Transcript: Food

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From an expert talk given at the National Emergency Briefing on 27th Nov 2025 at Westminster Central Hall. Full talks can be found at <u>https://www.nebriefing.org/</u>.

Thanks so much for that introduction, Mike.

I'm going to tell you about a threat that will affect everyone in this room, every family in this country and every constituent, a threat for which we are woefully unprepared. And I'm talking about the increasing pressure on global food supplies in the face of accelerating climate change and nature loss.

This is what happens when food systems fail. Empty supermarket shelves, people queuing for hours for food protests and civil unrest. In Syria, drought-driven agricultural collapse preceded civil war, and we've seen climate fingerprints on many of the civilisational collapses in history.

For generations, a stable climate has given us reliable harvests. But that era, as we've heard, is gone. We are facing an increasingly chaotic system.

So we're talking droughts, floods, wildfires and heat extremes that are all increasing. And these, by the way, are all pictures from the UK. But what's exceptionally damaging is when they strike together, especially in global bread baskets. One study in a top journal found that before climate change, a major corn harvest failure might happen once every 16 years. At 1.5 degrees of warming, that rises to once every three years. At 2°C, it's once every other year.

And it's not just corn, but other crops like soy. And in fact, projections suggest that even though we see some areas become available for agriculture as the world warms, overall we'll lose around a third of the land suitable for food by the end of the century.

And these impacts aren't abstract. They're starting to hit home. Britain has seen three of the five worst cereal harvests on record occur this decade.

This is Colin Chappell, a fourth generation arable farmer in Lincolnshire, during the flooding of 2023, who said: "I was farming water. I wasn't farming soil. My dad got flooded once in 1981, but since 2000, I've lost count of the amount of times that I've been flooded". He also went on to say, "I'll be open and honest. I don't know how we'll get through next year. If I get one more bad year, that's it. We're gone".

Over 80% of farmers say that climate change is seriously threatening their ability to make a living. And on top of this, we're deeply dependent on the rest of the world, importing around 40% to 50% of our food, and much of this from regions that are hammered themselves by the climatic impacts that we've been talking about.

From olive oil to beef, from cacao to coffee, we're seeing impacts everywhere. And of these imports, around 25% come from the Mediterranean, especially vital vegetables and fruits. And these are regions that are also experiencing dramatic climatic impacts, and likely desertification as we move through the decades.

But perhaps what concerns me most isn't the direct food availability in the UK, although we may see some short term limits, it's that we see food price inflation and what that means for people already struggling.

So one estimate suggests that about a third of the food price inflation that we saw in 2023 was driven by extreme weather events that are now becoming the norm. And when families can't afford to feed their children, societies break down. We see this all the time.

Climate change is already contributing to a febrile political atmosphere in this country, when we think about the cost of living crisis.

And the food industry itself is alarmed. UK food executives have warned that the sector is on course for pronounced shortages and business failures, saying we've "reached a moment of threat to our food security like none other we have seen".

And when food security experts are asked about UK civil unrest driven by food supply crises, 40% say it's possible within a decade on our current path. 80% say that it's possible within 50 years. And yet our agricultural policies barely acknowledge these risks. And worse still, the food system itself is damaging the very foundations of our food security.

It's a large driver of the UK's greenhouse gas emissions, drives catastrophic habitat loss, pollutes our water, pollutes our air, depletes our freshwater, drives antimicrobial resistance and creates the conditions for the emergence of new pandemics.

So, in short, the system that feeds us and that we rely upon, is actually also undermining the foundations that we depend upon.

The good news is that the research is crystal clear on what we need to do, and fortunately, it's healthier for us. We need a great food transformation built on four main pillars: shifting to plant-rich diets, reducing food waste, improving production and increasing climate resilience.

But one of these pillars is much bigger than the others: a shift to healthy, plant rich diets. In the UK, animal agriculture occupies around 85% of total agricultural land - shown in green here, proportionally - and animals drive most of the problems that I just mentioned. And this

is just simply not resilient, because in a climate and nature constrained world, with a shrinking agricultural safe space, this is simply unsustainable.

Research from our team and many others across the UK show that healthy, sustainable diets can still include some meat and dairy, just far less of it. So we're thinking about a red meat burger once every two weeks, which is still within the range of diets of many British families. It means a chicken breast once a week and a quarter of a pint of dairy each day. Maybe a bit of cheese.

Now, I know this can be politically difficult to talk about, but we have to be straight with people about the choices ahead. Because if we don't lead this change on the front foot, we'll be forced into this change anyway as food shocks intensify and as animals are hit harder by climate change than crops.

And if we can be on the front foot. This is where the story becomes one of extraordinary opportunity.

Plant-rich diets, like the ones I just described, give us win-wins across every dimension. I've put a little counter here to keep a track of the wins, because there's quite a few that's going to come up here. So our work shows that we would reduce our agricultural emissions about 60%.

We'd also find that we spare an area almost the size of Scotland across the UK. This is a 'before and after' photo of an upland valley showing what could be done on the land. It could mean more nature, storing huge amounts of carbon, helping to meet our climate targets, helping to meet our nature targets, improving our flood resilience. Just imagine the flood resilience on the left here compared to the right.

It would improve our dire mental health outcomes, as we just heard from Nathalie, by increasing our access to nature. Or even for other direct economic uses: for forestry, for timber buildings, for bioplastics,. We dramatically increase water quality and our air quality, saving lives and nature. We'd also have healthier diets, improving productivity and saving tens or even hundreds of billions of pounds each year.

When New York hospitals made their foods plant-rich by default, they found greater satisfaction among patients, better health outcomes and bigger budget savings. Now, one estimate puts it at the NHS saving £55 million a year just in catering costs alone. I talked before about threats to food supply, but this is how we can create climate resilience.

We can use some of that spared land to grow more of the food we need here in the UK. It will cut over-reliance on imports and you can feed many more people per hectare on a plant-rich diet. In our research, we find that the UK could be largely self-sufficient in many major crops if we made the shift.

Lastly, and importantly, farmers - like Colin Chappell who we heard from earlier - across Britain are clamouring for security. They want their work valued, they want viable livelihoods, and they are essential partners. And in fact, our research shows that their income could increase if we do this right, cutting down on the products that lose money and being paid fairly to deliver the nature and climate outcomes we desperately need.

The result would be turning around the trends in dire mental health outcomes reported by UK farmers, and especially for animal farmers who report poorer mental health in general as they have less time off - as they can't leave their animals. This shift would allow farmers to be true stewards of nature and spark a rural renaissance. Now, this is not the only selection of wins. I'm sure you can think of many others, including in animal welfare, but I've only got a few minutes left. You can add your own in your own time.

It's not only scientists that see this opportunity. In the 1990s, Denmark bet big on wind energy and created a world leading clean tech industry. And the Danes have seen the way the wind is blowing in agriculture.

And they're taking the same approach with a plant-rich action plan, investing in plants along the food supply chain from farmers to chefs. And they're aiming to spur growth and make billions in plant-rich exports. There are other changes we need to improve food security. The National Preparedness Commission has highlighted many vital steps, from treating food as a critical infrastructure and moving away from these just-in-time logistics and towards food storage strategies.

And these will become even more important as climate change bites.

Although changes in the food system can seem hard, we're not starting from scratch. We have the excellent National Food Strategy with excellent recommendations across the board. We have international allies moving towards plant-rich food systems. There are obvious difficulties in shifting public perception around eating more plants, although pretty much everybody knows it's better for us.

We must bring people on board and there is plenty of research to support us on this journey.

Overall, we've got to place the focus on eating high fibre whole food plants for the sake of our own health, but also for the planet's health. So we face a choice. We can continue with business-as-usual, watching our food systems crumble, watching the costs rise, our resilience erode, and then bracing ourselves for political and civil unrest.

Or we can act now to improve our health, our environment, our rural livelihoods, our communities, along with improving our ability to roll with the punches of climate change. We'll look back and wonder why we didn't make these changes sooner.

Thank you very much for your time.