

Spatial awareness

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Mapping overlays can identify potential policy synergies, benefits and conflicts as well as helping investment decisions, according to Andreas Schulze Baing, Mark Baker and Cecilia Wong

The mantra of 'location, location, location' reminds us of the most important factor in determining the price of real estate: 2 properties of the same size and style can command very different prices because their locations offer a separate array of services, infrastructure and environmental quality.

It is the intrinsic characteristics of a property, together with this wider spatial context that determine the price. This context is not only important when making investment decisions, but also in coordinating different policy actions. But too often, placemaking does not take this spatial perspective into account.

Decisions are frequently made in disciplinary or sectoral silos without considering possible opportunities for cooperation or conflict across locations. The need to think and act spatially in policymaking is critical, to maximise development potential and minimise conflicting land uses.

A Map for England

The Royal Town Planning Institute commissioned the University of Manchester in 2011 to examine the interplay between policy needs and spatial contexts by mapping the government's policy and programme delivery, resulting in the publication of A Map for England. Since no single government office or data source makes all of these maps available, A Map for England is designed to help policymakers and stakeholders make better decisions about the way individual policy proposals affect the development of the country through better spatial planning. Despite advancements in GIS technology, there has been a long-acknowledged delay in its application in planning, surveying and the built environment.

The research considered 95 relevant sources, including documents and websites from the Departments for Communities and Local Government; Environment, Food and Rural Affairs; Transport; Culture, Media and Sport; and the former Department for Business, Innovation and Skills. It also looked at material from the Treasury, the Home Office, the Cabinet Office, British Waterways, the Environment Agency and Natural England.

The scanning exercise first sought to identify which national policy documents had a spatial content and which were essentially 'aspatial?'. Just over a third were found to include maps, spatial diagrams or clear, spatially referenced data or text. While in many of the documents a spatial perspective was completely absent, some contained a few maps - such as the National Infrastructure Plan, which included maps showing where transport investments were planned.

Planning and development across different local authority and partnership areas is very much

affected by the physical constraints of landscape designation and emerging development trends, as well as the government's own policies and programmes, notably green belt designation.

Household growth

The 2014 household projections show that most areas in England will experience some growth up to 2039, though these levels are very uneven across the country. Figure 1 shows a dividing line from the River Severn to the Wash in terms of household growth, with the largest rise projected to be south of that divide, although parts of the East Midlands as well as pockets of the north such as Greater Manchester are also forecast to have high growth.

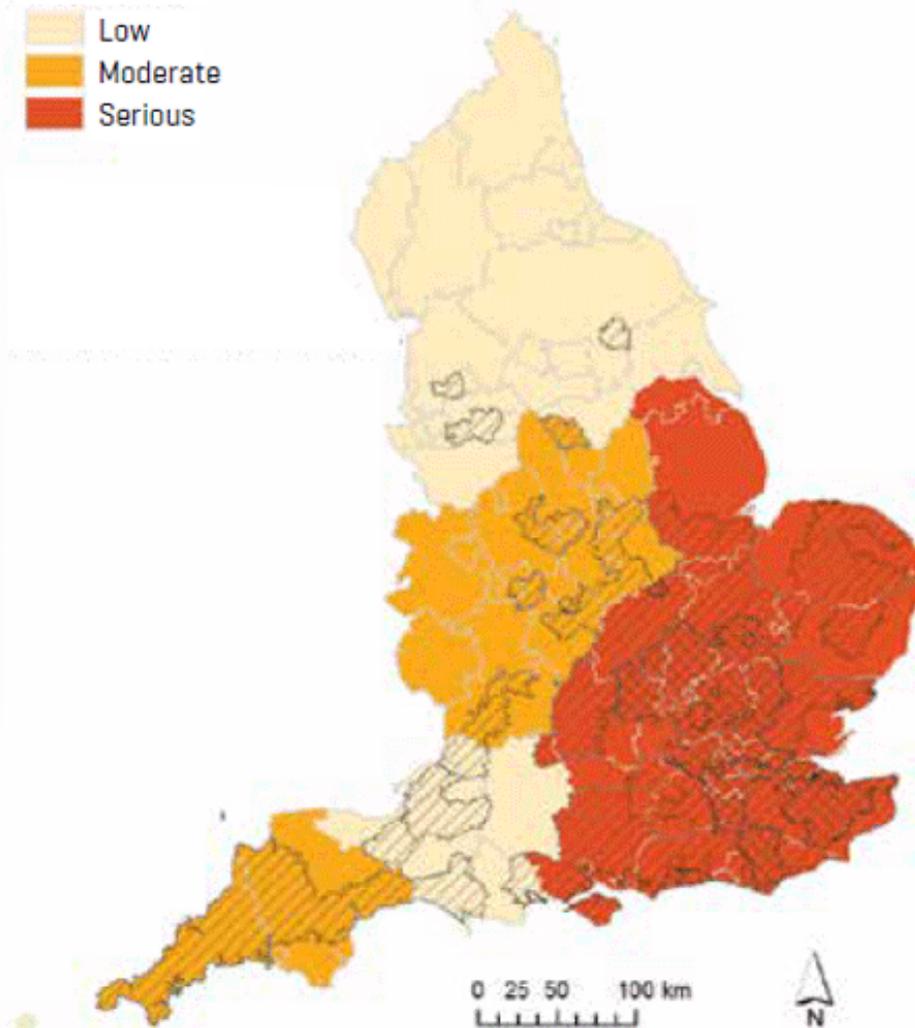
London and the South East are experiencing the strongest growth pressures, with more than 30% increases expected. The longstanding national green belt policy ? which limits the spread of conurbations and major towns ? imposes further restrictions on development, often in areas that are facing the greatest pressures. This is particularly problematic for housing affordability in the wider South East around Greater London, and this has led to heated debate over whether to release green belt land for housebuilding.

Figure 1

Areas of relative water stress and household growth projection

-  District with projected household growth (2014-39) >30%
-  District with projected household growth (2014-39) 20%–30%

-  Low
-  Moderate
-  Serious



*Levels of water stress mapped here conform to local authority boundaries and are therefore only indicative. For original data based on water company boundaries, please see *Future Water: The Government's water strategy for England* (2008)

National parks

The designation of national parks and areas of outstanding natural beauty as protected

environments and landscapes in England sets physical restrictions on the development of land.

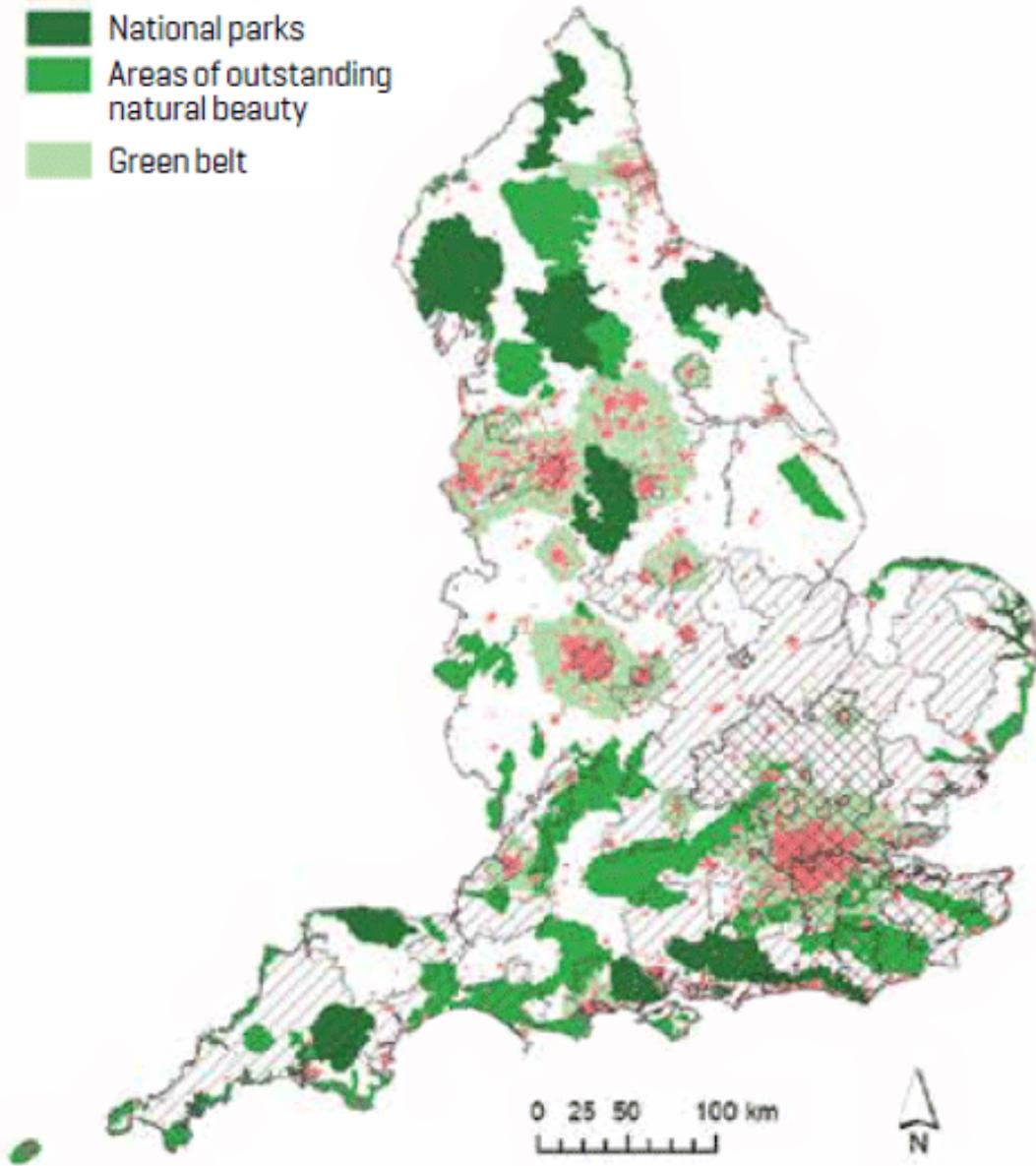
By simply overlaying maps of these with the latest projected household growth (see Figure 2), the potential conflicts in locations with high landscape value and high projected household growth are clearly highlighted:

- the Chilterns and North Wessex Downs around Greater London
- the Kent Downs, the High Weald, the South Downs and the New Forest in the South East
- the Broads in the East of England
- Dartmoor, the Cotswolds, Cranborne, Dorset, the Blackdown Hills, East Devon and Cornwall in the South West.

Figure 2

Key landscape designations and household growth projection

-  District with projected household growth (2014–39) >30%
-  District with projected household growth (2014–39) 20%–30%
-  Urban footprint
-  National parks
-  Areas of outstanding natural beauty
-  Green belt



With growing concerns about climate change, large-scale housing developments have to take

account of flood risks and water supply issues. While the high-growth areas that have fewer planning constraints tend to be found in the East of England and the East Midlands, these areas are also at risk of high water stress levels.

As Figure 1 shows, areas in eastern England tend to suffer from more serious water stress, which are partly related to their higher vulnerability to drought. Our overlays clearly indicate that any major housing developments in these sensitive areas will need to make serious consideration of water supply issues.

While the government's long-term household projections should be treated with caution, varying as they do with recent events such as the EU referendum result and changes in underlying assumptions, they nevertheless illustrate where future pressure for housing development may be at its most severe, and where potential conflicts with land-use constraints might be located.

Making these spatial challenges and opportunities more explicit would help to inform policy debates and encourage partnership working, ensuring better coordination, management and fulfilment of complex spatial planning policies. In contrast, not articulating the spatial relationships between planning issues such as future household growth and the spatial strategy for housebuilding can lead to disjointed, ad hoc management of infrastructure and service provisions at local level.

Toolkit

The GIS mapping analysis mentioned in this article could offer a useful toolkit for the public and key stakeholders to make themselves better informed about the cumulative spatial impacts and opportunities brought by any changes in planning policies and major development proposals.

This would enable individuals to make more critical analysis of space and formulate their own understanding of different spatial relationships. Making these relationships explicit through a relatively simple GIS mapping overlay approach can both inform policy and encourage enhanced partnerships between policymakers and stakeholders. The result could be enhanced coordination, management and fulfilment of complex planning policies at different spatial levels.

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Further information

- [A Map for England: spatial expression of government policies and programmes \(and its Map Compendium\)](#) , by C. Wong, M. Baker, S. Hincks, A. Schulze Baing and B. Webb (2012) is published by the Royal Town Planning Institute, London
- This feature is taken from the RICS *Land journal* (March/April 2017)
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