

Working together to prepare for climate shocks

Thank you.

This year, we've seen war return to Europe, international trade redrawn and the cost of living skyrocket in many parts of the world.

This has led some people to say now is the time to abandon ambitious climate policies.

At the same time, the Intergovernmental Panel on Climate Change says we are looking at average global warming of 3.2°C by 2100.

In recent years we've begun to see where this is going.

- Heatwaves in India and Canada;
- Flooding in Germany and Bangladesh;
- Wildfires in California and Australia.

Every life lost is a tragedy and a future removed.

We know such events are becoming more frequent and severe.

We know why this is happening.

We know there are things we can do about it.

So, claiming climate change is someone else's liability does not release anyone from their responsibilities.

And, neither will it save money.

In March, the Swiss Re Institute reported that last year, global economic losses from floods amounted to 82 billion dollars.

In 2021, floods accounted for 31 percent of global economic losses from natural catastrophes, only 2 percent less than tropical cyclones.

The UN says we need a global Race to Resilience to accelerate the investment needed to prepare for climate shocks.

However, the international community's ongoing failure to produce an integrated adaptation strategy, when contrasted against the gathering pace of physical impacts, means that no one can wait for instruction from the highest tiers of global governance.

People must form partnerships where they can to deliver action now.

In January this year, a report written by Helen Jackson for the think tank Bright Blue, looked at how flooding endangers all types of infrastructure,

increasing the vulnerabilities of schools, hospitals and energy supplies.

The report concludes the UK is not adequately prepared for the increasing risk of flooding due to climate change.

The UK's 2021 National Infrastructure and Construction pipeline sets out plans for nearly £650 billion of public and private infrastructure investment by 2030.

The Infrastructure and Projects Authority has analysed over £200 billion of this, up to 2024/25.

For the equivalent time period, England has about £3 billion of public money allocated to flood and coastal defences.

By comparison, this looks like a thin green line of defence.

At the same time, the Institution of Civil Engineers' survey "What makes good design?" has identified the most limiting factors to progress on reducing greenhouse gas emissions and climate adaptation are that "it's not part of the project brief."

Yet, we already know that climate resilience makes the UK economy stronger.

For instance, the Thames Barrier protects 125 square kilometres of central London and over £320 billion of infrastructure including 400 schools, 16 hospitals, and 86 train and tube stations.

Another example is the Bacton gas terminal scheme in Norfolk.

The terminal supplies up to one third of the UK's gas, but is at risk from cliff erosion.

Nearly two million cubic metres of sand created a 6 kilometre-long dune that will protect Bacton Terminal for another 15 to 20 years.

And, resilience isn't only about traditional "defences".

Around the country the Environment Agency delivers £6 of benefit for every £1 we spend on flood incident management.

For example:

In February – here in the UK – the Met Office named three major storms in one week.

In South Yorkshire, the railway line flooded at Rotherham Station.

However, the Environment Agency's warning and informing service allowed rail operators to prepare.

Rotherham station was closed before the flooding hit, allowing engineers to remove critical equipment from the ground.

This not only reduced the impact of flood damage.

It meant the line was operating again quickly once water was pumped away.

The returns on investment are compelling.

But, global understanding of the costs avoided and revenue generated by climate resilience is anecdotal and patchy.

Adaptation needs to be considered through a more strategic economic lens.

There is a crying need for global leadership and the UK government could step into this role.

We need the Treasury to commission a national assessment for adaptation investment, equivalent to the Dasgupta review on the economics of biodiversity.

This would form the basis of an investment strategy for UK adaptation, leveraging both public and private finance.

A review would inform strategy but no one should hold back from taking action before it's written.

We need to fast-track from data to deals and delivery.

The Coalition for Climate Resilient Investment (I am a co-Chair) currently has 120 members, featuring both governments and investors, with over \$20 trillion in assets.

By pricing climate risks, particularly for infrastructure, and including them in upfront financial decision-making, the CCRI is showing how to incentivise a shift towards greater resilience.

Earlier this year, the team launched an investment prioritisation tool in Jamaica.

The Systemic Risk Assessment Tool was designed by Oxford University in collaboration with the Jamaican Government and support from the CCRI and the UK's Foreign, Commonwealth and Development Office.

It helps identify where major infrastructure networks are most vulnerable to climate risk, ensuring effective and efficient investment of public and private resources.

For example, investing 2.5 million dollars to protect Jamaica's two most exposed electricity substations from flood risk would yield a benefit of over 5 million dollars in avoided flood damage and economic disruption.

The finance community knows that investors want to understand how their savings deliver green outcomes on the ground.

And, the government has identified a huge funding challenge to meet our environmental objectives.

Last week, along with Defra and Natural England, the Environment Agency announced the second round of projects funded through the Natural Environment Investment Readiness Fund.

The fund provides grants of up to £100,000 to help organisations develop projects to the stage where they can demonstrate a return on investment.

One of the four pilot schemes is the Wyre Natural Flood Management project.

This reduces flood risk to downstream communities.

Over several years, interventions in the Wyre catchment will include wetland creation, leaky barriers, sloped embankments, alongside peatland and river restoration.

It uses a new financial model which will see the upfront investment repaid through contracts with organisations that benefit from improvements, including water and insurance companies.

It is also the first environmental project eligible for Social Investment Tax Relief which was brought in by the government in 2014 with the aim of encouraging investment in social enterprises.

The use of Social Investment Tax Relief has helped bring in high net worth investment to the Wyre project.

Environmental tax relief of this kind could be extremely useful to finding finance for future environmental projects.

As we strengthen climate resilience, it is important we don't make global heating worse.

In an interview with The Guardian last week, Katharine Hayhoe, chief scientist for the Nature Conservancy in the United States, said:

"If we continue with business-as-usual greenhouse gas emissions, there is no adaptation that is possible."

At the Environment Agency 54 percent of our current carbon footprint comes from the construction of flood risk management infrastructure.

Over 80 percent of these emissions are embodied in materials, mostly concrete and steel.

Our new contracts commit our delivery partners to cutting carbon associated with the delivery of projects.

The newly opened Boston Barrier, which protects over 17,000 properties in Lincolnshire, was made with 14,000 tonnes of low carbon concrete.

90 percent of the weight of the whole structure.

It's important to share what we learn from this.

I'm currently a member of the Cabinet Office's Infrastructure Steering Group as a voice for climate resilient, net zero and nature positive infrastructure.

And, my colleagues sit on the Government Construction Board, the Major Projects Association and the Infrastructure Client Group among others.

This year, COP27 will be held in Africa.

The World Meteorological Organisation's State of the Climate in Africa 2020 report warned of the continent's disproportionate vulnerability.

Ensuring that the means to prepare for and respond to climate impacts is in the hands of affected countries is crucial.

People should not have to wait for aid.

They should have the ability to prepare and adapt using local plans and get swift assistance when disaster strikes.

Investment in climate adaptation for sub-Saharan Africa could cost between 30 to 50 billion dollars each year over the next decade, or roughly two to three percent of GDP.

This is enough to spark job opportunities and economic development while prioritising a sustainable and green recovery.

The whole world would benefit from what we could learn from this.

But, instead adaptation is falling behind what is needed, with growing risks of loss and damage everywhere.

The Environment Agency is taking action.

By working with others, as we are here at Flood & Coast, we develop vital skills for the economy.

By sharing technical innovation, we help UK businesses to thrive at home and overseas.

By sharing experience, we support international partners experiencing extreme weather.

The UK can be a leader in this global race.

We can home-grow capacity in the skills, strategies and tools that the whole world needs.

I hope this conference allows you to learn and create partnerships that will help everyone take action to prepare for the coming years.

Thank you.