

<p>Institution: University of Nottingham</p>
<p>Unit of Assessment: UoA17 - Geography</p>
<p>Title of case study: Informing EU negotiations at the 2011 UN Climate Change Conference of the Parties in Durban, South Africa</p>
<p>1. Summary of the impact</p> <p>A comparative methodology to assess the impact of climate change in different countries, implemented by Gosling for a report commissioned by the UK Department of Energy and Climate Change (DECC), informed EU negotiations at the 2011 UN climate change conference in Durban, South Africa. The conference concluded with the Durban Platform for Enhanced Action - a 'road map' by which global legal agreement on climate change is to be implemented no later than 2015. For the first time, government ministers and their advisers attending an international conference were able to compare the impact of climate change in different countries, including those where scientific institutions have limited research capacity.</p>
<p>2. Underpinning research</p> <p>Each year, representatives of more than 180 countries convene at UN Climate Change Conferences of the Parties to discuss ways to limit global temperature increases and resulting climate change. These conferences are considered the most inclusive and legitimate forums for reaching agreement in an inherently difficult arena. Representatives of the DECC contribute to these conferences as part of the EU delegation.</p> <p>During the preparations for the 17th conference (COP17), which took place in Durban, South Africa in December 2011, the UK Secretary of State for Energy and Climate Change identified an urgent need for scientific evidence on the impact of climate change to be presented in a consistent format for different countries, particularly those that lack an adequate research infrastructure, to facilitate valid international comparisons. To address this knowledge gap, the DECC commissioned the Met Office to undertake research on the impacts of climate change for the G20 countries plus four others and to prepare a detailed report. The research was conducted between April and November 2011 and summarised in a 23-volume report (one volume, for Canada, forthcoming), <i>Climate: Observations, Projections and Impacts</i>, each volume dealing with a different country (4, cited hereafter as <i>Climate</i>). Gosling (Lecturer in Climate Change and Hydrology) was the lead author on the report's 'impacts' sections (5). He was sub-contracted by the Met Office to undertake the necessary research, respond to expert reviewer comments, and complete the subsequent editing. His contribution amounted to over 50% of each volume.</p> <p><i>Climate</i> contains analyses of new research on the modelling of climate change impacts (see also 1) and literature reviews (see also 2 and 3) but its major contribution lies in the methodology on which it is based. Unlike previous investigations which concentrate on a small number of countries or on global-scale trends, <i>Climate</i> provides the first comparative analysis of the consequences of climate change, and the potential benefits of mitigation, for a large number of countries based on a consistent methodology. This was particularly important to the DECC which used the report to argue for international reductions in future emissions of greenhouse gases.</p> <p>As <i>Climate</i> was commissioned specifically for use by different national delegations at COP17, the research had to be rigorous, reliable and universally accepted. To this end, each volume was submitted, with the assistance of the UK Foreign and Commonwealth Office (FCO), for single-blind</p>

peer review by climate change experts from the country under consideration. There was no limit to the number of peer reviewers. The volume for Germany was reviewed by no less than 15 experts. Reviewer comments were subsequently addressed and each country was asked to confirm they were satisfied that an accurate, robust and reliable assessment had been undertaken and that they concurred with the report's findings. The high level of scrutiny applied meant that the research could be used with confidence to aid international policy-making processes at COP17. Summary factsheets of the report were subsequently produced for seven countries in advance of the COP18 (6).

3. References to the research

1. Arnell, N. W., Lowe, J. A., Brown, S., **Gosling, S. N.**, Gottschalk, P., Hinkel, J., Lloyd-Hughes, B., Nicholls, R. J., Osborn, T. J., Osborne, T. M., Rose, G. A., Smith, P., and Warren, R. F. (2013) A global assessment of the effects of climate policy on the impacts of climate change, *Nature Climate Change* 3: 512-519 [DOI: 10.1038/nclimate1793](https://doi.org/10.1038/nclimate1793)
2. **Gosling, S. N.**, Warren, R., Arnell, N. W., Good, P., Caesar, J., Bernie, D., Lowe, J. A., van der Linden, P., O'Hanley, J. R., Smith, S. M. (2011) A review of recent developments in climate change science. Part II: the global-scale impacts of climate change, *Progress in Physical Geography* 35: 443-464 [DOI: 10.1177/0309133311407650](https://doi.org/10.1177/0309133311407650)
3. **Gosling, S. N.** (2013) The likelihood and potential impact of future change in the large-scale climate system on ecosystem services, *Environmental Science and Policy* 27 Supplement 1: S15-S31 <http://dx.doi.org/10.1016/j.envsci.2012.03.011>
4. Met Office (2011) *Climate: Observations, Projections and Impacts* (23 volumes – all volumes are downloadable from the Met Office's website, for example the volume for Germany: <http://www.metoffice.gov.uk/media/pdf/6/j/Germany.pdf>). All 23 volumes are available from HEI on request.
5. Met Office (2011) *Climate: Observations, Projections and Impacts: United Kingdom*, p.1 <http://eprints.nottingham.ac.uk/2040/3/UK.pdf>. Also available from HEI on request.
6. Met Office (2012b) *Climate: Observations, Projections and Impacts* (7 volumes) <http://www.metoffice.gov.uk/climate-change/cop>

Copies of all of the above are also available from HEI on request.

Grant

DECC (c. £106,000) to the Met Office, c. £30,000 of which was subcontracted to Gosling (April-November 2011) (TRN 107/01/2011).

4. Details of the impact

A new methodology developed by Gosling and outlined in *Climate*, a Met Office report commissioned by the DECC, allows the impacts of climate change in different countries to be directly compared. *Climate* provided scientifically valid evidence that informed the EU negotiating position at the 2011 UN climate change conference in South Africa (COP17) and the resulting international agreement outlined in the Durban Platform for Enhanced Action. The main beneficiaries were the EU delegation at COP17 and several UK government departments, including the DECC, the Met Office and Public Health England. Other beneficiaries include the governments of the 23 countries for which the report was prepared and those of several other developing countries who are now better informed about the needs of communities most vulnerable to climate change.

Climate was launched in Durban on 5 December 2011 by the UK Secretary of State for Energy and Climate Change, Chris Huhne. The Bangladeshi Minister of the Environment and the Mexican Junior Minister for Environment also participated. Huhne emphasised the report's importance in supporting global action on climate change: "***This report highlights some of the very real***

dangers we face if we don't limit emissions to combat the rise in global temperature" (b). He also emphasised how the report would inform the UK position on climate change mitigation: "**The UK wants a legally binding global agreement to keep the global temperature rise below two degrees. If this is achieved, this study shows that some of the most significant impacts of climate change could be reduced significantly**" (b). Huhne has since confirmed the report reaffirmed the UK's role as one of the most active participants in the EU delegation at the COP17 (h).

Following the launch, *Climate* became a useful resource for EU negotiators (j) and, when considered in bilateral discussions, underlined the need to renew international commitment to the Kyoto Protocol (f). *Climate* was also valuable to policy makers from developing countries for whom it provided "**key knowledge... relevant to their own national circumstances**" (h). Huhne, the lead UK negotiator in Durban, has stated that the report provided smaller developing countries with "**the knowledge to be more aggressive and to isolate China and India and make it clear that they would be the obstacle to a commitment or global agreement**" (h). The G77 developing countries split for the first time in Durban into a group including Brazil, South Africa, the Alliance of Small Island States (AOSIS), and the Least Developed Countries (LDCs) that supported the EU's position and another group that included India and China. According to Huhne: "**That in turn put quite a lot of pressure on India because they didn't want to be seen as the country that was holding out against everybody else... [which] was the final building block**" (h). The negotiations at COP17 were finely balanced and the report proved crucial in achieving a consensus behind the EU plan for a 'road map' to secure a global legal agreement on climate change no later than 2015, the scheme eventually agreed in the Durban Platform for Enhanced Action (h). As Huhne stated at the end of the conference: "**This is a significant step forward in curbing emissions to tackle global climate change. For the first time we've seen major economies, normally cautious, commit to take the action demanded by the science**" (c).

During the event, 500 copies of *Climate* were distributed to delegates. Wider dissemination was subsequently enhanced by translation of appropriate sections (e.g. the volume for Egypt is available in English and Arabic). Additional national launches took place in other countries, including Egypt and Mexico (i). *Climate* received widespread media attention in the UK and internationally, with discussion of its findings appearing in the UK in the *Guardian*, the *Daily Mail*, the *Daily Telegraph*, the *Scotsman*, and internationally in *Le Monde* in France, *Hürriyet Daily News* in Turkey, *BBC Brazil*, and *CNN* in the United States. The FCO cited the report in bilateral discussions with several countries, including China, India, Mexico and Egypt. In some developing countries, media coverage of the report nudged public opinion on climate change and helped change the positions of some of the more pertinacious delegations (h). *Climate* was also "**mentioned within speeches and presentations as part of other events – such as by Sir John Beddington [UK Government Chief Scientific Advisor] in Australia and at a green business fair in South Africa**" (j).

Beyond COP17, research undertaken in the preparation of *Climate* has prompted governments to re-consider their options for adapting to climate change. At the Durban launch, the Bangladeshi Minister for the Environment stated that: "**This report will contribute significantly to our national policies**" (a). As a result of its dissemination by the FCO, *Climate* is being used to inform a national climate change adaptation plan for Mexico, one of the few developing countries that are formulating a national strategy (h). The British Ambassador to Mexico has stated that: "**Projects such as the DECC/Met Office report... play a valuable part of the campaign to shape the political conditions needed if we are to get the global deal required on climate change**" (e).

Climate is also cited in a number of major policy reviews undertaken by the UK Government, including the first UK climate change risk assessment (d), and the latest analysis by Public Health England of the potential health consequences of climate change (g).

5. Sources to corroborate the impact

Press reports

- a) Burston, J. (2011) *Durban Blog: UK Punches Above its Weight in Climate Talks*. Available at: <http://www.businessgreen.com/bg/industry-voice-blog/2130470/durban-blog-uk-punches-weight-climate-talks>. This corroborates the claim that *Climate* has informed policy debates and future action at the international scale.

Press Releases

- b) DECC (2011a) *New Assessment Shows Risks of No Action on Climate Change: Press Notice, 011/105*. Available at: <https://www.gov.uk/government/news/new-assessment-shows-risks-of-no-action-on-climate-change>. This corroborates the claim that *Climate* has informed national policy debates on the impact of climate change.
- c) DECC (2011b) *Road Open to New Global Legal Climate Treaty: Press Notice, 2011/109*. Available at: http://www.decc.gov.uk/en/content/cms/news/pn11_109/pn11_109.aspx. This corroborates the claim that *Climate* informed the UK's negotiating position at COP17.

Reports and Documents

- d) Defra (2012) *UK Climate Change Risk Assessment: Government Report*, p. 9. Available at: <https://www.gov.uk/government/publications/uk-climate-change-risk-assessment-government-report>. This document, presented to the UK Parliament on 25 January 2012, provides evidence that *Climate* is unique in its method of comparing climate change impacts across countries.
- e) Macgregor, J. (2011) *Mexico Climate Change: Launch of the DECC/Met Office Report on Climate Vulnerability, FCO Diplomatic Telegram, 7 December 2011*. This supports the claim that *Climate* has informed a national climate change adaptation plan for Mexico. A copy is available from the HEI on request.
- f) United Nations (2012) *Report of the Conference of the Parties on its Seventeenth Session, held in Durban from 28 November to 11 December 2011. Addendum Part Two: Action Taken by the Conference of the Parties at its Seventeenth Session*. Available at: <http://unfccc.int/resource/docs/2011/cop17/eng/09a01.pdf#page=2>. This provides evidence of the global agreement reached at Durban.
- g) Vardoulakis, S. and Heaviside, C. (2012) *Health Effects of Climate Change in the UK 2012*. Public Health England, p. 16. Available at: <http://www.hpa.org.uk/hecc2012>. This provides evidence that *Climate* is cited in the most recent assessment of the impact of climate change on public health in the UK.

Copies of all of the above also available from HEI on request.

Individual Beneficiaries

- h) Letter from the former UK Secretary of State for Energy and Climate Change (details provided on submission system), 17 July 2013. This corroborates the impact of the research on the global agreement reached at COP17. Copy available from HEI on request. The beneficiary can be contacted by the REF panel if further testimony is required.
- i) Transcript of interview with the Project Manager for the 'climate impacts' section of *Climate* in the Met Office (details provided on submission system), 17 April 2013. This corroborates Gosling's leading contribution to the research underpinning *Climate* and the claim that this report informed the EU's negotiating position at COP17. Copy available from HEI on request. The beneficiary can be contacted by the REF panel if further testimony is required.
- j) Letter from the Project Lead at DECC (details provided on submission system), 26 March 2013. This corroborates the claim that *Climate* informed the EU's negotiating position at COP17. Copy available from HEI on request. The beneficiary can be contacted by the REF panel if further testimony is required.