**Matt Kirby**

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**Bio**

****My research interest straddles the science-policy interface, to better understand how we can mainstream nature across policy areas and disciplines, both in the UK and internationally. I originally developed this interest when working in spatial planning policy. Coming from an environmental background I realised the practical limitations of planning for accounting for nature, and it became obvious to me that there was a knowledge and implementation gap between environmental concepts, such as ecosystem services, and their potentially beneficial use in planning practice. From studying and living in Denmark I developed an interest in different international systems, and the benefits of studying comparative international systems to generate knowledge exchange.

I believe good and joined up policy is the starting point for positive change, and I therefore applied academic research, such as mine has a role in contributing to positive change by effectively feeding into the policy process. I have therefore put together a cross sector stakeholder steering group for my PhD research consisting of a range of influential regional and national stakeholder related to my research, including policy makers.

**Research**

My research assesses the benefits we get from nature in green belts, and the wider policy landscape which governs these zones. Green belt is a planning policy which aims to limit urban growth; now covering 12.5% of England. However, the zones it creates have received limited research attention on their environmental benefits. Yet their proximity to urban populations makes them neglected opportunity spaces for tackling the triple challenges of climate change, biodiversity loss and health crisis. My research views green belts conceptually through an ecosystem services framework (the benefits we get from nature, such as carbon sequestration, flood management, and recreation) to better understand them as multifunctional landscapes. Green belts are politically contentious, due to their place in the English psyche, meaning their use evokes disagreement and conflict.

Overall, my research aims to establish the natural capital value of green belts, to better understand pathways to mainstream nature in this policy space and deliver multifunctional benefits to people:

**1) Policy Landscape** to what extent do spatial policies in England, and comparative international planning systems promote and mainstream nature in urban growth management zones, such as green belts?

**2) Natural Capital:** What are the current natural capital assets of green belt zones, what ecosystem services do they provide, and what is the economic value of these benefits?

**3)** **People & Green Belts:** How do urban and peri-urban residents physically use and value zones of green belt?

**4) Future Green Belts:** How can more environmentally productive and multifunctional green belts be delivered in the future, and how do different policy scenarios result in different ecosystem service trade-offs?

**Methods**

I am using a mixed-methodological approach, including qualitative and quantitative research methods. Firstly, I have produced a bespoke policy assessment tool to score green belt (and comparative international policies) for nature, based on content analysis. Secondly, I am using the InVEST ecosystem service models to model and quantify the ecosystem services from green belts. Thirdly I am using an online public participatory GIS survey to understand how people physically use green belts. Finally, the outputs from these, along with participatory engagement, will feed into a scenario approach to look produce future green belt scenarios.

**Supervisors**

* Prof Alister Scott, Department of Geography and Environmental Sciences, Northumbria University.
* Dr Claire Walsh, School of Engineering, Newcastle University
* Dr Jason Luger, Department of Geography and Environmental Sciences, Northumbria

**External Activities**

- Natural Capital Consultant, WSP (1 day per week placement) <https://www.wsp.com/en-GB>

- NATURE Tool – Project member <https://nature-tool.com/>

- Executive Member, North East Nature Partnership <https://neenp.org.uk/>

- Land-Use Group Member, North East England Climate Coalition <https://neecco.org.uk/>