

Tackling Climate Change

The Walker Institute for Climate System Research, University of Reading

Meeting Global Challenges

- Climate change has been described by the UN Secretary General, Ban Ki-Moon as the “defining challenge of our age”. Water resources, food security, biodiversity and human health are all under threat from a changing climate. The vision of the Walker Institute for Climate System Research is to deliver better knowledge and understanding of future climate and its impacts for the benefit of society and apply climate research to practical issues.

A Multidisciplinary Approach

- Climate change is an inherently inter-disciplinary problem. A key strength of the Institute’s approach to finding solutions is that it brings together the broad range of climate expertise that exists at Reading cutting across traditional boundaries between physical, biological and social sciences. This includes specialists in meteorology, geography, oceanography, agriculture, biology, archaeology, hydrology, business modelling, economics, soil science, social and policy studies, environmental science, mathematics and physics.

Research Impact

- A major project is assessing the global-scale impacts of climate change, particularly water resources, biodiversity, agriculture and the urban environment to help policymakers formulate national and global adaptation strategies. It is providing advice to governments on avoiding dangerous climate change and informing major international climate negotiations.
- Research is improving predictions of climate-related catastrophe. The development of high-resolution global climate models allows the simulation of extreme weather more accurately to inform emergency, contingency and insurance planning. A partnership with Deloitte is researching the implications of climate change and weather extremes for business.
- Scientists have developed new prediction methods to study how climate change will impact crops across the world and how to cope by specifying new crop varieties. This research will be used by the UK negotiating team at the international climate conference in Copenhagen.
- A research partnership with the Met Office is improving 5-20 year predictions of climate which is crucial for government and business climate change adaptation planning.
- An Institute partnership with Government and aircraft companies is assessing the impact of greenhouse gases from industry and aircraft. It is providing scientific evidence to advise policy on how to incorporate aviation into emission reduction targets internationally.
- The Institute’s scientists and economists made significant contributions to the Stern Review on the “Economics of Climate Change”, writing sections on crops and climate change, greenhouse gases, monsoons, and provided experts to reviewing the report as a whole.

Funding Sources

- The Institute was established with a combination of QR resources, responsive mode funding from the Research Councils, and a range of grants from charities, trusts, the Department of Energy and Climate Change, the Department for Environment, Food and Rural Affairs, and Business.