

Science predicts more frequent extreme events will shock the global food system

12 February 2016

A panel of British and American researchers, speaking at the annual meeting of the American Association for the Advancement of Science (AAAS) in Washington DC, will present updated research revealing how extreme events which affect the food system are increasingly likely to occur, resulting in 'food shocks'.

Food shocks have the potential to wreak havoc on food markets, commodity exports, and families around the world.

Because distant regions are increasingly connected by global markets, the threat of extreme events occurring in different breadbaskets simultaneously is especially concerning. For example, what if severe drought in the US Midwest withers the soy and maize harvest at the same time that a record-breaking heat wave in Europe bakes the continent's wheat crop?

In a report released last year, an independent expert taskforce from the UK and USA outlined key recommendations to safeguard against threats to food supplies.

At the AAAS meeting, researchers from the taskforce will discuss the impact of new research and outline the prognosis for 2016.

Kirsty Lewis, Applied Climate Science Team Leader at the UK's Met Office, will:

- Discuss how our understanding of the geography of food production interacts with meteorology to compound the threats to food production in certain areas.
- Comment on the seasonal forecasts and discuss the relationship between the global [food system](#) and current El Nino-driven weather patterns.

Joshua Elliott, Computation Institute, University of Chicago, will present:

- Findings from ground breaking international projects to map the effects of climate change on crops around the world.
- Evidence for increasing risk to global agriculture from larger and more frequent [extreme events](#) as climate changes.
- New work on the risks posed by a 21st century Dustbowl-like drought to key commodity crops in the US Midwest and central plains.

Prof Tim Benton, Champion of the UK's Global Food Security Programme - which coordinated the task force's report will discuss the recommendations and the ways in which we can develop resilience against the increasing likelihood of food shocks.

Prof Tim Benton said, "The global interconnectedness that makes countries more resilient to local production shocks makes them more vulnerable to shocks in distant 'breadbasket' regions. Crop yields and climate data show us that the global [food](#) system is at increased risk as [extreme weather events](#) are as much as three times more likely to happen as a result of [climate change](#) by mid-century".

More information: The UK-US Taskforce on Extreme Weather and Global Food System Resilience reports are available at:

Synthesis: www.foodsecurity.ac.uk/assets/..._obal-food-system.pdf

Climate: www.foodsecurity.ac.uk/assets/..._roduction-shocks.pdf

Responses: www.foodsecurity.ac.uk/assets/..._roduction-shocks.pdf

Impacts: www.foodsecurity.ac.uk/assets/..._roduction-shocks.pdf

Provided by Biotechnology and Biological

Sciences Research Council

APA citation: Science predicts more frequent extreme events will shock the global food system (2016, February 12) retrieved 24 June 2019 from <https://phys.org/news/2016-02-science-frequent-extreme-events-global.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.