult, however, to use citizen science in adaptation due to the difficulties discussed with measurements
- JL – citizen science has been successful in the field of climate monitoring

**How do we get planners and developers on board for successful adaptation? – Dan Osborne, UCL**

- MC – linking it back to return on investment and green finance – issues with the withdrawal of regulations such as zero carbon homes, historic uncertainties and lack of clarity in regulation
- BB- training of civil engineers and town planners – but have not had a response from RTPI, or ICE

**Is there a legal deadline for delivery of the NAP? What would be one disappointment and one wish for the NAP? – Jocelyn Timperly, Carbon Brief**

- BB – should be produced this year, have had commitments in a number of speeches
- JL – focus is on UKCP18 first
- LP – need more conversations and more thinking; doing the NAP too early may mean not taking UKCP18 into account; make sure that investment is resilient, needs to be built into clean growth
- MM – not fixed in law, people are working on it, would like to see cross-sectoral join up

**Mary Creagh MP wrapped up by thanking the panellists and attendees for a good discussion.**