The Social Distribution of Ecosystem Services under Land-Use Change in England

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Summary

The dependency of human wellbeing on nature is widely acknowledged, however, rapid population growth in England has led to considerable change in land use and the spatial distribution of ecosystem services. The proposed research seeks to understand if the change in provision of ecosystem services nationally from 2001-2011 has been socially just. The research will model the distribution of ecosystem services, establish who the 'winners' and 'losers' have been and what planning strategies have been implemented. Ultimately, this will inform recommendations for policy to maximise socially just delivery of ecosystem services in the context of increasing land-use pressures.

KEYWORDS: Ecosystem services, spatial modelling, longitudinal, environmental justice, England.

Background

Due to complex interactions of economic, social and environmental factors, land cover change in England has not been spatially homogenous and the benefits and burdens of the environment are not equally distributed (Agyeman and Evans, 2004). The UK National Ecosystem Assessment (2011) summarised the status of the benefits derived from different land cover types in the UK using an ecosystem services approach. However, there is little information on how the ecosystem services are distributed across different socio-economic groups. The UK Government's Natural Environment White Paper (DEFRA, 2011) commits to fairer access to nature, recognising how this is integral to improving health and wellbeing. The proposed research explores how this might be achieved by understanding the provision of ecosystem services within the context of environmental justice, specifically;

"How has the social distribution of ecosystem services in England changed over time and what is the impact of this on maximising socially just ecosystem service provision in the future?"

Proposed Methodology

The research will adopt an ecosystem services framework and spatial modelling techniques will be applied to examine the social distribution of ecosystem services. In order to understand the processes driving change, there will be further examination of literature and policies in addition to engagement with stakeholders.

References:

Agyeman, J. and Evans, B. (2004) 'Just Sustainability': the emerging discourse of environmental justice in Britain? *The Geographical Journal* **170** (2), 155 – 164.

Defra (2011) The Natural Choice: securing the value of nature. Natural Environment White Paper. Norwich: The Stationery Office, 2011.

UK National Ecosystem Assessment (2011) Technical Report. Available from: http://uknea.unep-wcmc.org/Resources/tabid/82/Default.aspx [7 January 2015]

Map the distribution of ecosystem services in 2001 and 2011

Compare ecosystem service provision to social (census) data for 2001 and 2011

Evaluate policies and drivers behind the production of inequality in distribution of ecosystem services

Using land-use change projections, examine potential future scenarios and inform how policy/practice can be changed to best address future pressures