Speech: Not drowning but waving: making the climate emergency a global opportunity

Introduction

I'm here, of course, to give a speech on climate change and flood risk. But first I want us to turn our thoughts to all those residents affected by flooding in the Lincolnshire town of Wainfleet – and in fact to those others around the country who were also affected last week, and whom we may not have seen on the news. Flooding is a deeply personal and devastating experience – I've seen enough of it to understand that – so it's with the people of Wainfleet in mind that I want to turn now to the debate on a longer term strategy this nation needs.

There's a saying in Silicon Valley that the best way to predict the future is to invent it. We all want a better future for our world. Today we need to invent that future in the face of the biggest threat we have ever encountered: the climate emergency.

Climate emergency

I said "climate emergency" because it is, and because we all need to wake up. We need to wake up to the fact that the changing climate means we may not have enough water in this country in 20 years' time – what I recently called the Jaws of Death. And we need to wake up to the growing danger that climate change poses in relation to flooding and coastal erosion.

We live on an island full of rivers where it rains a lot. Our seas are progressively rising and our rivers are increasingly raging. Unless we tackle this, in a few decades many areas of the UK could be uninhabitable. Parts of this country risk being retaken by the sea, from which there is no coming back. And much of the rest of the country risks being constantly and lethally threatened by river or coastal flooding. If that doesn't sound to you like an emergency, I'd be interested to know what does.

Now the good news: the government has recently announced an ambitious Net Zero target for carbon. This is a great step forward. The bad news is that this will still only limit the damage to the climate, not eliminate it. Even if we didn't produce another gram of carbon from this moment on, sea levels will continue to rise for centuries. That means we still need to prepare for a different future.

The Strategy

If the best way to predict the future is to invent it, the best way to invent that future in these challenging times is to do it together. And that's what we want to do with you, and with the people of this country, by developing

together a new strategy for tackling flood and coastal erosion.

We've made proposals to start the debate. They're in this: the Environment Agency's Draft National Flood and Coastal Erosion Risk Management Strategy for England. That may not be the snappiest title in the world and I'd be happy to offer a small prize for whoever can come up with a better one. But each word in the title matters.

It's a draft, because we want all of you professionals, and everyone else with an interest (which is everyone else in this country and beyond) to give us your views and help produce the final version that we will put to the government for approval.

It's national, because the whole country is affected, directly or indirectly, by flooding and coastal erosion. And while the Environment Agency's responsibilities cover only England, the proposals we outline could apply to almost every country in the world.

It's about both flood and coastal erosion, because though they are different things they are closely linked, and are both being driven by the same thing: climate change.

It's about risk management not risk avoidance, because while we can reduce the risks of flooding and coastal erosion happening and reduce the impacts when they do, we can never prevent all flooding or coastal erosion. Nature will always be stronger than us, which is why it's always better to work with nature rather than against it.

And it's a strategy, which my dictionary defines as a plan of action designed to achieve a long-term aim, because any successful approach to tackling flood and coastal erosion has to work for the long term and come with a plan to achieve the aim we want. And that, ladies and gentlemen, is what this strategy is designed to do.

We've just launched a national consultation on the Strategy. Let me walk you briefly through what it says, identify the interesting and controversial points (there are several), and tell you about the next steps.

Why a new strategy?

First, the background. We have come a long way since 1953 when over three hundred people in this country, and nearly two thousand in the Netherlands, died in the dark during a terrible East Coast storm surge. We are much better now at predicting flood risk; at informing, warning and evacuating people in advance; and at building effective flood defences along our coastlines and rivers. In 2013 there was an East Coast storm surge that was bigger than the one in 1953, and thanks to our flood defences and our warnings, this time nobody died.

Over the last few years the Environment Agency has been leading the government's £2.6bn investment programme to better protect a further 300,000 homes by 2021, and we are on course to hit that target.

But climate change is greatly increasing the risks we face. We know now that as a result of global heating we will experience more intense rainfall and a continued rise in sea level. How much more rain, and how much higher our sea levels will be, depends on what the world does now to mitigate the drivers of climate change. We must be prepared for a rise of at least 2°C in global temperatures by the end of the century and the effect that will have on the climate, and we should plan for worse: a 4°C rise is quite possible.

Climate change means more frequent and more violent flooding and coastal change. We are already very vulnerable in this country. We're an island nation with a long history of settlement and an economy built on sea trade. That's why many of our major cities are on the coast or estuaries; why most people live near a river or the sea; and why one sixth of our homes and businesses (5.2 million in England) are already at risk of flooding.

We saw that risk materialise again last week, when – as I've already noted – many people in the town of Wainfleet had to be evacuated when the local river breached its embankment after more than two months' of rain fell in two days.

I want to pay tribute to the emergency services, the military, the local authorities, the Internal Drainage Boards, and the Environment Agency teams who have worked so hard to protect Wainfleet and help its people in their hour of need. The Chair of the Environment Agency, Emma Howard Boyd, was in Wainfleet yesterday to thank all involved. We will do whatever is necessary to get people back into their homes as soon as possible.

While many of us are not currently at direct risk of our houses flooding, there's another problem: almost all the other things we need to live a normal life – electricity, water, mobile telephone connections, internet access, roads, railways, hospitals and supermarkets – are at risk of flooding. Over two thirds of people in England are served by infrastructure located in or dependent on areas at flood risk.

We saw that illustrated too last week, when the heavy downpours closed several roads and railways and took out water and power supplies. As the population grows and the flood risk to our infrastructure increases, we'll be even more vulnerable.

So in the face of that challenge we need, as Michael Gove has rightly said, to explore new philosophies for flood and coast management. The Environment Agency's draft strategy begins that process.

What the strategy says

The strategy lays out a vision which can be summed up in one word: resilience. This is important because it's not another word: protection. The central thesis of the strategy is that we need to move from a narrow concept of protection – essentially building walls round things we want to protect – to a broader one of resilience, which will still include walls but will also involve reducing the risks to the things we want to protect, and strengthening their ability to cope with flooding and coastal change when it does happen.

Why this shift in emphasis towards resilience? Because while we will always seek to protect people and property where we can, including through hard flood and coastal defences, we will not be able to prevent all flooding and coastal change – particularly as the climate crisis drives more violent weather, higher rainfall in shorter periods, and faster coastal erosion. Since those things are going to happen, and happen more frequently, it is better to minimise the risks when they do and ensure that communities, businesses and daily life can quickly get back to normal afterwards.

The strategy seeks to achieve that resilience through three high level ambitions. First, building climate resilient places. Second, ensuring that today's growth and infrastructure are resilient to tomorrow's climate. And third, creating a nation of climate champions. Not entirely coincidentally, each of these three ambitions is the theme for one of the three days of this conference.

Climate resilient places

We think that we can ensure climate resilient places through a suite of different tools. These will include, where it's possible and cost effective, the traditional approach of protecting areas from flooding and coastal change by building and maintaining flood walls, sea defences and embankments; and by ensuring that when danger threatens we provide effective warnings and a strong emergency response.

But we also need new tools for a new future. Those tools include making the right decisions on land use; managing the flow of water through the environment to reduce the risks, including through natural flood management; designing or adapting our places and buildings to be resilient; helping communities to recover quickly after an event by repairing the damage, restoring the economy and supporting people's wellbeing; and being honest that we cannot prevent some parts of the country from flooding or eventually disappearing into the sea, and helping the communities affected to achieve a managed transition to different arrangements. And yes, let's say it: in some places that will mean moving people and communities to different places permanently, out of harm's way. That can and should only be done with the consent of those moving. Even so, it will be difficult and controversial. But it will need to happen, because if it doesn't, one day the sea will come over the wall and a lot of people will die. I would rather it happened before there is another national tragedy like 1953, not afterwards.

I talked about consent and I meant it. Because if we are going to achieve successful resilience across the country, we need to ensure that people are at the heart of decisions about the place where they live. Everywhere is different. Every solution will need to be tailored to each place. Each solution will need to reflect the wishes and needs of the people who live there. And in many places the best solution is likely to change over time.

While the solution for each place will be different, should everywhere have the same standard of resilience? The National Infrastructure Commission have recommended a national standard of flood resilience. They propose that major urban areas should be resilient to events of 0.1% annual probability – that

is, resilient against a flood of such severity that it has only a one in a thousand chance of happening in any given year. And the NIC argue that the rest of the country should be resilient to events of 0.5% annual probability – a one in two hundred likelihood in any given year.

The Dutch, who know a thing or two about preventing flooding, already have standards something like this. Maybe we should too. There are arguments on both sides, but we should certainly have the debate. While the way in which we deliver resilience will vary from place to place, we in the Environment Agency do think that there needs to be a consistent approach across the country to the level of resilience we provide.

Ensuring today's growth and infrastructure are resilient to tomorrow's climate.

Building more flood and coastal defences is a necessary but not sufficient condition for making the country more resilient. We also need the rest of our national infrastructure – our houses, factories, offices, roads, rail, power stations, water supplies, etc. – and our economy as a whole to be able to cope with tomorrow's climate. That's why the strategy suggests that all infrastructure should be resilient to future flooding and coastal change; that all new development should contribute to resilience and environmental net gain; that places and properties affected by flooding and coastal change should be built back better, where necessary in better places; and that all investment in flood and coastal infrastructure should also contribute to sustainable growth.

Can we afford to make the investment we need for the resilience we want? Yes. The better question is whether we can afford not to.

We estimate that between now and 2065 it will require an average investment of at least £1 billion a year – some £50bn over the next fifty years – to build and maintain the traditional hard flooding and coastal change infrastructure the country will need. It will cost a good deal more than that to invest in the resilient infrastructure, houses and cities we need, and in some of the softer measures like natural flood management. That's the bad news. The good news is that much of the future investment we'll need doesn't have to come from the taxpayer in the form of government grants. It may increasingly come from new sources, such as businesses or green finance, or individuals or communities.

And wherever the funding comes from it will be excellent value for money, because on average every £1 spent protecting locations from flood avoids around £9 in damages. In the 2013 East Coast storm surge, not only did our flood defences ensure there was no cost in lives, they also prevented £37bn in economic damage.

There's more. Much of the investment we'll need to put in over the next few decades won't just save money in terms of damages avoided. It will generate greater wealth and prosperity too. Building back better after flooding, designing new technology, creating infrastructure that's more resilient: these are all huge economic opportunities which will deliver high returns for

investors, more growth and jobs, more innovation and new technology.

A nation of climate champions

The strategy argues that there is one more vital ingredient in making our country resilient: the humans. We need a nation of climate champions. We need everyone to own their own flood risk. We all need to know whether we live in an area of flood risk: right now only a third of those who do so actually know that they are at risk. And we all need to know how to reduce the risks to ourselves.

If we are going to build the better future we want, we need young people to understand better than my generation the impact of flooding and coastal change and embrace the potential solutions; and we need our universities, our businesses and our public services to develop and attract the brilliant talent we'll need to create the resilient places we want.

Leading the world

If we do all this, and we can, the UK will be rightly recognised as a world leader in managing flooding and coastal change. There is money as well as fame and security in all this. By 2030 the cost of global adaptation to climate change will be up to $300 billion a year. That's a huge new market. We in the UK have world-leading expertise across the whole flood and coastal supply chain: much of it sitting in front of me now. So this is not just a problem: it's an economic opportunity we should all seize.

It's also an opportunity to build partnerships around the world to tackle the effects of this climate emergency. The Environment Agency already has excellent links with our colleagues from the Netherlands, the US, Australia, Japan and elsewhere. I'd like to see us all develop more links with India, China and the developing nations, many of which are at even greater risk from rising seas and rivers than we are. For that reason, it's often those countries that are coming up with the most innovative solutions: we can learn at least as much from them as they can from us.

What we want now: a national conversation and some optimism

So this is the start of what we hope will be a big conversation about the Strategy. We really want your views: tell us what you think we've got right, what we haven't, and what should be different. None of us is as good as all of us. Please be our partners in the design and the delivery of the new Strategy. And please tell us by 4 July, the deadline for responses to our consultation, so we can reflect your views in the final version.

And as we have that conversation, let's remember what it's really about. It's not just about a new strategy for flood and coastal erosion risk management. It's about a new future. The future of our cities and countryside. The future of our economy. The future of our country. Ultimately, the future of our world.

That future doesn't have to be dark. Humans caused this climate catastrophe. Humans can stop it. We can, together, write a different story and invent a

different future. We can, together, build a better world. Let’s start now.

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Promotional material: Measles outbreak

Posters and leaflets for use by health professionals and community engagement groups to raise awareness of measles.

Press release: Change of Her Majesty’s Ambassador to Sweden – August 2019

Ms Judith Gough CMG has been appointed Her Majesty’s Ambassador to the Kingdom of Sweden in succession to Mr David Cairns.