

Paralysis by analysis should not delay decisions on climate change

November 27 2012



The Thames Barrier was built to protect London from floods with a return period of 1000 years up to 2030. Credit: London-GB.com

Uncertainty about how much the climate is changing is not a reason to delay preparing for the harmful impacts of climate change says Professor Jim Hall of the Environmental Change Institute at the University of Oxford and colleagues at the Tyndall Centre for Climate Change Research, writing today in *Nature Climate Change*.

The costs of adapting to [climate change](#), sea-level and flooding include the upfront expenses of upgrading infrastructure, installing early-

warning systems, and effective organisations, as well as the costs of reducing risk, such as not building on flood plains.

Robert Nicholls, Professor of [Coastal Engineering](#) at the University of Southampton and the Tyndall Centre for Climate Change Research, says: "Some [impacts of climate change](#) are now inevitable, so it is widely agreed that we must adapt. But selecting and funding adaptation remains a challenge."

Professor Nicholls and his co-authors describe two ways of assessing how much adaptation to climate change is enough by balancing the risk of climate change against the cost of adaptation. First they describe cost-benefit analysis where the cost of the adaptation has to be less than the benefit of risk reduction. Alternatively, decision makers can seek the most cost-effective way of maintaining a tolerable level of risk. This approach is easier for [policymakers](#) to understand, but thresholds of tolerable risk from climate change are not well defined.

The Thames Estuary Gateway is the only place in the UK where a level of protection against flooding is defined in law – a 1 in 1000 year standard of protection which needs to be maintained with [rising sea levels](#). The authors conclude that adaptation decisions need exploration across a variety of different interpretations of risk, not a single answer.

"Like all complex problems several perspectives are needed and any single answer would misrepresent the uncertainty, but let us not let [paralysis](#) by analysis be an obstacle to action on adaptation," says Professor Hall.

"Adaptation decisions have further benefits. The tenfold increase in the Netherlands standard of flood protection proposed in 2008 has sent a message to global business that the Netherlands will be open in the future, come what may," adds Professor Nicholls.

The research article 'Proportionate adaptation' by Professor Jim Hall (Oxford University), Dr Sally Brown (University of Southampton), Professor Robert Nicholls (University of Southampton), Professor Nick Pidgeon (Cardiff University) and Professor Robert Watson (University of East Anglia) is published in *Nature Climate Change* December 2012. All of the authors are members of the Tyndall Centre for Climate Change Research.

Provided by University of Southampton

Citation: Paralysis by analysis should not delay decisions on climate change (2012, November 27) retrieved 19 September 2024 from <https://phys.org/news/2012-11-paralysis-analysis-decisions-climate.html>

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