

Climate change could lead to food-related civil unrest in UK within 50 years, say experts

October 12 2023, by Sarah Bridle and Aled Jones



Credit: AI-generated image ([disclaimer](#))

The emptying of supermarket shelves during the COVID pandemic demonstrated the chaos that disruption to the UK's food supply can provoke. Could this type of disruption have a different cause in the future? And what might the impact on society be?

These are the questions we sought to answer in [our new study](#), which involved surveying 58 leading UK food experts spanning academia, policy, charitable organizations and business.

Our findings indicate that food shortages stemming from [extreme weather events](#) could potentially lead to civil unrest in the UK within 50 years. Shortages of staple carbohydrates like wheat, bread, pasta and cereal appear to be the most likely triggers of such unrest.

The UK's food system appears to be particularly [vulnerable to significant disruption](#). This vulnerability can be attributed, in part, to its [emphasis on efficiency](#) at the expense of resilience (the ability to withstand and recover from shocks). This approach includes a heavy reliance on seasonal labor and practices like "[just-in-time](#)" supply chains, where products are delivered precisely when needed.

Our study emphasizes the importance of developing plans to help the UK prepare for, and respond to, the risks associated with food shortages in the future.

Expert survey

We asked food experts to rate the likelihood of a scenario occurring in the UK in which more than 30,000 people suffered violent injury over the course of one year through events such as demonstrations or violent looting.

Just over 40% of these experts said they thought such a scenario was either "possible" or "more likely than not" in the next ten years. Over 50 years, nearly 80% of experts believed civil unrest was either possible, more likely than not, or "very likely".

The experts were then asked about the potential causes of food system

disruption that would lead to unrest. They were asked whether they thought this disruption would stem from an overall scarcity of food, or from issues related to [food distribution](#), which could prevent food from reaching the right places and thus create isolated pockets of hunger.

Our results show that most experts (80%) hold the belief that, within the next ten years, logistical distribution issues leading to shortages are the most probable cause of food-related civil unrest.

However, when contemplating a 50-year timeframe, the majority (57%) said an insufficient food supply to sustain the UK population would be the most likely cause, potentially due to events such as a catastrophic harvest failure.

Extreme weather—including [storm surges](#), flooding, snow and drought—was chosen as the leading cause of future food supply shortages and distribution issues over both the ten- and 50-year time frames.

UK already at risk

Just [under half](#) of the UK's entire food supply is imported, including 80% of fruit, 50% of vegetables, and 20% of beef and poultry. Any disruption to imports and supply chains can thus have a significant impact on [food availability](#) in the UK. A fall in the availability of food can lead to rising prices and, potentially, social unrest.

COVID, Brexit and the cost of living crisis have highlighted the UK's vulnerability to such a risk. Between April and August 2022, as inflation squeezed household incomes, over half of independent food banks in the UK reported that [25% or more](#) of the people they supported hadn't used their services before.

Extreme weather events are also occurring more frequently. Many of these events are driven by climate change. It's entirely possible that [extreme weather](#) will cause major crop yield failures across "[multiple breadbaskets](#)" in the coming decades.

This scenario is not far-fetched. We have witnessed numerous instances of [major shocks](#) to food production in recent decades.

One notable example, in 2007, saw an [8% decline in global cereal production](#) due to droughts, floods and heat waves in Australia, India and the US. These events, combined with low global cereal stocks, financial speculation and high fertilizer prices, resulted in cereal prices [more than doubling](#). The crisis sparked food riots in more than 30 countries.

To [reduce the risk](#) of civil unrest occurring in the UK as a result of food shortages, it's crucial to address food poverty. By ensuring people can access and afford the food that is available, trust can be built between communities, government and food supply chains over time.

Redesigning the food system

The UK needs a food system designed not just for optimal efficiency, but also for resilience. Government agencies and businesses must explore and fund options to make the food system more robust to shocks.

This should include restoring degraded soils and the habitats used by pollinators, improving working conditions within the food supply chain, and prioritizing sustainable farming practices.

Growing more robust crop varieties and species, using resources more efficiently, and establishing backup storage and distribution systems to move away from just-in-time delivery are all key aspects of a more

resilient food system too.

Efforts to curb the harmful effects of climate change—the most probable cause of future [food shortages](#) and distribution issues—should also be ramped up.

The COVID pandemic saw major challenges with food distribution, from which lessons can be learned. Creating a food system that is both resilient and efficient will safeguard against future disruptions, ensuring that food is accessible and affordable while preventing the emergence of civil unrest.

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