

Valuing Peatlands



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Aim

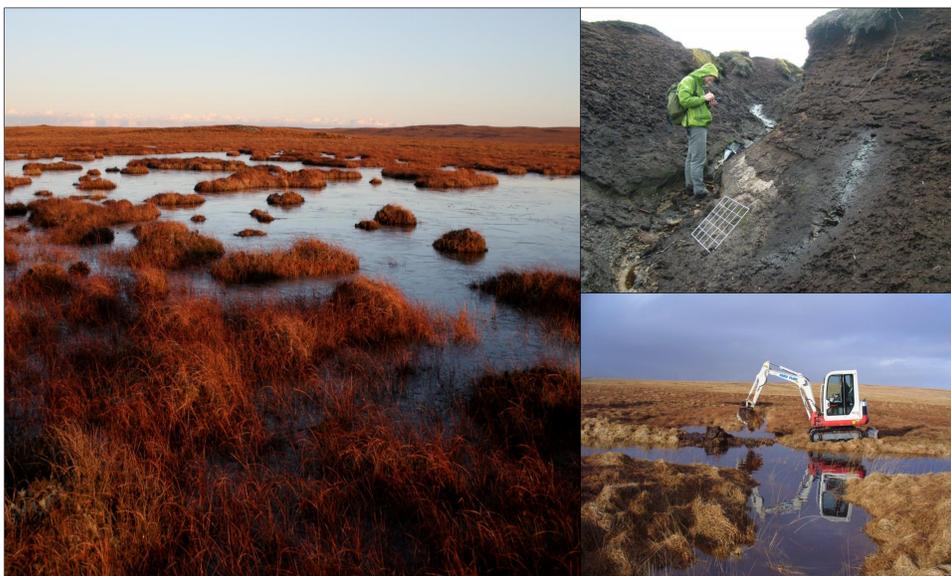
Explore links between management, function and flows of ecosystem services and their value, using UK peatlands as a case study.



Research

The research explored:

- How different groups of beneficiaries value stocks and flows of multiple ecosystem services in complex socio-ecological systems.
- How this information might affect the design of financial mechanisms to lever investment in the provision of climate mitigation and adaptation.



Left: Flow Country peatlands (credit: Norrie Russel); Top: eroding gully, Peak District National Park (credit: Aletta Bonn); Bottom: restoration at Blackpitts, Exmoor (credit: Exmoor National Park Authority)

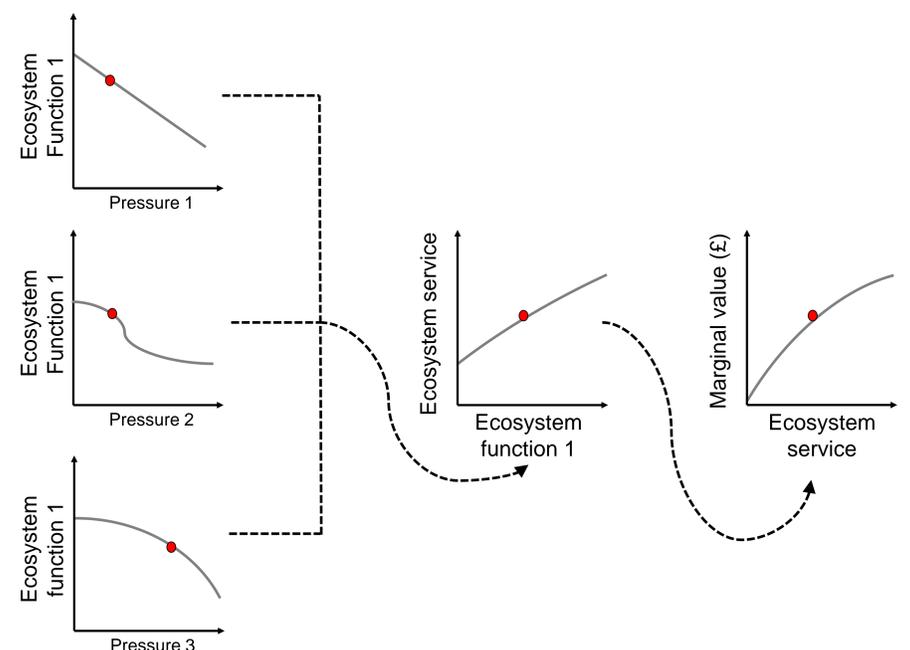
Findings

- Case study research was used to explore some of the ecosystem dynamics and processes that underpin valuation.
- This also helped to develop methods for spatially assessing how different groups of beneficiaries are likely to value flows of ecosystem services in complex and uncertain socio-ecological systems.
- A Special Issue in the journal *Ecosystem Services* is being published from the project. The articles emphasise the importance of a sound scientific underpinning to ecosystem service valuation and propose an approach to cost-effectively assess the links between pressures, ecosystem functions and ecosystem services using 'pressure-response functions' (Figure 1).

The research papers discuss:

- A range of challenges for the valuation of ecosystem services.
- Temporal scales at which many ecosystems require management, emphasising the need to consider longer time horizons in cases where significant upfront costs are expected while benefits may be lagged or for other reasons delivered over much longer timescales.
- The consideration of uncertainty over long time horizons, for example, the effectiveness of restored peatlands to reduce fluxes of greenhouse gas emissions, is a considerable challenge to the economic assessment of policy options.
- How information obtained about the value beneficiaries attach to ecosystem services may be used to spatially target policy or management interventions (in this case restoration) across a landscape
- Research findings were applied to the development of financial mechanisms to lever investment in peatland restoration, leading to the development of a draft UK Peatland Carbon Code.

Figure 1. Relationship between pressures, processes and ecosystem service delivery, exemplified for UK peatlands.



Conclusions

Understanding the values that different beneficiary groups place upon ecosystem services, and how this links to the demand for and supply of services at different spatial and temporal scales, is crucial for selecting and designing effective policy instruments to sustain the delivery of ecosystem services in future.

Next steps

A pilot phase UK Peatland Carbon Code will be launched on September 2013. Contact Mark.Reed@bcu.ac.uk for details.

www.valuing-nature.net/projects/valuing-peatlands