

Increasing environmental quality and aesthetics

Introduction

Quality green infrastructure (GI) improves environmental quality and makes a positive contribution to landscape character and aesthetic appeal. Local environmental quality encompasses tangible elements such as cleanliness and personal security and less tangible elements such as visual quality and environmental pollution. So it is not surprising that research has shown that the public think of environmental quality holistically, and describe it using terms such as 'clean', 'well-maintained' and 'aesthetically pleasing'. A high level of aesthetic quality is a sign of care within the urban environment that is likely to lead to a sense of community.

Benefits

Using GI to increase environmental quality benefits individuals and society as it provides a cleaner, safer, healthier environment for users and local communities. When linked to increased aesthetic quality, GI also provides an improved sense of place and a pleasing attractive urban landscape, both of which contribute to an improved quality of life.

Economic evidence

The existing information quantifying economic impacts of improved aesthetics risks double-counting, as a large proportion of the impacts are through 'recreation and tourism' (Defra, 2007). However, the aesthetic value of trees has been estimated relative to their impact on house prices, for example:

- It can add 15% to 25% to the total value of property, depending on size, condition, location and species rating (CTLA, 2003).
- CABE (2005) have shown that properties increase in price by an average of 7% in environments landscaped with trees.
- The North West Development Agency (2007) estimated that a view of a natural landscape added up to 18% to property in north west England.

Evidence linked to environmental and aesthetic quality

- The visual appearance and attractiveness of towns and cities is strongly influenced by the provision of green space (Tibbatts, 2002).
- Improving a local landscape increases people's enjoyment of an area (Venn and Niemela, 2004).

- Some urban green spaces are too small to be of significant recreational value, yet provide aesthetic value to housing developments (Countryside Agency, 2005).
- The Environment Agency (2008) reported that the most deprived populations were more likely to be living in areas of low environmental quality.
- In a report to the Communities and Local Government, authors Carmona and de Magalhães note that public space users take a holistic view of environmental quality, using broad socio-physical constructs such as 'community' and 'place' to describe it. When confronted with a hierarchy of components of environmental quality, respondents did not disregard a single one, noting that each contributed to environmental quality as a whole in a complex and mutually reinforcing way. Significant qualities were 'safe and secure', 'clean and tidy' and 'fulfilling'.
- The NAO (2006) report commented that the Green Flag scheme was well regarded by urban green space managers, with almost 90% and 60% of award-winning, urban green space managers stating that the scheme has been successful in raising green space profile with local politicians and the general public, respectively.

Practical considerations

- Dunnett *et al.* (2002) refer to environmental quality as including issues such as litter, graffiti and vandalism; noting these to be significant factors on willingness to use green spaces, specifically, parks.
- The Bartlett Report (CLG, 2007) describes local environmental quality as clean and tidy, accessible, attractive, comfortable, inclusive, vital and viable, functional, distinctive, safe and secure, robust, green and unpolluted, fulfilling. However, they go on to comment that users do not see the local environment as component parts; rather they take a holistic view and equate environmental quality directly to broad socio-physical constructs, such as community and place.
- Levels of acceptable environmental quality are dictated by public expectations, which differ with context (type of site) as well as across socio-demographic descriptors (such as affluence). Community consultation is imperative. A survey of users and residents local to GI asking how they would like to see the GI improved would be expedient. Using open questions such as: 'What do you like about this place?' 'What do you dislike about this place?', 'What would you like to see improved here?' rather than 'How do you want the environmental quality of this place to be improved?' will prevent confusion caused by the use of loaded terms such as environmental quality.
- Delivering environmental and aesthetic quality is not a one-off exercise, but a process. Successful long-term delivery of environmental quality will be dependent upon effective partnership working. In particular, local community representatives or groups will bring real value. Other potential partners include:
 - local charities
 - local authority and regional government
 - Government departments and regulators
 - landowner and neighbouring landowners
 - developers.

- The extent to which GI delivers local improvements in environmental and aesthetic quality is linked to both the standard of environmental quality maintained on site (e.g. cleanliness and site management) and its design (i.e. how well it integrates into and enhances the local landscape).
- Retaining a good standard of environmental quality is likely to be affected by the level of facility provision (including litter and dog waste bins), policing (e.g. by wardens or self-policing by users) as well security measures (appropriate fencing to prevent fly-tipping, use of CCTV or similar). Encouraging users to respect the site, i.e. to have a sense of ownership over the site, will also help.

Links to climate change

Using GI to improve environmental quality encourages a reduction in CO₂ emissions due to the reduction in the number of car journeys taken as the GI network is utilised more for walking and cycling.

Tools

The following are useful tools for measuring environmental quality (site-based assessment):

Keep Britain Tidy

Formerly known as ENCAMS, this is an environmental charity that provides an independent survey of local environmental issues. The survey uses 32 indicators covering 10 aspects of environmental quality assessed on a 4-point scale. The indicators include litter, dog fouling, detritus, weeds, fly-tipping, fly posting, graffiti, physical appearance; and collectively describe 'cleanliness'.

The Green Flag Award

This is the national quality standard for parks and green spaces. It is a voluntary scheme which recognises the perceived quality of a site based on eight criteria: a welcoming place; healthy, safe and secure; clean and well maintained; conservation and heritage; community involvement; marketing; management; sustainability.

Greenstat by Greenspace

This is a user satisfaction assessment for parks and green spaces. Greenstat is a subscription-based, on-line database that offers analysis, benchmarking and a networking system for its users. Greenstat is used by around 85 local authorities.

GPMS: Greenspace Performance Management System

This survey was developed by KMC (a private consultancy) to assess park use. The survey separates adults' and children's responses. Respondents complete the questionnaire based on the specific park they use most frequently. GPMS is currently used by around 20 local authorities and housing associations.

Case studies

Cydcoed, Wales

http://www.forestresearch.gov.uk/pdf/Cydcoed_final_report_Jan09.pdf

Thames Barrier Park, London

http://www.thamesbarrierpark.org.uk/upload/pdf/tbp_booklet_singles.pdf

Belfield Community Woodland and Moston Vale: Newlands

<http://www.forestry.gov.uk/newlands> and <http://www.newlandsproject.co.uk/>

Glasgow Green, central Glasgow

http://www.glasgow.gov.uk/en/Residents/Parks_Outdoors/Parks_gardens/glasgowgreen.htm

Knowledge gaps

- A single or co-ordinated database of the environmental quality of green space or GI does not exist. There are many databases owned by different organisations and government departments; yet, differences in format and meta-data do not allow simple amalgamation.
- It is unclear how much it costs to maintain different levels of environmental quality across a range of constituent components of GI. There are no tools available specifically to determine the economic value of the environmental quality of GI, or for estimating the value of retaining a particular level of environmental quality.
- Perceptions on 'acceptable' environmental quality vary with socio-demographics and background (e.g. culture, upbringing, experience). It is unclear what 'acceptable' levels are, how these differ across a range of different types of green spaces and communities, or how these change with context, resource and consultation.
- The relationship between environmental quality and use is not fully understood, or whether it differs for constituent components of GI.
- Understanding of how descriptions and perceptions of environmental quality differ between users and non-users of GI.
- It is unclear to what extent environmental quality affects perceived aesthetic quality and vice versa or whether there are any other aggregate terms that are best used to describe and monitor environmental quality, e.g. well-maintained.
- There are few studies on environmental justice where the environmental quality has been specifically green space quality; rather studies tend to refer to gross measures of environmental quality such as air pollution.
- Economic valuation data for provision of green space for increasing environmental and aesthetic quality in the UK is absent.
- The Government has not set objectives to increase aesthetic quality across the UK.
- There is a need to examine the influence of environmental quality on different users groups, e.g. mothers-and-toddlers, teenagers, exercisers, dog-walkers.
- The NAO (2006) report commented that about 40% of green space managers felt that the pursuit of a Green Flag Award had been significant in diverting resources away from other green space in the area. This figure is undoubtedly out of date.

Citations of national policies/priorities

World class places: the government's strategy for improving quality of place

12 May 2009

<http://www.communities.gov.uk/publications/planningandbuilding/worldclassplaces>

Communities in control: real people, real power

9 July 2008

<http://www.communities.gov.uk/publications/communities/communitiesincontrol>

Public Service Agreement 21: Build more cohesive, empowered and active communities

October 2007

http://www.hm-treasury.gov.uk/d/pbr_csr07_psa21.pdf

Strong and prosperous communities

26 October 2006

<http://www.communities.gov.uk/publications/localgovernment/strongprosperous>

Sustainable communities: building for the future

5 February 2003

<http://www.communities.gov.uk/publications/communities/sustainablecommunitiesbuilding>

Living places: greener, safer, cleaner.

19 September 2006

<http://www.communities.gov.uk/publications/communities/livingplacescleaner>

References

CABE (2005). *Does money grow on trees?* CABE Space, London.

CLG (Department of Communities and Local Government) (2007). *Local environmental quality: a new view on measurement*. The Bartlett Report. CLG, London.

Countryside Agency (2005). Amenity greenspace. www.cheshireeast.gov.uk/pdf/En-LDF-CongOpSpace07.pdf.

CTLA (2003). *Summary of tree valuation based on CTLA approach*. Council of Tree and Landscape Appraisers (CTLA).

Defra (2007). *An introductory guide to valuing ecosystem services*. Defra, London.

Dunnett, N., Swanwick, C. and Woolley, H. (2002). *Improving urban parks, play areas and green spaces*. Urban research paper. DTLR, London.

Environment Agency (2008). *Working towards a better quality of life: environmental justice in south Yorkshire*. Summary report.

Jorgensen, A., Hitchmough, J. and Dunnett, N. (2007). Woodland as a setting for housing-appreciation and fear and the contribution to residential satisfaction and place identity in Warrington New Town, UK. *Landscape and Urban Planning* **79**, 273–287.

NAO (2006). *Enhancing urban green space*. Report by the comptroller and auditor general. HC 935 Session 2005–2006. National Audit Office, London.

NWDA (2007). *Northwest green infrastructure guide*. Northwest green infrastructure think tank.

Tibbatts, D. (2002). *The benefits of parks and greenspace*. Urban parks forum.

Venn, S.J. and Niemela, J.K. (2004). Ecology in a multidisciplinary study of urban green space. The URGE project. *Boreal Environment Research* **9**, 479–489.