

Speech: A different philosophy: why our thinking on flooding needs to change faster than the climate

Thank you.

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Today is my birthday.

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Most years, I don't advertise this – certainly not in speeches.

Please don't misunderstand me – I love a celebration – but birthdays are also moments of quiet reflection... on the passage of time, and our place in it.

Instead, I'd much rather be celebrating something else.

Like the launch of an official strategy consultation.

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Today, we are consulting on a strategy that looks towards 2100.

In the grand scheme of things, the end of the century is not that far off, and yet it is also a lifetime away.

Two weeks ago, the inspirational activist Greta Thunberg spoke in Westminster about the need to address the planet's climate emergency. She said: "Humans are very adaptable".

2,500 years ago, the Chinese general and military strategist, Sun Tzu, wrote: "Adaptation means not clinging to fixed methods, but changing appropriately according to events, acting as is suitable."

The need to adapt may seem obvious, but history shows that people don't always manage it.

The effort of delivering the next harvest, of ensuring there is enough cash to get to the end of the month, or of simply surviving from day to day, means that societies have often failed to appreciate tectonic shifts in politics, economics, technology, and climate.

Today, we face such a monumental challenge again, but this time we can see it coming.

Last year, the Intergovernmental Panel on Climate Change said there were just 12 years to hold global warming to 1.5°C above pre-industrial levels.

At the same time, the Governor of the Bank of England says “the tragedy of the horizon” is that the catastrophic impacts of climate change could happen just beyond the planning cycles of most banks.

But, the finance sector isn't the only one failing to adapt fast enough.

If we don't all act now, our generation's legacy will not be great music, art, or architecture...

It will be that we allowed our children to fall from the ark.

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However, if we want to live in a resilient nation...

If we want to live in what Professor Dieter Helm calls “a green and prosperous land”...

Then we all have a role to play.

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Last week, the Secretary of State, Michael Gove, said:

The situation we face is an emergency. It is a crisis, it is a threat that all of us have to unite to meet.

At the launch of the Met Office's UK Climate Projections in November, last year, he said:

as the risk of flooding and coastal erosion increases, we need a new long-term approach.

And talking about the Environment Agency's flood strategy and the Government's plans for a long term policy statement he said:

I believe these should explore new philosophies around flood and coast management.

Today, as the government launches a call for evidence building on our draft strategy – that is exactly what we aim to do.

Just as there have always been floods and droughts, the map of England has never been static.

Rivers and the coastline have always been changing, and this has always brought risks.

Climate change is currently accelerating, and multiplying, these risks.

The UN says there were over 300 weather-related disasters each year around the world from 2005 to 2015, almost twice the number from 1985-1994.

Here in England, on December 5 2015, a record 341.4 millimetres of rain fell in 24 hours at Honister Pass in the Lake District.

That's more than the length of a school ruler – in just one day.

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17,600 UK properties were flooded and several bridges collapsed in Storms Desmond and Eva.

The collapse of Tadcaster Bridge meant residents needed a 10 mile round trip to get from one side of town to the other.

61,000 people lost power in the Lancaster area.

The economic damage was estimated at about £1.6 billion.

No one has, or will, ever be able to stop flooding or coastal erosion altogether, but this country has come a long way since 1953, when an East Coast storm surge killed over 300 people.

In 2013, we experienced a much stronger surge than 1953 and yet there were no fatalities, because our warnings, evacuation procedures, and flood defences are much better.

In recent decades, we have greatly improved flood and coastal erosion risk management as a result of great efforts by successive governments, the Environment Agency, local authorities, Internal Drainage Boards, and local communities themselves.

Added to this, the government's 6 year, £2.6 billion programme gave flood and coastal protection a shot in the arm, and means that the Environment Agency is on course to better protect a further 300,000 homes by 2021.

Today, we must continue to build on that progress, and guard against complacency.

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The Flood and Water Management Act 2010 says "The Environment Agency must develop, maintain, apply and monitor a strategy for flood and coastal erosion risk management in England".

The draft strategy we present today – created with 90 partner organisations, including DEFRA – gives the country the opportunity to help choose the best path forward.

The Defra Minister Lord Gardiner, wrote in the government's National Adaptation Programme, that: "while we continue to play a leading role in international efforts to keep global temperature rises well below 2°C... our

resilience will only be robust if we prepare for worse climate change scenarios.”

Our eventual aim is for the Secretary of State and Parliament to approve a strategy that will make the nation more resilient whether we face a temperature rise of 2°C or 4°C.

To do that we need to blend long term ambitions with short term practical steps.

We have set out what we consider should be implemented in the next two spending reviews – all in a direction steered by our ambitions for the change needed to 2100.

The strategy follows three key themes:

- Climate resilient places
- Growth and infrastructure and,
- A nation of climate champions.

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First, climate resilient places.

The insurance industry initiative ClimateWise – run from the Cambridge Institute for Sustainability Leadership – says losses on UK mortgages could double if global temperatures increase by 2°C and triple if warming hits 4°C.

Climate change and population growth in England means properties built in the floodplain will double over the next 50 years, so sustained investment is needed to prevent flood damage increasing significantly.

Our Long Term Investment Scenarios estimate this will require an average of £1 billion per year in traditional flood and coastal defences.

This is money well spent, the National Audit Office says for every £1 spent on protecting communities, around £9 in property damages and wider impacts is avoided.

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If £1 billion sounds like a lot, consider this:

The annual average UK infrastructure investment for the years 2018/19 to 2021 is expected to be £63bn.

If it weren't for flood and coastal infrastructure, the January 2017 tidal surge alone could have caused £37bn in economic damages.

We suggest that flbn, from public and private sources, is a sensible precaution.

We need to move away from talking about flood “defence”.

We cannot win a war against water.

We cannot expect to build our way out of future climate risks with infinitely high walls and barriers.

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I believe there should be consistent standards for flood and coastal resilience in England.

To explore and develop such standards, the Environment Agency wants to work with partners to develop a national suite of tools that can be used in combination to deliver resilience for communities.

This could include traditional defences, natural flood management, ensuring new development is safe from flood risk, adapting property (more of which in a moment), and giving communities control, and choices, about how they respond and adapt to a range of climate futures.

To do this, government, the Environment Agency and risk management authorities will need to be agile to growth projections, investment opportunities, changes to local environments, and the latest climate science.

The government demonstrated agility following the IPCC report last year, when it commissioned the Committee on Climate Change to look at how to reach net zero.

The Committee says the UK can reach net zero emissions by 2050 by setting an ambitious new target. The report has been welcomed by government.

Our second theme is growth and infrastructure.

We must ensure that all new development is not only resilient to flooding, but contributes to environmental net gain.

More should be done to encourage property owners to build back better and in better places after a flood, rather than just recreating what was there before.

This could involve home improvements, such as raised electrics, hard flooring, and flood doors.

We will work with government, insurers and financial institutions to review how to bring about this change by 2025.

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In some places, the scale of the threat may be so significant that recovery

will not always be the best long term solution.

In these instances, we will help communities to move out of harm's way.

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Presently, two thirds of properties in England are served by infrastructure networks in flood risk areas.

For every person who suffers flooding, around 16 others are affected by a loss of services such as transport and power.

We suggest that between now and 2050, all publicly funded infrastructure should aim to be resilient to flooding and coastal change.

Our long term ambition should be to support local economic regeneration and sustainable growth through investments in new flooding and coastal change projects. This can unlock opportunities for housing and businesses in places where repeat flooding has damaged local economies.

There are many examples of this already happening around the country. In Selly Park in Birmingham a new flood alleviation scheme has created new development land, and protected over a hundred homes.

Our third theme is: A nation of climate champions.

Only a third of people who live in flood risk areas believe their properties are at risk.

We need to build a nation of climate champions who understand their risk, are responsible for it, and know how to act on it.

We need to inspire people to take action before flooding hits. We will do this by educating young people about the risks through the school curriculum, by helping people to understand what action to take, and which services they can expect from public bodies.

We have a world class flood forecasting service that provides people, businesses, and the emergency services with information to help them prepare for a flood.

If you haven't already, please sign up to our free flood warnings and find out why PREPARE. ACT. SURVIVE is the slogan for our flood campaign. It is information that could literally save your life.

As a Category 1 responder with staff living and working in communities all over England, the Environment Agency is an international leader in managing flood emergency situations.

People experience flooding in different ways, but it can have profound effects on mental health and well-being long after the water has subsided. Distress is a common reaction.

Most people's need for support is met by those close to them. Good social support can protect against the negative psychosocial impacts of being flooded.

We aim to continue to better join up the organisations involved in providing incident response, and recovery, to provide a consistent, and coordinated, service.

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Collaboration and partnership is essential because climate impacts – however undesirable – bring knowledge and expertise.

By sharing this, we can build networks around the world.

Don't be put off by President Trump's promise to withdraw from the Paris Agreement – look at how the rest of the world has reacted to that decision, including many States and cities in the U.S.

Just last week the Mayor of Washington D.C. announced plans to retrofit or remove all of its flood-prone buildings by 2050, in the face of climate change.

I'm not naïve about international agreements and treaties. Much, much more needs to be done, but we have seen progress.

We should not dismiss that out of hand.

I know there are many who are sceptical of climate adaptation, but it is not a competing agenda to reducing carbon emissions.

No one wants to live in an energy efficient house that could be washed away in a flood.

We need to do both.

That's why the Environment Agency's new contract arrangements for the delivery of Flood and Coastal Risk Management schemes ensure our partners are using, and innovating, low carbon solutions for construction projects.

This works towards the government's commitment to reduce carbon emissions 80% by 2050.

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In the autumn, I became the UK Commissioner to the Global Commission on Adaptation.

Led by Ban Ki-moon, Bill Gates, and Kristalina Georgieva, CEO of the World Bank, it will present an agenda for scaling up adaptation around the world ahead of the UN climate summit in September.

Also at the UN's climate summit in September, the UK government will lead on climate resilience.

They want to deliver:

- A systemic shift in the way the public and private sectors think about investment and,
- Better capacity to manage climate shocks around the world. This includes better targeting of investments and building human and physical capacity to cope with current and future climate risks.

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Through this strategy today, the Environment Agency is setting world leading ambition, and showing that we can walk the walk at home.

We want this country to be recognised as a world leader in managing flooding and coastal change.

And, we want to nurture talent in the UK's world leading universities – like Brunel.

Mark Carney was right to warn about the “the tragedy of the horizons”.

The whole financial sector has a central role to play in avoiding catastrophic climate change.

The government has highlighted market failures in investments and funding as a key barrier to the goals of the 25 Year Environment Plan.

But, it needs to be said that such market failures are not only bad for the environment, they are a missed opportunity for UK plc.

Low-carbon, flood resilient planning and development in the right places will deliver long term returns for investors. They will also develop skills, technology, and expertise in the national economy – and create jobs.

The government will soon publish its first ever Green Finance Strategy, setting out the steps they are taking to attract investment into a clean, and resilient, economy.

And, the Chancellor's recent commitment to the Helsinki Principles as part of the Coalition of Finance Ministers for Climate Action is important – because it is a step forward to see finance ministers recognising climate risks and committing to using fiscal policy to promote global action on climate change.

Last year, the Intergovernmental Panel on Climate Change said we have 12 years to hold global warming to 1.5°C.

Today, on my birthday, I am 12 years away from the State Pension age.

I have been hugely inspired by the young climate strikers this year, but I don't think everyone has yet realised that the climate impacts they – and the

Environment Agency – are talking about, will affect my generation too.

Climate change is not a morality tale set in the dystopian future, it's already here.

I am committed to spending the critical 12 years ahead working on this emergency.

As Greta Thunberg said: "Humans are very adaptable: we can still fix this."

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We can still fix this.

But, if not us, then who?

And, if not now, when?

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Thank you very much.