



SUMMARY OF JUNE 2021 REPORTS

Progress in Reducing Emissions
2021 Report to Parliament

Independent Assessment of UK
Climate Risk

Advice to Government
For The UK's Third Climate Change Risk Assessment
(CCRA3)

Progress in Adapting to Climate
Change

2021 Report to Parliament

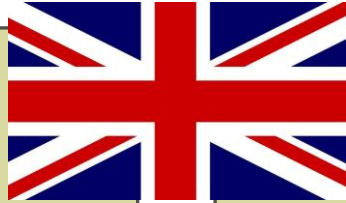
CLIMATE CHANGE COMMITTEE
JUNE 2021



Exec Summary



The UK is seen as one of the world leaders: The outlook is not good



Not on track to meet Net Zero targets by 2050

Nowhere near resilient to cope with the additional warming that is inevitable in the coming decades

We are not on track: The CCC's latest assessments



EMISSIONS

Not on track to meet Net Zero targets by 2050

Will the government's **Net Zero Strategy** be

- Ambitious enough?
- Published before COP26?

Top priorities: CCS*/industry, transport, agriculture & buildings

RISK & ADAPTATION

Adaptation action has failed to keep pace with the worsening reality of climate risk

Eight priorities identified for action over the next two years

- Including biodiversity, natural carbon stores, agriculture, power supply, overheating buildings, **multiple overseas risks**
- (Well-developed policies are in place for water scarcity & flooding)

Plan for high-impact risks, e.g. **tipping points, cascading risks**

Need for...

**Public Engagement Programme for Adaptation
UK Resilience Strategy**

Sustained Government leadership is needed, underpinned by a strong Net Zero Strategy

Urgently required ahead of COP26

The government are currently working on this strategy

Net Zero Strategy Recommendations

- A **Net Zero Test** would ensure that all Government policy, including **planning decisions**, is compatible with UK climate targets
- An ambitious **Heat and Buildings Strategy**, that works for consumers, is urgently needed
- Delayed plans on **surface transport, aviation**, hydrogen, biomass and **food** must be delivered
- Plans for the power sector, industrial decarbonisation, the North Sea, peat and energy from waste must be strengthened
- The big cross-cutting challenges of **public engagement, fair funding** and **local delivery** must be tackled

Risks are worse than previously expected; but the Race to Resilience has not yet started



“Newer projections suggest that some climate hazards in the UK – such as heatwaves and extreme rainfall – are now expected to be more severe than previously thought.”

Richard Betts
Head of climate impacts research at the Met Office Hadley Centre, chair in climate impacts at the University of Exeter and co-author of the technical report The Independent Assessment of UK Climate Risk Press Briefing

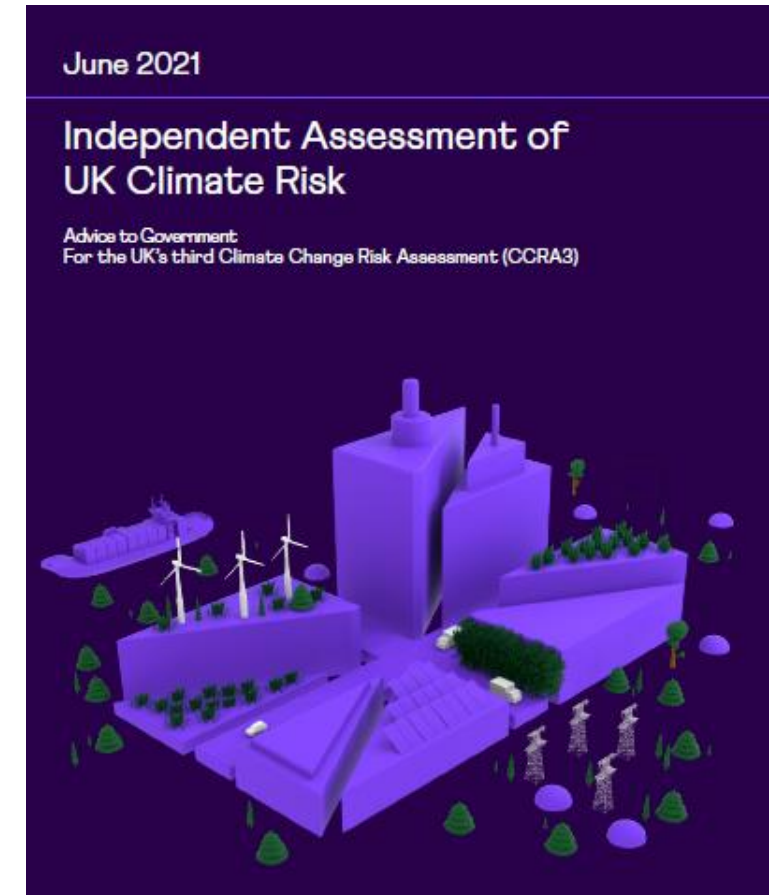
“The oddity for me really is that we are now experiencing climate change quite obviously...and yet the topic of resilience to those changes has a pretty low standing with ministers.”

Chris Stark
Chief Exec CCC
The Independent Assessment of UK Climate Risk Press Briefing

Adaptation action has failed to keep pace with the worsening reality of climate risk



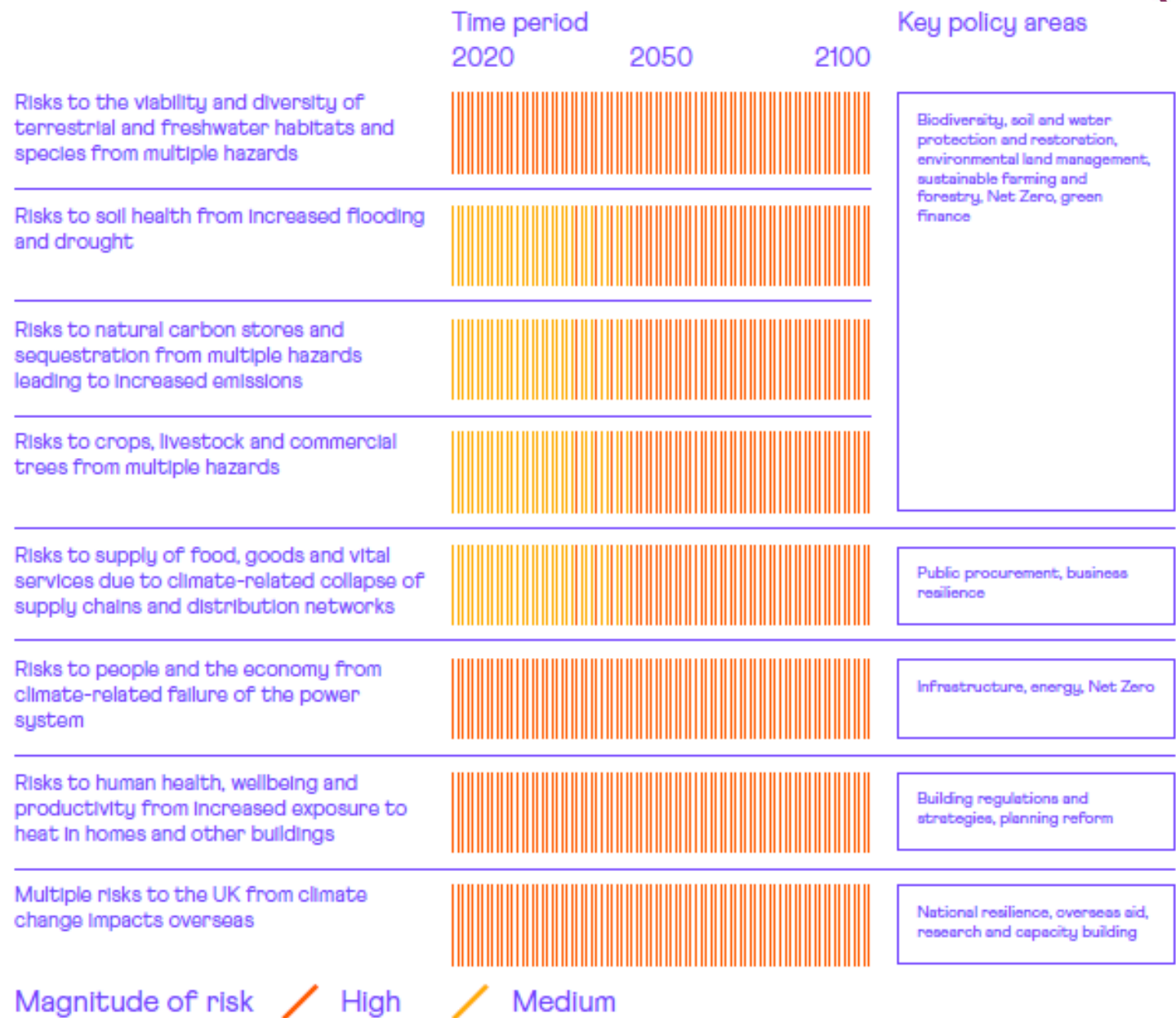
- ❖ **Further warming is inevitable**, even on the most ambitious pathways for the reduction of global greenhouse gas emissions
- ❖ The UK's weather and **climate will continue to be highly variable**
- ❖ Only by **preparing** for the coming changes can the UK protect its people, its economy and its natural environment
- ❖ The new evidence shows that the gap between **the level of risk we face and the level of adaptation underway has widened**
- ❖ Identifies **sixty-one risks and opportunities***, fundamental to every aspect of life in the UK: our natural environment, our health, our homes, the infrastructure on which we rely, the economy. **Eight priorities over the next two years**
- ❖ Acting now will be cheaper than waiting to deal with the consequences. **Government must lead** that action



Eight highest priorities

for UK adaptation in the next two years

- ❖ All risks are expected to worsen under warming of 2°C, with escalating impacts in a 4°C scenario, even with high levels of adaptation
- ❖ Key risks to the UK such as flooding and water scarcity also remain significant, but well-developed policies are in place, so they have relatively smaller gaps in adaptation planning



The Adaptation Committee's scoring of adaptation priorities

2021 (England only)

Agriculture & Health Sectors
at High Risk

Progress in managing risk (vulnerability & exposure)		
More progress		Less progress
Quality of plan	Lower	<ul style="list-style-type: none"> Ports (5 to 2*) Health impacts from heat and cold Human Pathogens Telecoms, digital and ICT Business opportunities from adaptation <p>4 2 1</p>
		<ul style="list-style-type: none"> Farmed habitats & species Agricultural productivity Development – surface water flooding Infrastructure interdependencies
	Higher	<ul style="list-style-type: none"> Commercial fisheries and aquaculture (2 to 5) Surface water flood alleviation (2 to 5) Extreme weather impacts on business (2 to 5) Marine and coastal habitats & species Water management Commercial forestry Recovery from flooding Airports Local road network Emergency Planning System Water demand by industry <p>7 5 3</p>
		<ul style="list-style-type: none"> Freshwater habitats and species (5 to 3) Supply chain interruptions (2 to 3) Terrestrial habitats & species Development – river or coastal flooding Property-level flood resilience Coastal erosion risk management Air quality
		<ul style="list-style-type: none"> River and coastal flood alleviation (5 to 8) Water demand – built environment Energy sector Rail network Public water supply infrastructure Strategic road network <p>9 8 6</p>



Other recent news supports the urgent need for adaptation and resilience



Climate change

IPCC steps up warning on climate tipping points in leaked draft report

Scientists increasingly concerned about thresholds beyond which recovery may become impossible

Fiona Harvey and agencies

Wed 23 Jun 2021 17:34 BST



▲ Dried area of the Penuelas Lake, in Valparaiso, Chile. Hunger, drought and disease will afflict tens of millions more people within decades, according to a draft UN assessment. Photograph: Martin Bernetti/AFP/Getty Images

“Previous work by the IPCC has been criticised for failing to take account of tipping points. The new report is set to contain the body’s strongest warnings yet on the subject.”

Climate change

Canadian inferno: northern heat exceeds worst-case climate models

Scientists fear heat domes in North America and Siberia indicate a new dimension to the global crisis

Jonathan Watts

Twitter: @jonathanwatts

Fri 2 Jul 2021 16:28 BST



▲ A wildfire burning on a mountainside in Lytton, British Columbia, on Thursday. Photograph: Canadian Press/Rex/Shutterstock

“There is something else going on with this heatwave, and indeed, with many of the very persistent weather extremes we’ve seen in recent years in the US, Europe, Asia and elsewhere, where the models aren’t quite capturing the impact of climate change.”

[https://www.theguardian.com/environment/2021/jun/23/climate-change-dangerous-thresholds-un-report;](https://www.theguardian.com/environment/2021/jun/23/climate-change-dangerous-thresholds-un-report)

<https://www.theguardian.com/environment/2021/jul/02/canadian-inferno-northern-heat-exceeds-worst-case-climate-models>



We need to prepare now

- ❖ Climate change is here, now
 - Bringing with it extreme weather events and uncertainty
- ❖ We need to ensure our mitigation efforts are fully complemented with resilient adaptation measures
- ❖ Get in touch to find out how best we can support you



Group of Hertfordshire residents concerned
with climate risk and adaptation
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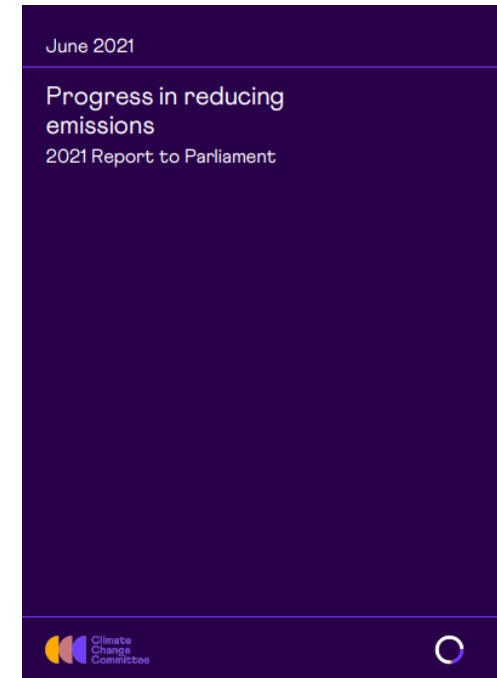


@HEARTCommGroup



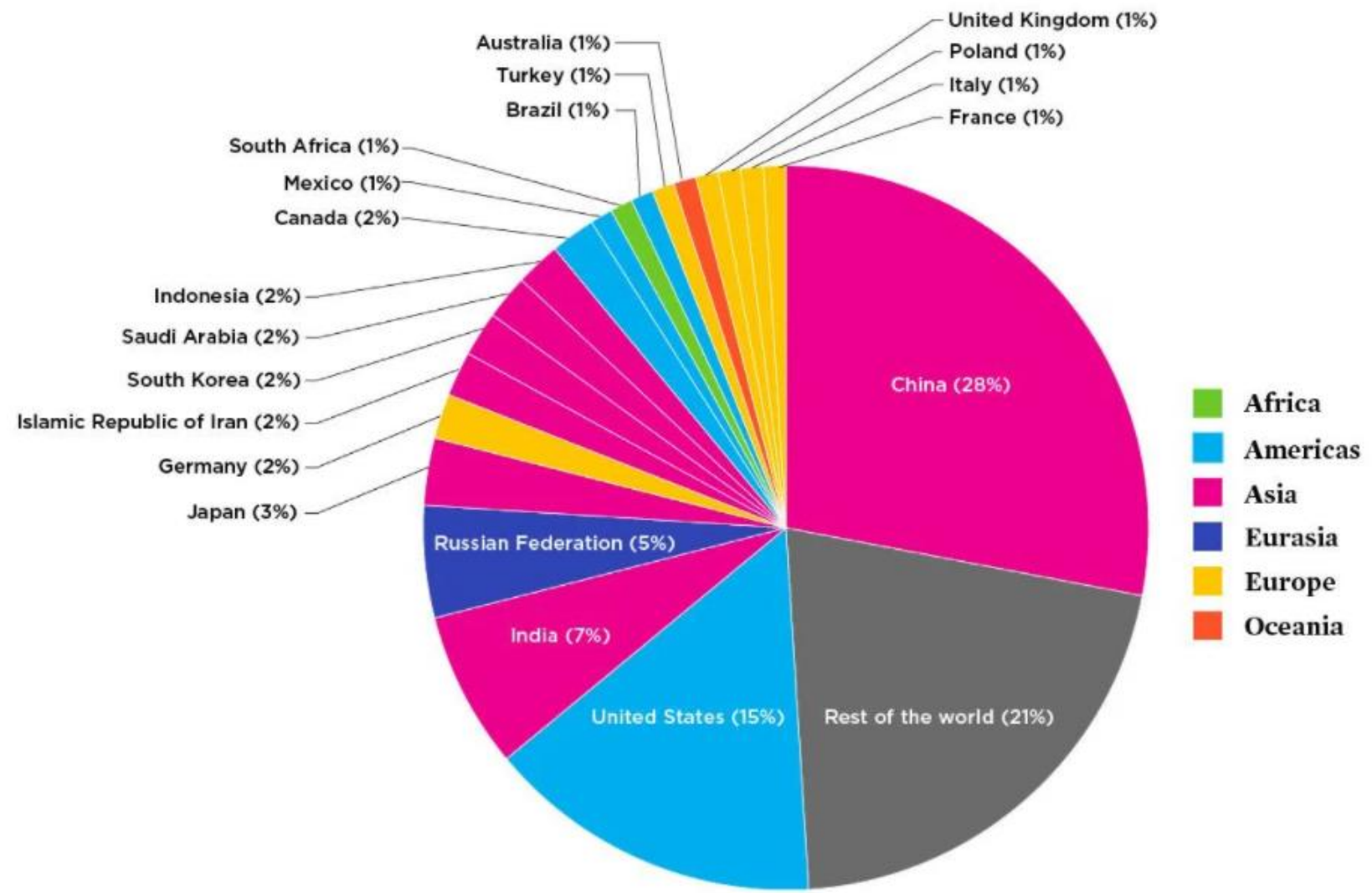
HEARTCommunityGroup@gmail.com

Progress in reducing emissions



In Context: UK 1% of global emissions

Are we really going to make
a difference? Strong
leadership...?



© 2020 Union of Concerned Scientists
Data: Earth Systems Science Data 11, 1783-1838, 2019

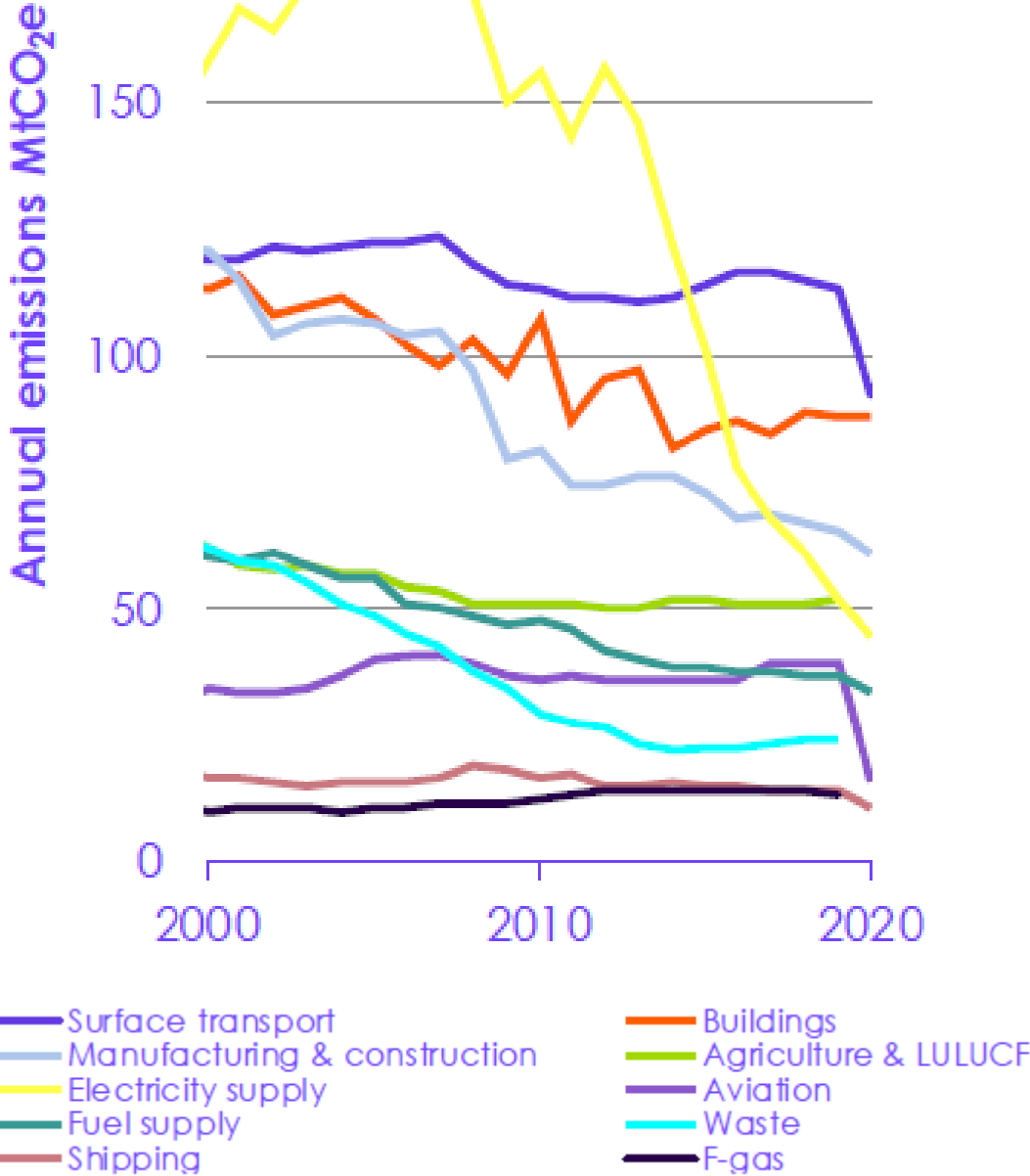
High ambitions on Net Zero, but lagging on policy

Success in decarbonising electricity must continue

Must be matched in:

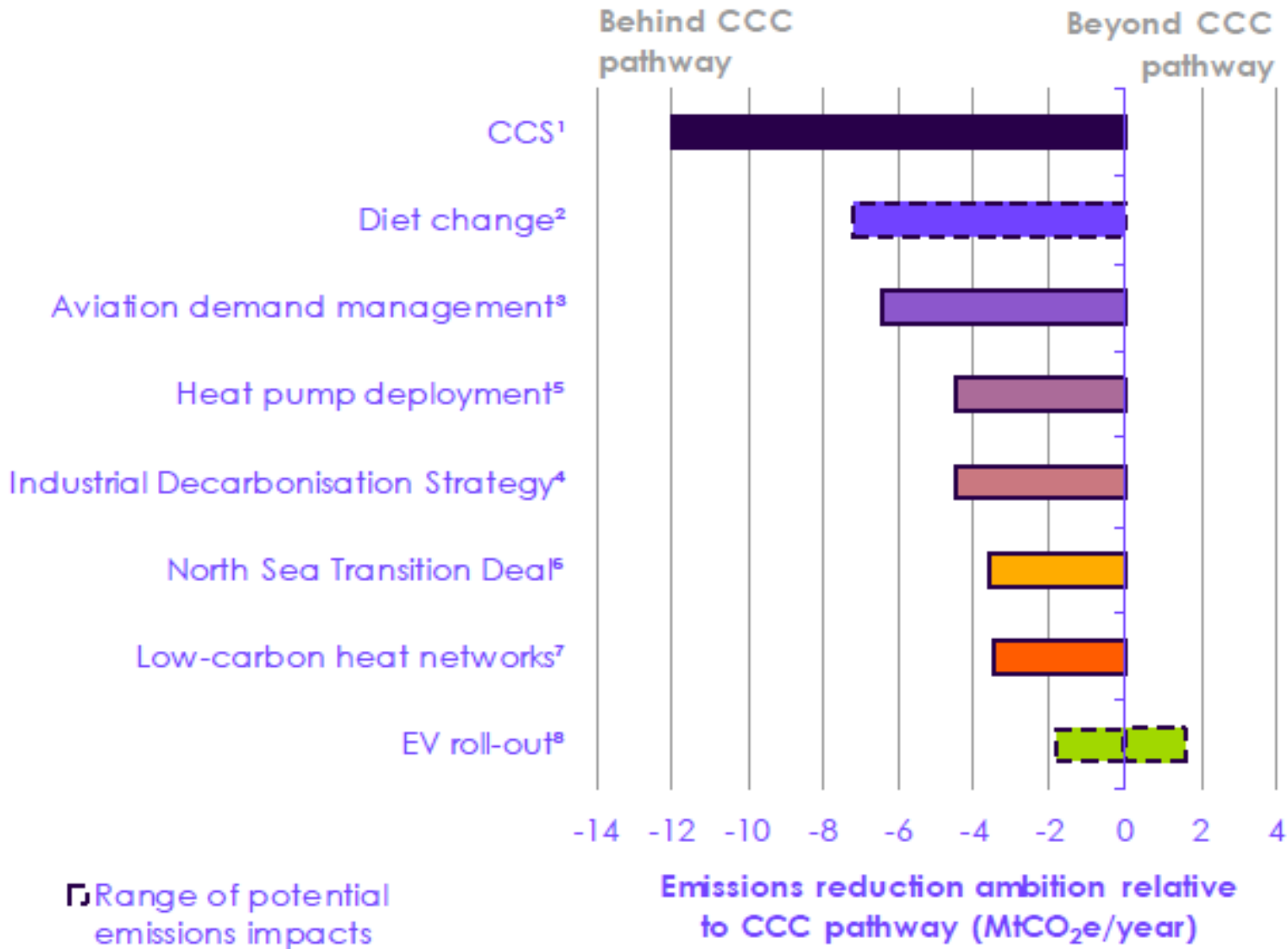
- Buildings, transport, industry & agriculture

COVID-19 lockdown measures led to a record decrease in UK emissions in 2020



Not currently on track to reach Net Zero in 2050

Government commitments compared to the CCC pathway between 2025-2035



Sustained Government leadership is needed, underpinned by a strong Net Zero Strategy

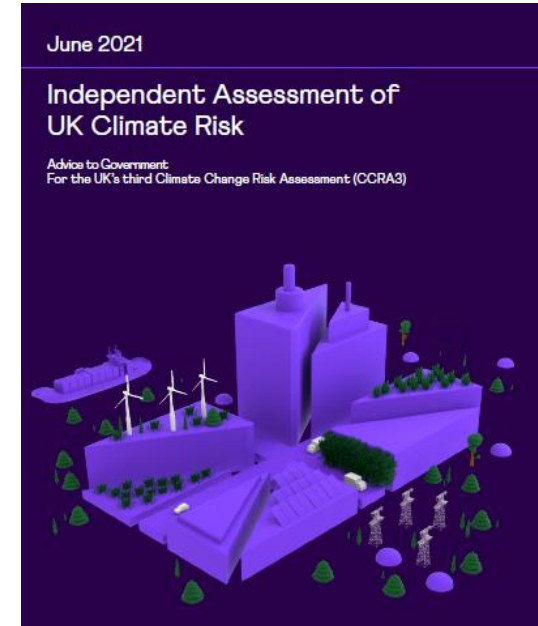
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Independent Assessment of UK Climate Risk



Overview of Adaptation Planning

We are here



- The Independent Assessment considers risks today under 1.2°C of observed warming, as well as under two main future pathways
 - broadly equivalent to global warming of 2°C and 4°C above pre-industrial levels
- Includes more socio-economic analysis than previous reports

Adaptation action has failed to keep pace with the worsening reality of climate risk



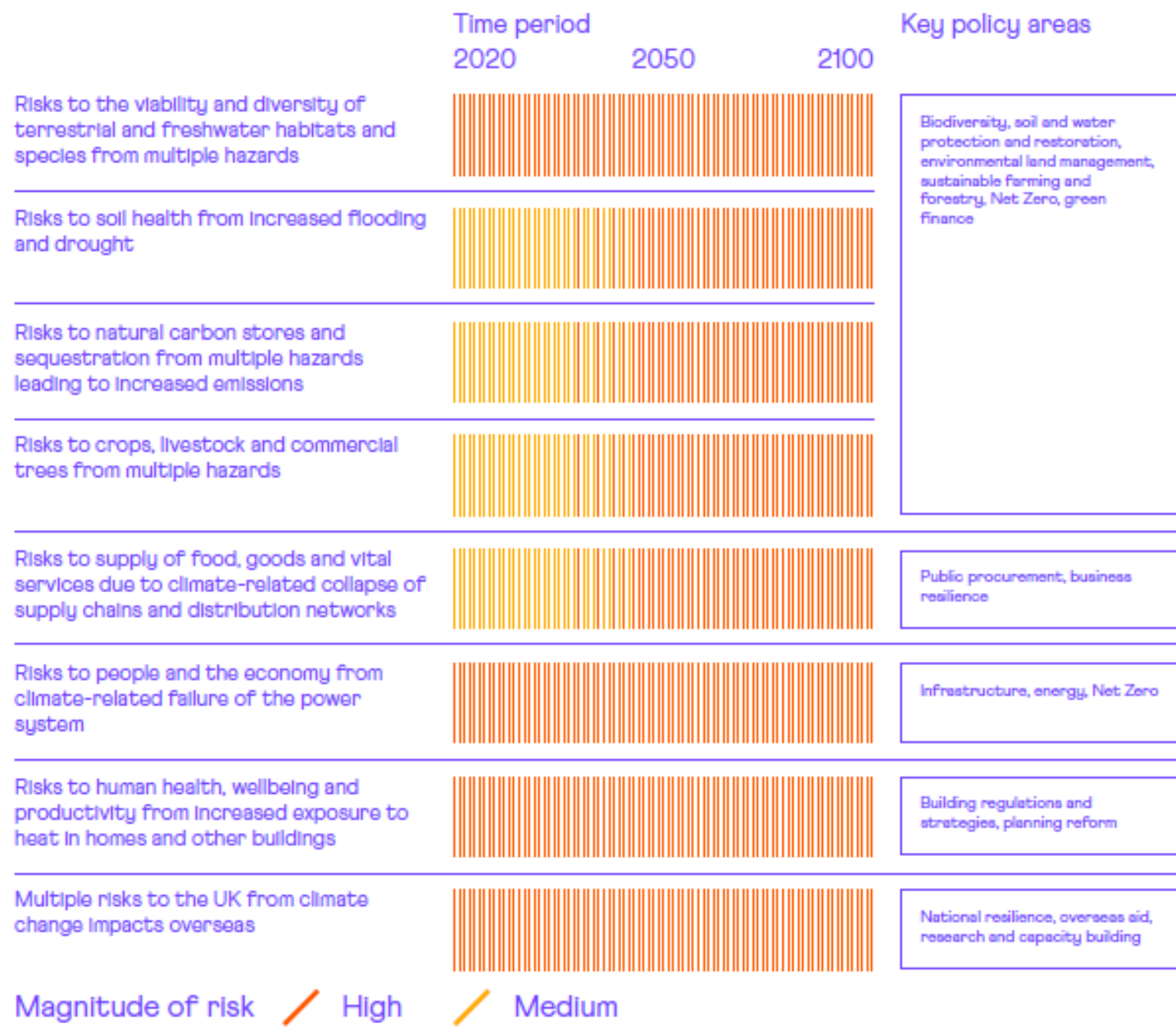
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More emphasis on risks from overseas and risk amplification



- ❖ Evidence since CCRA2 shows that the **urgency of action for some of the risks associated with the international dimensions of climate change is greater than previously assessed.** These risks include **food security, violent conflict, international law and governance, and public health**
- ❖ **The world is more vulnerable to the transmission and amplification of risk than it was.** Accordingly, this CCRA Technical Report introduces a new risk: that of risk amplification from the interactions and cascades of named risks across systems and geographies
- ❖ The future is increasingly TUNA: turbulent, uncertain, novel and ambiguous
- ❖ The potential for disruption is high given the complexity of our global systems today, and the uncertainty of how they will develop over the next decade
- ❖ The ability to predict specific events and plan around them, is comparatively very small

Example recommendations to Government



- Multiple risks to the UK from climate change impacts overseas -

The current model of conventional risk governance in the UK, which focuses on single events, single sectors and characterisation of reasonable worst-case scenarios, should be updated to **address cascading climate risks**

Opportunities to integrate adaptation include:

- ❖ Increased capacity building by FCDO programmes overseas to **improve global capacity for climate resilience**
 - ❖ ties in with the UK Government's 'levelling up' agenda and its aims for global leadership, including through presidencies of the G7 and upcoming UN climate talks (COP26)
- ❖ Increased research and capacity building by BEIS via its International Climate Finance work overseas
- ❖ Increased research through the BEIS Global Challenges Research Fund (GCRF)
- ❖ Development of a **UK Resilience strategy** by the Cabinet Office
- ❖ Clear commitments at **COP26** to leverage increased adaptation financing and **support developing countries** with capacity building for implementing national adaptation actions

High-impact events can occur within the standard range of climate outcomes



Potential extreme events that could ‘tip’ particular systems into severe impacts

- ❖ e.g. Consecutive seasons with stable atmospheric circulation patterns driving a very dry summer followed by a dry winter; could lead to severe drought

Other high-impact climate changes could still be possible and must be planned for



The CCC rate these as low-likelihood, but UN leaked report must question this*

- ❖ These changes include **global warming higher than 4°C** by 2100, and **potential instabilities** such as;
 - collapse in the Atlantic Overturning Circulation, or large shifts in the position of the North Atlantic Jetstream
 - collapse of the Greenland or West Antarctic ice sheets
 - significant and rapid greenhouse gas release from thawing permafrost
- ❖ These changes could have a large impact on UK climate. At present there are **no monitoring systems** to consider whether many of these changes are imminent
- ❖ Storyline approaches or the use of **'what if' scenarios** could be useful to help consider these low-likelihood impacts in risk assessments

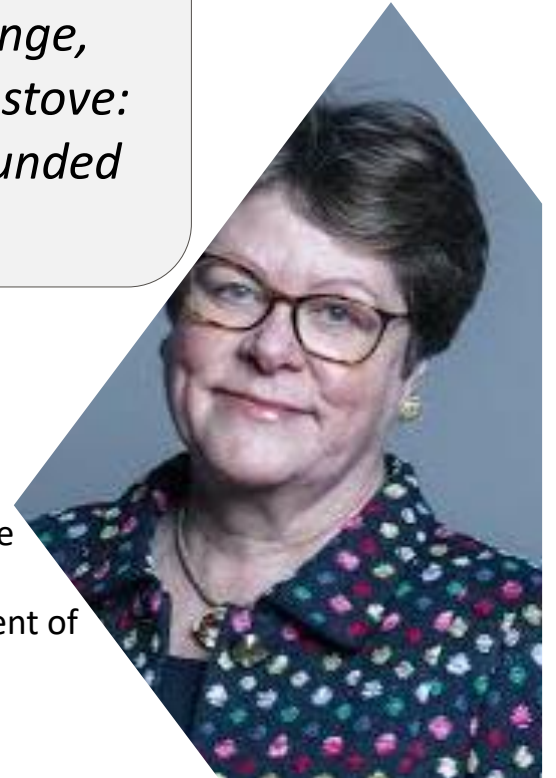
Without action on adaptation we will struggle to deliver key Government and societal goals, including Net Zero itself



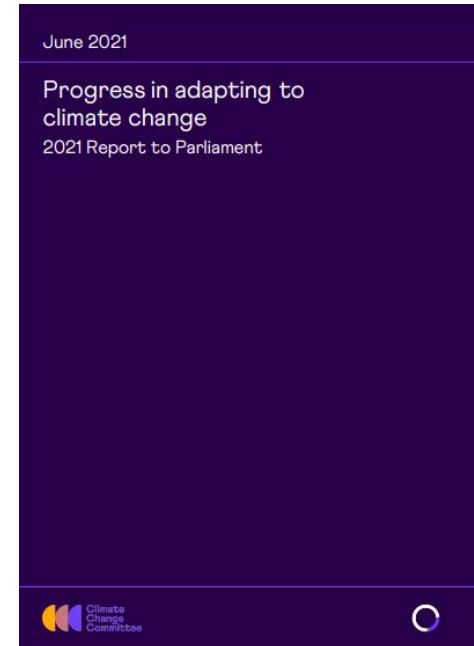
- Restore 100% of upland peat by 2045, including through a ban on rotational burning
- Bring forward proposed plans to **address overheating risk in homes** through Building Regulations
- Make the Government's next round of the Adaptation Reporting mandatory for all infrastructure sectors
- Build a **strong emergency resilience capability** for the UK against climate shocks, learning from the COVID-19 response
- Implement a **public engagement programme** on climate change adaptation

"Adaptation remains the Cinderella of climate change, still sitting in rags by the stove: under-resourced, underfunded and often ignored."

Baroness Brown
Chair of the Adaptation
Committee, Climate Change
Committee
The Independent Assessment of
UK Climate Risk Report
June 2021



Progress in adapting to climate change



Progress in adapting to climate change is not keeping up with the increasing risks facing the country*



- ❖ No sector is scoring highly in lowering its level of risk
- ❖ Five of 34 sectors have shown notable progress
- ❖ There are **no actions** in the National Adaptation Programme in response to **the risks to the UK from climate change overseas**
- ❖ The National Adaptation Programme for England has not developed national preparedness **for even a 2°C rise** in global temperature, let alone higher levels of warming that are possible by the end of the century

The Government must show it has a **positive vision for a well-adapted country**, with **policies and regulations** to address all of the key risks set out in the Climate Change Risk Assessment

June 2021

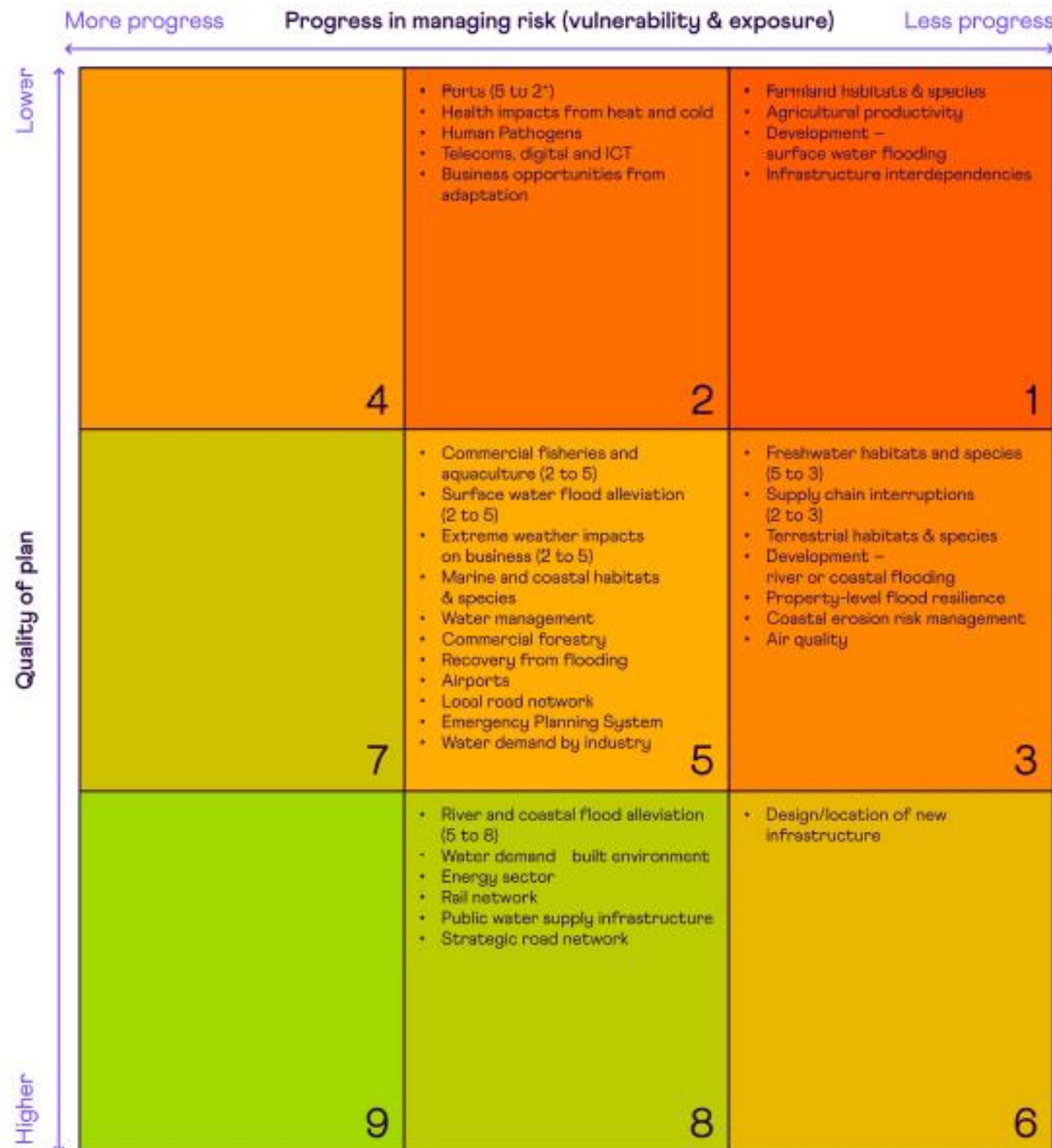
Progress in adapting to climate change 2021 Report to Parliament



The Adaptation Committee's scoring of adaptation priorities

2021 (England only)

Agriculture & Health Sectors
at High Risk



Government response to the Independent Assessment



DEFRA

“We are already seeing the impacts of climate change across the UK.

We recognise the urgency outlined in the Climate Change Committee’s Independent Assessment.

We will carefully consider and respond to the CCC’s findings and recommendations, with a full and formal response to the CCC’s findings laid in Parliament in January 2022 that will set out a forward look for adaptation in the UK.

In particular, we will pay close attention to the eight priority risk areas flagged by this report.

Our next National Adaptation Programme will address these risks, and build a more resilient United Kingdom.”



Our Focus

Awareness, Education, Advocacy

- ❖ **Engage and campaign with local leaders**
(political, health & community organisations)
Inform, support and urge them to;
 - advocate for adaptation and resilience
 - communicate the importance of community resilience
 - 'Tell the Truth' about how dire the predicament is
 - model kindness / love / caring
- ❖ **Educate** through social media, talks, articles, retreats and workshops

Contribute to community resilience

- ❖ **Provide support in:**
 - Personal and community resilience and clarity
 - Mental health & wellbeing
 - Provide opportunities for people to engage in 'inner' and 'outer' adaptation
- ❖ **Build** a co-nourishing network of people who are adapting and preparing – and learning with and from each other
- ❖ **Signpost** to resources, support and partner organisations

We need to prepare now

- ❖ Climate change is here, now
 - Bringing with it extreme weather events and uncertainty
- ❖ We need to ensure our mitigation efforts are fully complemented with resilient adaptation measures
- ❖ Get in touch to find out how best we can support you



The pasque flower is the county flower of Hertfordshire, classed as 'vulnerable / near-threatened' in Britain. The name refers to the Easter (Passover) flowering period, in the spring; symbolic of rebirth and transformation

Group of Hertfordshire residents concerned with climate risk and adaptation
Committed to local community resilience, both practically and emotionally



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Appendix

CCC Press Releases

June 2021



Time is running out for realistic climate commitments

<https://www.theccc.org.uk/2021/06/24/time-is-running-out-for-realistic-climate-commitments>

UK struggling to keep pace with climate change impacts

<https://www.theccc.org.uk/2021/06/16/uk-struggling-to-keep-pace-with-climate-change-impacts/>

Media articles about the Independent Assessment

❖ UK warned it is unprepared for climate chaos.
Roger Harrabin. BBC News

<https://www.bbc.co.uk/news/science-environment-57487943>

❖ UK less prepared for climate crisis now than five
years ago, government advisers warn. Daisy
Dunne. The Independent

<https://www.independent.co.uk/climate-change/news/uk-not-prepared-climate-crisis-b1866489.html>

❖ CCC: Adaptation to climate risks 'underfunded
and ignored' by UK government. Carbon brief

<https://www.carbonbrief.org/ccc-adaptation-to-climate-risks-underfunded-and-ignored-by-uk-government>

Ten principles for good adaptation planning



- ❖ Set out a vision for a well-adapted UK
- ❖ Integrate adaptation into policies, including for Net Zero
- ❖ Adapt to 2°C; assess the risks up to 4°C
- ❖ Avoid lock-in (e.g. Early action for major infrastructure projects)
- ❖ Prepare for unpredictable extremes
- ❖ Assess interdependencies
- ❖ Understand threshold effects
- ❖ Address inequalities
- ❖ Consider opportunities from climate change
- ❖ Support the implementation of adaptation through funding, resources, indicators, and research to link adaptation actions to reductions in risk

Embed adaptation into key policies

Key current and upcoming policies include;

- ❖ Plan for Growth
- ❖ National Infrastructure Strategy
- ❖ Environment Bill
- ❖ Environmental Land Management Scheme
- ❖ Tree and Peat Action Plans
- ❖ Net Zero Strategy
- ❖ Planning Bill and developments in energy, housing and health policy

The National Adaptation Programme does not include any actions on addressing the risks to the UK from climate change overseas



- ❖ **International risks that are especially relevant** to the UK, identified by CCRA2 (and so relevant for NAP2), fall into the following categories:
 - **global trade and supply chains, especially for food**
 - making prices more volatile and/or altering productivity in the long-term
 - **migration and displacement**
 - **broader geopolitical and macroeconomic issues**

Big shift in public perceptions of climate risks and adaptation in the UK



RESil RISK: Major new survey carried out by Climate Outreach in collaboration with the University of Cardiff reveals biggest shift yet in public perceptions of climate risks and adaptation in the UK

Topline findings of the survey of over 1400 nationally-representative adults in October 2019 include:

- ❖ Climate change was ranked the second most important issue facing the UK
- ❖ Climate concern has doubled in the past four years, with 40% saying they were now 'very or extremely' worried
- ❖ **75% of survey respondents supported using public money now to prepare the UK for climate risks**