The crucial role of nature-based solutions in addressing the climate crisis

Floods and storms are responsible for almost three-quarters of climate disasters.

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

Yet, all around the world, resilience to climate shocks does not get the same airtime as net zero, and resilience measures are too reliant on the public purse.

Just 3 percent of private finance mobilized under the Paris Agreement in 2018 went towards adaptation, with over 95 percent going towards mitigation.

The Global Commission on Adaptation's report "State and Trends in Adaptation 2020" said:

"While there are gaps in the global data, the low figure indicates that the private sector – businesses and financial institutions alike – is failing to respond to the climate risks in their midst."

In global finance we are robbing climate resilient Peter to pay net zero Paul.

The debt is inflated because we are not learning the mutual benefits of action on both agendas.

Today's ClimateExpo theme is nature-based solutions, but this speech could have been delivered yesterday when the theme was on green recovery, tomorrow when it is mitigation solutions, Thursday when it is Adaptation & Resilience, or Friday when it is Finance and Regulation.

All of these themes bleed into each other.

On Friday, COP26 President Alok Sharma said:

"I ask Ministers from developed nations to imagine what it is like for communities on the frontline of climate change. Struggling to deal with a crisis they did next to nothing to create.

"To feel what it is like, to see developed countries invest trillions overnight to address the Covid-19 pandemic, whilst the $100 billion a year that we have promised to support developing countries with remains uncertain."

Ahead of COP 26, we need to ensure that the race to net zero runs hand in

hand with the race to resilience.

These efforts require trillions of investment in nature.

This speech is about the return on that investment.

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Last year, more than 50 million people were affected by droughts, floods and storms.

In 2020, the rainy season across most of southern China was the longest in 20 years.

This meant that severe flooding and landslides were particularly intense, with more than 2.2 million people evacuated from their homes and surroundings in July.

It was a tragic event, but there are ways that it indicates progress.

In 1998, similar levels of flooding led to more than 4,000 deaths and the destruction of 7 million homes.

Last year, far fewer lives were lost, in large part because of a new approach focused on environmental improvements, rather than relying solely on hard, grey engineering solutions.

The restoration of close to 300,000 hectares of flood plains, alongside reforestation, has increased flood retention capacity and also supported nature.

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In England, the Environment Agency, working with local authorities, businesses and community groups, created 531 hectares of blanket bog, and restored a further 2,148 hectares in 2019/2020.

Restoring peatland filters water, meaning water companies use less chemical treatment, while also slowing the flow, reducing downstream flood risk.

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Simone de Beauvoir said: “Change your life today. Don’t gamble on the future, act now, without delay.”

Greta Thunberg has talked about “cathedral thinking”: that the urgency of the climate emergency means we must lay the first stone without knowing exactly how to construct the ceiling.

That spirit of innovation is alive in India, where the government has established six small-scale adaptation projects in diverse regions of the country.

The projects range from mangrove restoration to the use of short-duration

crops that mature in 70 days to adapt to late sowing conditions.

Instead of pursuing one large national project, the approach is piloting different models – designed so that they can be replicated elsewhere – and is establishing networks to share knowledge across the country.

Last week, I visited the Lower River Otter in England which was separated from its floodplain to create farmland in 1812.

This artificial alignment of the river increases water pollution from cattle slurry and fertilisers and now, severe and regular storms threaten to overwhelm the embankments.

To address this, the landowner, Clinton Devon Estates, alongside the Environment Agency, and East Devon Pebblebed Heaths Conservation Trust, have created a £15 million scheme over 150 hectares to improve resilience in the valley.

Embankments will be breached to allow land to flood at high tide.

It will also create a wildlife reserve providing habitat for wading birds, reedbed & grazing marsh.

The project is partnered with another in France, and if successful the model will be rolled out further.

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Elsewhere in England, a £150 million flood innovation programme from the UK Government is allowing the Environment Agency to put new ideas to the test.

For example:

- In South Tyneside, a project supporting coastal adaptation aims to restore sub-tidal habitats (such as kelp beds, oyster reefs and sea grass) to protect against coastal erosion and flooding. Additional benefits include carbon sequestration and storage, improved water quality and provide fish nursery habitats.
- In Slough, we are trialing the Chinese “Sponge City” initiative concept. Sponge cities address surface water and river flooding with permeable road surfacing, green roofs and natural vegetation.
- In Cornwall – which will shortly host the G7 – sand dunes will be designated and protected to make coastal settlements more resilient to coastal erosion and sea level rise.

Even if some of these don’t work, what we learn will be useful.

With the right structure, projects could be scaled up by private finance, helping to prepare for climate shocks, restore nature and create jobs.

This month, the Green Alliance’s report “Jobs for a Green Recovery” said:

- Investing in green initiatives produces more jobs per £1 invested than

traditional infrastructure like fossil fuel power generation.
- A healthier environment would directly increase productivity, via tourism, fishing or agriculture, but also indirectly, through improved air quality, urban cooling and reduced sickness.
- A thriving natural environment mitigates the impact of weather events, saving money.
- And, nature investments have a high cost-benefit ratio, with £4.60 back for every £1 invested in peatland, £2.80 back in woodland, and £1.30 back for salt marsh creation.

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There were 135 million day visits taken to the seaside in England in 2019, which combined with overnight stays were worth £8.1 billion to the economy.

The high standards in bathing waters on the coast have taken significant investment, partnership, regulation, and decades of hard graft.

Now, following the ground-breaking decision to designate a stretch of the River Wharfe as a bathing river, we'll coordinate similar effort.

Yesterday, Ofwat announced that the water sector plans to invest £2.7 billion in environmental projects to support a green recovery. This follows a joint letter from Defra, the Environment Agency, Ofwat, the Drinking Water Inspectorate, and the Consumer Council for Water sent to water companies last July.

As part of this, companies will commit over £157 million to help eliminate harm caused by storm overflows and trial the creation of two new bathing rivers.

It demonstrates a renewed commitment to reduce pollution incidents and prepare the country for escalating climate shocks.

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The communique of the recent G7 Foreign and Development Ministers said:

"We welcome the important work of the members of Coalition for Climate Resilient Investment and Coalition for Disaster Resilient Infrastructure."

I co-chair the Coalition for Climate Resilient Investment with John Haley, CEO of the insurance company Willis Towers Watson; and Samir Assaf, Chair of Corporate and Institutional Banking at HSBC.

By including physical climate risks in upfront financial decision-making, members – who represent over $11 trillion in assets – want to incentivise a shift towards greater resilience.

If that shift doesn't materialise, then the economic recovery we so badly need will evaporate in a heatwave or wash away in a flood.

In other words, nature will extract the debt we owe it.

In his recent book “Accomplishment”, Sir Michael Barber wrote:

“We need to create a future for ourselves, and for all life on earth, which both affirms humanity and establishes for it a humble, creative and sustainable way of life on this fragile and beautiful planet. That challenge was becoming apparent before the Covid-19 pandemic; now there can be now doubt.”

Investment in nature will accelerate a global economic recovery from coronavirus.

It will create a legacy of steady, long-term returns.

And, it will affirm our humanity.

But, there’s no time to lose.

To repeat the words of Simone de Beauvoir: “Don’t gamble on the future, act now, without delay.”

Thank you.