

Speech: What you should really be worrying about: climate change

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Speech by Sir James Bevan, Chief Executive of the Environment Agency

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Why you should worry about climate change

What keeps you awake at night? Fear of terrorism? Nuclear war? Economic collapse? If so, you're worrying about the wrong thing.

The Global Risk Report 2018, compiled by business leaders for last month's Davos meeting, put something else at the top of the list. The biggest risk now facing the world, they concluded, is none of the above – it's climate change. So if you have been worrying about the wrong thing, at least you are now at the right conference.

What it means for the UK

What does climate change mean for the UK? In 2009 the first UK Climate Projections brought together contributions from over 30 scientific organisations to model the likely changes to our climate out to the end of this century.

Those projections and more recent evidence suggest that average UK summer temperatures could rise by up to 4°C by 2080; that sea level will rise by up to 1 metre by the end of the century (more in some locations); and that we will see more extreme weather, including heavier, more intense rainfall.

Likely consequence: more frequent and more extreme flooding, greater coastal erosion and heightened risk of droughts. You don't need to be a genius to work out what that could mean for vulnerable communities up and down the country, rural as well as urban.

Why this matters for UK cities

We care about all communities in this country. But we're focusing today on cities. That makes sense. Over 83 per cent of the UK population now live in urban areas: that is expected to rise to over 90% by 2030. Our cities drive much of our economy and are engines for innovation. And they offer some of the biggest opportunities: if we get their future design right, they will play a crucial role in the transition to a low carbon and resilient future.

But our cities are also exposed to some of the greatest risks. It is an inconvenient truth that most of our cities, and therefore most of our

population, are located by coasts or rivers or in other low lying locations; and that wherever our cities are, every single one of them depends on water.

The Committee on Climate Change has identified six major climate-related risks for the UK. The biggest of all is increased flooding – from rivers, the sea and surface water. This will impact particularly on our cities. It will threaten our city homes and businesses; the power, water, communications and transport infrastructure on which our cities rely; and the broader supply chains on which our city economies depend.

Greater flood risk is not the only threat that climate change is bringing to our cities. The Committee identified others too: there will be heightened risks to health, wellbeing and productivity from high temperatures; risks of shortages in water supply (a risk that has already materialised in Cape Town right now); threats to our natural capital; to food production; and from pests and diseases.

The good news

That's the bad news. The good news is that we can successfully tackle these threats if we work together; and indeed that if we do this right, we can create even better cities that are life-enhancing places to live and work, an even stronger economy and an even better country.

What the EA is doing

The EA itself is directly engaged in trying to turn all this risk into opportunity. We're doing that in three main ways.

First, we're helping to reduce the causes of climate change.

We administer a number of the government's carbon reduction and energy efficiency schemes. We oversee the regulation of over half the UK's carbon emissions, and we're having some success – since 2000 greenhouse gas emissions from the industries we regulate have decreased by 39%. We're an energetic and positive regulator of the renewable technologies we need for the future, including hydropower and anaerobic digestion and, perhaps one day, tidal lagoons.

Gandhi said: "be the change you want to see in the world". So we also try and live low carbon in the Environment Agency's own daily operations. Over the last decade we have cut our emissions by over 40%. We have a travel hierarchy that encourages us away from carbon. We've invested in low emission technology and renewables across our estate and in our vehicle fleet.

We also ensure that our own Pension Fund makes sustainable and responsible investments, and it's been globally recognised for that. That includes investing in the Carbon Trust's Low Carbon Workplace partnership, in which businesses come together to acquire and refurbish office buildings to make them into modern city workplaces that minimise energy costs and carbon emissions.

Second, we're helping building long term resilience to climate change for our

cities.

Example: water. The biggest single influence on long term water availability is – you guessed – climate change. Water supplies are under further stress as our population rises. We are also seeing greater stress on the natural environment. Unless we take action now, demand for water in this country will eventually exceed supply.

Part of the answer is reforming the current system for taking water out of rivers and the ground. The Environment Agency regulates this through our abstraction licensing system. If you want to take more than 20 cubic metres a day, you will normally require an EA abstraction licence, many of which limit how much water can be taken. We actively manage thousands of those licences, working with the water companies, farmers and businesses who are their primary users to balance water availability and demand.

But this system of abstraction licensing was designed more than 50 years ago for a world with less demand for water, fewer people, almost no environmental protections and little awareness of climate change. That's why we are now working actively with water users and the government to reform it, so we can give abstractors what they need while protecting water supplies and the wider environment for the long term.

Second example of future proofing ourselves through resilience: flood defence. The Environment Agency's £2.6bn flood defence investment programme will better protect 300,000 homes – the majority in cities – by 2021. We have built climate change projections into all those schemes, to ensure they will continue to offer a high standard of protection over decades into the future as the climate changes. Those climate change projections are built into the present Thames Barrier not far from here, which we own and operate. And they are built into our thinking about what London will need to replace the present Barrier some time after 2070.

Third example of future proofing: urban planning. The Environment Agency is a statutory consultee on most development. We work actively with city planners and developers to ensure that new housing, new infrastructure and other developments are sustainable, and will remain resilient to flooding and to the other, less obvious effects of climate change.

One of those effects is the risk of extreme temperatures in our cities due to urban heat island effects. The way we design and build our urban spaces can avoid those urban hotspots, and we are active in helping cities shape the right design.

The third contribution the Environment Agency is making to a successful low carbon future is helping to shape future policy,

We contribute data, analysis and advice to the government's Climate Change Risk Assessment and its National Adaptation Programme, an updated version of which is due this summer. We contribute to the UK Climate Projections, which will also be updated this year. We helped write the 25 Year Environment Plan launched last month by the Prime Minister, which commits the government to

“all possible action to mitigate climate change, while adapting to reduce its impact”. That Plan has our full support and we will have a major role in delivering it.

Finally, we are supporting the government’s Clean Growth strategy. Our Chair, Emma Howard Boyd, is actively involved in initiatives to shape a bright urban future, including the Future Cities Catapult and the Green Finance Task Force.

Conclusion: think big, act early, be visible

Let me conclude with these thoughts. The Environment Agency is not, as we are sometimes portrayed, anti-growth. On the contrary. Our primary purpose, spelt out in the 1995 Environment Act that established the Agency, is not actually protecting the environment: it is promoting sustainable development. Our job is to do both of those things: to protect and enhance the environment on the one hand, and ensure sustainable growth and development on the other. And there is no greater prize in sustainability than successfully tackling climate change.

The Environment Agency has a slogan for handling flood incidents: think big, act early, be visible. That’s not a bad strapline for tackling climate change. We have another slogan too for how we try to work: One Team. We try to be One Team both inside the Environment Agency and with our partners.

All of us are here because we care. We’re all pretty good at what we do. But none of us is as good as all of us. So let’s not worry about climate change, let’s do something about it. Let’s tackle it together, and build a better future for our cities and our country. The Environment Agency will be your partner in that great endeavour.