

UK climate targets for mitigation and adaptation

Investing in Peatlands – the Climate Challenge
Durham, 28/29 September 2010

Sam Fankhauser

- The UK Climate Change Act
- The emission reduction challenge
 - Highlights of the CCC's Second Progress Report, June 2010
- The adaptation challenge
 - Highlights of the ASC's Preparedness Report, September 2010
- Conclusion and future work

The Climate Change Act 2008



- Sets a long-term target
- Establishes a system of 5-year carbon budgets
- Requires regular assessments of climate change risks
- Establishes the Committee on Climate Change (CCC) and the Adaptation Sub-Committee (ASC)

CCC: Mitigation

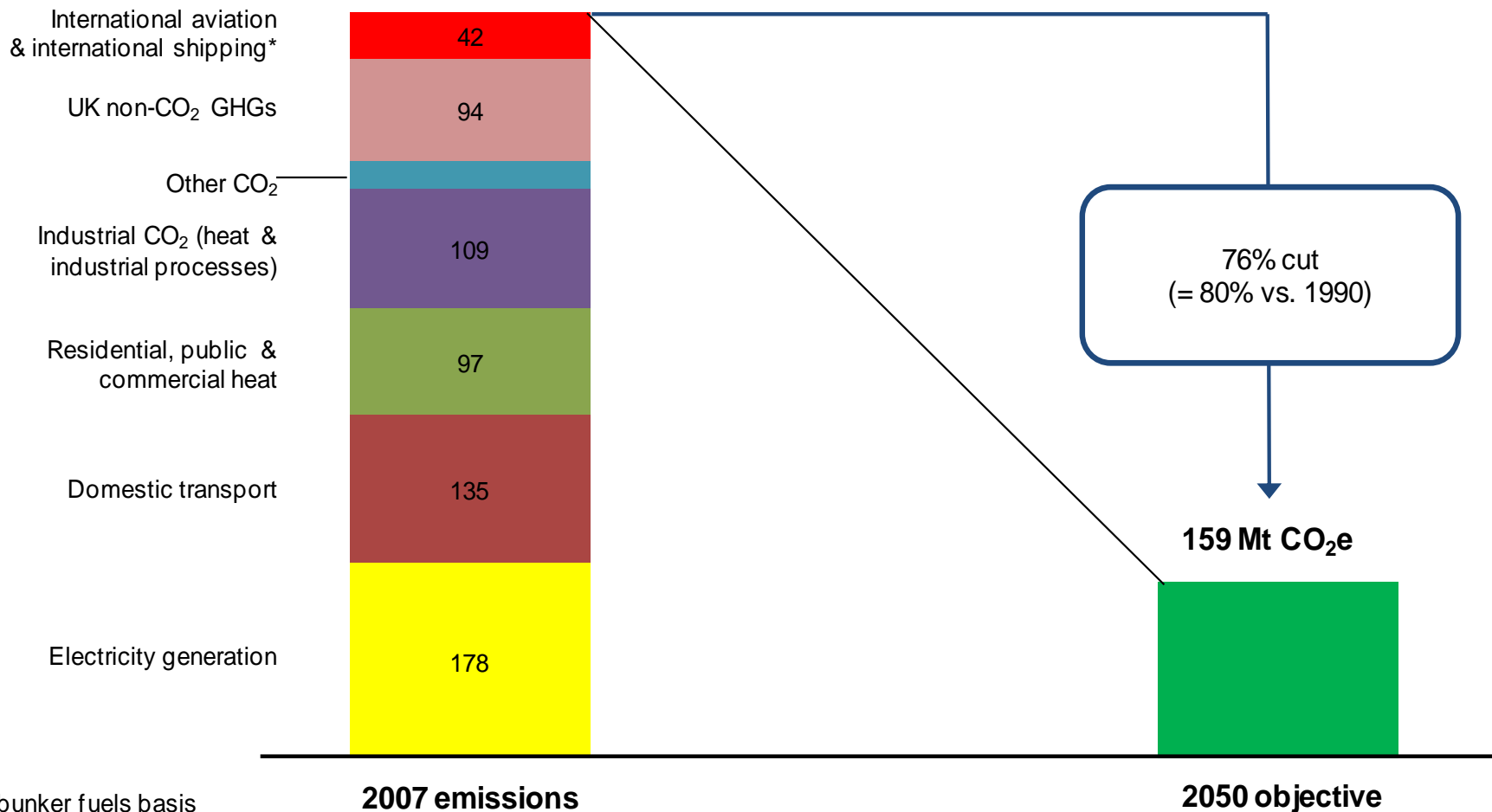
- Advise government on carbon budgets
- Monitoring performance

ASC: Adaptation

- Advise on the Climate Change Risk Assessment
- Assess and monitor progress in adaptation

The 2050 target: Emission cuts of at least by 80% from 1990

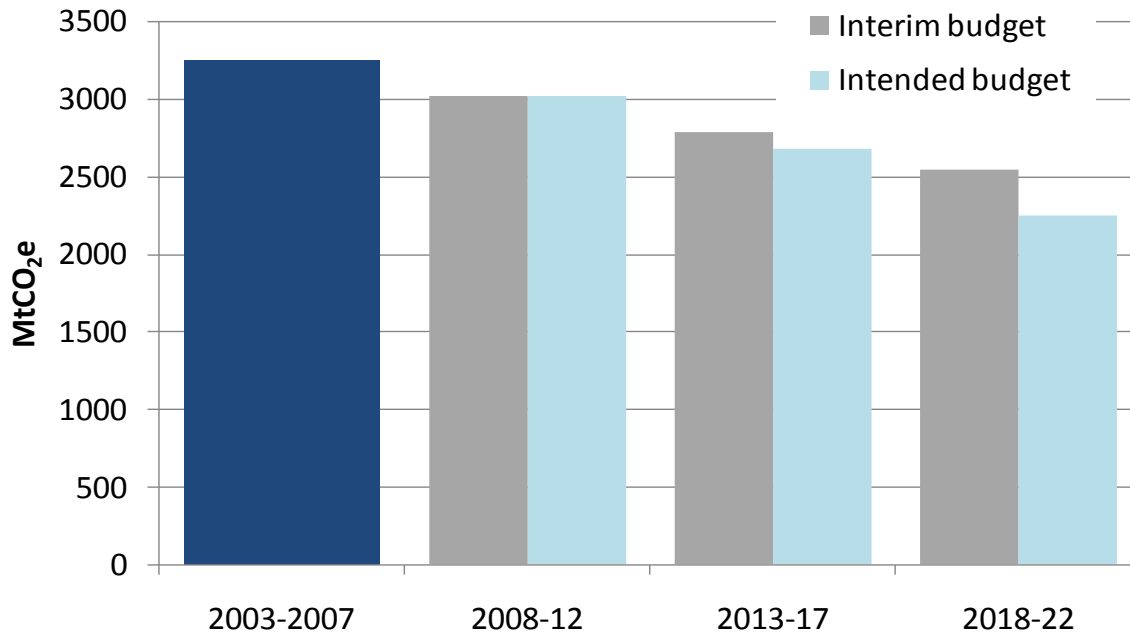
679 Mt CO₂e



* bunker fuels basis

Mandatory five-year carbon budgets

Budgets for 2008-2022 legislated in spring 2009



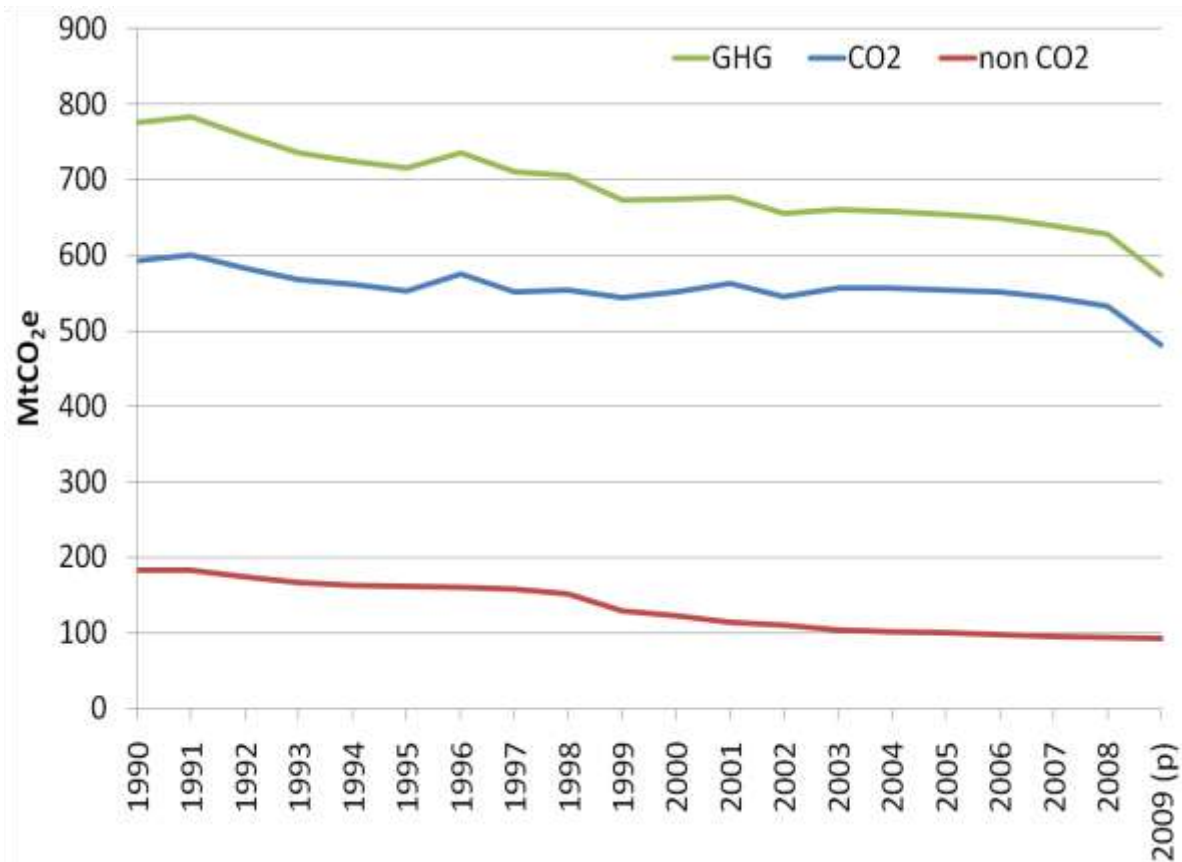
Interim: 34% cut in GHGs by 2020, relative to 1990 (20% from 2007)

Global deal

Intended: 42% cut in GHGs by 2020 relative to 1990 – to be reviewed in 2010 (29% from 2007)

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Since 2008 emissions have fallen mostly due to the recession



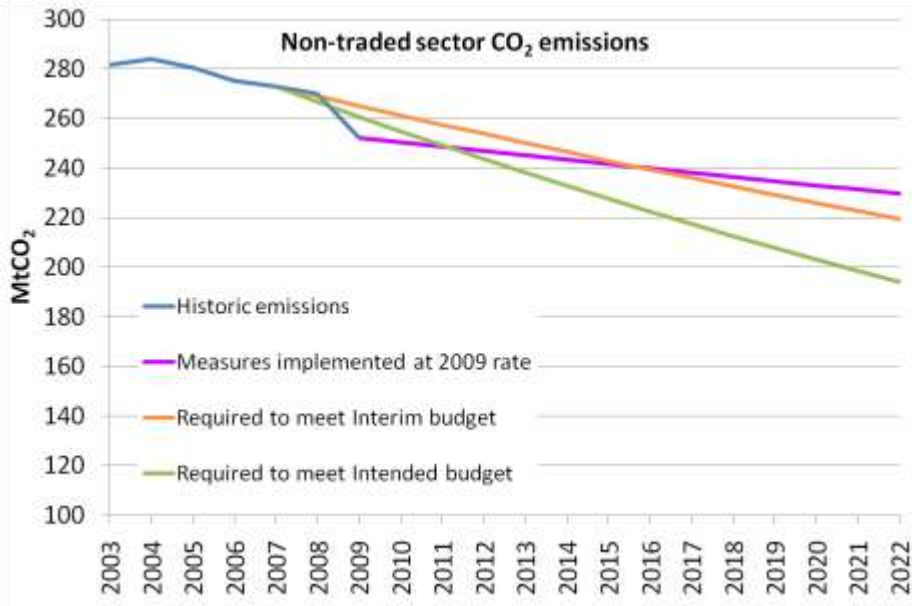
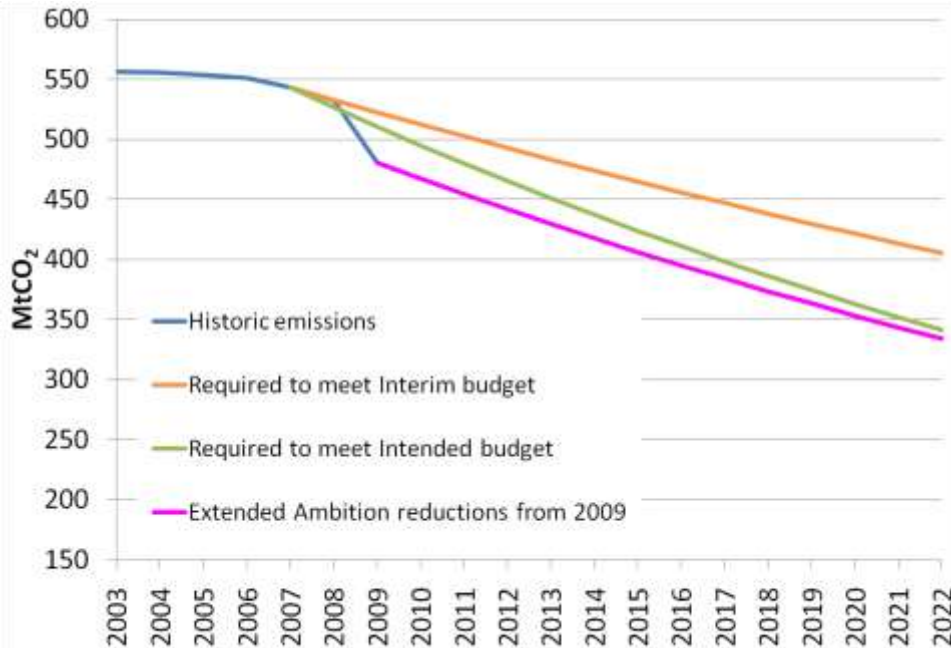
Reductions in 2009	
Non-CO ₂ GHG	1.9%
CO ₂	9.7%
Total GHG	8.6%

2009 CO₂ emissions were down in all sectors

Particularly steep falls in electric power (13.1%) and industry (18.1%)

A step change in underlying progress is nevertheless required

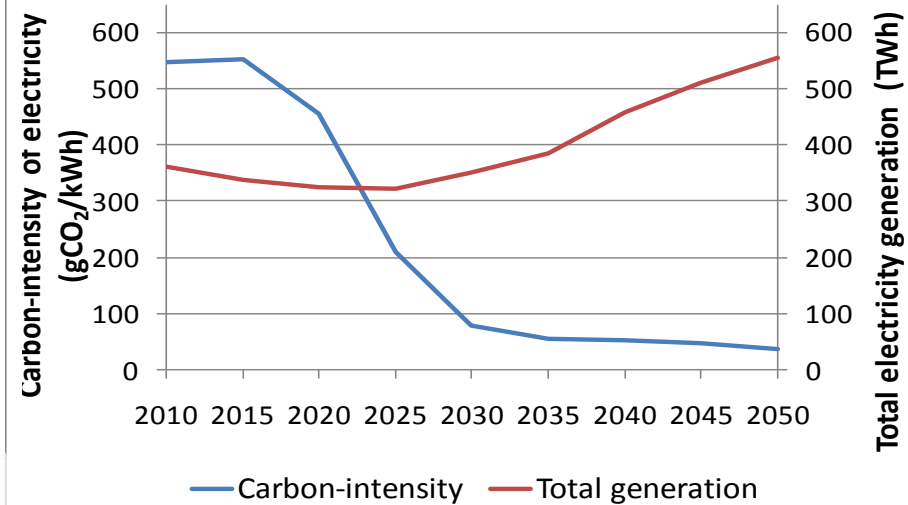
Implementing measures at 2009 rate would leave a shortfall



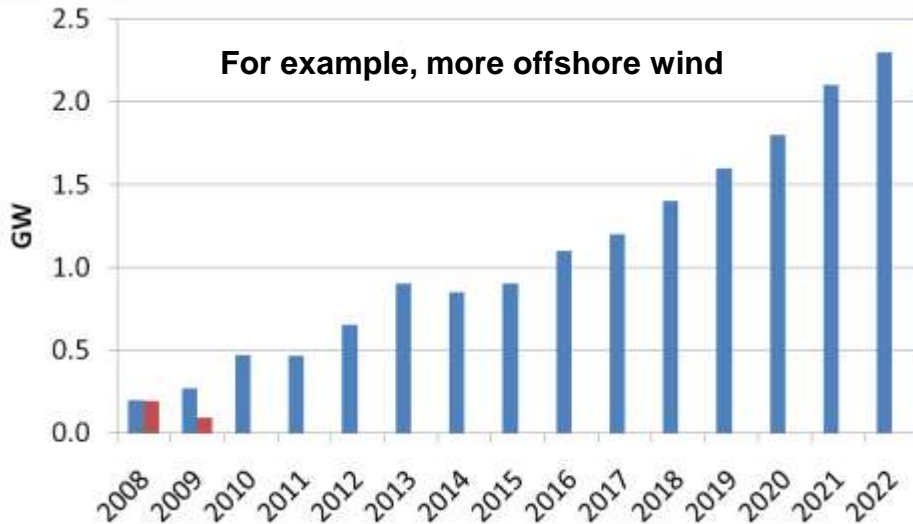
Budget can be met if the CCC's Extended Ambition scenario is implemented

Power sector is central to decarbonisation

The electrification of other sectors (transport, heat) will see demand increase in 2020s and 2030s



— Carbon-intensity — Total generation

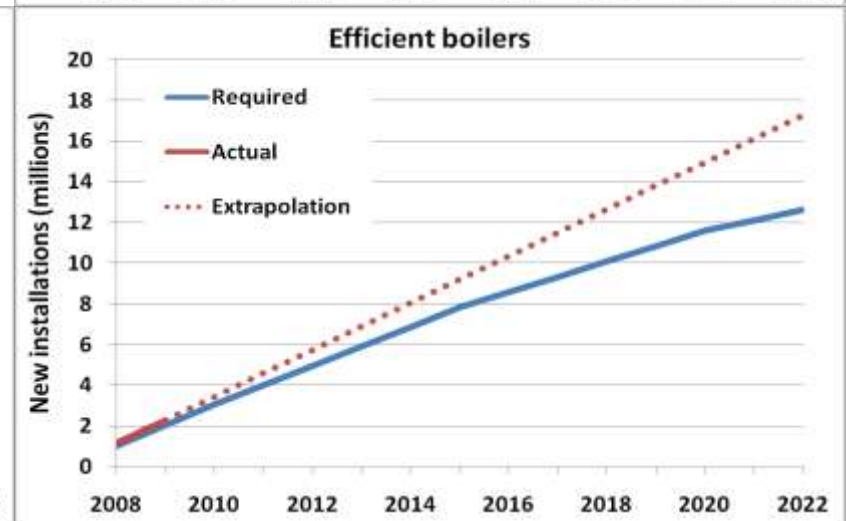
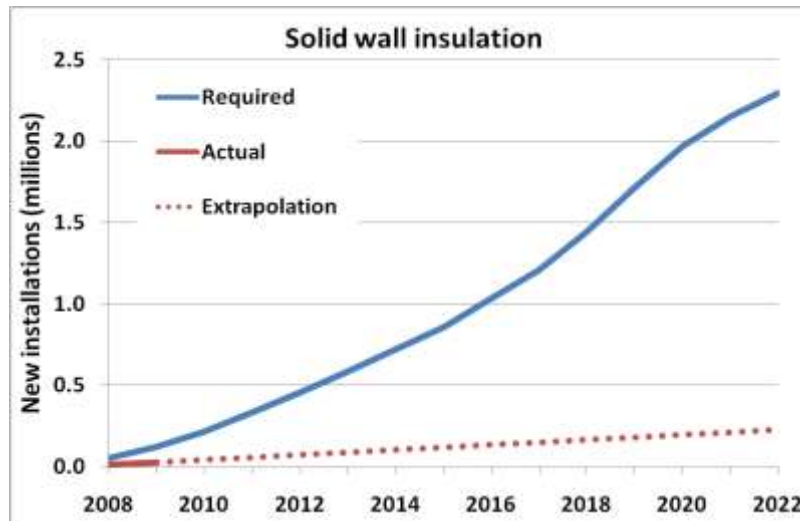
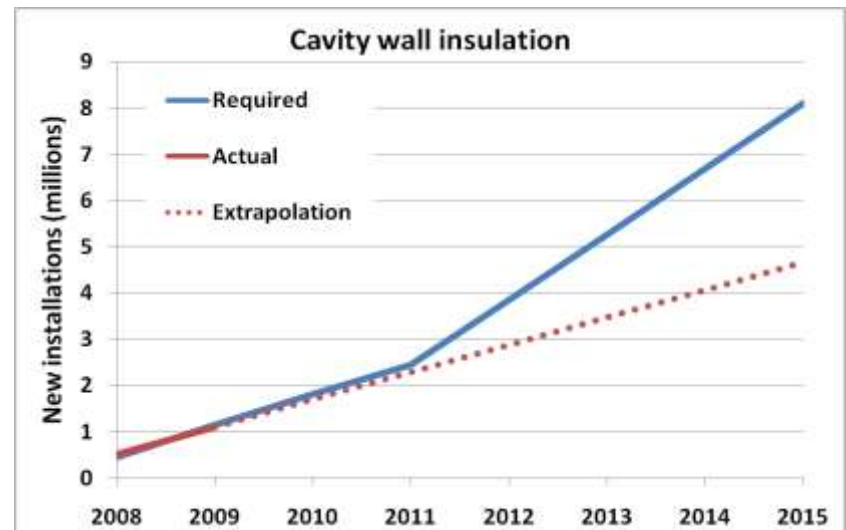


To decarbonise electricity generation we need substantial investment in renewables, CCS and nuclear

A step change in residential energy efficiency

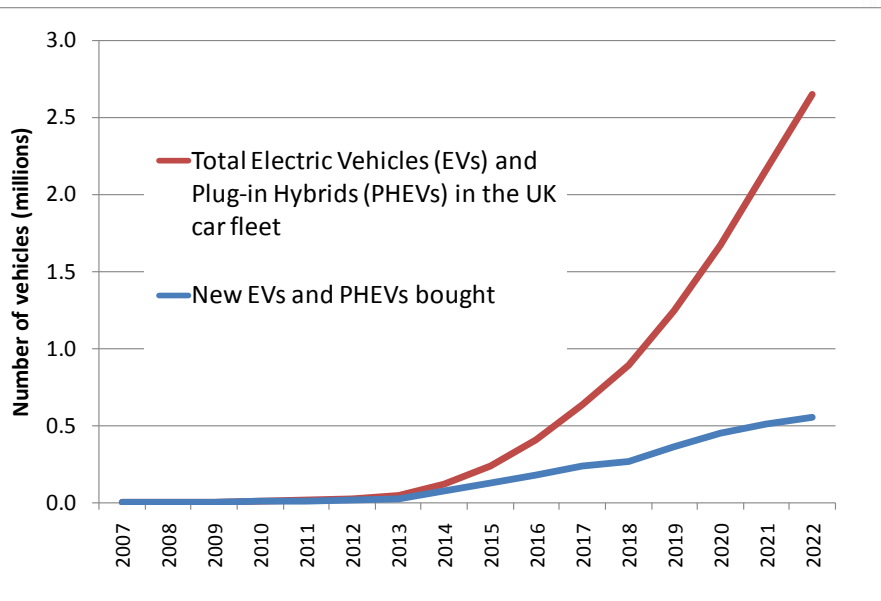
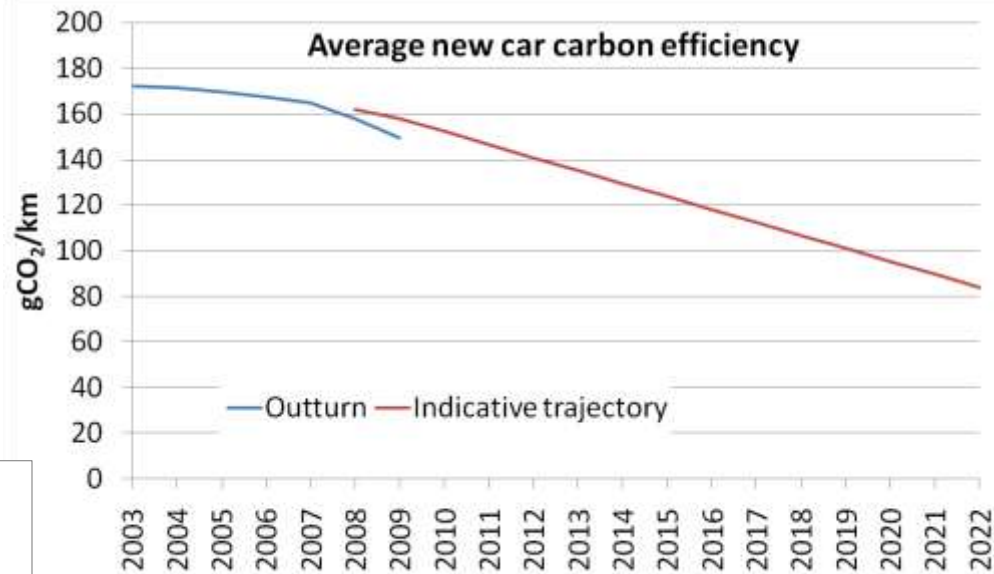
Moving from supplier obligations (CERT) to a

- whole house approach
- neighbourhood approach



More efficient and, eventually, electrified cars

- Meet EU target for new car emissions of 130g/km in 2015 and 95g/km in 2020
- Change in consumer behaviour



- Reduction in battery costs
- Development of a charging infrastructure
- Gradual uptake of plug-in hybrids and electric vehicles

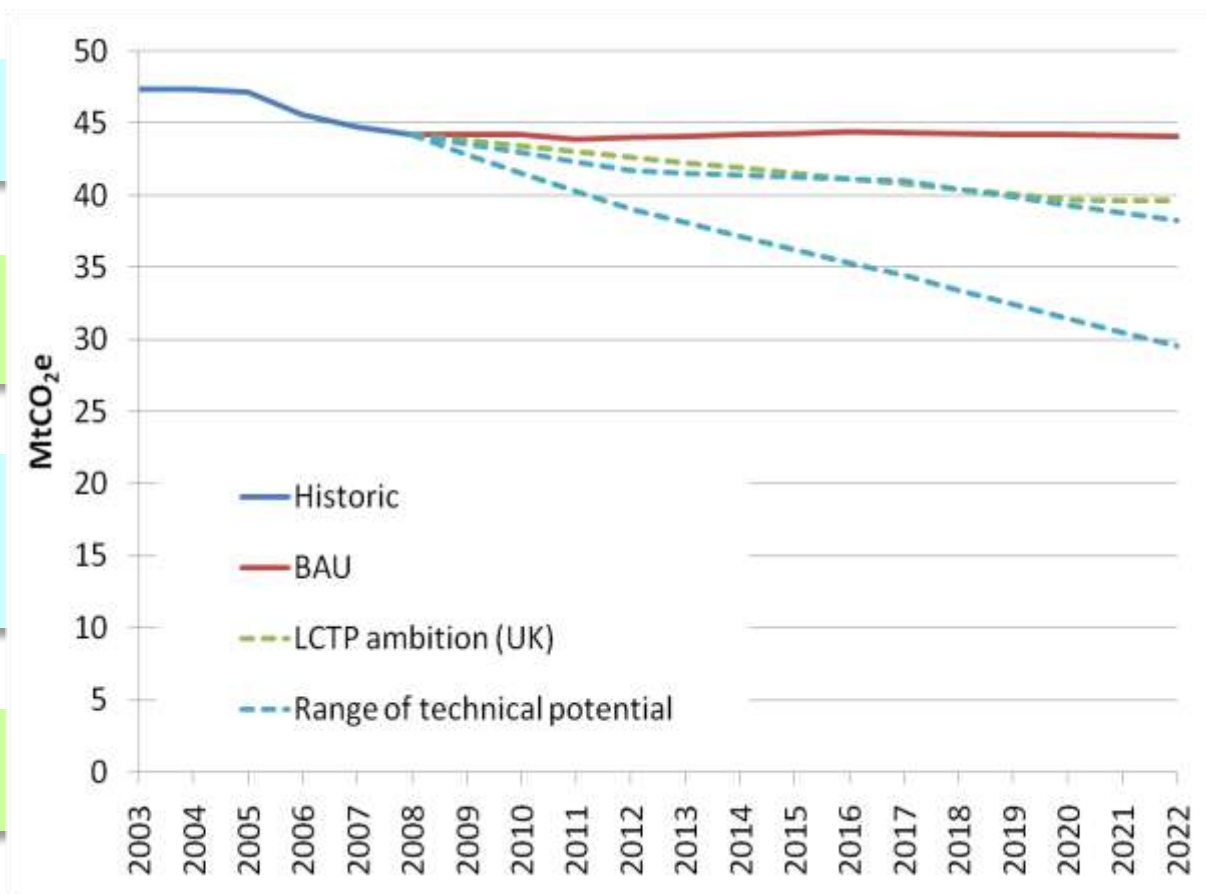
More ambition in agriculture

Ambition in Low Carbon Transition Plan appears low

Devolved Administrations should set their own targets

Policies beyond information provision / encouragement should be considered

More robust evidence base is needed



- LULUCF is included in the carbon budgets
- Net emissions have moved from marginally positive to marginally negative between 1990 and 2006
 - By 1990 net emissions will revert to 1990 levels due to fall in tree planting rates
- Preliminary findings of LULUCF mitigation options (including peat restoration) suggest limited abatement potential
 - Except forestry through sequestration and biomass supply
- We will consider evidence again in the 4th carbon budget

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What should the adaptation priorities be?

Priority should be given to:

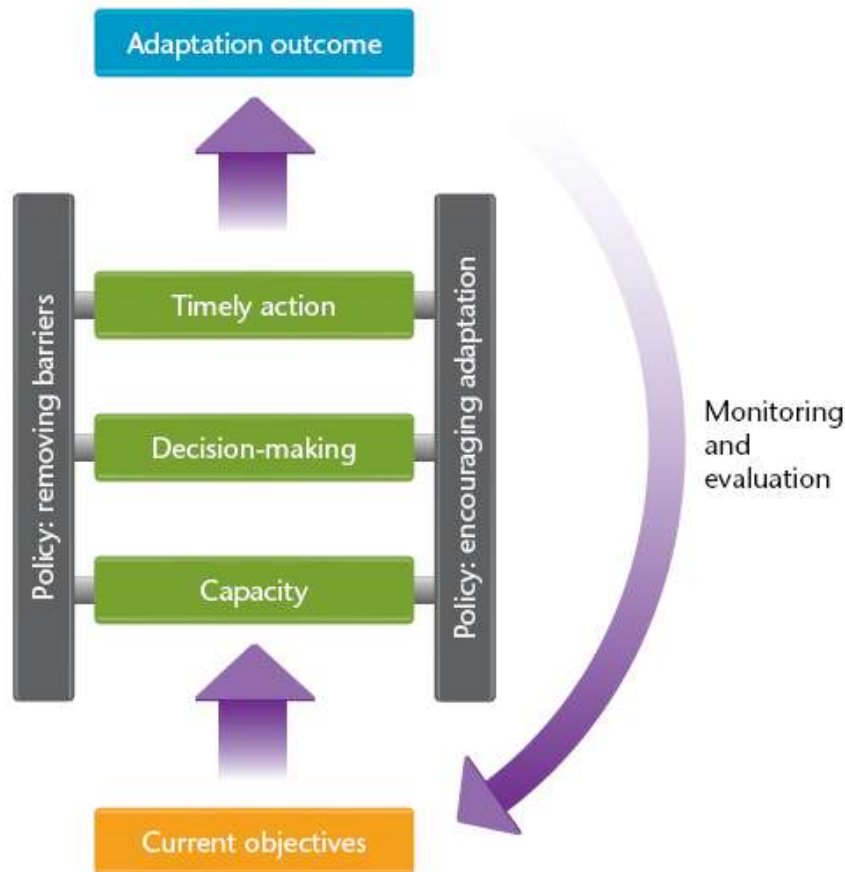
- Climate sensitive decisions
- Decisions with long-lasting consequences, including:
 - long-asset life
 - irreversible impacts
 - systemic consequences

Priority areas therefore are:

- Land-use planning
- Providing national infrastructure
- Designing and renovating buildings
- Managing natural resources
- Emergency planning

How prepared is the UK for climate change?

Moving up the Preparedness Ladder

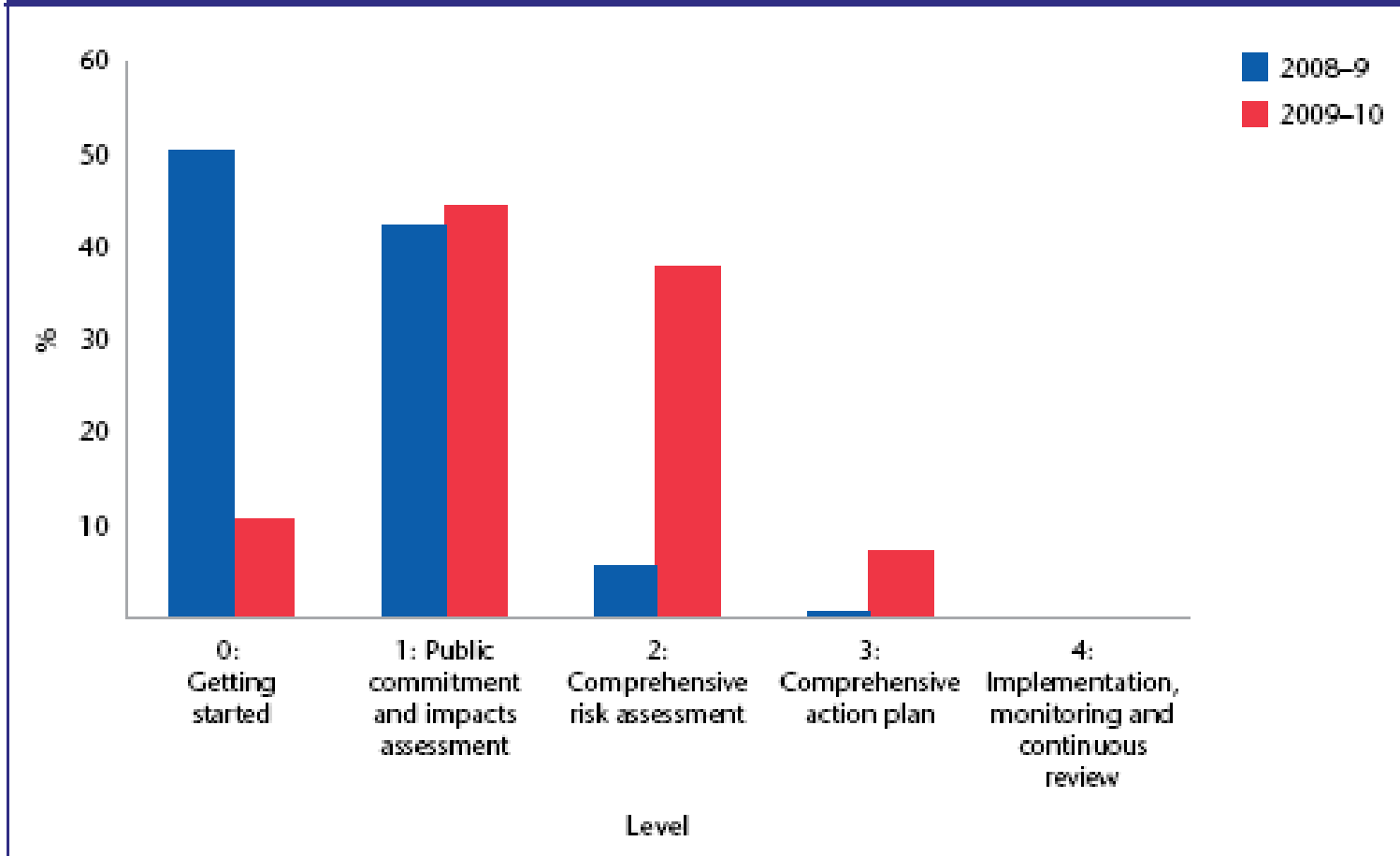


UK has started to build capacity in adaptation, but little tangible action on the ground

- Many organisations on the first rung of the ladder
- Some examples of organisations on the second rung (water supply, flood risk management)

National Indicator 188 confirms this

Figure 3.3: Percentage of local authorities at different stages of NI 188 from 2008-2010. The data presented includes results from county councils and unitary authorities.



Source: Communities and Local Government data hub.

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- UK GHG emissions are down, but largely due to recession
- A step change is needed to meet mandatory carbon budgets

- The UK has started the process of adaptation by providing information and increasing capacity
- There is little evidence that organisations have moved beyond planning and understanding

Future work of the Committee

2010

- Review of the second phase cap for the Carbon Reduction Commitment
- Advice on the level of the fourth budget

2011

- Review of renewable energy ambition
- Advice on the Scottish cumulative emissions Budget
- Third annual report to Parliament
- Advice on the Climate Change Risk Assessment (ASC)
- Second report on Adaptation Preparedness (ASC)
- Advice on use of offset credits to meet the second carbon budget
- Review of international shipping emissions
- Review of sustainable bioenergy

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