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## SRI Briefing Note Series No. 9

# Use of Climate Projections in Local Adaptation Planning: Lessons from England & Germany

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August 2016



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# Use of Climate Projections in Local Adaptation Planning: Lessons from England & Germany

## SUMMARY

A study of adaptation in local government in the UK and Germany found that existing policy, legal and regulatory frameworks limit the use of climate projections in local adaptation planning in either country. Political and economic constraints strongly affect the usefulness of climate information for adaptation decision-making.

### Key Messages

- 1. The use of climate projections has not been integrated into the local planning processes in either country.**
- 2. Local adaptation planning has waned in England since 2010 due to austerity and the localism agenda.**
- 3. German local adaptation planning is voluntary with no clear overarching legal framework and there has been little action.**
- 4. The strongly regulated German planning system favours the use of past and present instead of future climate data.**
- 5. Regulatory and legal contexts are key determinants of the usability and adoption of climate projections.**
- 6. The findings from England highlight that national steering is very important in promoting the use of climate information for local adaptation planning.**

### Adaptation in Local Government

Local government has responsibility for many climate-sensitive services and so planning for adaptation to climate change is imperative at this level. Effective planning decisions should be grounded on a solid evidence base including an understanding of future climate conditions using climate projections<sup>1</sup>. The UK and Germany are considered to be European leaders in adaptation planning<sup>2</sup>, which is why our recent research looked at what lessons could be learnt from these countries.

### Climate Projections in Adaptation planning

Climate projections give information on likely future climate conditions depending on different carbon dioxide emissions scenarios. As such they present the range of possible futures rather than a single prediction. Previous studies on the usability of climate projections have focused on how accessible and understandable

those projections are to adaptation practitioners, but often in narrower institutional settings<sup>3,4</sup>. However, here we looked at how external policy and the internal institutional context influence the use of climate projections in Local Government adaptation planning.

### Study scope

In the UK, the national government has the key role in agenda setting, whereas in Germany this happens at the state level (Länder). As the devolved administrations in the UK have different policies, our study focused on the South East and East Midlands of England. In Germany, data was collected from the federal state of North-Rhine Westphalia. We interviewed 52 adaptation practitioners (decision makers in planned climate adaptation). Another 15 interviews were done outside these regions to check that the study was nationally representative. 44 key local policy documents were also reviewed.

### **Summary of results from England**

Initial progress on adaptation planning at Local Government level was largely driven by national government regulation, in particular by the 'planning to adapt to climate change' indicator NI188.

A top-down push by the Department for Environment Food and Rural Affairs (Defra) advocating the use of UK Climate Projections 2009 (UKCP09) resulted in an early uptake of these by Local Authorities. However, uptake was mostly confined to awareness-raising, limited to environment / climate change teams and not integrated into the wider local planning processes. Indeed, many Local Authorities were not in a position to use the climate projections to calculate future risks as they had not yet fully assessed their current vulnerabilities and exposures to climate.

Since the change of Government in 2010 there has been a marked decrease in the climate change adaptation agenda at local level. This has led to a loss of climate adaptation capacity and expertise in Local Authorities. As this de-prioritisation happened before adaptation planning was integrated into local planning, climate projections are now little used within Local Government.

### **Summary of results from Germany**

Despite progress on adaptation at national level, adaptation at the local level is a voluntary task and it still seems to be in the early stages. However, with the current budget restraints there is little drive to move the adaptation agenda forward.

As in England, the use climate projections have not been integrated into local strategic and spatial planning in Germany. Local spatial planning already makes substantial use of past and present climate data and has the capacity to accommodate future projections. However, the current regulatory framework requires the use of concrete and accurate information and hence prevents the use of climate projections due to their inherent uncertainty. In addition, as the use of climate projections is not a mandatory requirement by national funding for adaptation, it is difficult to justify any allocation of resources to increase their use.

### **How can policy support better informed adaptation planning?**

Despite the different governance settings in both countries, we nevertheless find similar constraints to the use of climate information including: the lack of specific regulation on local adaptation; the often adverse impacts of planning laws and regulation; and budget and resource constraints.

Our findings suggest that policymakers need to make sure that the policy and regulatory framework for local adaptation planning promotes and incentivises rather than discourages the use of climate projections data in the decision-making process.

Policymakers should consider:

- Leadership at national level may be necessary to drive forward the local adaptation agenda. Recent budget constraints mean there is little will or capacity at local level.
- The integration of climate projections with other data sources or tools already used (e.g. flood or heat maps, or GIS) or the provision of guidelines on fitting them to current planning processes (e.g. spatial planning) may be an alternative solution rather than requiring Local Authorities to have the independent capacity to integrate climate projections data across their planning processes.

### **Acknowledgements**

Susanne Lorenz has been funded by the UK Natural Environment Research Council (NERC) (grant number NERC – NE/J50001X/1). Suraje Dessai is supported by the European Research Council under the European Union's Seventh Framework Programme Grant agreement no. 284369 and 308291. Jouni Paavola acknowledges the support of the UK Economic and Social Research Council (ESRC) for the Centre for Climate Change Economics and Policy (CCCEP).

## Reference

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<sup>2</sup> Massey E, Huitema D, Garrelts H, Grecksch K, Mees, H, Rayner T, Storbjörk S, Termeer K, Wings M (2015) Handling adaptation policy choices in Sweden, Germany, the UK and the Netherlands. *J Water and Clim Change* 6: 9-24. doi: 10.2166/wcc.2014.110

<sup>3</sup> Kiem AS, Austin EK (2013) Disconnect between science and end-users as a barrier to climate change adaptation. *Clim Res* 58: 29-41. doi: 10.3354/cr01181

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## Further Information

Information advising this policy brief is taken from an academic paper entitled 'Adaptation planning and the use of climate change projections in local government in England and Germany' in *Regional Environmental Change*. DOI: [10.1007/s10113-016-1030-3](https://doi.org/10.1007/s10113-016-1030-3) (open access). Previously published as SRI Working Paper No. 86, SRI Papers (Online) ISSN 1753-1330, University of Leeds.

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## Suggested Citation:

Lorenz, S.; Dessai, S.; Forster, P.M.; Paavola, J. (2016) *Use of Climate Projections in Adaptation Planning: Lessons from England & Germany*. SRI Briefing Note 9, University of Leeds  
<http://www.see.leeds.ac.uk/research/sri/briefing-notes/>