

Growing Places

The Newsletter of the **Social and Economic Research Group**

Spring 2010

Welcome to the SERG newsletter.

In this spring edition, we focus on urban forestry, a topic central to British forest policy.

Community Forests in England, 'priority' deprived communities in England and Wales, and the 'repositioning' of Scotland's public forest estate closer to cities and towns are all good examples of urban forestry. National monitoring reflects public demand and shows a dramatic increase in visits to urban woodlands and forests over the past decade.

Urban forestry helps to address problems such as health inequalities, persistent under-development in certain urban communities, and the pressures of climate change (emphasised in the recently published Read Report: *Combating Climate Change – A Role for UK Forests*).

The Social and Economic Research Group (SERG) is part of Forest Research's Centre for Human and Ecological Sciences. We carry out research to develop a better understanding of the ways in which trees and woodlands can benefit society. As part of a broad programme, our research helps to shape urban forestry by informing innovative forest design, management and partnership. We have recently been invited by the European Commission to help implement EU Forest Action Plan, theme 3 (quality of life), key action 12 (exploring the potential of urban and peri-urban forests), through an urban forestry workshop likely to take place early in 2011.

More information about the range of SERG's urban-focused research is available at:

www.forestresearch.gov.uk/peopleandtrees

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Beyond the forest edge

In the public forest sector, understanding and encouraging diversity and equality in the workforce has become a key concern. Although the Forestry Commission has a good proportion of women and disabled people amongst its employees, there are low numbers of people from ethnic minority backgrounds. Forestry Commission England's national office is in the process of moving from Cambridge to Bristol. This was seen as an opportunity to recruit new posts from a diverse population. SERG conducted a piece of research, in association with Strategic Social Marketing, to see what people from ethnic minority communities in Bristol liked and disliked about the employment prospects the Forestry Commission offers, as well as the way it advertises jobs. The results have been used by the Forestry Commission's Human Resources team to make adjustments to advertising and recruitment processes, as well as to provide evidence for the Commission's diversity strategy. The research report is available at www.forestry.gov.uk/fr/INFD-83NHZC

Urban health and health inequalities

A recent strategic review of health inequalities in England was carried out for the Government, chaired by Professor Marmot and widely known as the Marmot Review. This Review identifies a role for trees and green space in reducing health inequalities and acknowledges the importance of green infrastructure for urban healthy living, physical activity and active travel. It also outlines the need for investment in street trees in deprived areas.

We have drawn on the findings of the Marmot Review to carry out a desk-based literature review which explored urban health inequalities and identified the links between health and trees and woods in urban populations. Green space, trees and woods are now referred to in a number of health strategies, which is important for the Forestry Commission and a range of partner organisations working together to promote woods for public health and well-being.

The causes of urban health inequalities are associated primarily with socio-economic status, income, unemployment, skills and educational level/attainment.



Our review shows four major mechanisms that explain the relationship between trees and health:

- **physical action – filtering pollutants, reducing heat or noise;**
- **physical activity – encouraging physical exercise;**
- **social support – providing a space that promotes social interaction;**
- **restoration – reducing stress and restoring cognitive function.**

The key messages are as follows:

- Evidence that green space promotes health by encouraging exercise is not consistent.
- The restorative qualities of green space are as much to do with opportunities for social interaction as they are to do with the physical environment.
- There is evidence that proximity, size and amount of green space influence physical and mental health outcomes.
- Urban forests immediately around homes and workplaces are important for health outcomes.
- Green space in children's learning environments can provide significant developmental benefits.

Evidence from this review suggests that the Forestry Commission could focus on:

- the restorative benefits of urban forests;
- social support mechanisms for the health benefits of trees, woods and forests.

The key message of this review is therefore to highlight the importance of nearby trees and woods for restoration and social interaction.

The literature review was undertaken by Liz O'Brien and Amy Stewart of Forest Research and Katherine Williams from the University of Melbourne, Australia. To find out more contact Liz O'Brien (liz.obrien@forestry.gsi.gov.uk) or look at the full report on our website: www.forestry.gov.uk/fr/INFD-83EHVX

Bringing woodlands to towns in Scotland

Bringing the benefits of forests closer to where people live and work is the focus of an ongoing programme by Forestry Commission Scotland (FCS) called Woodlands In and Around Towns (WIAT). The aim is to create and manage accessible woodlands in urban and post-industrial areas in Scotland to give individuals and communities the quality of life benefits that forests can provide.

As part of this programme, Forest Research's social and economic research group is developing a bespoke monitoring and evaluation (M&E) framework across a network of 16 WIAT demonstration sites to carry out a thorough assessment of its impacts. Building on a core set of strategic-level indicators and common evaluation questions that are applied across all WIAT sites, work to date has involved an 'indicator mapping' exercise to ensure relevance to overarching policies in Scotland and draw on previous research. Indicators and suitable methods are currently being refined through a series of consultation rounds with stakeholders, including community representatives.

Launched in 2005, the WIAT programme is a reflection of FCS's policy of 'repositioning' the public forest estate by selling forests in rural areas and acquiring land in cities and towns, especially in areas of high social deprivation. After the initial three years, FCS had made a capital investment of £30 million in over 110 woods across Scotland.

A working M&E approach will be used and tested at the demonstration sites during 2010 to produce baseline assessments for later comparison with future situations to determine the impacts of investment on individuals and communities. This test phase will involve close collaboration with policy stakeholders, research partners and site and community representatives to discuss M&E development and design. The work will ultimately provide a number of guides, tool kits, protocols and other resources that will be made available to organisations in receipt of WIAT funding so they can analyse the impacts of their projects and learn from the ongoing experience of site delivery and management.



To find out more contact Jake Morris (jake.morris@forestry.gsi.gov.uk) or David Edwards (david.edwards@forestry.gsi.gov.uk).

Urban green networks and people

Greenspaces in and around towns and cities can provide significant physical, psychological and physiological benefits as places for people to retreat from the 'hustle and bustle' of urban life and engage in leisure activities such as walking, jogging and cycling. Greenspaces also offer a valued medium for social interaction, promoting the development of social networks, which can increase people's sense of belonging, cohesion and community. As such, green networks are increasingly seen as an essential component of sustainable urban environments.

However, urban densification can result in smaller and more fragmented greenspaces, reducing opportunities for movement and negatively influencing perceptions of space. There is a lack of data on how people perceive and use greenspaces. Moreover, planners do not always think of urban greenspaces as part of a linked system that provides social, economic and environmental benefits. To address these issues Forest Research is working in partnership with Scottish Natural Heritage, the Glasgow and Clyde Valley Green Network Partnership and Forestry Commission Scotland to develop methods that support decision-making for planning and managing green networks. The key objective of this research is to devise new GIS-based approaches that incorporate environmental and social datasets to facilitate planning by local authorities and third-sector organisations, and which support:

- increased participation in the outdoors across a range of social groups;
- a reduction in health inequalities through the creation of health promoting environments;
- more active travel (e.g. cycling and walking).

Phase 1 of the project involved a review of existing approaches to green networks and identification of national, regional and local social and environmental data that could better support multifunctional green network planning and management. Phase 2 will focus on the development and testing of green network mapping approaches that incorporate environmental and both quantitative and qualitative social datasets to produce a range of new tools for development planning and urban design.

The outputs of this project will contribute to the Scottish Government's national outcomes and local authorities' Single Outcome Agreements in Scotland, which emphasise that neighbourhoods should be attractive and healthy places to live and work.

To find out more contact Mariella Marzano (mariella.marzano@forestry.gsi.gov.uk) or Darren Moseley (darren.moseley@forestry.gsi.gov.uk).



Green networks linking up urban spaces.

Valuing street trees in the urban environment

Street trees can be an important feature of the urban environment, providing a wide range of social, economic and environmental benefits. They also have a key role to play in helping urban society adapt to climate change by providing significant canopy cover in some neighbourhoods – for example, 14% of tree canopy cover in London is provided by street trees.

Two current research projects, funded by the Forestry Commission, seek to identify and evaluate these benefits and understand the complex ways in which benefits accrue to individuals and communities.

In one project, a review of the economics literature has identified various economic benefits of street trees, focusing on their role in moderating urban climates and environments. Street trees can reduce air pollution, noise, wind speeds, storm-water run-off and ground-level ultraviolet radiation, with potentially significant health benefits. In summer, the trees cool the air by providing shade, also beneficial to health, and can significantly reduce the energy needed for air-conditioning in buildings – for example, in California street trees are estimated to result in a 10% saving in utility bills. With their beneficial effects on health and well-being, street trees can potentially deliver large savings to the NHS. Additionally, the aesthetic benefits of trees are often reflected in increases in nearby property values.

The second project involves a review of social research on street trees and has identified a variety of ways in which they are valued and managed in the urban landscape. While aesthetic value is perhaps the most widely recorded and analysed, other values relate to increased road safety, crime reduction, increased community capacity, resiliency and stability, and an increased sense of place and belonging in urban areas. There is considerable research that illustrates the capacity of nature to aid recovery from mental fatigue, and this concept has been extended to urban forestry. Even quite limited exposure to natural scenes can significantly enhance the ability of patients to rest and recover from illness. Furthermore, most trees have a life expectancy far greater than that of humans, so they can act as tangible contacts with both past and future generations. This seems to be particularly important in urban areas where the built environment may change rapidly.

For further information contact Norman Dandy (norman.dandy@forestry.gsi.gov.uk) or Vadim Sarajev (vadim.sarajevs@forestry.gsi.gov.uk).

Where to find out about us:

What we do

www.forestresearch.gov.uk/peopleandtrees

Who we are

www.forestry.gov.uk/fr/INFD-5XNATV

If you would like to receive future copies of our newsletter please email:

christine.woods@forestry.gsi.gov.uk

Coming soon:

Urban-themed webpages



Street trees deliver a range of benefits to urban communities.

Recent SERG publications

O'Brien, L., Williams, K. and Stewart, A. (2010). *Urban health and health inequalities and the role of urban forestry in Britain: a review*. Report to the Forestry Commission.

Phillip, S., Dandy, N., Gill, R.M.A. and MacMillan, D.C. (2009). Is legislation a barrier to the sustainable management of game species? A case study of wild deer in Britain. *Journal of Environmental Planning and Management* 52 (8), 993–1012.

Reed, M.S., Graves, A., Dandy, N., Posthumus, H., Hubacek, K., Morris, J., Prell, C., Quinn, C.H. and Stringer, L.C. (2009). Who's in and why? A typology of stakeholder analysis methods for natural resource management. *Journal of Environmental Management* 90 (5), 1933–1949.

Valatin, G. (2010). *Forestry Carbon: Valuation, Discounting, Risk Management*. Discussion paper. Available at www.forestry.gov.uk/fr/INFD-7WTDFQ

Valatin, G. (2009). *Carbon Additionality: A Review*. Discussion paper. Available at www.forestry.gov.uk/fr/INFD-7WUEAN

Lawrence, A. (ed.) (2010). *Taking Stock of Nature: Participatory Biodiversity Assessment for Policy, Planning and Practice*. Cambridge University Press. 290 pp.

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