

Is the UK prepared?

Resilience in floods, fires and food as climate impacts rise

Inquiry report



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The inquiry

This Environment APPG inquiry was informed by a combination of written and oral evidence, from a host of different organisations.

We held two oral evidence sessions for cross-party Parliamentarians to question expert witnesses from businesses, trade associations, charities, advocacy groups and scientific bodies. The first focused on flooding and the broader climate resilience of UK housing and infrastructure. The second explored the current and future impacts on UK nature and food production, and how these could be adapted. We also gathered written evidence examining similar topics including housing, critical infrastructure, the food system and nature.

Thanks to the following organisations that gave evidence: Flooded People, Zurich Insurance Group, AtkinsRéalis, WSP, Institute of Sustainability and Environmental Professionals, techUK, UK Green Building Council, Woodland Trust, Royal Botanic Gardens, Kew, RSPB, Soil Association, Nature Friendly Farmers Network, National Farmers Union, UK Health Alliance on Climate Change, The Climate Majority Project, Santander UK, Royal Entomological Society, Rewilding Britain, Plantlife, Mineral Products Association, the Lancet Countdown on Health and Climate Change, The Wildlife Trusts, LSE Grantham Research Institute on Climate Change and the Environment, National Oceanography Centre and the National Heat Risk Commission.

Foreword



Fleur Anderson MP,
Chair of the
Environment APPG

This is not a usual foreword because this is not a usual issue.

If you are in Parliament, in local government, national security, unions, planning and building, the food industry, farming, insurance, transport, healthcare, education, this report is for you.

I am writing this during the intense heatwave of July and we've already had record rainfall and flooding at the start of the year and unprecedented heatwaves in May and June. Heatwaves cost 1,500 lives last year and 1,000 schools closed in the June heatwave. Extreme weather is impacting food too. Over the past decade, the UK has seen three of the five worst cereal harvests on record.

Yet, when I posted on social media my question to the Prime Minister about whether the government is prepared, I had a whole pile-on of comments about how this is 'just summer', that any action is really over the top and climate change is a fiction.

The facts are different and we heard in our inquiry sessions from impacted communities, infrastructure providers, insurance companies, banks, public health workers, trade associations, scientists, charities and farmers.

The message has been unequivocal. The UK is fundamentally unprepared.

It's a national security issue which needs national, local and household response and the government needs to lead this preparedness.

Parliamentarians of all stripes are concerned. And they should be. I'd like to thank all of them who took part in the inquiry sessions and have already taken up

these issues, and I hope this report will enable many more to join the calls for strategic changes that will make a huge difference.

No constituency across the UK is immune to a destabilised climate. I was surprised by how much higher the impacts are in urban areas, and especially in London.

Without action, deaths from extreme heat, and the costs of flooding and food prices will rise. If the UK remains unprepared, extreme weather will expose inequalities. Rocketing food prices will squeeze families that can least afford it. Ethnic minority communities are especially vulnerable to extreme heat. And rising floods will trap elderly people in homes they can't afford to adapt.

Listening to the inquiry sessions there was a lot said about trees and planning, but there is more to it than that, and it needs the government to have a champion at the top and more joined up and accountable processes. Otherwise, long term planning always gets dropped in favour of short term issues.

Please look for the recommendations that apply to you and let's use this report to galvanise change.

"At the beginning of this year, the South West was hit by two storms in a matter of days. Both exposed the vulnerability of our defences and key infrastructure like the main rail line to Devon and Cornwall, which is vital for the local economy. As extreme weather increases, serious questions remain for government preparations, resilience, and urgent response."

Rebecca Smith MP, vice chair of the Environment APPG

"Our inquiry helped us to understand how devastating extreme weather events are for communities not just far away but here at home. Inaction on climate change has a higher cost than acting to keep dangerous temperature rises under control. We must get better at communicating with our citizens about the choices."

Wera Hobhouse MP, vice chair of the Environment APPG

"One of the greatest threats to public safety is climate breakdown and ecosystem collapse, with the increasing frequency and severity of extreme heat, flooding, food and water scarcity, critical infrastructure failures and risks to public health. These threats are no longer distant. They're in the here and now. We must increase our collective focus, and the government's focus, on climate adaptation and resilience. This must involve creating a cabinet office minister for adaptation to lead the cross-government work this demands."

Adrian Ramsay MP, vice chair of the Environment APPG

"The climate crisis isn't a far-off threat; the effects are here already, but some people are at far greater risk - the evidence is clear that when temperatures soar it is marginalised groups that suffer the most. For people who can't work from home, have manual jobs, those living in cramped conditions without access to outdoor space, soaring temperatures feel far worse. We must take action to address this. Extreme temperatures are set to be our new norm and we cannot continue to pretend otherwise. The UK has an opportunity here to learn lessons in resilience from other countries at the forefront of the climate crisis - we must act now before it is too late."

Uma Kumaran MP, chair of the Climate APPG

"The climate crisis is compounding threats to iconic UK wildlife, from puffins to butterflies to English oak. We know that nature underpins our food system, our health and a stable environment. Restoring and adapting ecosystems such as soils, peatlands and coastal marshes can also improve resilience to extreme weather. This must add impetus to tackling nature's decline."

Professor Baroness Willis

"For too long, adaptation has been the Cinderella of climate policy. The extreme heat of the past two summers are merely a prelude to even more severe and more frequent heatwaves in the future. As a country we are ill-prepared for this and it's time for a wake-up call".

Professor Lord Krebs

Key recommendations

Our inquiry made clear that climate change is a systemic and wide-ranging risk to the UK. Similarly, the actions needed to prepare and adapt where possible cut across economic sectors, levels of government and people's lives.

This report sets out some priorities but does not attempt to provide a full roadmap.

Fundamentally, climate resilience must be brought into the heart of government.

Our top recommendations are:

1. **Move responsibility for climate resilience** from the Department for Environment, Food and Rural Affairs (Defra) to the Cabinet Office and assign responsibility for adaptation to an existing Cabinet Minister, with an annual Cabinet meeting on climate resilience.
2. **The Cabinet Office should lead** on outcome-based resilience standards across energy, transport, water and telecoms infrastructure, and properly integrate food resilience into National Adaptation Programme 4 (2028-33).
3. **The Ministry of Housing, Communities and Local Government (MHCLG) should work with local authorities** to tighten planning and building regulations and prevent development in high flood risk areas, ensuring high resilience standards are met, such as through sustainable urban drainage systems and property level measures.
4. **Nature should be at the heart of efforts to make the UK more resilient** and habitats should be restored to regulate the climate, including waterways through the Clean Water Bill.

Climate impacts are here and growing

Climate change threatens the NHS, energy infrastructure, food supplies and people's homes and communities. The greatest and least understood risks arise when cascading impacts combine to undermine basic services. For example, floods can disrupt transport, power, water and telecoms simultaneously, preventing an effective response. Those already struggling with health problems and on lower incomes are most at risk.

Our future under these impacts is inherently uncertain. Predicted tipping points caused by climate breakdown, like the Atlantic Meridional Overturning Circulation system of ocean currents ceasing to push warm water towards the UK, could see freezing weather for months at a time as well as overheating in the summer.¹

Homes and flooding

Now: 6.3 million homes and businesses are at risk of flooding in England.²

Future: The cost of annual UK coastal flood damage is projected to increase two to three times by the 2080s.³

Extreme heat and public health

Now: Almost 3,000 people suffered heat related deaths in 2022 in England and Wales. One in five hospitals in the UK cancelled operations during the 2022 heatwave.⁴

Future: In 2050, 92% of existing homes could suffer from overheating. Drier summers mean shortfalls in water supply could reach over five billion litres per day.⁵

Food and farms

Now: Sixty per cent of England's most productive farmland is already considered to be at highest flood risk level. Over the past decade the UK has seen three of the five worst cereal harvests on record.⁶

Future: Government intelligence has warned that climate change and other sources of ecosystem collapse could mean the UK will struggle to maintain its food supply as early as 2030.⁷

Infrastructure

Now: It is estimated that flooding costs the UK £3.3 billion per year already.⁸ Tenbury Wells has become the first UK town with uninsurable public buildings.⁹

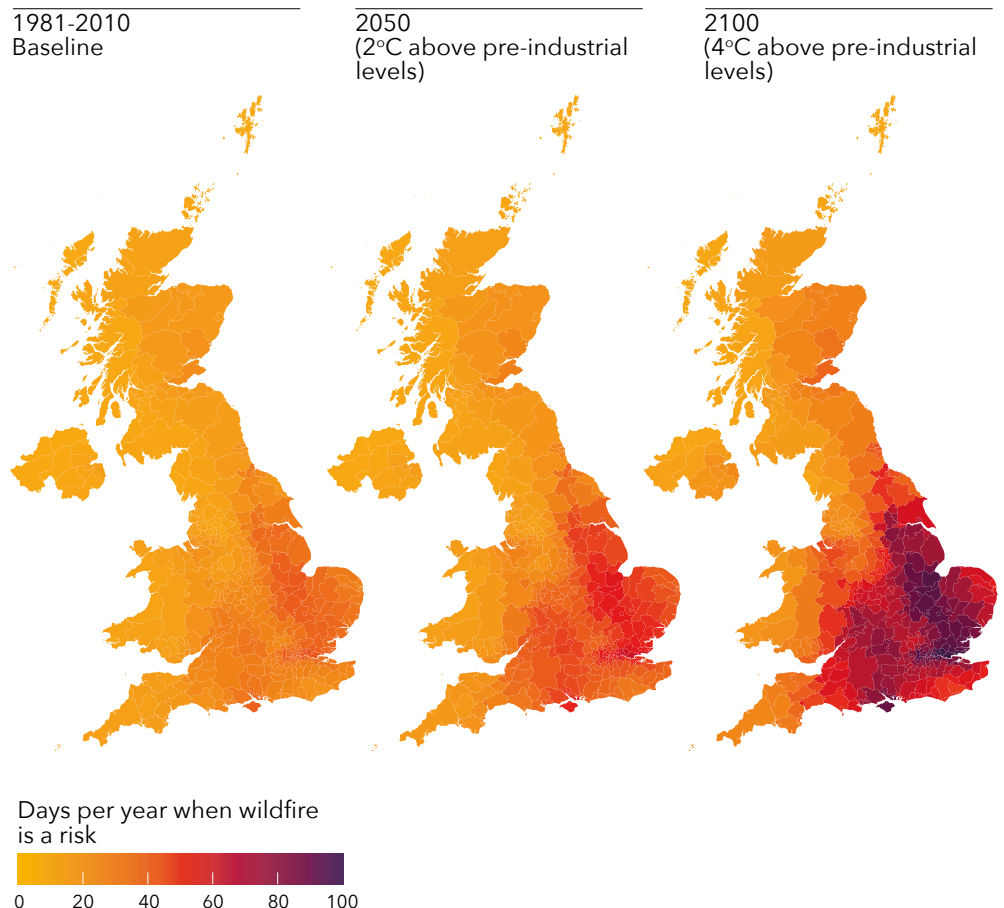
Future: By 2050, 46% of roads and 54% of railways will be at risk of flooding.¹⁰ The Office for Budget Responsibility has estimated direct fiscal costs from heatwaves over the next 50 years at £64 billion.¹¹

Nature

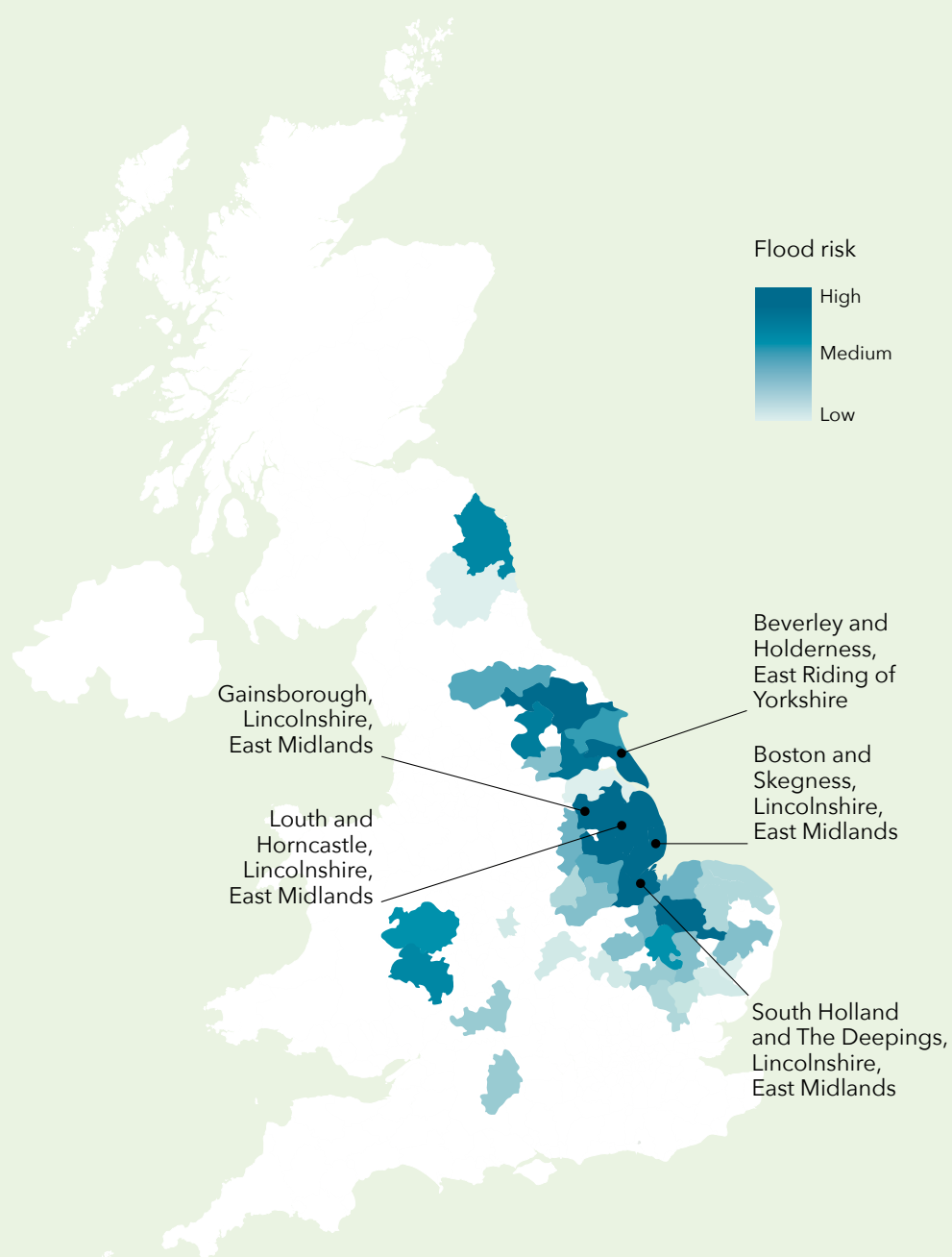
Now: The UK is classified as one of the world's most nature-depleted countries and species have declined by 19%, since monitoring began over five decades ago.¹² Marine heatwaves are already impacting ecosystems and the ability to maintain viable fisheries.

Future: One in six species is at risk of extinction as climate change fundamentally alters UK ecosystems. This is higher for flowering species (54%) and all bird species (46%).¹³

Projected number of days with very high wildfire danger¹⁴



Top ten per cent of English constituencies by arable farmland area, ranked according to flood risk today, with the five most at risk indicated.¹⁵



Voters are increasingly aware and feel unprepared

69%

Most people now believe the UK is already experiencing the impacts of climate change¹⁶

81%

The vast majority think we are unprepared for the worst impacts¹⁷

16%

Very few say the UK has made "good progress" on adaptation¹⁸

52%

A majority feel unprepared to deal with the impacts of flooding and extreme heat (51%)¹⁹

84%

Most say they would not consider buying a home located in a flood risk area²⁰

50%

Half of the public has never checked to see if their home is insured against the effects of extreme heat²¹

Recommendations to government

1

Make clear who's responsible

The Climate Change Act (2008) requires Defra to publish a Climate Change Risk Assessment every five years, and to follow this with a National Adaptation Programme that sets out the actions the government will take to adapt to climate change, working with local authorities, businesses and other partners.

The fourth National Adaptation Programme will cover 2028 to 2033. The Climate Change Act and the Climate Change (Scotland) Act require Northern Ireland, Wales, and Scotland to have their own plans for adaptation.

There is a broad consensus that UK programmes to date have not adequately prepared the country. The government's election manifesto committed to "improve resilience and preparation across central government, local authorities, local communities, and emergency services" but there has yet to be the step change in preparedness to meet the scale of the challenges. Risks will increase if the government waits for the next National Adaptation Programme to take further substantive action.

Analysis by the think tank Green Alliance shows that two thirds of actions being taken to tackle the most pressing climate risks are not adequate for the scale of the task.²² Responsibility for adaptation is split across different departments, ministers and levels of government in a way that makes coherent planning and preparation harder.

Meanwhile, the government should continue to educate and engage the public on climate impacts, including by using emerging digital technologies, mapping and modelling to identify and communicate all the risks.

The Environment APPG recommends:

- moving responsibility for climate resilience from Defra to the Cabinet Office and assigning responsibility for adaptation to an existing cabinet minister;
- an annual meeting of the cabinet dedicated to climate resilience;
- the Cabinet Office establishes meaningful adaptation objectives, supported by targets, assigning ownership under National Adaptation Programme 4.



"Across techUK's membership, there is a consistent view that resilience is still too often approached at the level of individual assets or sectors, rather than as a set of interdependent systems, limiting the UK's ability to anticipate and respond to cascading risks."

techUK

"We looked at flood risk, drought, overheating, wildfires and found that you can't treat the hazards individually because it is a complex system that affects each other. It is imperative that our response is not siloed."

UK Green Building Council

"The National Adaptation Plans do not account for diversity and the multitude of impacts. These will interact and accelerate massively as global heating accelerates."

**UK Health Alliance
on Climate Change**

2

Build for the future to reduce flood risk

Between 2022-24, one in nine homes were built in areas at risk of flooding.²³ If this trend continues, 165,000 of the government's 1.5 million planned new homes would be in medium or high risk flood zones. Homes at risk will increasingly see prices fall relative to non-exposed properties, and insurers have warned some businesses may become uninsurable, potentially leading to towns being abandoned.^{24,25} Low income groups are the most vulnerable to the financial risks of flooding, and inaction will deepen economic inequality.²⁶

There is a significant lack of transparency around property level climate risks. Homebuyers are entitled to receive standardised information such as an Energy Performance Certificate (EPC), but there is no corollary for emerging climate impacts such as subsidence. There is also a lack of financial mechanisms and incentives that would support homeowners to adapt their homes. Every £1 the government spends on flood prevention can save £8 worth of damages, £3 of which is a direct government saving.²⁷

Our inquiry heard multiple stakeholders note the poor enforcement of existing planning regulations seeking to improve flood resilience.

The FloodRe compensation scheme is due to end in 2039, when the UK home insurance market is expected to shift to premiums being based on the likelihood of a specific property flooding, instead of relying on the subsidised reinsurance pool to mitigate costs. In practice, this means nearly half a million households could be left unable to sell, remortgage or relocate due to flood exposure.²⁸

The Environment APPG recommends:

- MHCLG works with local authorities to tighten planning and building regulations to prevent development on high risk areas and ensure high resilience standards are met, such as through sustainable urban drainage systems and property level measures;
- the Treasury increases investment in flood defences;
- Defra sets out FloodRe's future as soon as possible to provide clarity to homeowners and mortgage lenders;
- MHCLG helps households to better understand the risks to their properties through implementing a scheme or rating standard for climate resilience, like an EPC.



"Flooding is a lifechanging experience, there are so many parts of it that aren't seen or known that people must deal with. It is physically and mentally exhausting and it goes on into the period of recovery. For some people it has taken up to five years to get back into their homes."

Flooded People

"Coastal communities are facing increasing risk to their homes and businesses, and this can be tied directly to the changing climate."

**National
Oceanography
Centre**

"There needs to be a shift from reactive protection to proactive risk reduction, treating climate resilience as core housing infrastructure."

Santander UK

3

Provide sustainable cooling

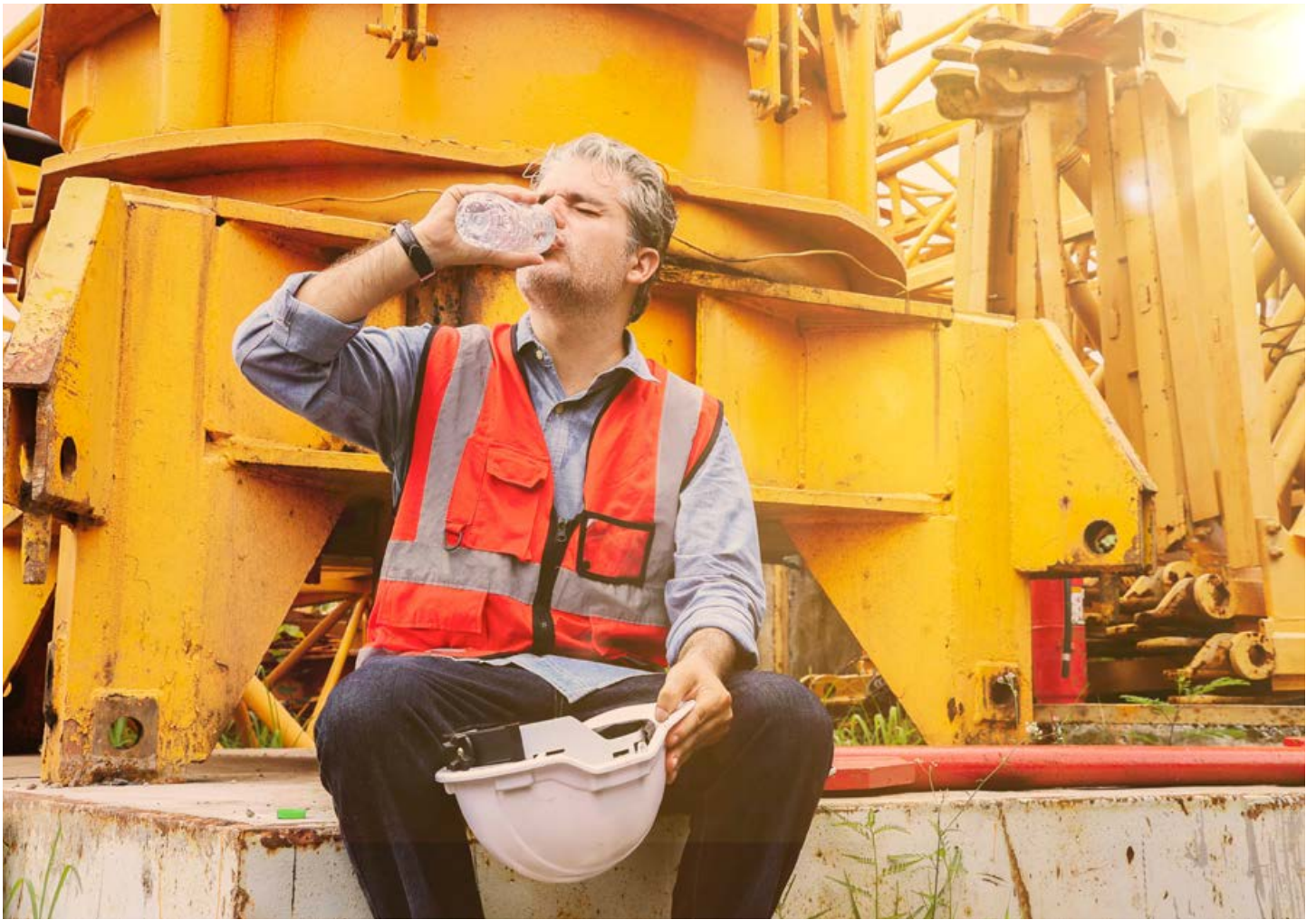
Heatwaves are already significantly affecting people's way of life in the UK. The Climate Change Committee identified cooling measures to protect from extreme heat as one of the highest priorities in its recent *A well-adapted UK* report.²⁹ By the middle of the century, more intense heatwaves could mean that 92% of existing homes are at risk of overheating. And the government should prioritise preparing public buildings, like hospitals, schools and care homes, as well as social housing and vulnerable households.

Investment is needed in property and community level resilience and smarter planning to tackle overheating and improve health and productivity. Most policy in this area has focused on new buildings, but there is still no systemic, nationwide approach to tackle overheating in existing buildings, which will affect far more people. A 'passive cooling before air conditioning' approach needs to be adopted, prioritising features such as shading, shutters, ventilation and insulation.

The UK has minimum temperature requirements for workplaces, but unlike other countries, there is no maximum legal working temperature. As heatwaves become more common, this becomes more of a health risk. The TUC recommends a maximum temperature of 30°C, or 27°C for those doing strenuous jobs. Setting these requirements would encourage employers to invest in climate-proof workplaces.

The Environment APPG recommends:

- the Department for Work and Pensions (DWP) works with unions to set a maximum temperature for workplaces to protect workers, enforced by the Health and Safety Executive;
- MHCLG adopts a 'cooling hierarchy' commitment into future National Planning Policy Framework updates;
- the Department for Energy Security and Net Zero (DESNZ) and HMRC review the scope of VAT exemptions for retrofits to include heat resilient materials;
- DESNZ embeds overheating into the EPC methodology to ensure minimum energy efficiency standards increase heat resilience;
- DESNZ provides additional information to prospective heat pump customers around their potential for cooling;
- local authorities and mayors create cool public spaces so vulnerable people have somewhere to be safe from the heat;
- local authorities and mayors strengthen community heat resilience planning through Local Resilience Forums.



"The policy framework is aware of these risks, but the reality of how to ensure investment is going into improving housing to withstand these risks is not clear."

**Lancet Countdown
on Health and Climate
Change**

"Embedding heat resilience in housing policy will deliver multiple benefits, including improved physical and mental health outcomes, reduced pressure on the NHS and more resilient communities."

**National Heat Risk
Commission**

4

Set critical infrastructure resilience standards

As sufficient action has not been taken since above pre-industrial levels, the increasing likelihood of reaching 2°C and above of warming poses extremely serious and more unpredictable risks for the UK and the world.

The UK should prepare now for a much warmer world, especially for critical infrastructure including water, energy, transport and telecoms. For example, the National Preparedness Commission has mapped risks to the energy grid, with at least 245 power stations and 809 substations at risk of flooding across the UK.³⁰ More distributed renewable generation has the potential to increase resilience, but grid upgrades should be done with climate impacts in mind.

Private sector and public bodies are central to delivering services, so improving reporting and action on the risks and adaptation will be crucial. In recent years, climate related financial disclosures reporting has been the primary adaptation driver for large businesses. Yet not many have expertise in risk modelling and the subsequent actions required, so additional reporting requirements are not leading to an improvement in adaptation planning. Government direction is needed on resilience standards for strategic infrastructure, and working closely with businesses on proactive adaptations.

The water sector has examples of good practice. The Leeds Flood Alleviation Scheme combined engineered and natural measures, aiming to provide protection for a 'one in 200 year' flood for 1,500 homes and 370 businesses on the River Aire. Alongside a major water storage facility upstream, the project planted over 750,000 trees and aerated more than 1,200 hectares of soil, enabling it to catch more water.³¹ Wessex Water's £230 million supply grid project, completed in 2018, allows redistribution from areas with surplus water. This helped to maintain supply to 1.3 million customers during the 2018 'Beast from the East' freeze thaw.³²

The Environment APPG recommends:

- the Cabinet Office leads on outcome-based resilience standards across energy, transport, water and telecoms infrastructure ahead of National Adaptation Programme 4;
- the Treasury applies an adaptation test to spending on major projects, to ensure they are resilient for the future;
- the Department for Business, Innovation, Science and Trade (DBIST) provides further business guidance on effective modelling of risks and good adaptation planning under climate risk reporting requirements;
- DESNZ builds resilience into energy grid reforms through the upcoming Energy Independence Bill.



"The UK is experiencing more frequent and severe heatwaves, storms, wind and wildfire events, and these hazards increasingly threaten nationally critical energy infrastructure."

Zurich Insurance Group

"The greatest risks arise because infrastructure systems are interconnected. Failure in one system can quickly cascade into others. For example, flooding can disrupt transport, power, water and telecoms simultaneously."

Institute of Sustainability and Environmental Professionals

5

Put food at the heart of adaptation

Food production is on the front line of climate change, both in the UK and the global supply chains that provide so much of what we eat. Farmers are seeing the impacts first hand. In 2024, there were a record number of over 1,000 flood warnings on England's best farmland.³³ Extreme heat limits farmworkers' ability to work. High temperatures also cause distress to animals and a lack of productivity that challenges the predictability of livestock yields.³⁴ These impacts are compounding pressures on farmers, such as the heightened cost of fertiliser from the recent oil and gas price shock.

Climate change impacts on food production are expected to lead to a focus on soil health, water availability and an increase in mixed farming. Nature-based solutions, such as tree cover for shade on farms, should also be prioritised. National Adaptation Programme 3 failed to deal with the food system in adequate depth, with only three pages dedicated to farming. Uruguay, which heavily relies on farming, offers an example of good practice with a sub-plan focused on agriculture alongside an economy-wide adaptation plan. This sets out responsibility for actions, timescales for implementation and associated budgets.

The Environment APPG recommends:

- Defra sets quantified targets for food resilience in the next National Adaptation Programme 4;
- Defra delivers on the Land Use Framework's commitment to embed adaptation into farming policy;
- MHCLG changes planning rules to enable farmers to install on site water storage.



"Out of 520 of our members, 78% saw an increase in extreme weather in the last decade. Heat, drought, flood and storms were all found to have increased. Pests and diseases also change with changing weather patterns."

National Farmers Union

"Agriculture is a major driver of climate change and global land degradation. With 69% of UK land farmed, agroecology should be treated as core climate adaptation policy, strengthening food security while restoring nature and reducing reliance on imports."

Soil Association

6

Encourage more UK fruit and vegetable growing

Climate change is exacerbating the cost of living crisis by increasing food prices. In 2022-23, its impacts added £361 to the average household's annual food bill.³⁵ Potatoes, coffee and other staples have spiked in price at a time when households can least afford it on top of volatile energy costs. Access to a healthy diet is already highly unequal and these impacts risk making it worse. Today, the poorest fifth of UK households would have to spend half their income to get the government recommended healthy diet.³⁶ Diet-related ill-health causes over one in ten deaths in the UK.³⁷

The UK imports 40% of its food and this is a potential vulnerability.³⁸ Much of the fruit and vegetables imported come from Southern Europe and North Africa, where climate impacts like drought will be significantly more severe than in the UK. Extreme weather can also damage supply chains in other ways, such as disrupting transport. Growing more fruit and vegetables in the UK would benefit public health, resilience, and the cost of living, as well as having economic advantages.

The Environment APPG recommends:

- Defra and DBIST jointly publish a Horticulture Growth Strategy to scale up UK production of fruit, vegetables and pulses and identify ways to increase controlled environment production, which is more climate resilient;
- Defra and the Cabinet Office use public procurement guidance to scale up local and sustainable food sourcing.



"Growers and producers lack access to the financing needed to invest in resilient domestic food production systems. At the same time, food prices are increasingly unaffordable for consumers."

**Grantham Research Institute
on Climate Change and the
Environment, LSE**

"Our food system is underpinned by nature, and it needs to be at the heart to build that resilience. We need more plant-based proteins feeding our animals and feeding ourselves."

**Nature Friendly Farming
Network**

7

Restore habitats to regulate the climate

Research from Oxford University found that nature-based solutions could help mitigate 33 of 34 climate risks and can be 65% more effective than engineered solutions.³⁹ The UK should work towards restoring peatlands, wetlands and floodplains as they help to cool, store water and reduce the pressure on farms and homes. Habitats like salt marshes support biodiversity and help coastal areas respond to sea level rise and storm impacts, protecting communities and infrastructure. RSPB's restoration of coastal wetlands at Medmerry in West Sussex has helped to reduce annual flooding risk from 100% to 0.1%.⁴⁰

Heat and drought have huge impacts on native trees. Kew Gardens has found that, by the end of the century, London could lose 72% of its tree canopy.⁴¹ Expanding tree planting and ensuring the right trees are grown will provide more protection during hotter weather. Trees prevent urban heat islands developing and provide a significant cooling effect to habitats such as rivers. The Woodland Trust also highlighted that restoring temperate rainforests on the UK's west coast could even help to generate more rainfall in the East of England, which is increasingly dry.

The inquiry heard that the UK's tree-planting targets are at risk due to a lack of nurseries able to deliver a pipeline of viable saplings, particularly of climate-resilient trees. Many trees die in within the first five years of planting, often due to a lack of watering or maintenance. The diversity of trees planted in the UK will need to increase, with greater attention given to supporting their survival after planting. Melbourne in Australia provides a warning case study: authorities stopped watering during a long drought and lost 40% of the city's street trees, leaving the city centre exposed when the 2014 heatwave hit and contributing to temperatures staying above 40°C, even overnight.⁴²

The Environment APPG recommends:

- Defra includes a requirement on water companies in the Clean Water Bill to use nature-based solutions as a priority, to improve drought and flood risk management and provide high quality habitats for wildlife;
- Defra explores options to support tree nurseries to expand and diversify;
- local authorities and mayors invest in climate-resilient tree planting and maintenance as part of heat resilience planning.



"Adapting UK nature to climate change will not be achieved through incremental change. It requires a decisive shift to restoring resilient, functioning ecosystems at scale, on land and at sea."

Rewilding Britain

"Implementing sustainable urban drainage solutions helps manage water, sustains biodiversity and reduces the heat island effect. We need to think about where we should use water more and where can we put it back into the system."

WSP, engineering and professional services consultants

"Once lost, natural habitats and their climate adaptation functions cannot be easily replaced. Climate adaptation through nature has to start with protecting the nature-rich spaces we have left and building from there."

The Wildlife Trusts

Recommendations by government stakeholder

Prime Minister's Office	Move responsibility for climate resilience from Defra to the Cabinet Office and assign responsibility for adaptation to an existing cabinet minister.
Cabinet Office	Move responsibility for climate resilience from Defra to the Cabinet Office and assign responsibility for adaptation to an existing cabinet minister. Hold an annual cabinet meeting dedicated to climate resilience. Establish meaningful adaptation objectives, supported by targets, and assign ownership under National Adaptation Programme 4. Use public procurement guidance to scale up local and sustainable food sourcing. Lead on outcome-based resilience standards across energy, transport, water and telecoms infrastructure, ahead of National Adaptation Programme 4.
HM Treasury	Increase investment in flood defences. Apply an adaptation test to spending on major projects, to ensure they are resilient for the future.
Defra	Move responsibility for climate resilience from Defra to the Cabinet Office and assign responsibility for adaptation to an existing cabinet minister. Set out FloodRe's future as soon as possible to provide clarity to homeowners and mortgage lenders. Set quantified targets for food resilience in the next National Adaptation Programme (NAP4). Deliver on the Land Use Framework's commitment to embed adaptation into farming policy. Publish a Horticulture Growth Strategy to scale up the UK production of fruit, vegetables and pulses and identify ways to increase controlled environment production, which is more climate resilient. Use public procurement guidance to scale up local and sustainable food sourcing. Include in the Clean Water Bill a requirement on water companies to use nature-based solutions as a priority to improve drought and flood risk management and provide high quality habitats for wildlife. Explore options to support tree nurseries to expand and diversify.

MHCLG	Work with local government to tighten planning and building regulations to prevent development on high risk areas and ensure high resilience standards are met, such as through sustainable urban drainage systems and property level measures.
	Help households to better understand the risks to their properties through implementing a scheme or rating standard for climate resilience, like an EPC.
	Adopt a 'cooling hierarchy' commitment into future National Planning Policy Framework updates.
	Change planning rules to enable farmers to install on site water storage.
DESNZ	DESNZ and HMRC review the scope of VAT exemptions for retrofits to include heat resilient materials.
	Embed overheating into the Energy Performance Certificate (EPC) methodology to ensure minimum energy efficiency standards increase heat resilience.
	Provide additional information to prospective heat pump customers around their potential for cooling.
	Build resilience into energy grid reforms through the upcoming Energy Independence Bill.
DBIST	Provide further business guidance on effective modelling of risks and good adaptation planning under climate risk reporting requirements.
	Publish a Horticulture Growth Strategy with Defra, to scale up the UK production of fruit, vegetables and pulses and identify ways to increase controlled environment production, which is more climate resilient.
DWP	Set a maximum temperature for workplaces to protect workers, enforced by the Health and Safety Executive.
Health and Safety Executive	Enforce a maximum temperature for workplaces to protect workers, set by DWP.
HMRC	DESNZ and HMRC review the scope of VAT exemptions for retrofits to include heat resilient materials.
Local authorities	Work with MHCLG to tighten planning and building regulations to prevent development on high risk areas and ensure high resilience standards are met, such as through sustainable urban drainage systems and property level measures.
	Create cool public spaces so vulnerable people have somewhere to be safe.
	Strengthen community heat resilience planning through Local Resilience Forums.
	Invest in climate-resilient tree planting and maintenance as part of heat resilience planning.
Mayors	Create cool public spaces so vulnerable people have refuges from extreme heat.
	Strengthen community heat resilience planning through Local Resilience Forums.
	Invest in climate-resilient tree planting and maintenance as part of heat resilience planning.

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About the Environment APPG

The Environment APPG was established to strengthen the influence of parliamentarians on environmental policy and provide a forum for debate, as well as access to specialist information.

The chair of the group is Fleur Anderson MP, and the secretariat is provided by Green Alliance.

This is not an official publication of the House of Commons or the House of Lords. It has not been approved by either house or their committees.

All-Party Parliamentary Groups are informal groups of members of both houses with a common interest in particular issues. The views expressed in this report are those of the Environment APPG.

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