

Working with Deloitte LLP on climate risks to business

Walker Institute external engagement

We are working with the business advisory firm Deloitte LLP to understand, quantify and communicate the changing risks from weather and climate and how they affect business infrastructure, supply chains and investment.

The changing risks from weather and climate

Businesses are becoming increasingly aware of both the risks and potential opportunities from a changing climate. Extreme events such as the US heatwave and drought of 2012 and recent flooding in the UK and Asia have caused disruption to business operations and supply chains around the world.

The scientific evidence points clearly to an increasing incidence of such events and this, coupled with increasing regulation around climate change, means we will inevitably see climate change rising up the boardroom agenda.

In response to this, Deloitte LLP, the business advisory firm, and the Walker Institute have a joint initiative to provide scientific research and advice on the implications of climate change for business. This includes a major contribution towards a Deloitte research fellow based in the Walker Institute.

Understanding the effects of climate change on business risks and liabilities

Bringing together the business acumen and contacts of Deloitte LLP with the academic excellence of the Walker Institute provides a powerful combination. Working together we are investigating the risks from weather and climate and what they mean for business across a broad spectrum of industry sectors and across many areas of the globe.

Walker Institute expertise is helping to determine the 'materiality' of climate risk in the context of business decision making and we are using case studies to translate abstract risk into concrete examples. There are a number of challenges to consider here, such as: why and how businesses should describe the risks from climate change, how it should be reported and how it should be priced (if at all).



We are delighted to have the opportunity to work with leading academics to bring the best advice to our clients in a fast moving and critical area such as climate change.

David Cruickshank,
Chairman of the Board of Deloitte Partners

Extreme weather events are causing significant financial damage to markets. Investors therefore expect corporations to think more about climate resilience.

Paul Simpson,
Chief Executive of the Carbon Disclosure Project

Using climate science for adaptation and mitigation plans and actions

Building on our strategic assessment of climate related risks, we are working with Deloitte LLP to develop a series of tools to help businesses incorporate the risks from climate change within their planning and decision making process.

This involves work to understand in general terms how businesses might incorporate climate change information. A number of different activities are underway such as the development and application of tools for climate risk analysis and visualisation.

Through our relationship with Deloitte we are also working with specific clients. For example, we have worked with a major UK retailer to understand and quantify the risks to their property portfolio from heatwaves using information from the latest UK climate scenarios (UKCP09).

Work underpinned by climate expertise

Crucial to making this joint initiative effective is the excellent academic credentials of the Walker Institute. The Institute draws together research groups from across the University of Reading's Meteorology, Agriculture, Geography and Construction Management and Engineering Departments with expertise in:

- Climate extremes/hazardous weather
- Cutting edge climate modelling
- Understanding human induced and natural climate change/variability
- Expertise in climate prediction on seasonal to multi-decadal timescales
- Climate impact expertise in sectors such as water, agriculture and the built environment.

In Europe we have experienced a series of extreme events in recent years that have highlighted our vulnerability to climate, such as the flooding in the UK in recent summers and the European heatwave of summer 2003. Researchers at the Walker Institute are analysing past extreme events to understand their regional and global climatic context.

For example, the flooding in Europe during summer 2002 was accompanied by the worst monsoon failure in India for three decades and a warm El Niño event in the tropical Pacific. Our research shows that these separate events could have been connected.

At the Walker Institute we are developing global climate models with higher resolution than ever before. Our models are better than typical coarse resolution climate models at simulating regional climate and weather systems, like hurricanes and mid-latitude storms. We are beginning to explore future climate with our high resolution models and looking in particular at predicting climate for the next 5 to 20 years.

i For more information, please contact:

Kathy Maskell

Walker Institute
Communications Manager
University of Reading
Agriculture Building
Earley Gate
Reading RG6 6AR, UK

k.maskell@reading.ac.uk
Tel +44 (0)118 378 7380

www.walker-institute.ac.uk/partnerships

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The work is led by:

Dr Ben Lloyd-Hughes, Deloitte Research Fellow
b.lloydhughes@reading.ac.uk