

What's cooking? The UK's potential food crisis

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The Sustainable Consumption Institute research claims food which families now take for granted, such as meat and fresh vegetables, could become too expensive for many if global temperatures rise in line with the current trends and reach 4°C within the lifetime of many people.

Even if families continue to take steps to lower their carbon [emissions](#) from energy use, global farming emissions will continue to rise because of our growing appetite for energy-intensive foods and a rising demand to meet just basic living standards across the world.

Only by reducing consumption of energy, food, goods and services can we have a good chance of minimising the harmful effects of global warming, the report warns.

Should the temperature rise above 2°C, consumers could find their shopping habits are radically altered. Most meats would soar in price, meaning families could have to adapt to a meat-free diets, the possibility of failing crops and staple food sources such as rice and wheat potentially being devastated.

Globally, where non-carbon emissions such as those produced by agriculture make up around a quarter of total emissions - compared to around 10% in the UK - the picture is even more stark. Rice crops, for example, could be reduced by about 30% in the subcontinent in a '4°C' world, leading to potential food shortages and hunger.

The two-year study, led by Dr Alice Bows from The University of Manchester, claims that while a smarter use of technology and some shifts in how and what people consume could prevent a rise to 4°C, restricting the rise to just 2°C is impossible without a significant contribution from changes to consumption.

The researchers calculated the emissions of all

goods consumed in the UK; including foods produced overseas but eaten here. Most models only include goods produced in the UK, reducing the levels of emissions recorded.

Many climate experts believe a slight rise in UK temperatures would be beneficial for the farming industry as it yields could increase.

However, as temperatures continue to rise, farmers would need to use more and more fertiliser on their crops and some livestock would not be as productive. Both would lead to a further rise in greenhouse gas emissions.

Dr Bows and her team developed a series of scenarios, based on a +2°C or a +4°C future, each looking at different implications of [climate change](#). More drastic options include the concepts of indoor farms, lab-grown meat and community cooking centres to replace kitchens and reduce emissions from industry and households.

She said: "The failure of the global community to turn rhetoric into reality and put meaningful policies in place to urgently cut emissions means that we are facing future temperature increases around 4°C which will be devastating to agriculture and fundamentally alter food provision."

"If policymakers and scientists continue to take the complacent and precarious position that a 2°C rise will be avoided, without taking necessary measures to cut emissions, we will have seriously misled those adapting to climate change. The consequence of which will most acutely affect the vulnerable in society".

"In countries like the UK, policymakers have focused so much on the CO₂ emissions linked to energy, that agriculture and food has been overlooked. This report shows that agricultural emissions will be more challenging to cut, placing even greater pressure on the energy sector to

decarbonise. "

"Much more emphasis needs to be placed on policies to cut agricultural emissions for there to be any reasonable chance of avoiding a 2°C temperature rise"

"It is absolutely essential scientists and decision makers see the bigger picture. Climate change will likely raise the greenhouse gas emissions from agriculture. If Governments like the UK's want to take action to avoid a 2°C temperature rise, they must reassess their targets to both take account of climate change impacts, and secondly, better understand how UK consumption is linked to the emissions right down global supply chains".

Commenting on the report, Peter Baker, Senior Scientist at non-profit organisation CABI, said: "The authors have vigorously engaged with a wide range of people - it was intriguing to be one of them - as they strived to create some unnerving narratives. A dip into the report should start you thinking; the future won't be quite like any of the presented scenarios - so where are we going, what will it be like, and why?"

Louise Neville, Sustainability Officer from Quorn Foods, added: "This report is impressive, as it has the potential to provoke a much needed wake up call to Government, industry and consumers alike - all whilst remaining clear and accessible.

"There is much talk as to the serious challenges to be faced due to climate change but this report succinctly lays out the repercussions in real terms - along with potential ways in which to respond.

"Put simply - our consumption patterns need to become more sustainable. This is a challenge that the food industry can and should play a key leading role in. Regardless, the findings of the report are an essential insight for business."

The [Sustainable Consumption](#) Institute will be launching the report at an event in London today [July 4] and at a further event in Manchester on July 13. Guest speakers include Mike Childs, Head of Policy, Research and Science at Friends of the Earth and Emma Keller of Unilever.

More information: 'What's Cooking' Adaption and Migration in the UK Food System, by Alice Bows, Ellie Dawkins, Clair Gough, Sarah Mander, Carly McLachlan, Mirjam Roder, Laura Thorn, Patricia Thornley and Ruth Wood.

Provided by University of Manchester

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