



Research Information Note

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England's Ecosystem Services
A preliminary assessment of three habitat types:
broad-leaved woodland, the inter-tidal zone and fresh-water wetlands

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Introduction

This report represents an attempt to join up the science and economics of ecosystem services. It aims to help provide a first attempt at a detailed catalogue of ecosystem services in selected habitats in England, to act as a reference for future evaluation work. The rationale for the research was that we need to understand the science of ecosystem services before we can evaluate their importance to society.

Scientists, economists and policy makers will be interested in Section 2 of this report. It represents an initial assessment of potential ecosystem services for three habitat types in England: broadleaved woodlands, wetlands and inter-tidal zones. It summarises the ecological literature, from a human welfare perspective, distilling this into an assessment of potential ecosystem services which provide societal benefits. This assumes appropriate habitat management and sustainable harvesting. The idea is to use this as a resource for evaluation in more specific assessments. Section 3 is aimed more at the economist audience.

What was done

The report consists of a literature review and analysis to describe the ecological processes which may provide ecosystem services for 3 habitat types in England: broadleaved woodland, terrestrialised freshwater wetlands and inter-tidal habitats. This is followed by an analysis of potential economic valuation approaches, together with some example evidence. The categories of ecosystem service are organised to be consistent with those in the recently published Millenium Ecosystem Assessment.

Results and conclusions

This preliminary analysis identifies numerous services potentially provided by these habitats, of which the following are suggested as especially relevant in England and worthy of particular attention in future evaluation studies:

- carbon budget management
- water quality
- flood risk management.

continued

However, it is clear that the actual provision of ecosystem services is complex and will vary from site to site.

In some areas of England it is possible to find healthy functioning ecosystems providing significant services which merit protection. In other areas, the habitats will be modified to such an extent that while rare species remain and need to be conserved, it is difficult to detect significant provision of additional ecosystem services. In the latter cases it may be a question of considering the additional services that might be provided if the landscape were to be restored.

English Nature's viewpoint

English Nature welcomes this contribution to the emerging literature on ecosystem services, which are typically difficult to observe, and thus risk being unaccounted for in economic valuation studies. We see this as a preliminary assessment of ecosystem services which may be evident in the selected habitats. It is not intended to be comprehensive. However, we hope it will be useful as a resource and starting point for researchers considering the socio-economic benefits of habitat protection, and wanting to consider these ecosystem services as part of the evaluation. We recognise that the ecosystem services identified here are one component, but not the totality, of society's desire for habitat protection and its willingness to pay for it.

Selected references

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