

Expert report calls for long term planning to protect UK food and water supplies

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- Expert report calls for long term integrated planning to protect the future of food and water supplies in the UK.
- Pressure on water and food supplies will increase due to larger populations, changing diets and climate change
- Report recommends preparing for a greater frequency of extreme weather, better advice for farmers, investing in modelling water systems and improved communication of the issues

The UK needs to formulate long-term plans to protect both water and food supplies here and across international supply chains, as water usage and availability change in coming years.

That's the conclusion in a new report from an expert group, led by the Global Food Security programme as part of the UK Water Research and Innovation Partnership (UKWRIP). [Farming and Water: Facing the Future Together \(PDF 1.63Mb\)](#) was written by a collaboration of scientists, policy experts and specialists from the water industry.

Agriculture, food and water supplies are more intimately connected than is often appreciated. As demand for both food and water increases, there is a growing need to recognise the inter-connections and integrate long-term planning for the "agri-water" system rather than thinking about water and food systems separately.

World demand for food is expected to rise by 60-100% by 2050, driven by a growing population and changing diets globally. In addition climate change will undermine the resilience of some food supply chains.

Both of these factors are likely to create strong pressure on UK land and water resources. New approaches will therefore be needed, to manage land appropriately and determine trade-offs, so that water, food and environmental systems remain sustainable in the future.

Farming is dependent on water supplies. It takes about 10 tonnes of water to produce a kilogram of beef, or 1.6 tonnes to produce a kilogram of wheat. Eight of the top 10 countries we import food from are drought prone.

The report studies the links between water, food and the environment and includes detailed assessments of:

- the link between [farming and the availability of water \(PDF 2.13Mb\)](#)
- the link between [agriculture and water quality \(PDF 2.11Mb\)](#)
- how to understand and manage the availability of [overseas water \(PDF 2.18\)](#) which has been used **to produce the food we import.**

The authors make five main recommendations for policy makers, researchers and the food industry

- Better long term planning for changes in water usage and availability – giving equal emphasis to trends in average conditions, and the extremes, such as floods and droughts – in the future, in the

UK and in our overseas' supply chain. For example public water supply reservoirs can take up to 10 years to get planning permission, which can be a major long term barrier.

- Public and private investment to identify and predict risks and consequences of changes in water usage and availability. For example, supermarkets increasingly need to be forward-looking to protect their supply chains.
- Forming a knowledge network for academics, industry and policymakers to exchange expertise and ideas, identify knowledge gaps and act as a hub of best knowledge. This is important to prevent expertise being siloed across sectors, disciplines and regions.
- Empowering farmers to make the best decisions to improve water quality and availability on their land and in their catchment, through building peer-to-peer networks between farms and other stakeholders within an area.
- The complexities around food and water need to be communicated, to improve consumer understanding of food and water.

The vision calls for aligned planning over both the short and long term, a greater awareness of the value of water and food and a closing of knowledge gaps in order for the UK food and water systems to meet the demands of the future sustainably.