

Critical assessment of evidence of net economic benefits of initiatives to create or improve greenspace

A substantial body of literature acknowledges the important role of green infrastructure in sustainable development and the creation of attractive and economically vibrant communities. This study provides a critical review of evidence of the net economic benefits, both direct and indirect, of initiatives to create or improve greenspace.

Despite some conflicting evidence, the review shows that there is a growing body of research that confirms the benefits of greenspace. The review highlights gaps in research providing robust estimates of net economic benefits.



Background

Greenspace refers to the natural environmental components (green and blue spaces) that lie within and between a region's cities, towns and villages. Green infrastructure and green networks are also widely used terms for greenspace, and often focus on connectivity issues. The former term is mostly used in England and Wales, while the latter is mostly used in Scotland. Many policy documents acknowledge the important role of greenspace in sustainable development and creating attractive and economically vibrant communities.

Objectives

The research aims were to assess estimates of net economic benefits of initiatives to create or improve greenspace. Specific objectives were to:

- Cover a spectrum of market and non-market values.
- Assess existing evidence against emerging government guidelines on value transfer, including whether it is sufficiently robust to be applicable to the benefit estimates of greening initiatives elsewhere.
- Identify gaps in evidence and consider the need for further research to address them.
- Recommend appropriate indicators to incorporate in emerging monitoring and evaluation frameworks to facilitate future assessments of the net economic benefit of greening initiatives.

Methods

A critical literature review was conducted, focusing on the most recent evidence, i.e. years 2000-2011, including estimates of net economic benefits, both direct and indirect, of initiatives to create or improve greenspace. Although the review adopted categories drawn from the greenspace literature, they appear generally to fit well with emerging ecosystem services frameworks and approaches. The review focused upon the following key benefit categories:

1. Economic growth and investment
2. Land and property values
3. Labour market employment & productivity
4. Tourism
5. Recreation and leisure
6. Health and Well-being
7. Quality of Place
8. Water management
9. Products from the land
10. Biodiversity
11. Climate change adaptation and mitigation

Findings

Robust evidence on the net economic benefits of greenspace projects is sparse. A large-scale study undertaken in conjunction with the UK National Ecosystem Assessment shows that a percentage point increase in greenspace land use share in a Census ward increases property prices by around 1%. Both expansion of broadleaved woodland and of coniferous woodland were found to have positive effects, with the impact of the former greater than the latter. An appraisal of the Mersey Forest implies that £1 invested will generate £2.30 in increased Gross Value Added over the 50-year lifetime of the project. For the studies reporting investment data, each £1 of public money invested in greenspace projects was found to lever in £4.20 in private investment on average (median ratio).

For three out of the eleven benefit categories reviewed, no robust evidence of net economic values was found. These categories were 'Labour market employment and productivity', 'Recreation and Leisure' (as opposed to tourism), and 'Quality of Place'. The latter was found to be a compound concept with no established definition. As such, there has been little economic research addressing this benefit category. For two other categories, only a single study with estimates of the net economic benefits of greenspace projects was identified. These areas were 'Health and well-being' and 'Water management'.

Recommendations

- Following current best practice guidelines recommended for ecosystem valuation and impact assessment will make the findings of future studies more suitable for value transfer.
- Where a project involves both landscape and built environment interventions, separating out estimates of the net values associated with the greenspace component would be particularly useful.
- Interdisciplinary research should be encouraged to fill evidence gaps in greenspace benefits.

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Reports and Publications

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