

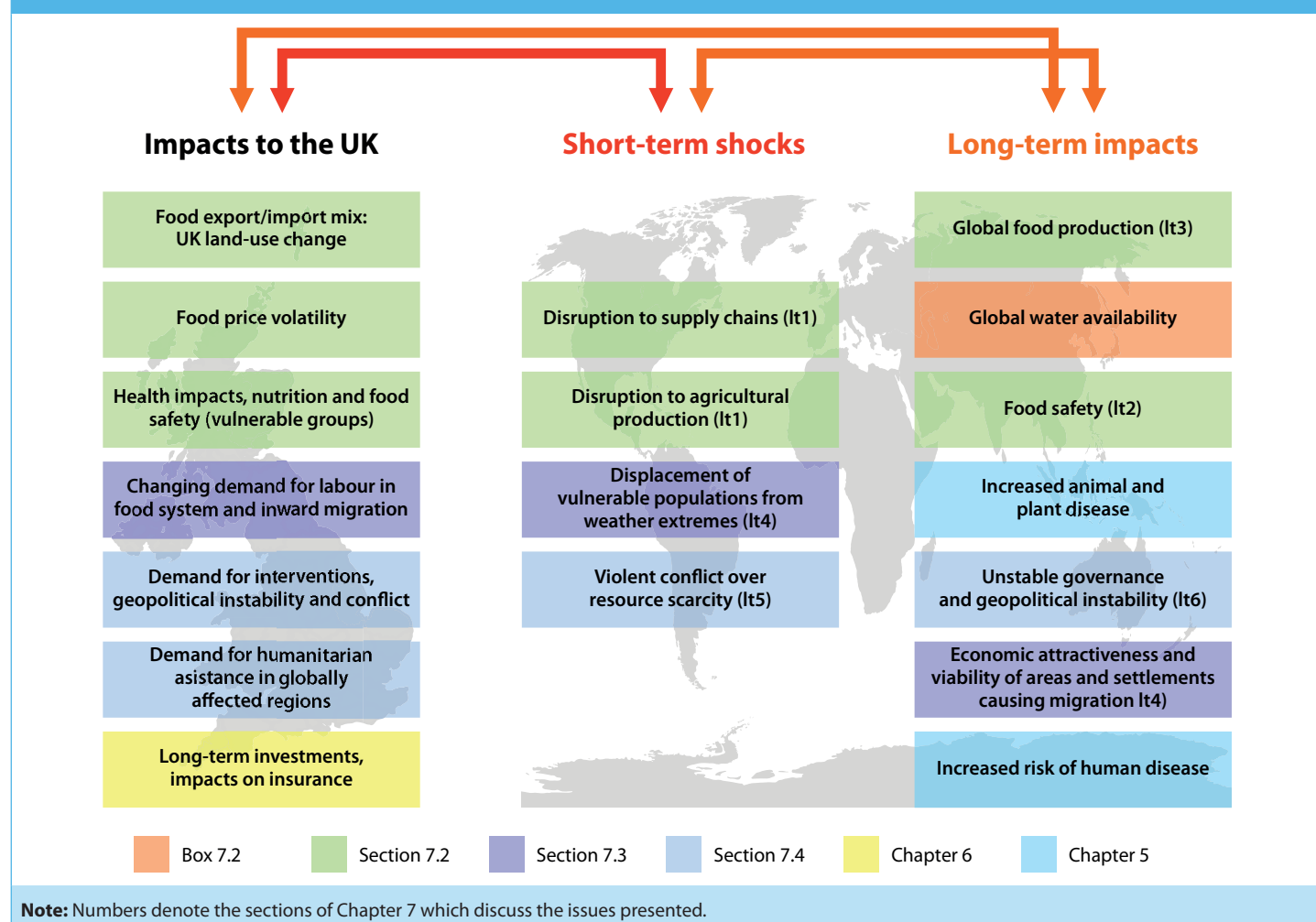


Climate change will impact populations, economies and livelihoods around the world. An increase in extreme weather impacts can be expected to cause widespread loss of life and severe humanitarian crises. Increasing pressure will be placed on scarce natural resources, patterns of agricultural production will change and be disrupted, and when combined with other factors this could cause individual states to fail.

Impacts will be imported to the UK through the price and safety of food and other commodities, changes in the patterns of trade, disruption to global supply chains, and risks to overseas investments.

- Climate change is expected to increase the frequency of weather extremes, disproportionately affecting low income populations. The UK is likely to be called upon to provide more resources for humanitarian assistance, and efforts to build state stability and long-term resilience could be undermined.
- Extreme weather events can also cause production shocks and supply chain disturbance, with impacts on the world food market, to which UK prices are particularly sensitive.
- UK business is also affected by these shocks. For example, the 2012 US drought contributed to increasing the price of soya which, in turn, led to some UK pig farmers being forced out of business.
- Climate change will cause shifts in the global production of food. This could positively or negatively affect the price, availability and nutritional value of food in the UK. Research is needed to build a more complete understanding of these risks in order to inform policy.

### International dimensions of climate change risk





When combined with other factors, weather-related events can cause people to migrate, mostly within or to neighbouring countries, but it can also lead to movement further afield.

There is potential to increase cooperation with EU states on migration and build mechanisms to facilitate assistance, settlement or return of displaced populations.

Climate change will also over time affect the economic attractiveness of specific regions within countries, and across continents, improving agricultural prospects and creating jobs in some areas whilst others suffer declines. Populations are likely to shift and migrate in response.

Geopolitical risks impact the UK by increasing demand for humanitarian assistance and affecting UK economic interests abroad.

Research is needed to understand whether current approaches to aid and development are building the long-term resilience and stability needed.

An increasing frequency of extreme weather events would shift international aid away from long-term development aid (resilience building, disaster risk reduction, state stability) toward responsive interventions (peace-keeping, humanitarian aid).

Research is needed to understand the impact of existing funding mechanisms, such as the Conflict, Stability and Security Fund.

#### Urgency of additional action to manage international dimensions of risk

Risk/opportunity	Urgency score	Rationale for scoring
It1: Risks from weather-related shocks to international food production and trade	More action needed	At present there is no co-ordinated national approach to improving the resilience of the UK food system. Coordinated approaches require broad participation across policy, industry and research.
It2: Imported food safety risks	Research priority	There is a gap in surveillance systems to monitor food safety at source and through complex international supply chains.
It3: Risks and opportunities from long-term, climate-related changes in global food production	Research priority	The UK may increase its comparative advantage in specific areas of agricultural production in the future. Trends in global agricultural production and consumption need further monitoring and assessment.
It4: Risks to the UK from climate-related international human displacements	More action needed	A more pro-active strategy to work in partnership with other countries is needed to provide rapid legal and basic assistance to migrants and to build long-term resilience in exposed regions. Otherwise overseas development efforts will increasingly be diverted to provide humanitarian (i.e. emergency) aid.
It5: Risks to the UK from international violent conflict	Research priority	Further evidence is needed to understand the appropriate balance between long-term development aid (resilience building, disaster risk reduction, state stability) and responsive interventions (peace-keeping, humanitarian aid).
It6: Risks to international law and governance	Research priority	There is a lack of systematic monitoring and strategic planning to address the potential for breakdown in foreign national and international governance, and inter-state rivalry, caused by shortages in resources that are sensitive to climate change.
It7: Opportunities from changes in international trade routes	Watching brief	Potential changes in trade routes are already being assessed and the issue should continue to be monitored.

**Note:** The urgency categories are defined as follows:

- **More action needed:** New, stronger or different government policies or implementation activities – over and above those already planned – are needed to reduce long-term vulnerability to climate change.
- **Research priority:** Research is needed to fill significant evidence gaps or reduce the uncertainty in the current level of understanding in order to assess the need for additional action.
- **Sustain current action:** Current or planned levels of activity are appropriate, but continued implementation of these policies or plans is needed to ensure that the risk continues to be managed in the future. This includes any existing plans to increase or change the current level of activity.
- **Watching brief:** The evidence in these areas should be kept under review, with long-term monitoring of risk levels and adaptation activity so that further action can be taken if necessary.