Forest Research

Inventory of social evidence and practical programmes relating to trees, woods and forests and urban/peri-urban regeneration, place-making and place-shaping

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October 2010

The Research Agency of the Forestry Commission

Contents

Overall Inventory Summary

Introduction

Part one of this inventory includes social evidence relating to the role of trees, woods and forests, broken down into six categories, accessibility and usage, culture and landscape, health and well-being, local economy and benefit valuation, safety, crime and anti-social behaviour, and social interaction, sense of community and pride. This summary draws out the most significant evidence theme or message and the most pertinent gaps in evidence from each section.

Key Evidence

1. It is important that woodlands are located close to where people live to secure the maximum social benefits from them.
2. Trees and woods are an important part of cultural identity; projects, activities and events in urban woodlands can provide a useful expression of local identity and encourage a sense of ownership over wooded places.
3. There is strong evidence that trees and woods can provide restorative and therapeutic benefits and improve cognitive functioning. Evidence relating to the benefits of trees and woods in relation to physical exercise is mixed.
4. Trees can be significant elements in improving perceptions of place which can in turn lead to increased residential property values and an enhanced willingness to pay for goods and services.
5. Concerns about safety, crime and anti-social behaviour act as a barrier to woodland access for many people, especially women, those from an ethnic background and children (because of their own and their parents perceptions).
6. Woodlands and woodland-based interventions can help build a stronger sense of belonging, improve social inclusion and community cohesion, and enhance community capacity to achieve shared goals through increased social capital.

Key Gaps in Evidence

Some of the most conspicuous gaps in evidence include:

1. More research is needed which investigates how to overcome barriers to woodland access and target specific under-represented groups such as ethnic minorities and people with disabilities.
2. There is limited evidence on the role of trees and woods in the cultural landscape and the cultural practices of people and communities in urban areas.
3. A lot of the most frequently cited studies relating to trees and health and well-being (such as those by Kaplan) were conducted in the USA and there is a need for similar studies to be undertaken in a UK context. More research is needed to investigate whether different types of green space have different health and well-being effects and the potentially unique role of trees and woods.
4. There are a lack of UK-based studies, especially in relation to the impact of trees, woods and forests on urban business settings for both businesses and consumers.
5. There is a need for further evaluation of the types of intervention/activities necessary to enable fears about safety to be overcome for various groups in society, such as women and ethnic minorities.
6. More research is needed into whether woodlands and trees differ from other types of green space in terms of their potential for fostering social interaction and its related benefits, as well as the impact that quality of green space has on social interaction.

Conclusion

Following on from this, part two of the inventory identifies urban regeneration, place-shaping and place-making programmes in Great Britain in which trees have played the fundamental role. Together the two sections of the inventory should provide a useful resource to both researchers and policy-makers, demonstrating both the social evidence available and presenting examples of how others have attempted to implement programmes which maximise the social benefits of trees, woods and forests in urban settings and the lessons that these previous efforts can provide.

Introduction

There exists relatively little evidence for, or evaluation of, the specific or unique role that trees, woods and forests can play within urban/peri-urban regeneration, place-making and place-shaping (if indeed they have a unique role). The aim of this inventory is to identify and draw together what evidence does exist and provide a resource, primarily for forestry policy-makers and researchers, but also for practitioners. Furthermore, by gathering this data in one place it should help to highlight gaps in current evidence. The inventory provides a snapshot of evidence and programmes in 2010, it does not claim to be comprehensive (due to resource constraints) but instead draws together many of the most pertinent sources; it is anticipated that there will be opportunity in the future to review the inventory and update it as new evidence and programmes come to light.

In a project conducted for the Department for the Environment, Food and Rural Affairs (DEFRA), Forest Research has created an inventory of evidence relating to the benefits of green infrastructure (of which trees, woods and forests play an important part), including the social and economic benefits. Building on that work for DEFRA, this inventory was initiated because of an acknowledgement of the growing prominence of urban and peri-urban regeneration, place-making and place-shaping, and the role of greenspace within this, in national and local government policies, and a recognition that more needs to be understood about the specific contribution that trees, woods and forests can make within these agendas.

Regeneration does not necessarily have to involve efforts at 'place-making' although it will involve 'place-shaping'. Likewise, place-making and place-shaping, although often a part of regeneration efforts do not necessarily have to be linked to regeneration. However, this study has chosen to focus on all three because there is a strong relationship between them and it is clear that the fundamental rationale and ambition behind them all is similar – they aim to 'create sustainable places where people want to live, work and raise a family' (DCLG, 2009a: 1). Furthermore, as the Commission for Architecture and the Built Environment (CABE, 2010) argue, 'The high growth era in the British Economy was strongly linked to investment in property and places…In today's very difficult fiscal climate, it is even more critical to appreciate the role of architecture, the bricks and mortar, the parks and trees, the trains and trams which provide the backdrop and context to our daily lives. Distinctive places and well designed buildings will support high quality public services, generate civic and community pride, and attract and retain investors'.

Definitions

Regeneration

Regeneration has been high on government agendas for a long time and has been defined as 'a set of activities that reverse economic, social and physical decline in areas where market forces will not do this without support from government' (DCLG, 2009a: 1). The Scottish Government has defined regeneration as the lasting transformation of places to benefit those who live and work there (Scottish Government, 2010a). For the Department of Communities and Local Government (DCLG, 2009a: 2) the focus is largely on economic outcomes, and especially employment opportunities as it is perceived that these are key to providing 'better social and environmental outcomes and an opportunity for social and economic mobility – particularly for the most disadvantaged in society'. This highlights a core driver for regeneration, (and often place-making and place-shaping) and that is the social justice agenda and goals to overcome inequalities within society. Urban and peri-urban regeneration efforts are usually focused on the most deprived areas in the country as highlighted by programmes such as New Deal for Communities, Neighbourhood renewal in England; Communities First and Strategic Regeneration Areas in Wales (e.g. Heads of the Valleys); and Urban Regeneration Companies in Scotland established in six areas (e.g. Clyde Gateway) to deliver integrated regeneration strategies (Scottish Government, 2010b).

Place making and shaping

Place, place-making and place-shaping are receiving increasing government attention. For example, in England, there has been a very strong focus on place and local authorities have been referred to as 'place-shapers'. This focus on place was embedded through the local government Place Survey which investigated 'place' in a broad sense by looking at the factors that make somewhere a good place to live (DCLG, 2009b). Steve Bundred of the Audit Commission stated that. 'An increased focus on 'place' lies at the heart of the modern vision of local public services.

This means creating safer, cleaner and greener places where people want to live and work now and in the future' (Foreword in Duffy and Lee Chan, 2009: 3). However, with the new coalition government coming to power in May 2010, this focus could well change and at the time of writing the place survey has already been scrapped. Nevertheless, elements of this agenda likely to remain and according to Stedman (2003: 672) 'places encompass the physical setting, as well as human experience and interpretation'. Therefore physical settings will impact on the meanings people ascribe to a place, while people will bring their own particular social and cultural experiences and incorporate these into their values and meanings for new places (O'Brien, 2006).

Place-making tends to be used more specifically as an approach to 'revitalising, planning, designing and managing public spaces' (Greenspace Scotland 2010). It can be defined 'as a collective process of space arrangement with the aim to advance the usage and living quality of a space and to appropriate the space in a socio-emotional way' (Fürst et al. 2004 cited in Franz et al. 2008: 323). It is therefore about more than creating functional spaces and meeting the biological, cultural and instrumental needs of people such as providing aesthetically pleasing, psychologically restorative, or recreationally useful areas (Farnam et al. 2005: 1). Place-making is more holistic and includes the relationships that people have with such spaces and the connections a person or group make between a space and their own experiences, achievements, cultural values, norms and social meanings (Hunziker et al. 2007: 48-49).

Place-making should be participatory because different conceptions of place will exist and need to be accounted for. A positive consequence of participatory approaches and the fact that places are settings for social interaction is that place-making 'can yield benefits far beyond making better spaces for people' such as enabling 'youth engagement, economic and community development, democracy/capacity building and the establishment of community identity' and social capital (Greenspace Scotland, 2010).

Urban/peri-urban

The focus of this inventory is on urban and peri-urban areas and while what constitutes 'urban' is often contested, here it is assumed that populations over 10,000 can be considered urban, as per the definitions used by the governments of England, Scotland and Wales, and peri-urban can be defined as those areas immediately adjoining urban areas but where the population is less dense (ONS 2010; Scottish Government, 2008).

Inventory content

The inventory has two distinct parts:

Part 1: covers social evidence of the role of trees and woods in urban regeneration and place making and shaping
Part 2: identifies urban regeneration, place-shaping and place-making programmes in Great Britain in which trees, woods and forest play the main role.

Part 1

Part 1 is further divided into six sections: 1) accessibility and usage; 2) culture and landscape; 3) health and well-being; 4) local economy and benefit valuation 5) safety, crime and anti-social behaviour and 6) social interaction, sense of community and pride. These categories reflect the main areas through which the social impact of place-making, place-shaping and urban regeneration initiatives can be identified and evaluated and are very similar to the indicator categories used to evaluate the Newlands Regeneration Programme in the Northwest of England (Newlands, 2009). Some items are included more than once in the inventory if they have relevance to more than one topic area but only the evidence relevant to that topic will be listed under a particular heading. Each of these sections has a short summary outlining the definition, the key evidence within the section, any methodological issues raised by the evidence and gaps in current evidence.

Evidence relating to the ecological, environmental and hydrological benefits of urban trees, woods and forests (such as air quality, shading, wind control, pollution reduction, carbon sequestration, noise abatement, water quality and flood alleviation) are recognised as having social value but have not been included in this inventory and are well documented elsewhere (Beckett et al., 1998; Broadmeadow and Freer-Smith, 1996; Fang and Lin, 2003; Forest Research, 2010 forthcoming; Freer-Smith et al., 2005; Gill et al., 2007; Golden et al., 2007; Huang et

al., 1990; Huang et al., 2008; Joureava et al., 2002; McPherson et al., 1999a and 1999b; National Assessment of UK Forestry and Climate Change Steering Group, 2009; Souch and Souch, 1993; Stovin et al., 2008); Streiling and Matzarakis, 2003; Thomas and Nisbet, 2006; Tiwary et al., 2009).

Evidence listed is drawn from the last twenty years and is divided into sections based on whether it pertains to the United Kingdom (UK), or Europe and the rest of the world. We focus primarily on research undertaken in the UK that will be of particular interested to woodland policy makers and practitioners. We draw on research in other countries that are particularly relevant either – confirming findings found in the UK; highlighting research that could usefully be undertaken in the UK; or illustrating differences in research results that may be due to different social and cultural woodland contexts in other countries. As far as possible we try to only include research that mentions trees, woods and forests rather than green space. This distinction is difficult to make as many studies on parks include mention of trees. We have mainly included studies with a strong focus on trees and woods. The search terms used were as follows:

Benefits and urban forest and/or urban woodland
Place and urban forest and/or urban woodland
Quality of life and urban woodland and/or urban forest
Regeneration and urban woodland and/or urban forest
Place making.

This literature was supplemented by documents already gathered for the DEFRA green space inventory and other research projects such as a report on 'Place-making and Communities' which reviews related concepts such as place, place-making, community capacity, cohesion and empowerment, and social capital, plus indicators to measure these concepts, discusses how these terms have been used within UK government (including forestry) policy in recent times and provides practical examples of initiatives aimed at realising place and community related benefits (Stewart, 2010).

The following codes are used in the inventory to indicate the category of literature:

GL = grey literature (unpublished or published reports – usually edited but not peer reviewed. Where they are published this is noted)
BC = book chapter
BK = book
PRJ = peer reviewed journal

In addition, the code PR is also used in combination with one of the codes above where the document includes primary research. Furthermore, the code RS (review summary) is also used in combination with one of the codes above where the document does not include primary research but is a review summary or report which gathers together in one place a range of evidence.

Part 2

The second section of the inventory focuses on multi-site programmes (at least 5 sites) operating at regional or national level and/or covering a total area of at least 1.5 square miles (around 400 hectares) and running for at least 5 years. A programme is defined here as an overarching initiative which incorporates a collection of related projects within it on different sites. These programmes are primarily based in urban/peri-urban areas and have a strong focus on the regeneration of those areas and improving the quality of place for deprived communities. There are many regeneration programmes running in Britain that may have green space or trees as one element within that programme, these are not included in this inventory as there is usually no or very little evidence of how trees have contributed to the regeneration and place making process specifically. The programme inventory is divided into three sections, focusing on each of the three countries, England, Scotland and Wales respectively.

All items included in the inventory refer to trees, woods or forests explicitly, although admittedly some of items do not fully consider their unique role or evaluate them against other types of green space. Items which only considered greenspace or green infrastructure/networks more broadly have not been included.

References

Beckett, K.P., Freer-Smith, P.H. and Taylor, G. (1998). Urban woodlands: their role in reducing the effects of particulate pollution. Environmental Pollution 99: 340-360

Broadmeadow, M.S.J. and Freer-Smith, P.H. (1996). The improvement of urban air quality by trees. Arboriculture research and information note. AAIS, Forest Research.

CABE [Commission for Architecture and the Built Environment] 2010. Getting the big picture right: A guide to large scale urban design. http://www.cabe.org.uk/files/getting-the-big-picture-right.pdf accessed 30/02/10

DCLG [Department for Communities and Local Government]. 2009a. Transforming places – changing lives: Taking forward the regeneration framework. http://www.communities.gov.uk/publications/citiesandregions/transformingplaces accessed 16/04/10

DCLG [Department for Communities and Local Government]. 2009b. Place Survey: England – Headline Results 2008 (Revised). http://www.communities.gov.uk/documents/statistics/pdf/1326142.pdf accessed 20/01/10

Duffy, B. and Lee Chan, D. 2009. People, Perceptions and Place. Ipsos MORI, London

Fang, C. F. and Ling, D. L. 2003. Investigation of the noise reduction provided by tree belts. Landscape and Urban Planning 63 (4): 197-195

Farnum, J. Hall, T. and Kruger, L. E. 2005. Sense of Place in Natural Resource Recreation and Tourism: An Evaluation and Assessment of Research Findings. General Technical Report PNW-GTR-660. U.S. Department of Agriculture, Forest Service, Pacific Northwest Research Station, Portland, OR

Forest Research. 2010 - forthcoming. Benefits of green infrastructure. Report to Defra and CLG. Forest Research, Farnham.

Franz, M., Güles, O. and Prey, G. 2008. Place-making and 'Green' Reuses of Brownfields in the Ruhr. Tijdschrift voor Economische en Sociale Geografie 99 (3): 316-328.

Freer-Smith, P.H., Beckett, K.P., and Taylor, G. (2005). Deposition velocities to Sorbus aria, Acer campestre, Populus deltoides trichocarpa 'Beaupre' Pinus nigra and Cupressocyparis leylandii for coarse, fine and ultra-fine particles in the urban environment. Environmental Pollution 133, 157-167.

Gill S.E., Handley, J.F., Ennos, A.R., Pauleit, S. (2007). Adapting cities for climate change: the role of the green infrastructure. Built Environment, 33 (1): 115-133.

Greenspace Scotland. 2010. Placemaking Scotland http://www.greenspacescotland.org.uk/default.asp?page=280 accessed 30/07/10

Golden, J. S., J. Carlson, et al. (2007). A comparative study of the thermal and radiative impacts of photovoltaic canopies on pavement surface temperatures. Solar Energy 81 (7): 872-883

Huang, Y. J., Akbari, H. and Taha, H. 1990. The wind-shielding and shading effects of trees on residential heating and cooling requirements. Conference Report – Winter meeting of the American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc, Atlanta, GA, 11-14 Feb 1990

Huang, L. M., H. T. Li, et al. (2008). A fieldwork study on the diurnal changes of urban microclimate in four types of ground cover and urban heat island of Nanjing, China. Building and Environment 43 (1): 7-17.

Hunziker, M., Buchecker, M. and Hartig, T. 2007. Space and Place – Two Aspects of the Human-landscape Relationship, in F. Kienast, O. Wildi and S. Gosh O. Wildi (Eds) A Changing World – Challenges for Landscape Research. Springer Netherlands, Dordrecht. p.47-62

Jouraeva, V.A., Johnson, D.L., Hassett, J.P., Nowak, D.L. (2002). Differences in accumulation of PAHs and metals on leaves of Tilia-x euchlora and Pyrus calleryana. Environmental Pollution 120: 331-338.

Konijnendijk, C. 2008. The Forest and the City: The cultural landscape of urban woodland. Springer-Verlag

McPherson, E. G., Simpson, J. R., Peper, P. & Xiao, Q. 1999a. Benefit-Cost Analysis of Modesto's Municipal Urban Forest. Journal of Arboriculture, 25 (5): 235-248.

McPherson, E. G., Simpson, J. R., Peper, P. and & Xiao, Q. 1999b. Tree Guidelines for San Joaquin Valley Communities. Local Government Commission, Sacramento, CA.

National Assessment of UK Forestry and Climate Change Steering Group. 2009. Combating Climate Change – A Role for UK Forests: Main Report. The Stationary Office, Edinburgh

Newlands. 2009. Measuring the social impact of Moston Vale – a new community woodland. http://www.newlandsproject.co.uk/a/Social%20Indicators%20Report%20-%20Moston%20Vale.pdf accessed 30/07/10

O'Brien, E. 2006. A question of value: what do trees and forests mean to people in Vermont? Landscape Research, 31: 257-275.

ONS [Office for National Statistics] (2004). Rural/Urban Definition (England and Wales). http://www.ons.gov.uk/about-statistics/geography/products/area-classifications/rural-urban-definition-and-la-classification/rural-urban-definition/index.html accessed 30/07/10

Scottish Government. 2008. Scottish Government Urban Rural Classification 2007-2008. http://www.scotland.gov.uk/Publications/2008/07/29152642/9 accessed 30/07/10

Scottish Government. 2010a. In focus in regeneration. http://www.scotland.gov.uk/Topics/Built-Environment/regeneration accessed 19/05/10

Scottish Government 2010b. Urban regeneration companies. http://www.scotland.gov.uk/Topics/Built-Environment/regeneration/17735 accessed 19/05/10

Souch, C.A. & Souch, C. (1993). The effect of trees on summertime below canopy urban climates: a case study. Journal of Arboriculture 19 (5): 303-312

Stewart, A. 2010. Place-making and Communities: A review of concepts, indicators, policy and practice. Forest Research, Edinburgh

Stokowski, P. A. 2002. Languages of Place and Discourses of Power: Constructing New Senses of Place. Journal of Leisure Research 34 (4): 368-382

Stovin, V. R., Jorgensen, A. and Clayden, A. 2008. Street Trees and Stormwater Management, Arboricultural Journal, 30:297-310.

Streiling, S. and A. Matzarakis. 2003. Influence of single and small clusters of trees on the bioclimate of a city: A case study. Journal of Arboriculture 29 (6): 309-316.

Thomas, H. and Nisbet, T. R. 2006. An assessment of the impact of floodplain woodland on flood flows. Water and Environment Journal, 21: 114-126.

Tiwary, A., Sinnett, D., Peachey, C.J., Chalabi, Z., Vardoulakis, S., Fletcher, T., Leonardi, G., Grundy, C., Azapagic, A. and Hutchings, T.R. 2009. An integrated tool to assess the role of new planting in PM10 capture and the human health benefits: a case study in London. Environmental pollution 157: 2645-2653.

1. Inventory of Social Evidence

1.1 Accessibility and Usage

1.1.1 Introduction

Definition: What is covered in this section?

This section covers evidence relating to the physical provision of woods available to the public, levels and types of use, the types of visitors that use urban woodland and barriers or constraints to woodland use. We do not, however, include studies which look at the physical provision of trees where this is not related to public access or 'accessibility'.

Key evidence

Forty two papers have been identified, twenty eight of these are grey literature, and fourteen are from peer-reviewed journals. Eight of these sources come from outside the UK.

Key themes from this research include:

1. It is important that woodlands are located close to where people live and that projects to create new woodlands are situated where as many people as possible can benefit from them.
2. Currently two-thirds of all trees are on private land or less accessible public land.
3. In some areas, certain groups in society are under-represented in terms of their use of woodlands, including women, older people, young adults, those with disabilities, those with a low socio-economic status, and those from a Black or Minority Ethnic (BME) background.
4. Targeted community engagement and facilitated access are necessary to build confidence and make minority ethnic groups feel welcome.
5. People's perceptions of woodlands influence their use of woodlands, both in terms of whether they use them and how they do.
6. A range of constraints or barriers to accessing woodlands have been identified including perceived barriers, social and emotional barriers and physical and structural barriers.
7. Urban forests need to be managed to meet competing needs.
8. Woodlands in the countryside are often more frequently visited than those situated in and around urban areas.

Links to other parts of the inventory

There are links to the safety and crime section of the inventory as perceptions of woodlands as unsafe or areas where anti-social or criminal activity takes place can sometimes be a barrier to their use. There are also links to the health and well-being section as the use of woodlands for recreation can contribute to individual health and well-being. Finally, there are links to the culture and landscape section as the social and cultural values attached to woodlands can affect people's usage of them.

Methodological strengths/ limitations

Numerous studies on public perceptions and actual usage of woodlands have been undertaken at different scales and there is a strong body of evidence on the barriers to accessing woodlands and forests.

Gaps in evidence

While there is a growing body of work on the barriers or constraints to accessing woodlands and other green spaces, and this examines these in relation to different groups within society, more could be done to examine how to address these barriers and specifically how to target particular groups such as ethnic minorities or people with disabilities.

1.1.2 Table of Evidence

AUTHOR /S & DATE	DOCUMENT TITLE	PUBLICATION / PUBLISHER AND LINK	FOCUS	METHODS	FINDINGS/CONCLUSIONS – ESPECIALLY THOSE RELATED TO TWF	QUALITY OF EVIDENCE / GAPS / COMMENTS	CODE
UK RESEARCH AND LITERATURE							
Ambrose-Oji, B. 2009	Equality and Inclusion of Social Diversity with respect to Woods and Forests in the UK: An evidence review	Forest Research http://www.forestry.gov.uk/fr/INFD-7QQHQE	A summary of the available evidence of the impact of trees, woods and forests on different sections of British society.	N/A – desk based review of published material and grey literature.	- Of the 70 woodland sites mentioned in the studies, 22% were urban and 43% peri-urban (although 23 or the 70 woodland sites were not described in terms of location so are excluded from the total) - There is general agreement that there are 3 broad categories of constraints or barriers to accessing woodlands, forests and other green spaces which impact on different categories of users in different ways and need specific strategies to overcome them: 1. Perceived barriers 2. Social and emotional barriers 3. Physical and structural barriers	The study identifies a range of gaps in current knowledge, including: - No found evidence on the use and impact of trees, woods and forests on people from groups with different sexual orientations. - Understanding of needs of disabled children and their carers is poor. - How to involve diverse groups in decision making about their local spaces, about the creation of new spaces, and about changes or improvements to existing spaces. - Appropriate monitoring and evaluation methods to capture information about the differential impact on equality groups of trees woods and forests. - Not all barriers associated with each of the different disability groups have been researched, and there is no research focused on the barriers to access for BME disability groups. - Faith/belief groups, children and women are currently not well represented in research.	GL RS
Britt, C. and Johnston, M. 2008	Trees in Towns II: A new survey of urban trees in England and their condition and management	Department for Communities and Local Government, London http://www.google.co.uk/search?hl=en&source=hp&q=trees+in+towns+survey&meta=&aq=f&aqi=g1g-s1&aql=&oq=&gs_rfai=	A national survey of England's urban trees and their management was commissioned by the Office of the Deputy Prime Minister (ODPM) in February 2004. This survey, 'Trees in Towns II' builds on the	Quantitative. 1. National tree survey 2. Survey of local authorities 3. Integration of 1 and 2. The direction was informed by a Focus Group of interested parties, which included the ODPM, the research contractors (ADAS and Myerscough College) and a number of leading arboricultural organisations. A total of 147 towns and cities were surveyed, including 10 London boroughs. Within each selected town, up to four 4 ha plots (200 x 200 m) were selected from each land use type	- All trees were allocated to one of four 'status' categories, based on an assessment of its position, probable land ownership, visibility and accessibility. - Two thirds of all trees and shrubs were on private property (mainly in gardens) or on less accessible public land (e.g. schools, churchyards, allotments, etc.). Almost 20% were located in public parks and open space. Some 12% were street or highway trees. - The South West had a relatively high proportion (and the highest numbers) of street/highway trees. The Eastern region and the West Midlands had relatively high proportions of park trees. - Trees on private or less accessible public land were the	Good response rate of 66% from Local authorities in England.	GL Published PR

AUTHOR /S & DATE	DOCUMENT TITLE	PUBLICATION / PUBLISHER AND LINK	FOCUS	METHODS	FINDINGS/CONCLUSIONS – ESPECIALLY THOSE RELATED TO TWF	QUALITY OF EVIDENCE / GAPS / COMMENTS	CODE
			original 'Trees in Towns' survey undertaken for the Department of the Environment in 1992/3, with the aim to provide up-to-date information on the national urban tree stock and urban tree management by local authorities.	sufficiently represented there. Plots were randomly selected using on-screen analysis of aerial photos and digital maps. Variables recorded included: - tree status - species and variety/form - height, stem diameter and crown spread - age - maturity - condition - management history - contribution to the urban environment Aerial photographs, for a total of 1,783 plots, were analysed to measure the extent of tree canopy cover.	most frequently recorded 'status' category in all land use classes except open space. In low density residential areas 91% of all trees and shrubs were in this category. - Comparisons with data collected in 1992 suggest a possible increase in the overall proportion of street/roadside trees, particularly in residential and industrial areas. However, further sampling and analysis is required before it can be said if this is the result of changed planting patterns.		
Bussey, S. C. 1996	Public uses, preferences and perceptions of urban woodlands in Redditch	PhD Thesis, University of Central England, Birmingham	An ethnographic case study of the urban area of Redditch to examine the relationships between the Redditch urban community and its urban woodlands.	Qualitative and quantitative. 1. Archival analysis used to provide historical context. 2. Individual in-depth loosely structured interviews with the providers of urban woodland and individuals in the community. 3. Focus group interviews with volunteer woodland warden groups, adolescent children and an ethnic minority group. 4. Participant observation as a staff member of Redditch Borough Council in their meetings and some observational data was collected on where recreational use took place. 5. A quantitative longitudinal survey was undertaken including household surveys, structured interview surveys conducted within the woodlands and a survey of school children.	- 94.7% of the community visit the woodlands annually, 78.6% visit monthly and 56.7% visit weekly. - The woodlands are popular with all groups of people but they seem to be particularly important to people falling within the 9-14 (18%) and 25-44 (30%) years old groups. - Slightly more males (53%) then females (47%) visit the woods. - There are no marked differences in woodland visiting patterns attributable to socio-economic status, ethnicity or membership of an environmental group. - The most usual duration of a visit is an hour or less. - There are no marked seasonal or weekday peaks in visiting patterns, but mornings and afternoons, particularly on Sundays are the preferred times for woodland visits. - Taking all of these factors into account, it is, therefore, concluded that urban woodland visiting patterns tend to reflect those of people's daily life style and lifestage. A woodland visit is not an occasional 'event' that has to be planned and prepared for. Where the resource is locally available, it is an important part of everyday urban life. This highlights how important it is, that in order that they function as people require them, the woods should be conveniently located on the doorstep, within the urban fabric, not on the urban fringe or in the open countryside.	In-depth study but questionable generalisability as focused on woodland in one urban area.	GL PR (PhD Thesis)
Carter, C., Lawrence, A., Lovell, R. and O'Brien, L. 2009	The Forestry Commission Public Forest Estate in England: Social use, value and expectations	Forest Research http://www.forestresearch.gov.uk/website/pdf.nsf/3ece6ef6a6bb8f2080256a15005b9fd4/87644fd9f58dbb6a8025	This study provides evidence of the public value of the Forestry Commission Public Forest	Qualitative and quantitative The study consisted of two phases. Phase 1 identified and analysed existing evidence. Phase 2 collected and analysed new data to fill gaps in existing knowledge. New data was gathered using two complementary approaches: 1. A statistically representative survey of the adult	- Early studies of the Forestry Commission England Quality of Life indicator suggest that BME groups are not underrepresented as users of community woodlands in urban areas, and that women and disabled people are underrepresented in some woods but not others. - There is often little awareness of who owns woodlands. This leads to lack of confidence to visit, and confusion over what	Statistically representative survey of adult population of England plus focus groups to explore issues with different groups in more depth.	GL PR

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		76c8004bbf79/$FILE/PFE_social_study_final_report.pdf	Estate in England (PFE). The aim was to establish whether people have different perceptions and expectations of publicly owned forests compared to those in other forms of ownership.	population of England 2. 10 discussion groups covering a range of diversity groups and interests, held in four locations.	spaces people are allowed to access. - Almost all participants expressed the wish to have more native and broadleaved woodlands and the need to protect and expand forest cover. Increasing woodland cover was sometimes seen as a counterpoint to past/on-going urban development (see e.g. section 5.1) or connected with and justified in terms of climate change. - Some expressed high levels of trust in public ownership and management and saw woodland creation and conservation as one way to act against further losses of forest cover and the gradual erosion of urban greenbelt areas. Key advantages of public ownership that were valued are direct management control and responsibility for sustainable forest management. - The creation of new woodlands was thought necessary, especially near urban or on brownfield sites and surplus farmland.		
Coles, R. W. & Bussey, S. C. 2000	Urban forest landscapes in the UK – progressing the social agenda	Landscape and Urban Planning 52: 181-188	A social valuation of 240 individual (urban) woodlands in Redditch, West Midlands: Analysis of survey of woodland usage patterns and perceptions of urban woodlands.	Quantitative and qualitative: 1. Data gathered on: structure of woodland estate; patterns of use, in terms of frequency of visits, length of stay, recreational activities; perceptions and emotions of the woodland users. 2. Household questionnaire survey on location and user preference 3. Additional household questionnaires for residents living adjacent to woodlands 4. Qualitative information on user emotions 5. Focus groups on reactions to woodland structure and management.	- Access biggest issue – people prefer local woods only 5min or 100-400m from home - mixed woodland most popular, coniferous least popular - Area of around 2ha is smallest wood that people wish to visit regularly - Narrow tree belts less attractive than blocks of woodland that allow for a circuitous route. - Open structured woods preferred to dense canopy cover - Personal valuations suggest safe and accessible urban woodlands present a refuge away from urban life and activity. - 'Unnecessary' human interventions (such as fly tipping, or management activities such as leaving brash on the ground) dilute the 'natural' woodland experience.	In-depth study but difficulties with generalisability as focused on woodlands in one urban area.	PRJ PR
Edwards, D., Elliott, A., Hislop, M., Martin, S., Morris, J., O'Brien, L., Peace, A., Sarajev, V., Serrand, M. and Valatin, G. 2009	A valuation of the economic and social contribution of forestry for people in Scotland	Forest Research http://www.forestry.gov.uk/pdf/fcrp101.pdf/$FILE/fcrp101.pdf	Valuing forestry for people through the themes of health, education, recreation, employment and volunteering, contribution to the economy, culture and landscape, and community capacity.	Qualitative and quantitative 1. Questionnaire survey in 2006 and 2007 of a representative sample of the Scottish population (about 1,000 people in each survey) 2. Case study research in two areas: a) Glasgow and Clyde Valley and b) Loch Ness.	- It is estimated that the annual number of visits to Scottish woodlands by Scottish adults ranged between 68 million in 2005/06 and 37 million in 2006/07. The substantial decline between 2005/06 and 2006/07 is likely to be mainly due to the unusually wet summer of 2007. - At least 6 million of these visits were made to forests managed by Forestry Commission Scotland. Although more visits are made to non-Forestry Commission woodlands, on average, visits to Forestry Commission woodlands were of a longer duration and involved longer round trips. - Adults from the most deprived areas in Scotland, those from urban areas, C2 and DE socio-economic groups, and the 55+ age class, were all significantly less likely to have visited woodlands in the previous 12 months then those	Large scale 2 year study including a range of qualitative and quantitative methods. Covers urban and non-urban areas.	GL Published PR

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					from other social groups. - In 2005/06 53% of adults from urban areas had visited woodland in the last 12 months compared with 63% of adults from non-urban areas. - In 2006/07 37% of adults from urban areas had visited woodland in the last 12 months compared with 50% of adults from non-urban areas. - In 2005/06 adults from urban areas reported that within the last 12 months they had visited woodland 14.6 times compared with 21.5 visits by people from non-urban areas. - In 2006/07 adults from urban areas reported that within the last 12 months they had visited woodland 6.7 times compared with 15.2 visits by people from non-urban areas. - 72% of Scottish adults surveyed stated that they had woodland near to where they lived (within a 10 minute walk). Of those who had local woodland, 22% did not feel safe visiting their local woodland, with women more likely to feel unsafe than men.		
Edwards, D. and Weldon, S. 2006	Race Equality and the Forestry Commission	Forestry Research http://www.forestry.gov.uk/pdf/FR290807_RESFinalReport.pdf/$FILE/FR290807_RESFinalReport.pdf	Key findings from an investigation carried out by Forest Research between October 2004 and October 2006 into the application of the Forestry Commission's Race Equality Scheme and the factors which can restrict access of Black and Minority Ethnic (BME) groups to woodland recreation.	Qualitative (although available statistics on ethnicity also used) 1. Semi-structured interviews with FC and non-FC staff (local government, NGO, and community reps, and members of BME groups, including users and non-users of FC services) 2. Literature review 3. Four focus groups with four different BME community groups (all participants lived in inner urban areas of Northampton or Wellingborough) 4. Each focus group was immediately followed by an accompanied site visit to Salcey Forest, an ancient semi-natural woodland managed by FC with good facilities for visitors. This study focused on Northants Forest District as a case study because it has a range of sizeable BME groups and woodland types located both on the urban fringe and in isolated rural areas.	- Four reasons were identified which may prevent people with BME backgrounds from participating more fully in the opportunities provided by woodlands: 1. Economic factors (leading e.g. to restricted access to transport) 2. Lack of awareness, knowledge, familiarity, confidence or interest. 3. Cultural attitudes and preferences 4. Feeling unwelcome or out of place - Many of the attitudes towards woodlands reflected those typically found in the non-BME population. There were similar concerns for example regarding personal safety, and problems with dogs. Barriers preventing woodland recreation reflected those of other urban residents with low incomes, in particular the problem of lack of transport. - Several participants described personal encounters with racism. These had taken place in everyday urban settings, and there was a shared view that racism was a potential problem everywhere rather than one associated with visits to the countryside. - There was little evidence that participants felt unwelcome in Salcey Forest. They all appeared unselfconsciously to enjoy the walk and café experience, and to integrate with the numerous non-BME users (who had all arrived in private cars or on mountain bikes). Indeed, the regular users appeared to pay more attention to the BME visitors than the visitors did of the regulars. - However, many participants felt relaxed because they were	Qualitative case study so not statistically representative.	GL PR

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					part of a large organised group, and only a small number said that they would revisit the site with only their partner or family. - Without outreach work by local rangers, and transport facilities organised through community groups, participants and people like them would not know about the benefits of woodland recreation and would not be able to visit woodland like Salcey.		
Fairburn, J., Walker, G. and Smith, G. 2005	Investigating environmental justice in Scotland: links between measures of environmental quality and social deprivation	Scotland and Northern Ireland Forum for Environmental Research (SNIFFER) http://www.sniffer.org.uk/Webcontrol/Secure/ClientSpecific/ResourceManagement/UploadedFiles/UE4(03)01.pdf	The extent to which communities of people in Scotland living at different levels of deprivation also live in proximity to factors affecting environmental quality	Qualitative and quantitative 1. Review of past research through evaluation of literature and research 2. Analysis of various data sets in relation to the 2004 Scottish Index of Multiple Deprivation	- For both the straight line and route access method of calculating distance to green space in Glasgow, the most income deprived have the greatest proximity to greenspace (in terms of percentage of population within 300m of greenspace) - Similarly, the most employment deprived data zones have greater proximity to greenspace than the least employment deprived areas. - The higher values for the most deprived groups in Glasgow may well be a result of the decanting of the population through slum clearance to the outskirts of the city in the post war years. - There is no indication in the data set of the quality of green space, accessibility or its level of use. - The urban population of Scotland is much more likely to live near to local nature designated areas then the rural population. - The data for the above finding originated from the local plan and it may be that local authorities use designations as a tool to preserve green space in urban areas.	The report makes specific mention of woodland but only in terms of being a part of greenspace. There is no analysis of woodland in particular and environmental justice. The limitations of the datasets used are noted within the report.	GL PR
Forestry Commission	All forests monitoring, quality of experience surveys, visitor surveys and counts and general visitor surveys	Forestry Commission http://www.forestry.gov.uk/website/forestry.nsf/byunique/infd-5wcmr4	The Forestry Commission has conducted various surveys (some in collaboration with other agencies) to determine how the national forest estate contributes to people's lives. In particular, much work has been done on obtaining information about	Quantitative and qualitative.	The findings from these surveys are too numerous to recount here but further reports can be found on the website: http://www.forestry.gov.uk/website/forestry.nsf/byunique/infd-5wcmr4		GL PR

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			recreational use of forests.				
Kazmierczak, A. E. and James, P. 2007	Role of Urban Green Spaces in Improving Social Inclusion	in Amaratunga, D., Haigh, R., Ruddock, L. and Alshawi, M. eds. Proceedings of the 7th international postgraduate conference in the built and human environment 27th-29th March 2007, Salford, pp 354-365 http://www.els.salford.ac.uk/outputs/papers/kazmierczak_BuHu07.pdf	Literature review based paper arguing that urban green spaces in socially excluded areas can increase community cohesion and inclusion of individuals into society.	N/A - Literature Review	- It is estimated that a third of the Greater Manchester area is open space (Rudlin and Falk, 1999) but while the wealthy suburbs have tree coverage of *circa* ten per cent, in inner-city neighbourhoods trees constitute only two per cent of total area (Ravetz, 2000). - While voluntarism is often a strong feature of poor areas (Forrest and Kearns, 2001), people living in the most disadvantaged neighbourhoods have lower levels of residential involvement in neighbourhood tree planting and community green-up efforts than better-off citizens (Melles, 2005).	References mentioned: - Forrest, R. and Kearns, A. (2001) Social cohesion, social capital and the neighbourhood, Urban Studies 38(12), pp2125-2143 - Melles, S.J. (2005) Urban bird diversity as an indicator of human social diversity and economic inequality in Vancouver, British Columbia, Urban Habitats 3(1), pp25-48 - Ravetz, J. (2000) City Region 2020, TCPA and Earthscan, London - Rudlin, B. and Falk, N. (1999) Building the 21st century home, Architectural Press, Oxford	GL RS
Kessel, A., Green, J., Pinder, R., Wilkinson, P., Grundy, C. and Lachowycz. 2009	Multidisciplinary research in public health: A case study of research on access to green space	Public Health 123 (2009): 32-38	Quantitative analysis of the physical and demographic parameters of access to Thames Chase Community Forest (TCCF), and how these have changed between 1990 and 2003; and qualitative exploration of the links between health and the natural environment, with a focus on the issue of 'access' to green space.	Quantitative and qualitative: 1. Quantitative analysis, using geographical information systems, of physical access to the community forest. 2. Ethnographic research including participant observation, non-participant observation, in-depth interviews and attendance at meetings and conferences.	- Public access to green space improved between 1990 and 2003 as a result of the regeneration and acquisition of new areas, and the average reduction in distance to green space was 162m. - However, such improvements were distributed differentially between population groups. In both 1990 and 2003, people from deprived areas and in poorer health had better access to green space than people from less deprived areas, but the greatest improvement in access to green space over this interval occurred in areas of below average deprivation (i.e. in the more affluent areas). - Use of TCCF was determined by a number of factors including whether a person could 'imagine themselves' using such a space, different perceptions of what is actually being accessed (e.g. a place to exercise or a place to socialise), and ideas about using the countryside 'properly'. - The health benefits of using a green space, such as TCCF, for walking or exercising are well recognized. However, whether people choose to use local green space may be determined by a variety of factors. These are likely to include physical distance to green space, as well as perceptions and understandings of what is being accessed and how it should be used.	Focused on TCCF but does not distinguish between TWF and any other type of greenspace.	PRJ PR

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Jamieson, N. and Diggins, G. 2009	Public Opinion of Forestry 2009, UK: results from the UK 2009 survey of Public Opinion of Forestry	Forestry Commission http://www.forestry.gov.uk/pdf/POFUK2009final.pdf/$FILE/POFUK2009final.pdf	Presents the results from the 2009 UK survey on public opinion of forestry and where appropriate, highlights changes over time by comparing the results with those from previous surveys.	Quantitative Survey of 2,011 adults in the UK and regression analysis used to undertake socio-demographic comparisons and geographic comparisons.	Respondents who had visited woodlands and forests in the last few years were more likely to visit 'woodlands in the countryside' (86%) than 'woodlands in and around towns' (64%). In addition, nearly half of respondents (48%) reported visiting woodlands and forests in both locations. This pattern is similar to previous years, although the proportion of respondents reporting visiting woodlands in and around towns is significantly higher than it was in 2005 (64% in 2009 in comparison with 52% in 2005).	Representative sample used	GL PR
Jamieson, N. and Diggins, G. 2009	Public Opinion of Forestry 2009, England: Results for England from the UK 2009 survey of Public Opinion of Forestry	Forestry Commission England http://www.forestry.gov.uk/pdf/POFEngland2009final.pdf/$FILE/POFEngland2009final.pdf	Presents the results for England from the 2009 UK survey on public opinion of forestry and where appropriate, highlights changes over time by comparing the results with those from previous surveys. It highlights any differences in opinion amongst adults in England by geographic variables (i.e. regional and degree of rurality) and socio-demographic variables (e.g. gender and age).	Quantitative Survey of 1,685 adults in England and regression analysis used to undertake socio-demographic comparisons and geographic comparisons.	- People from urban areas were less likely to agree that forests are places where people can relax and de-stress (93%) or that they are important places for wildlife (95%) - Respondents from urban areas who had visited woodlands and forests in the last few years were more likely to state that being too far away (17%) and the not owning a car as reasons for not visiting woodland more often, than those from other areas. -Respondents from urban areas were more likely to have visited woodlands in and around towns (71% compared with 50% of respondents from other areas). - Respondents in urban areas were less likely to say that 'playing in woods is good for children's health' (64%), compared with those from rural and mixed urban/rural areas. - Respondents in rural areas (92%) were more likely to agree that woodlands and forests are places where they can exercise and keep fit than those in urban or mixed rural/urban areas. - Those in rural areas were more likely to visit woodlands frequently (73%) than those in other areas.	Representative sample used	GL PR

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Jamieson, N. and Diggins, G. 2009	Public Opinion of Forestry 2009, Wales: Results of the Welsh Survey of Public Opinion of Forestry	Forestry Commission Wales http://www.forestry.gov.uk/pdf/POFWales2009final.pdf/$FILE/POFWales2009final.pdf	Presents results of the 2009 public opinion of forestry survey in Wales and compares, where appropriate, with previous Wales surveys and the UK 2009 survey. It highlights any differences in opinion amongst adults in Wales by geographic region (e.g. region and degree of rurality) and socio-demographic variables (e.g. gender and age).	Quantitative Survey of 1,002 adults in Wales and regression analysis used to undertake socio-demographic comparisons and geographic comparisons.	- Respondents from urban areas (56%) were less likely to say that woodlands provide places for relaxation and stress-relief than those from other areas. - Respondents in urban and mixed urban/rural areas (19%) were more likely to say that woodlands near to them provide a place for criminal activity. - Respondents from urban areas were less likely to say that trees (56%) or woodland or forest (51%) were elements of their local landscape which they liked than those from other areas. - Respondents from urban areas (65%) were less likely to say that they disliked nothing about their local landscape than those from other areas.	Representative sample used	GL PR
Jamieson, N. and Diggins, G. 2009	Public Opinion of Forestry 2009, Scotland: Results of the Scotland Survey of Public Opinion of Forestry	Forestry Commission Scotland http://www.forestry.gov.uk/pdf/POFScotland2009final.pdf/$FILE/POFScotland2009final.pdf	Presents the results of the 2009 public opinion of forestry survey in Scotland and compares, where appropriate, with previous Scotland surveys and the UK 2009 survey. It highlights any differences in opinion amongst adults in Scotland by geographic variables (e.g. region and degree of rurality) and socio-demographic variables (e.g.	Quantitative Survey of 1,040 adults in Scotland and regression analysis used to undertake socio-demographic comparisons and geographic comparisons.	- Respondents from urban areas were more likely than those from rural areas to say that they would like to see 'more' woodland (38%) and less likely to say that they would want 'neither more nor less' woodland. - Respondents who indicated that they would like to see more woodland in their part of Scotland were also asked where they thought this new woodland should be created. The most popular locations selected by those who thought there should be more woodland in their area were 'urban and industrial areas' (79%), 'uplands' (37%) and 'intensively farmed areas' (28%). - Those in urban areas (80%) were more likely than those in rural areas (74%) to state that they would like to see new woodland created in urban and industrial areas. - Respondents from rural areas (55%) were more likely than those from urban areas (36%) to say they would like to visit woodlands at least once a month. - Those in urban areas (57%) were more likely to have visited woodland in the last few years in comparison with those from rural areas (54%). - During the most recent summer, 82% from rural areas visited forests and woodlands at least once a month compared to 64% from urban areas. Over half from rural	Representative sample used	GL PR

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			gender and age).		areas (51%) visited at least once a month during the most recent winter compared with 38% from urban areas. - Of those who had visited forests or woodlands, those from rural areas (93%) were more likely to have visited woodlands in the countryside than those from urban areas (70%). In contrast, those from urban areas were more likely than those from rural areas to visit woodlands in and around towns (60% and 26% respectively). - Respondents who live in urban areas (7%) were more likely than those from rural areas (1%) to say the main reason they didn't visit woodlands is because they 'don't have a car'.		
Jorgensen, A. and Anthopoulou, A. 2007.	Enjoyment and fear in urban woodlands – Does age make a difference?	Urban Forestry & Urban Greening 6 (2007): 267-278	The ways in which age affects urban dwellers' aspirations, values and fears concerning woods, and woodland accessibility. It focuses on the views of elderly people (aged over 65) of Norfolk Heritage Park, an urban park containing a variety of woodland settings located in Sheffield, UK.	Mostly quantitative with some qualitative pilot interviews: 1. Semi-structured pilot interviews with a judgement sample of 15 adults over 65 to identify key issues and to discover how this group of people would articulate their ideas about woodland in order to inform design of the questionnaire measures. 2. 120 structured questionnaire (97 returned – 81% response rate) in four parts covering frequency of visits, whether they used the parks as much as they would like, what would encourage them to go more often, attitudes about the experiential qualities of the woodland, perceptions of safety in the woodland, woodland characteristics that might mitigate against identified risks, and information about the respondent.	- Walking was the most popular leisure activity. - Most respondents did not visit urban parks as often as they would like, regardless of age. - Whilst many of the meanings associated with urban woodland ('relaxation', 'peacefulness', 'seasonal change', 'scenery' and 'education') were shared amongst age groups, elderly respondents particularly valued the woods for their links with the past, and opportunities for immersion in the natural world. - Some respondents from all age groups had fears about their personal security in the woodland, and the concerns of the elderly were heightened by their perceived frailty, reduced mobility and sense of vulnerability; this age group had a corresponding need for particular measures to alleviate these problems. - Preliminary evidence suggests that adults of different ages have differing perceptions and requirements in relation to urban woodlands.	- Gender imbalance in respondents (61 females/36 males) but results suggest the effects of age and gender are generally separable and that the gender imbalance did not therefore compromise the findings. - Major methodological flaws: the small sample size (n = 97), the nature and variety of methods used to recruit respondents and uneven distribution of the sample across age groups (20-45: n = 33; 46-65: n = 25; >65: n = 39) may have compromised the replicability and generalisability of the findings.	PRJ PR
Lucas, K., Walker, G., Eames, M., Fay, H. and Poustie, M. 2004	Environment and Social Justice: Rapid Research and Evidence Review	Sustainable Development Research Network (SDRN) http://www.sd-research.org.uk/wp-content/uploads/envsocialjusticereview.pdf	The key objective of the review was to summarise the evidence for environmental inequalities and injustice in the UK in relation to 21 topic areas identified as relevant by DEFRA, one of which was access to countryside	N/A – literature review	- The social-spatial distribution of green space provision and access has been examined for urban green space, but not for woodland and/or countryside. However, recent work is addressing this for woodland (see The Woodland Trust 2004 and 2010) - There is strong evidence of under-participation in countryside recreation by young adults, low-income groups, people from minority ethnic and black groups, women, older people and people with disabilities - There is no research that has specifically estimated the cost to a community or particular social groups from lack of access to countryside and/or woodland - Social, economic, physical and psychological barriers influence the way that people perceive the countryside and	The focus is not solely on woodland or on urban areas and urban woodland. 'Countryside' and 'woodland' are defined as including urban fringe woodlands, country parks, local farmland or green belt areas and inland waterways, but not urban parks.	GL Published RS

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			and woodland		how they make choices over whether or not to use it - Actions to promote social inclusion in the use of the countryside and woodland have only been initiated comparatively recently. The Countryside Commission's priority is to intensify and improve access near to where people live. This involves giving emphasis to urban fringe areas and what may be termed the countryside around towns. Community forests are generally seen as successful in introducing woodlands close to where people live.		
Morris, J. and Doick, K. 2009	Monitoring and Evaluating Quality of Life for CSR 07. Final annual report 2008/9	Forest Research http://www.forestry.gov.uk/pdf/CSR07_final_annual_report_2008_09.pdf/	Year one of the development of a monitoring and evaluation framework to measure performance against Forestry Commission England corporate Quality of Life Targets using three 'Flagship' case study sites.	Quantitative Framework delivery during Year 1 of the project has been split between the implementation of research methods to generate baseline values at the three Flagship sites, and developmental work to establish complementary methods to be implemented during Years 2 and 3 of the project. Three Flagship sites: 1. Bentley Community Woodland in Doncaster (peri-urban) 2. Birches Valley Forest Centre in Cannock chase (rural) 3. Ingrebourne Hill Community Woodland (urban) At each of the Flagship sites, the following methods have been implemented in Year 1 and are therefore reported in this study: 1. On-site surveys - covering key use, engagement, quality of experience and personal and social benefit indicators (implemented in Summer / Autumn of 2008) 2. Catchment surveys -covering key use, engagement, quality of experience and personal and social benefit indicators (implemented in September and October 2008) 3. Catchment profiling -involving the spatial definition of each site's catchment area (using 500m and 4km boundaries) and using available socio-demographic descriptors to characterise, or profile, each site's catchment population.	- The research results show that the urban/peri-urban community woodlands (Bentley and Ingrebourne) are visited by a lower proportion of their catchment populations than is the case with rural Birches Valley. Furthermore, visits to Birches Valley last longer than visits to Bentley and Ingrebourne. However, Bentley and Ingrebourne are visited more frequently: - 3% of the catchment population have visited Bentley, 3% of the catchment population have visited Ingrebourne, 5% of the catchment population have visited Birches Valley. - The mean duration of visits to: Birches Valley is 2 hours, 12 ± 7 minutes, Bentley is 1 hour, 21 ± 6 minutes, Ingrebourne is 51 minutes ± 3 minutes. - Weekly visits during spring/summer are made by 51%, 65% and 22% of visitors to Bentley, Ingrebourne and Birches Valley, respectively. - In autumn/winter, weekly visits are made by 49%, 62% and 13% of visitors to Bentley, Ingrebourne and Birches Valley, respectively. - The research demonstrates that quality of experience at all three sites is fairly high, based upon the calculation of net promoter scores. The net promoter scores the net proportion of visitors who would definitely recommend each site to friends or family, and were calculated as: 65% for Bentley, 71% for Birches Valley and 69% for Ingrebourne.	Site surveys and catchment surveys are able to capture views from both site users and non users. Catchment profiling provides useful information on the socio-demographics of the surrounding population.	GL PR
Morris, J. and Doick, K. 2010	Monitoring and Evaluating Quality of Life for CSR 07. Final annual report 2009/10	Forest Research http://www.forestry.gov.uk/pdf/CSR07_final_annual_report_2009-10.pdf/	This document is an interim progress report between the baseline year (2008-09 – see above) and the final report (2010-11) for the "Monitoring and	Quantitative During its second year, framework development and testing has continued via: - On-going data collection for the headline indicators via on-site surveys - Extension of the framework methodology for data collection via site management practices - A national survey, implemented through the Public Opinion of Forestry Survey in April 2009.	- Results were reported from the 2009 Public Opinion of Forestry Survey (see Jamieson, N. and Diggins, G. 2009 above) - In Year 1 (2008/09), use of the three sites was analysed through a survey of the catchment population, only. During Year 2, analysis focused on the formal use. The results show that Birches Valley had the most formal visits during the reporting period, with a mean of 41 participants per event. Events at Bentley were attended by a mean of 8 participants. One of the two events held at Ingrebourne was attended by	Site surveys and catchment surveys are able to capture views from both site users and non users. Catchment profiling provides useful information on the socio-demographics of the surrounding population.	GL PR

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			Evaluating Quality of Life for CSR 07" project.		230 participants. - In 2009/10, for the two community woodlands, visitors were recorded coming from further a field than in the baseline year 2008-09. - More frequent visits are made to the urban/peri-urban community woodlands than to Birches Valley. For example, weekly visits during spring/summer are made by 80% and 57% of visitors to Bentley and Ingrebourne, respectively, while weekly spring/summer visits are made by only 17% of visitors to Birches Valley. In autumn/winter, weekly visits are made by 81% and 55% of visitors to Bentley and Ingrebourne, respectively, and by only 12% of visitors to Birches Valley. This corroborates findings from the baseline year where the two community woodlands were visited more frequently than Birches Valley. - The vast majority of visits are made with friends or family, particularly at Birches Valley and Ingrebourne. - the research results suggest that factors external to each site and its management (busy lifestyles, poor health, lack of transport) are the most significant limits on visit frequency.		
Natural England. 2010	Monitor of Engagement with the Natural Environment: The national survey on people and the natural environment. Annual Report from the 2009-2010 survey	Natural England http://naturalengland.etraderstores.com/NaturalEnglandShop/NECR049	The MENE survey updates and expands on the England Leisure Visits Survey (Research International Ltd., 2006) with the aim to provide baseline and trend data on how people use the natural environment in England. This report presents the main findings from the first year of the survey.	Quantitative: - 48,514 interviews were undertaken allowing the key details of 58,653 visits to the natural environment to be gathered and further more detailed information to be collected on 20,374 visits. - Interviews were conducted through the inclusion of a series of questions on a weekly basis in a face-to-face, in-home consumer omnibus survey.	- Almost a quarter of all visits to the natural environment included a visit to a park in a town or city. Forests and woodlands were visited on 11 per cent of visits, representing 317 million visits.	- There will be more extensive data published specifically on the woodland elements of this survey in 'Forestry Statistics 2010' to be published by the Forestry Commission on 30th September 2010. - Larger sample size than in previous similar surveys providing much more scope to analyse results at both a national level and for smaller geographic areas, as well as for specific groups within the population such as ethnic minorities or specific age groups. - The total number of visits to woods and forests represents a substantial increase from the level reported in England Leisure Visits Survey 2005, mainly because the survey questions encouraged the reporting of more short regular trips (e.g. dog walking) many of which are believed to have been omitted before.	GL Published PR
O'Brien, L.	Tress and their	Forest Research	Study based	Qualitative and quantitative:	- For all three focus groups, discussions about personal	Very low response rate to	GL

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2005	impact on the emotional well-being of local residents on two inner city London social housing estates	http://www.forestry.gov.uk/pdf/FR0605_trees_social_well_report.pdf/	around Peabody Hill Wood situated between Peabody Hill and Rosendale Estates in the inner London Borough of Lambeth with the aims to 1. Investigate residents' attitudes towards trees and woodlands and explore the ways in which they are valued. 2. Engage and involve residents in the use and enjoyment of trees and woodlands in their area and at the same time undertake improvements to their local woodland.	1. A postal questionnaire was sent to all households on both estates 2. Three focus groups were undertaken with established residents' groups 3. A session was undertaken with children at the local youth club 4. Two organised walks through the wood were held for residents, followed by a discussion 5. Observations were made of people	safety and the dumping of rubbish in the woodland began without prompting, highlighting the importance of these issues to residents. - The survey found that 60% of people used to woods as a short cut to shops and buses, and 30% used the wood for walking and leisure. - When asked where they played most often, the children in the youth club (aged 6-10) said they chose the local park and Peabody Hill Wood. They also played in the street frequently and this was perceived as less dangerous than the park or wood. The majority of the twenty children in the club enjoyed playing outside more than inside.	questionnaire and sample not representative of all residents on the estates.	PR
O'Brien, L. 2006	Social housing and green space: a case study in Inner London	Forestry 79 (5): 535-551 Paper based on the report outlined above.	Case study of a partnership in Peabody Hill Wood (Inner London) including the Forestry Commission, which aimed to involve residents in the use and enjoyment of their local woodland	Qualitative and quantitative: 1. Postal questionnaire on whether people used the wood and why (565 sent out, 63 returned = 11% response rate) 2. Focus groups with 3 residents groups 3. Session at local youth club to find out from children how they use the wood. 4. Observations made at community woodland clearance and tree-planting day 5. Observations made during walks through wood with local residents	-Woodlands near where people live are valuable spaces and play a significant role by providing opportunity for contact with nature in the urban environment and an escape from the built environment. - Housing associations can have an important role to play in green space management. - Partnerships working with the environmental sector can help bring about much needed improvements to the environment. - Working with communities and sustaining long-term commitment are also advocated.	Very low response rate to questionnaire and sample not representative of all residents on the estates.	PRJ PR
O'Brien , E. 2004	A sort of magical place: people's	Forestry Commission 2004. http://www.forestr	Focus on social and cultural value of trees and	Qualitative In depth discussion groups in four areas of the south-east and north-west of England. 123 people in total.	- All respondents said they enjoyed visiting green space and woodland areas as an escape from the pressures of daily life. The rural respondents felt privileged to live in the country	Large number of focus groups – sixteen.	GL PR

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	experiences of woodlands in northwest and southeast England	y.gov.uk/pdf/fr0305_magical_place.pdf/$FILE/fr0305_magical_place.pdf	woods in urban and rural areas		where they could see trees and walk in woods more easily than their urban counterparts. Even a number of urban respondents felt themselves to be fortunate because they had relatively easy access to woodland areas or other green spaces within the urban environment. - Those in urban areas, particularly, worried about the younger generation not having access to green space and woodlands either through lack of local facilities, lack of opportunity, parents' worries over children's safety or because youngsters were often occupied with many other activities such as using computers, attending clubs or watching television. Urban groups argued that a lack of connection with nature could lead to a lack of respect and understanding of these areas and therefore might lead to destruction and abuse of the environment. - Even small spaces can be very important particularly in urban areas by breaking up the built environment. The majority of groups (particularly urban groups) also appreciated key sites for day trips that provided a variety of facilities, such as play areas, and other attractions for families. - There were considerable worries about increases in development and the subsequent loss of woodland or green space in both urban and rural areas. One respondent stated that there was always a struggle between nature and progress, while another spoke of places that could be regenerated in built-up areas before consideration was given to building on green belt.		
O'Brien, E. 2005	Publics and woodlands in England: well-being, local identify, social learning, conflict and management	Forestry, 2005. 78 (4): 321-336					PRJ PR
O'Brien, L. and Morris, J. 2009	Active England: Great Western Community Forest Report	Forest Research http://www.forestry.gov.uk/pdf/active_england_great_western_site_report.pdf/	Information on the design, delivery and evaluation of an urban woodland project that received lottery funding to encourage under-represented groups to be more physically active in woods.	Qualitative and quantitative The project was based in Great Western Community Forest and surveys were undertaken at three different sites: Penhill Park, Stanton Country park and Stratton Woods 1. On-site surveys to profile visitors and types of visits (550 questionnaires were completed at Great Western Community Forest). 2. Spatial analysis to produce a catchment profile of the surrounding population of each site/s (within an approximate 20 mile radius). 3. Qualitative research (with 28 people at Great Western Community Forest and 1 staff member) to explore the benefits and barriers to using woodlands and green spaces for physical activity (targeting both users of the projects and non- users). Interviews with project staff explored the challenges and successes of the projects.	- 51% of visitors to the three sites were women - 3% of visitors to the sites were registered disabled and 5% stated that they had a long term illness - There were small numbers of Black and Ethnic Minority groups visiting the sites. - many of the visitors to all sites were made alone rather than with friends or family - The catchment profiling revealed that there was a slight under-representation of those on low incomes at Stratton Woods and Stanton Country Park, women were not under-represented at these sites, and BME groups were slightly under-represented. The qualitative research revealed that: - A key barrier to usage included concerns about safety amongst the women. They preferred spaces with good visibility and facilities for children. - Amongst non-users, key barriers included lack of transport and money.	Reasonably extensive site surveys compared to catchment profiling to look at use by under-represented groups and complemented by in-depth focus group discussions and interviews.	GL PR

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O'Brien, L. and Morris, J. 2009	Active England: 'Park Life' – Greenwood Community Forest	Forest Research http://www.forestry.gov.uk/pdf/active_england_greenwood_site_report.pdf/	Information on the design, delivery and evaluation of an urban woodland project that received lottery funding to encourage under-represented groups to be more physically active in woods.	Qualitative and quantitative The project was based in Greenwood Community Forest and focused on two sites – Bestwood Country Park and Kings Mill Reservoir 1. On-site surveys to profile visitors and visits (a total of 881 questionnaires were completed at the two sites in 2006 and 2007). 2. Spatial analysis to produce a catchment profile of the surrounding population of each site/s (within an approximate 20 mile radius). 3. Qualitative research involving focus groups with 'users' and 'non-users' of the projects to explore the benefits and barriers to using woodlands and green spaces for physical activity (a total of 18 people participated in the focus groups).	- There was little change in the income profile of visitors to both sites between 2006 and 2007. However, low income families are well represented amongst visitors to both sites. - There was a significant shift in the gender profile of visitors between the two survey years, with women making up 59% of visitors to Bestwood and 54% of visitors to Kings Mill in 2007. These results suggest that women are well represented amongst users of both sites. - 'Lack of facilities', 'Lack of time' and 'Weather' were popular reasons given for not using the sites more often. Both sites saw a reduction in the number of respondents citing 'Anti-social behaviour' as a barrier. - The most popular activities at Bestwood are dog walking, walking without a dog, cycling and using the children's play area. For Kings Mill, the most popular activities are walking, nature watching, 'other' (defined by respondents as 'visiting the café' or 'feeding the ducks') and cycling. - Catchment profiling revealed that the majority of visitors to both sites were from the 'White British' ethnic category. Comparisons with the BME representation within the catchment populations of both sites revealed that there was significant potential to increase the use of the sites amongst this target group. - For Bestwood, the 45+ yrs group accounted for 42% of visitors in both 2006 and 2007. Catchment profiling revealed a relatively high concentration of this age group living in Bestwood Village (49-82%), where a significant proportion of visitors reside. From this it was concluded that there was potential to increase attendance amongst this target group. - Users reported clear physical and mental health benefits from the health walks. - Users highlighted the importance of group activities, providing opportunities to meet new people and to develop and strengthen bonds of friendship and mutual support. - Lack of confidence and fear of anti-social behaviour were cited by users as the most significant barriers to increased levels of participation, reaffirming the importance of group activities and 'facilitated' access. - Non-users expressed a liking for green spaces in general, and forests and woodlands in particular. All agreed that the chance to see wildlife is a key attraction of a woodland environment, and some stated that going into woodland provides a welcome escape from modern life. - Non-users felt that trees, woods and forests inspire healthy activities like walking. This inspirational function was closely connected with the clean environment associated with	Reasonably extensive site surveys compared to catchment profiling to look at use by under-represented groups and complemented by in-depth focus group discussions and interviews.	GL PR

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					woodlands. - Women non-users stated that they wouldn't feel safe alone in woodland. Here the source of danger or risk was clearly of a social nature, and had little to do with the physical environment of the forest or woodland. All agreed on the critical importance of being part of an organised group, to provide a sense of security, company in which to enjoy visits to green spaces, and also to provide a structure and schedule for activities.		
O'Brien, L and Morris, J. 2009	Active England: 'Get Active in the Forest' – Rosliston Forestry Centre	Forest Research http://www.forestry.gov.uk/pdf/active_england_rosliston_site_report.pdf/	Information on the design, delivery and evaluation of a peri-urban woodland project that received lottery funding to encourage under-represented groups to be more physically active in woods.	Qualitative and quantitative: 1. On-site surveys to profile visitors and visits (a total of 382 questionnaires were completed at Rosliston). 2. Spatial analysis to produce a catchment profile of the surrounding population of each site/s (within an approximate 20 mile radius). 3. Qualitative research involving focus groups with 'users' and 'non-users' of the projects to explore the benefits and barriers to using woodlands and green spaces for physical activity, and interviews with project staff to obtain a self-assessment of project performance (a total of 28 people participated in the focus groups and 2 staff members were interviewed).	- Visitor numbers rose significantly from approximately 129,340 in 2005/6 to 189,905 in 2007/8. - Significantly more women than men visit Rosliston, with women accounting for somewhere between 70% and 75% of visitors. - There was a small, but significant increase in the proportion of visitors from ethnic minority backgrounds between 2005 and 2006. - Between 2005 and 2006 there was a significant shift in the age profile of visitors to Rosliston, with the proportion of visitors from the 16-44 age group increasing dramatically, from 54% to 66%, ($p<0.05$). Correspondingly, the proportion of visitors from the 45+ yrs group fell from 46% in 2005 to 34% in 2006. - The majority (83%) of visitors to Rosliston take part in multiple activities. - Catchment profiling revealed that women from low income families are well represented at Rosliston. - Despite a small, but significant increase in the proportion of visitors from ethnic minority backgrounds between 2005 and 2006, a comparison between the visitor and catchment profiles reveals that people from minority ethnic backgrounds are underrepresented at Rosliston. - Representation of 45+ yrs amongst visitors to Rosliston does not reflect the age profile of the population of many wards within the site's catchment area. It was concluded that there is potential for specific engagement with a view to increasing numbers of visitors from this target group. - Users reported clear physical and mental health benefits from taking exercise at Rosliston. For many, the forested environment at Rosliston enhances the therapeutic affects of exercise on the site. - Users highlighted the importance of group activities, providing opportunities to meet new people and to develop and strengthen bonds of friendship and community. For many, the group has become as important as the activity itself.	Reasonably extensive site surveys compared to catchment profiling to look at use by under-represented groups and complemented by in-depth focus group discussions and interviews.	GL PR

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					- Transport and lack of adequate information were cited as the most significant barriers to increased levels of participation amongst users. Respondents from a Sikh community group stated that low awareness of access rights was a particular problem amongst women in their community. - Non-users from a Pakistani community group (all women) felt that low awareness of access rights (particularly with respect to land owned by the Forestry Commission), lack of adequate provision for specific language needs in the context of public service information, and lack of confidence associated with issues of gender and ethnicity, were the most significant barriers to their use of green spaces for healthy exercise. They stressed the importance of targeted community engagement and facilitated access to sites to build confidence and make minority groups feel welcome.		
O'Brien, L. and Tabbush, P. 2005	Accessibility of woodlands and natural spaces: Addressing crime and safety issues	Forest Research http://www.forestresearch.gov.uk/pdf/fr0305_woodaccess.pdf/$FILE/fr0305_woodaccess.pdf	Report of a 2004 seminar organised by Forest Research and supported by Lancashire Constabulary, CABE Space and English Nature exploring the accessibility of woodlands and natural spaces with particular reference to crime and safety issues.	N/A	The presentations given at the seminar provide a range of useful information and ideas for dealing with specific issues. They also raised concerns that will need to be addressed in the near future. From the workshops there seems to be a consensus on key issues for tackling some of the crime and safety problems discussed at this event and these were concerned with planning, research, communication and partnerships: - Research is needed to understand in more detail people's behaviours and where improvements could be made or where design might help to reduce fear. Research is also needed to inform policymaking and provide an evidence base for future action. - Communication was viewed as a key issue in providing positive stories, trying to reduce fears and in disseminating research findings. - Planning that was responsive and recognised the importance of green places as an integral part of infrastructure, particularly in an urban context. Was considered essential. - Partnerships are also needed which bring together the key skills of a range of organisations and individuals/communities interested in this whole subject area.		GL
Research International Ltd. 2006.	England Leisure Visits: Report of the 2005 Survey	Natural England et al. http://www.naturalengland.org.uk/Images/elvsbrochure_tcm6-4896.pdf	A summary of the main results from the 2005 England Leisure Visits Survey.	Quantitative: - Telephone interviews divided between a nationally representative main survey and a boost survey that was geographically skewed towards residents that lived close to National Parks and/or large areas of open access land. The boost survey was completed in order to provide additional	- 40% of adults had visited wood/forest in the last year (the same percentage as in 2002/03) - In 2005 there were around 170 million trips to woods/forest, 5% of all trips with a value of £2.0bn in terms of expenditure. - This compares with 246 million trips in 2002/3 with a value	Compare with Natural England (2010) "Monitor of Engagement with the Natural Environment: The national survey on people and the natural environment. Annual Report from the 2009-2010	GL Published PR

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				data on the characteristics of trips to National Parks and open access land. - For the main survey, of those contacted, 39% responded and interviews were completed with 23,542 respondents. For the boost survey, there was a 42% response rate with 26,500 completed interviews.	of £1.8bn - Walking is the most popular pastime in wood/forests with 62% of leisure visits and 31% of tourism visits to woods/forests in 2005 being for walking or rambling - For 2005, compared to 2002/03, the number of tourism trips to woodland remained at approximately 25 million (3% of all tourism visits) - The proportion of countryside and wood/forest leisure trips where people were on their own (34%) was higher than for inland town/city (32%), seaside (28%) or seaside town/city (24%) trips. - Tourism trips where people were on their own were higher for visits to inland town/city (15%), seaside town/city (11%) and countryside (9%) than for seaside coast (5%) and wood/forest (4%). - Two fifths of all adults had made a trip to a wood/forest in the past year. - The main mode of transport used for trips to wood/forest are car/van and walking with higher levels of walking then seen in trips to all destinations as a whole. - Seasonality did not affect levels of visits to wood/forests significantly, although the summer months saw fewer visits than other months. - The average expenditure on leisure visits to wood/forest was £11.74	survey"	
The Woodland Trust. 2004	Space for People: targeting action for woodland access	The Woodland Trust http://www.woodlandtrust.org.uk/SiteCollectionDocuments/pdf/spaceforpeople.pdf	An analysis of access to woodland in the UK, the proposal of a Woodland Access Standard and the establishment of targets across the UK for opening up existing woods for public access and creating new woods where insufficient woodland currently exists.	Quantitative The Woods for People project is an ongoing project with the aim of producing a comprehensive inventory of accessible woodland across the UK using GIS. The Woods for People data is gathered from a wide variety of sources including local authorities, NGOs, statutory agencies, woodland management companies and private landowners. Then, using the National Inventory of Woodland and Trees (NIWT) in Great Britain and the Woodland Vector data in Northern Ireland assessment is made of where the woodland is situated relative to all other inaccessible woodland. It is also possible t use this data to calculate the proportion of all woodland that is accessible.	None of the discussion specifically relates to urban areas but the data on provision of woodland access and targets for woodland creation is presented at country, regional and local authority level across the UK so it possible to look at urban-centred data in terms of those local authorities which are city councils and metropolitan or London boroughs. The Woodland Trust's Access Standard aspires that: - no person should live more than 500m from at least one area of accessible woodland of no less than 2hs in size - there should also be at least one area of accessible woodland of no less than 20ha within 4km (8km round trip) of people's homes	- The findings presented here are from version 1 of Woods for People as reported in the 2004 report 'Space for People'. Below version 2 is listed. - Although this is not the most recent version, it has been included because this document proposed the Woodland Access Standard and related targets which are still relevant. - Natural England and the Countryside Council for Wales also have an Accessible Natural Greenspace Standard (ANGSt) but as the title suggests it relates to greenspace broadly and not trees specifically.	GL PR
The Woodland Trust. 2010	Space for People: targeting action	The Woodland Trust http://www.woodla	An analysis of access to woodland in the	As above	- A comparison with the findings from 2004 showed that during the five years 2004-2009, the proportion of people who had access to woodland in line with the Woodland		GL PR

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	for woodland access	ndtrust.org.uk/en/about-us/publications/key-publications/space-for-people/Documents/space-for-people-full.pdf	UK. – version 2 using data from 2009.		Access Standard increased overall but that there is still a deficit. - As in 2004, there is no specific 'urban' analysis but the data on provision of woodland access and targets for woodland creation is presented at country, regional and local authority level across the UK so it possible to look at urban-centred data in terms of those local authorities which are city councils and metropolitan or London boroughs. - There are also some text box case studies looking at urban areas which briefly describe specific interventions. - It is also noted the unique situation in urban areas: 'In urban areas it may not be possible to meet the Woodland Access Standard if there is insufficient land available for new planting. It might also be appropriate to develop an additional standard that takes account of smaller pockets of woodland – existing and potential – in these areas, A pilot study looking at three urban authorities in north-west England showed that reducing the minimum area of woodland required to meet the Woodland Access Standard in these areas to 0.75ha did increase the percentage of people with access to woodland. Several smaller areas of accessible woodland might be the next best thing to provision of woods of 2ha or greater where the latter is impossible.'		
Ward-Thompson, C., Aspinall, P., Bell, S. , Findlay, C. Wherrett, J. and Travlou, P. 2004 Ward-Thompson, C., Aspinall, P., Bell, S. and Findlay, C. 2005.	Open Space and Social Inclusion: Local Woodland Use in Central Scotland "It gets you away from everyday life": Local Woodlands and Community Use – What Makes a	Forestry Commission http://www.openspace.eca.ac.uk/pdf/localwoodlanduse.pdf Landscape Research 30 (1): 109-146	The research project sought to answer four basic questions: 1. How important is forest use to local people? What proportion of the population and which segments of the population use forests? 2. Which forests and woodlands do people choose to use or abuse? Why do they choose these forests, are there some characteristics which determine	Qualitative and Quantitative The project had three phases and a mainly user-led approach: 1. Phase I was a scoping exercise which included a literature search and interviews with some forest managers, resulting in a choice of communities to use as case studies. 2. Phase II involved three different methodologies for gathering data about people's perceptions and use of local woodlands: A – focus groups to sample different age and gender groups within each community; B – questionnaires to sample a wider range of views; and C – on-site observations which looked for direct and indirect evidence of use and abuse and which recorded the physical characteristics of woodlands near each community. 3. Phase III involved a synthesis of the data and an analysis of the findings, including feedback discussions with woodland managers, to identify key outcomes which can form the basis of recommendations for the Forestry Commission and for forest and countryside managers in general. The research focused on five different communities in the central belt of Scotland,	- The key finding is the central importance of childhood experience – the frequency of childhood visits to woodlands is the single most important predictor of how often people visit woodlands as adults. - The findings showed that in order for people to visit woodlands regularly, woodlands need to be close to homes (within walking distance) and accessible. Easy access by car, bicycle or good public transport are the second best options. These findings reinforce the value of community and urban woodlands. - Freedom from rubbish is the physical quality people care most about. The physical qualities that make a difference as to whether people visit woodlands or not include directional signs, good information boards, variety of trees and tidiness of appearance. - In the areas of this research project, most people visit woodlands at least once a month and many visit more frequently. Regular visitors say that they feel at home and at peace in woodlands. - For all ages of users, access to woodlands gives the potential for health benefits, both physical and psychological. Walking is the most popular activity. - People's perceptions of woodlands influence whether and	The authors identify the following areas for future research: - Effective ways for children to experience woodlands - Targeting specific groups, e.g. teenagers, disabled people, ethnic minorities, about woodland use and their desires for use - Models for effective involvement of other professionals, e.g. youth workers - Site-specific design and management solutions · Design of welcoming entrances to woodland areas - Information needs and dissemination methods appropriate to address social inclusion - Internal design of woodlands in relation to people's perceptions and use - Evaluating the health benefits of	GL Published PR PRJ PR

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	Difference?		which forests people choose to use or abuse? Do communities with different characteristics choose different types of forests? 3. How do people use forests and what counts as use or abuse? What do they do? 4. What are the design and management implications for forest managers?		how they use them. People use woodlands in different ways at different stages in their lives: women have different attitudes and patterns of use from men; people who feel vulnerable or fear accidents are less likely to use woodlands and, if they do visit, they are less likely to go alone. - Woodlands can make an important contribution to 'quality of life capital'. Assessing the 'social health' of woodlands through woodland and landscape managers recording and evaluating the benefits and services they offer is a way of determining the current and potential contribution of woodlands to quality of life. - The research showed that the qualities which define a place (physical attributes, people's behaviours and activities, and people's perceptions) must all be taken into account when analysing existing patterns of woodland use and when planning for future use.	woodland use.	
Weldon, S., Bailey, C. and O'Brien L. 2007	New pathways to health and well-being in Scotland: Research to understand and overcome barriers to accessing woodlands	Forestry Commission Scotland http://www.forestry.gov.uk/pdf/New_Pathways_to_health_Nov2007.pdf/$FILE/New_Pathways_to_health_Nov2007.pdf	Aims of the study were to understand the factors influencing people's access; to open up new pathways; and to identify new approaches to people's use of Scotland's woodlands to benefit their health and well-being.	Qualitative 1. Literature review 2. 'Action research' approach, based on five case studies – four of which focused on urban/peri-urban localities in central Scotland, Dundee and the Borders region and on under-represented groups in these areas. The other case study was a rural woodland on the Ardnamurchan Peninsula.	- The findings of the study suggest that the promotion of woodland access goes beyond tree planting and the removal of physical and social barriers. It is about utilising woodlands and forests better; engaging with people in the context of their everyday lifestyle and their local environment; and, with their collaboration, building a new culture of woodland use. - Effective engagement is not just a matter of resurrecting traditional woodland cultures. A new woodland culture means building on tradition and natural heritage, whilst taking on social and environmental change and the need to promote health and well-being for the whole nation, and not just a fortunate few. A commitment to widening access to woodlands and forests for these purposes implies a new approach to forestry in Scotland.		GL PR
EUROPEAN AND INTERNATIONAL RESEARCH AND LITERATURE							
Arnberger, A. 2006	Recreation use of urban forests	Urban Forestry and Urban Greening 4 (3-4): 135-144	The comparison of recreation use in two urban forests in Vienna, Austria.	Quantitative Visitors to an inner-urban forest and to a peri-urban forest were monitored by means of video observation during 1 year, from dawn to dusk. The amount of use and the temporal use pattern of the main user types, identified by video interpreters as walkers, cyclists, dog walkers and joggers, were compared.	- In the inner-urban forest, surrounding settlements, schools and business areas evoked high-use pressure, commuting activities, high shares of all-day activities, more morning and evening use particularly on workdays and, overall, more workday use. - The peri-urban forest was, by far, not so heavily used and the proportion of daily routine activities such as dog walking and jogging was reduced because of the lower population density in the surroundings. - While the potential for user conflicts in the inner-urban	Video observation method is unusual in exploring the use of urban forests.	PRJ PR

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					forest seemed to be quite high at weekends and workday late afternoons and evenings, in the peri-urban forest this potential was only high during weekend afternoons in the warmer season, due to the temporally concentrated appearance of walkers and bicyclists.		
Arnberger, A. and Haider, H. 2005	Social effects on crowding preferences of urban visitors	Urban Forestry and Urban Greening 3 (3-4): 125-136	An image-based stated choice approach was used to investigate the conditions determining why visitors to an urban forest in Vienna feel crowded or not.	Quantitative Respondents (*N*=213) evaluated several sets of images depicting trail use scenarios with different levels of social crowding conditions and several types of social interferences. Forest users were segmented into three groups based on their global evaluations of use levels during weekends and work days, resulting in a crowding-averse, a crowding-tolerant, and a crowding-indifferent segment.	- Crowding-averse respondents reacted much more negatively to scenarios with high-use levels, heterogeneous trail use conditions, and violations of personal minimum spatial requirements caused by the presence of others. This user group felt overcrowded because social conditions experienced in the area interfered with their main visiting goals, especially to walk with their dog unleashed and to recreate. - By contrast, crowding-tolerant respondents disliked very low-use and high-use situations, and preferred a certain amount of social stimulation in the form of some encounters, and more heterogeneous trail use conditions.		PRJ PR
Arnberger, A., Aikoh, T., Eder, R., Shoji, Y. and Mieno, T. 2010	How many people should be in the urban forest? A comparison of trail preferences of Vienna and Sapporo forest visitor segments	Urban Forestry and Greening 9 (3): 215-225	Differences in trail preferences for social conditions of visitors to forests in Vienna and Sapporo in 2006 using a standardised image-based stated choice approach.	Quantitative On-site visitors to two comparable peri-urban forests – the Lobau Forest in Vienna, Austria (*n*=373), and the Nopporo Forest in Sapporo, Japan (*n*=256) – evaluated the same sets of computer manipulated images depicting 128 trail scenarios with different levels of social stimulation. Latent class segmentations, in three sub-segments of similar sizes, differentiated by partly opposite preferences for social conditions, were derived for both samples.	- A positive contribution of social stimulation to preferences was found for about 17% of Nopporo and 9% of Lobau respondents, while for close to 50% of Lobau respondents and 38% of Nopporo respondents very low levels of social stimulation were preferred. - The results indicate that urban forests should be managed for users with a desire for low social densities as well as a denser social setting providing some levels of social stimulation.		PRJ PR
Jay, M. and Schraml, U. 2009	Understanding the role of urban forests for migrants – uses, perception and integrative potential	Urban Forestry and Urban Greening 8 (4): 283-294	The objectives of the study were (1) to develop an understanding of the migrant perspective on urban forests, investigating their recreational use patterns and perceptions and (2) to find out the ways in which the recreational use of urban	Qualitative The study was carried out in the city of Freiberg, south-west Germany. Convenience sampling was used in combination with theoretical sampling with two criteria: 1. to belong to one of the three groups of migrants this study focuses on (Turkish, Russia-Germans, and people from the Balkans) 2. to be over 18 due to adults' perceptions showing a higher consistency and constancy in their schema. In total, the sample included 30 individuals: 13 interviewees from the Turkish community, 13 Russia-Germans and 4 persons from the Balkan countries.	- The cultural background of migrants influences their use of forests. Most of the Turkish interviewees rarely visited the forests: when they did visit, they generally preferred the forests at the city–woodland interface. Group activities exercised by family members or friends played an important role in the choice of outdoor leisure activities, e.g., barbecuing or, for the men, playing football. - Some gender-based differences in the activities were outlined. The female interviewees focused more on family and children while the men referred to sport activities practised either alone or with friends. In addition, the women from all three groups were more afraid than the men to be alone in the forest. - In contrast to the Turkish interviewees, representatives of the other two groups visited the forests quite often, including		PRJ PR

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			forests can play a role in social integration processes.		those situated beyond the city–woodland interface. These individuals said they either visited by themselves or were accompanied by a few friends or family members. Hiking as well as picking fruit, mushrooms or other non-timber-forest-products appeared to be popular activities among the interviewees of the Russia-German and Balkan groups. While the younger people tended to prefer practising sport activities, the older interviewees additionally considered the forest as a source of food due to having access in their home region to all of the possible forest products.		
Karanikola, P., Tampakis, S. and Rantzoudi, E. 2008	Evaluation of the Problems Created by Trees and Bushes to the Urban Environment	Journal of Environmental Protection and Ecology 9 (3): 698-709	Citizen's evaluations of the problems / negative aspects of trees in urban areas in Orestiada, Greece	Quantitative: 1. A random sample of households in the municipality of Orestiada, Greece were personally interviewed.	- The citizens of Orestiada considered the most important problem caused by trees and bushes to be reduction of visibility which can cause traffic accidents. - Second was allergies' provocation. - Third was rise up of flagstones and curbs of sidewalks, fourth was damages from trees and boughs falling - Throwing of leaves and needles was not seen as a big problem, neither was damage to the transport of electric current work. - The issue valued as least problematic was the care costs that should be carried by the municipality through community fees, revealing that citizens render the existence of green in their city a necessity.	Not particularly useful in terms of applicability elsewhere and generalisability.	PRJ PR
Maas, J., Van Winsum-Westra, M., Verheij, R. A., de Vries, S. and Groenewegen, P. P. 2009.	Is green space in the living environment associated with people's feelings of social safety?	Environment and Planning A 41: 1763-1777	Whether the percentage of green space in people's living environment affects their feelings of social safety positively or negatively. More specifically the extent to which this relationship varies between urban and rural areas, between groups in the community that can be identified as more or less vulnerable, and the extent to which different	Quantitative 1. 83,736 Dutch citizens were interviewed about their feelings of social safety. 2. The percentage of greenspace in the living environment of each respondent was calculated, and data analysed by use of a three-level latent variable model, controlled for individual and environmental background characteristics.	- Social safety is defined as referring to safety resulting from human behaviour and interactions between people in public spaces. - Findings suggest that more green space in people's living environment is associated with enhanced feelings of social safety – except in very strongly urban areas, where enclosed green spaces are associated with reduced feelings of social safety. - Spaces with trees were classified as 'closed' green spaces. - Contrary to the common image of green space as a dangerous hiding place for criminal activity which causes feelings of insecurity, the results suggest that green space generally enhances feelings of social safety. - The results also suggest, however, that green space in the most urban areas is a matter of concern with respect to social safety.	The authors note some limitations of their study: - The data used for this study were not originally collected to measure the relationship between the amount of green space in people's living environment and feelings of social safety. Hence, we had to work with four-digit postcode sectors to calculate the percentage of green space which might be regarded as a rather crude measurement. Data at the neighbourhood level or six-digit postcode level would perhaps have been better, but the necessary data were not available. - the data used on green space, although assessed on a small scale do not take small green spaces in the living environment into account: only green space with a	PRJ

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			types of green space exert different influences.			dominant position in the 25_25 m grid cell was regarded as `green space' in the dataset. Small bushes around a block of homes may be relevant to feelings of social safety, but were not taken into account in this study. - The measure of feelings of social safety is rather general and not necessarily related to people's direct living environment. Furthermore, the questionnaire did not provide insight into where, at what time, and why people felt unsafe. - They were only able to look at a limited set of possibly confounding environmental characteristics in this study. Furthermore, no information was available on the quality of the green areas. Specific factors like maintenance of green areas, social cohesion, and sense of anonymity may shed more light on the negative effect of closed green spaces in very strongly urban areas, and should be taken into account in future research. - Likewise, they could only investigate the relationship for some vulnerable groups (women and the elderly) in the population. Future studies should differentiate between ethnic groups, people with mental illnesses, disabled people, and lower socioeconomic groups, for example. - This study could not specify how large an area of green space is needed to enhance feelings of social safety, as the study provides insight only into the general relationship between the percentage of green space in the living environment and feelings of social safety.	

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						Future research should study in more detail how much green space is needed and the specific type of green space necessary.	
Roovers, P., Hermy, M. and Gulnik, H. 2002.	Visitor profile, perceptions and expectations from a gradient on increasing urbanisation in central Belgium	Landscape and Urban Planning 59 (3): 129-145	The forest complex of Heverlee–Meerdaal, which consists of two forest parts, is located on a gradient from a rural region to an expanding urban area. Its vicinity to the city of Leuven and the adjacent conurbation leads to intense recreational use by the inhabitants. The study looks at visitor profiles, perceptions and preferences expectations.	Quantitative 1. By means of counts an interpretation on congestion and on spreading of visitors in time and space in the area was made. 2. On the basis of these counts, questionnaires were carried out in the forest throughout the whole year and among all activity groups. 3. The questionnaires deal with socio-demographic characteristics of the visitors, preferences and perceptions of the respective activity groups and their interpretation of the forest area concerning structure and infrastructure.	- According to this study, the geographical distribution of the visitors in the forest is highly determined by the position of the forest along a gradient relative to the conurbation. - A total of 69% of the visitors live within a radius of 10 km and almost 38% originate from Leuven itself. Therefore, it can be considered to be an urban forest. - The preferred activity is walking, followed successively by biking and jogging. - Most of the people visit the forest on their own. - Visit frequency and length are negatively correlated and strongly determined by the distance covered from the residence to the forest. - Preferences and perceptions are influenced not only by social characteristics but also by the recreation activities and their specific interests and demands. - The overall quality of the visit to the forest complex is evaluated very positively.		PRJ PR
Van Herzele, A., De Clerq, E. M. and Wiedemann, T. 2005	Strategic planning for new woodlands in the urban periphery: through the lens of social inclusiveness	Urban Forestry and Urban Greening 3 (2005): 177-188	Improving strategic planning for new urban woodlands through social inclusion: presentation of a GIS-based working method aimed at exploring different options for urban woodland proposals with regard to their positioning in relation to	Quantitative - The model was constructed based on GIS software linked to MS Access XP database (drawn from national statistics) containing data about the population and its income. This database was linked to spatial entities corresponding with neighbourhoods or 'statistical sectors'. Four different map layers were created, the urban core, barriers, pedestrian crossings and urban woodlands. - To delineate the catchment area for each existing or possible future urban woodland, the Finish forest administration standards were used: a minimum area of 300ha corresponded with a catchment of 5km. For areas smaller than 300ha a refined monitoring system was adopted by linking surface areas gradually with corresponding distances. - Within each catchment area, three levels of attraction were distinguished. For example, people living less than 800m from the woodland could visit if frequently; people who lived	- Projects for the creation of new urban woodlands should ensure that they are created where as many people as possible can benefit from them. - The potential of the GIS-based tool has been demonstrated because it can evaluate how many people might be attracted to a woodland, as well as the extent that a particular location might contribute to redressing the lack of woodland provision over time. - The tool also enables an assessment to be made of the complementary as well as overlapping effects of woodland locations. - By evaluating locations from different socio-spatial perspectives it is also possible to predict what kind of groups are likely to benefit the most from new urban woodland. The tool may also provide an estimate of whether those people will visit the woodland frequently or only occasionally. - The results of the case study show that the evaluation of a particular location is highly dependent on the kind of socio-		PRJ PR

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			residential areas, as well as the socio-spatial characteristics of those areas. The example of seven possible locations for a new 'peri-urban forest' in Antwerp, Belgium was used.	more than 1600m would consider paying only occasional visits. The effects of barriers (Linear infrastructures), and the presence of pedestrian crossings were also taken into account. - ESRI's Spatial Analyst was used to define the distances. People's movements were then modelled and 'cost distances' were calculated. For each woodland, a 'cost' map layer was produced. For each statistical sector a map overlay analysis was made to obtain information about the neighbourhoods, which were situated within the catchment area of each particular location.	spatial perspective used. The tool therefore has potential to explore different questions and foster discussion. - By informing discussion on the choice of location at the strategic level, the tool has the potential to enhance the socially inclusive effects pro-actively that cannot be addressed on a project-by-project basis.		

1.2 Culture and Landscape

1.2.1 Introduction

Definition: What is covered in this section?

Culture is the cumulative knowledge, experience, beliefs, values, attitudes, meanings and experiences of particular groups of people and/or societies. It includes issues of what becomes known as heritage as well as contemporary cultural practices and links to identity and people's sense of place.

Key evidence

Nineteen sources have been identified, nine of these are in peer-reviewed journals, eight of these are grey literature and two are books. Six of the sources are from outside the UK. There appears to be little related to urban trees and woods in particular.

Key themes from this research include:

1. People view trees as symbolic of nature and they hold a wide range of symbolic places within people's imagination.
2. Trees and woods are viewed as an important part of England, Scotland and Wales's cultural identity and cultural heritage.
3. Projects, activities and events in urban woodlands can be an important part of local culture and an expression of local identity providing people with a sense of ownership of wooded places. These projects and activities can also lead to greater confidence to access woods and provide opportunities for learning, health etc.
4. Forests in urban areas can be see as exclusionary e.g. unwelcoming, neglected and populated by people carrying out activities they should not such as setting fire to trees, dumping rubbish etc.
5. Generic indicators of social and cultural values of European forests have been created.
6. People make links to their childhood experiences of using, accessing and enjoying trees and woodlands when they talk about the value of trees and woods.

Links to other parts of the inventory

There are links to the social interaction section and the experiences of communities, there are also links to the health and well-being section as the cultural value of trees and woods is often associated with broad well-being. There is also a link to the safety and crime section as woods can be seen as exclusionary.

Methodological strengths/ limitations

Culture is a difficult term to define and there are many different definitions. Indicators of social and cultural values have been created, however these are often quantitative and are not easily able to identify and incorporate the detailed meanings and symbolic values people may hold for trees and woods.

Gaps in evidence

There is little specific focus on trees and woods as part of the cultural landscape, and cultural practices of people and communities in urban areas.

1.2.2 Table of Evidence

AUTHOR /S & DATE	DOCUMENT TITLE	PUBLICATION / PUBLISHER AND LINK	FOCUS	METHODS	FINDINGS/CONCLUSIONS – ESPECIALLY THOSE RELATED TO TWF	QUALITY OF EVIDENCE / GAPS / COMMENTS	CODE
UK RESEARCH AND LITERATURE							
Bishop, K. ,Kitchen, L., Marsden, T and Milbourne, P 2002	Forestry, community and land in the south Wales Valleys	In 'Trees are Company: social science research into Woodlands and the Natural Environment' www.forestry.gov.uk/pdf/treesarecompany.pdf/.../treesarecompany.pdf	To study the social construction of community life and its relationship with the surrounding forest	Qualitative 1. Focus on four case study areas: Resolven, Blaengwynfi, Maerdy, Fochriw. 2. Review of policy documents 3. Interviews with FC staff 4. Interviews and discussion groups with local residents 5. Ethnographic research	Key themes: - the forest as an exclusionary space e.g. industrial and unwelcoming impressions, neglect and withdrawal of key services, exclusion and confused space - the forest as an inclusionary space e.g. value of the role the forests play in place identity. - the forest as differentiated and contested space e.g. differentiation in social and spatial terms, a source of local pride but also a space from which people are excluded	3 year in depth study of the south Wales Valleys forests.	GL Published PR
Edwards, D., Elliott, A., Hislop, M., Martin, S., Morris, J., O'Brien, L., Peace, A., Sarajev, V., Serrand, M. and Valatin, G. 2008	A valuation of the economic and social contribution of forestry for people in Scotland.	Forestry Commission	Valuing forestry for people through the themes of health, education, recreation, employment and volunteering, contribution to the economy, culture and landscape and community capacity.	Qualitative and quantitative 1. Questionnaire survey in 2006 and 2007 of a representative sample of the Scottish population (about 1,000 people in each survey) 2. Case study research in two areas: a) Glasgow and Clyde Valley and b) Loch Ness.	- Approximately 557,000 people, or 242,000 households, are estimated to have visible woodland within 1 km of their homes. - An estimated 95% of the Scottish adult population agree or strongly agree that woodlands in Scotland are an important part of the country's natural and cultural heritage. - Around 57% of the Scottish adult population are estimated to gain substantial benefit from seeing trees or wood from where they live, 50% to gain substantial benefit from seeing trees or woods as they undertake their daily activities, and 57% to be influenced by greenspace (woods, parks and countryside) in their decision to live at their current address. - An estimated 68% of the Scottish adult population gain substantial benefit from knowing that there are trees and woods in Scotland. - 72% gain substantial benefit from knowing that Scottish woodlands will be there for future generations. - 70% gain substantial benefit knowing that Scottish woodlands provide a place for wildlife. - Forests and woodlands provide important opportunities for the expression of local culture and identity. In Glasgow, the expression of local identity is associated with forms of engaged physical and organisational activity, through which a sense of local ownership and control is reinforced. In both cases, cultural and landscape values are closely associated with a range of additional values and benefits.	Large scale 2 year study including a range of qualitative and quantitative methods.	GL published PR
Forestry Commission 2007	UK Public Opinion Survey of Forestry	Forestry Commission	Exploring public opinion of forestry	Quantitative Household questionnaire around 4,000 respondents	95% agree that woodlands in UK are an important part of the country's natural and cultural heritage.	Biennial survey allowing for comparisons of changes over time	GL PR

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Forestry Commission, 2009	Public opinion of forestry 2009, UK	Forestry Commission	Exploring public opinion of forestry	Quantitative Household questionnaire 2011 respondents	- One question asked about reasons woodlands and forests are important to the public 69% of respondents strongly agree or agree with that statement. - Another questions asked: In UK public money is given to plant new woodland and manage existing woods for public benefit and a list of reasons were given: 62% agreed it was to improve the countryside landscape 44% to improve appearance of towns and cities	Biennial survey allowing for comparisons of changes over time	GL PR
Hitchmough, J. D. and Bonugli, A. M. 1997	Attitudes of Residents of a Medium Sized Town in South West Scotland to Street Trees	Landscape Research 22 (3): 327-337	Considers the attitudes of residents, living in currently treeless streets in Ayr (south west Scotland) to street trees.	Quantitative and qualitative: 1. Four streets were selected to provide a gradation from underprivileged to affluent. 2. Questionnaire looking at attitudes, demographics and complexity of planting structure and degree of maintenance care of respondents' front gardens. 3. Garden characteristics were assessed by the interviewer to see whether there were any obvious trends between the aesthetic and functional preferences evident in householder gardens and attitudes towards planting in their street.	- Support for the planting of trees in the streets was generally low; most respondent s did not see trees as important in improving the quality of their street. - Trees were seen as most important in the two affluent streets, and least important in a low income street with a preponderance of elderly residents. - Male respondents were significantly more likely to favour street planting than females. - The results provide evidence of a cultural bias against the planting of trees in streets adjacent to domestic residences in this part of Scotland. - If trees are to be planted in residential streets as part of future environmental improvement schemes that are initiated to satisfy policy objectives rather than the expressed wishes of residents, it is important that residents are consulted at a preliminary stage to ensure that planting does not reduce the quality of their streets as *they* perceive it. - Landscape strategies are only likely to be successful when implemented on a street by street basis following consultation between residents and local authority officers.	Focus on one small area so questionable generalisability	PRJ PR
Jones, O. 2007	Arnos Vale Cemetery and the Lively Materialities of Trees in Place	Journal of Garden History special issue on Arboretum edited by S. Daniels, C. Watkins and P. Elliot p.149-171	The story of the Victorian cemetery movement and one particular and controversial example – Arnos Vale Cemetery in Bristol, south-west England.	Qualitative	- The narrative shows how places such as Arnos Vale Cemetery are distinct spaces, but also fluxes of process where all manner of flows of materialities, politics, culture and economy come together to spatialise the place into being. - This being is, however, unstable and given to change as variations in unfolding presences and agencies occur. - Trees bring their own lively materialities and temporalities to places, which inevitably transform them, despite best laid plans, and reconfigure them in the shifting material space of the city and in the complex cultural contexts)local to global) which surround them.		PRJ PR

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Jones, O and Cloke, P. 2002	Tree cultures: the place of trees and trees in their place.	Berg, Oxford	Based on ESRC funded research on arboriculture: the significance of trees to places	Qualitative Interviews with a range of stakeholders.	Trees have an extraordinary range of symbolic places within the imagination. Book explores: - culture and the meanings which orbit around trees and woods - agency: the range of capacities trees bring to geographies - place: the places that form as trees - ethics: consideration of the duties that individuals and societies may owe trees	Quite a theoretical book which is aimed at academic audiences	BK PR
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 identify in Warrington New Town, UK	Landscape and Urban Planning 79 (2007): 273	An evaluation of 'woodland in the ecological style' as a setting for contemporary housing by means of a case study of Birchwood, Warrington New Town, UK.	Quantitative and qualitative: 1. Postal questionnaire on residents' satisfaction with the visual appearance of their street and various aspects of it; their favourite places in the local area (within a 1 mile radius of their home); and, lastly, places in the local area that they considered unsafe. Random stratified sample and systematic sampling. 1181 questionnaires posted, 336 returned (28% response rate) 2. In-depth semi-structured interviews with 39 of the questionnaire respondents who had volunteered for interview	- Most Birchwood resident s liked the visual appearance of their street, though they had both positive and negative feelings towards its 'trees and greenery'. - Woodland in the local area figures prominently amongst the residents' favourite places though some feared that they would be the victims of physical or sexual assault, or robbery or intimidation from groups of young people in the woodland, and women felt particularly vulnerable. - Whilst the woodland was significant for many residents it was not strongly identified with Birchwoods as a place: the quality of the community as symbolised by the behaviour of local individuals, community groups and institutions was regarded as a more potent measure of local identity. - Colourful and well-tended landscape interventions had the ability to act as signs of a caring community. - While signs of individual and collective care in the landscape contribute to communal place identity, individual experiences of wilder urban green spaces, including those of a restorative nature, are formative of individual place attachment. - Urban dwellers should be able to choose their preferred way of interacting with woodland, residential settings should accommodate a wide variety of user needs, and the vegetation on and around the streetscape should be proactively managed in consultation with the community. - While woodland in the ecological style is valued as a setting for a wide range of restorative experiences, it seems that the less positive meanings associated with the woodland could compromise its ability to act as a restorative urban environment for a number of urban dwellers. - Most urban dwellers need signs of caring human intervention in their immediate residential environment, in the form of cultivation of private gardens, overtly decorative	- The questionnaire measures did not address many of the issues that emerged from the interviews with sufficient precision, suggesting that it would have been preferable to run semi-structured interviews first, and to use them as a means of generating questionnaire measures. The questionnaire could then have been used more effectively to gauge just how representative the selected interview responses, on which many of the findings in the paper were based, actually were. - More research is needed to compare the restorative potential of different types of urban green space and the impact of cultural, personal and localised factors. - While the restorative experience is clearly central to many residents' perception of the Birchwood woodlands, there are other woodland meanings that cannot be fully accounted for by this theoretical perspective: the themes of ecocentrism and living in the rural idyll seem to be more closely related to current cultural and social concerns. - Further work needed on how different theoretical constructs (residential satisfaction,	PRJ PR

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					public planting and intensive landscape maintenance. However, they also suggest that many urban dwellers have an equally pressing need for accessible wilderness-like areas of green space close to where they live. - The ecological woodland approach deserves to be reconsidered as a means of providing an integrated landscape structure for new urban development. The vision of the woodland as rural idyll may also have positive implications for sustainable development: people are less likely to want to move to increasingly rural locations if they feel that many of the advantages of rural life can be obtained by living in a woodland setting within the urban fabric, or on the urban periphery.	restorative experiences and place identity) interlock with each other.	
O'Brien , E. 2004 O'Brien, E. 2005	A sort of magical place: people's experiences of woodlands in northwest and southeast England Publics and woodlands in England: well-being, local identify, social learning, conflict and management	Forestry Commission 2004 http://www.forestry.gov.uk/pdf/fr0305_magical_place.pdf/$FILE/fr0305_magical_place.pdf Forestry, 2005. 78 (4): 321-336	Focus on social and cultural value of trees and woods in urban and rural areas	Qualitative - Four case study areas were included, two urban and two rural. - Urban areas in the study included Southampton and Liverpool/Knowsley. - 4 focus groups in each of the urban areas and 4 each in the rural areas – Healthfield (East Sussex) and Ambleside (Cumbria). 123 people in total.	-A key theme from the focus groups was community, place and personal identity. This included childhood memories of woods and woodland use, it include issues of public involvement and how people found out about changes to the woodland landscape. - A further theme was about management for conservation, economic and public benefit. This was characterised by issues of wild or managed woodland and about commercial management of forests. People had different ideas of what forest and wood meant. - Concerns from urban respondents about children's lack of access to woods and contact with woods. - theme about conflict and confusion focused on concerns about loss of trees and woods to development whether that was housing or business development.	Large number of focus groups – sixteen.	GL Published PR PRJ PR
O'Brien, E. 2006	Social housing and green space: a case study in inner London	Forestry 79 (5): 535-551	Exploring how residents on two housing estates in inner London view and experience their local woodland	Qualitative and some quantitative Focus groups with local residents Survey to households on the estates – 68 replies	- One of the themes of the focus groups was: Benefits, importance and value – in this theme people talked about the wood providing a feel of the countryside in the city, of allowing contact with nature, and the greenery adding a sense of living environment. - There was a strong sense of the importance of the wood and nature for children – to learn from, to have contact with and as a place to play.	Research focused more broadly on well-being benefits from the wood and any problems and concerns people had with them.	PRJ PR
Tabbush, P. M. 2008	Research Summary - The 'Faith Woodland' project in Maulden	Forest Research http://www.forestry.gov.uk/pdf/SERG_Faith_woodlands_research_summary.pdf/	Evaluating the establishment of a Faith Woodland (bringing together people of different	Qualitative 1. A series of site visits were undertaken and eight interviews were held with the main actors responsible for the project. 2. An open day was held at the site which presented an opportunity to contact a number of participants who	Maulden Wood is situated close to two urban centres of population – Luton and Bedford, Project included creation of: - scared space for prayer and contemplation - a labyrinth	Project evaluation, no baseline data gathered	GL PR

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	Woods: an evaluation		cultural backgrounds) site on Forestry Commission land (Maulden Woods) looking at the processes through which the scheme was developed, and the objectives and achievements of the scheme to establish its main features and benefits.	represented the 'targets' of the initiative. Four people from different backgrounds were selected for in-depth interviews by telephone.	- inspirational signs - talks and visits - picnic sites Benefits included: Increased confidence to access woods Space and opportunity for meeting people and capacity building Opportunities for access, health and learning		
Tabbush, P 2010	Cultural values of trees, woods and forests	Forest Research http://www.forestry.gov.uk/website/pdf.nsf/3ece6ef6a6bb8f2080256a15005b9fd4/e423eb3495889e968025775800483559/$FILE/Cultural_value_woods_full_report_March2010.pdf	Exploring cultural values and how these are or might be incorporated into forest planning and decision making	Qualitative 1. Interviews with forestry professionals 2. Interviews and participation in events with Friends groups in Chopwell Wood, Tyne and Wear and Thames Chase Community Forest	Cultural services included: - Cultural assets – such as physical assets like historic sites and the attributes to which people attach cultural significance. - Health and well-being – opportunities for social contacts and activity - Education – opportunities for young people - Stories – cultural value can be enhanced by stories people tell about particular places. - Practices – the things people do in woods that build up cultural appreciation and stories. - Economic – enhancing local economic activity. - Enhancing cultural value – e.g. through the creation of art works	Highlights importance of taking cultural value into consideration in decision making and planning.	GL PR
EUROPEAN AND INTERNATIONAL RESEARCH LITEARTURE							
Dwyer, J. F., Schroeder, H. W. and Gobster, P. H. 1991	The Significance of Urban Trees and Forests: Toward a Deeper Understanding of Values	Journal of Arboriculture 17 (10): 276-284	The values people attach to urban trees and how these need to be taken account of in planning and management.	Qualitative Individuals were asked to describe significant environments and experiences, and to explain the meanings they associate with those environments, mostly conducted at the Morton Arboretum on the outskirts of Chicago.	- Trees have many different values to people; some of these values are very important but are not considered in planning, planting, and caring for trees. - Managers and planners need to understand the 'big picture' about values to effectively manage urban trees and forests to meet the needs of the people who own and care about these resources. - The values mentioned in the paper tend to evoke emotional rather than rational arguments for tree preservation. Managers who are trained to think in terms of rational justifications to obtain money for tree planting and maintenance programmes need to see the other side of the	- Does not address how planners and managers should tackle competing/conflicting demands/values/beliefs/needs.	PRJ PR

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					coin.		
Edwards, D. 2006	Social and cultural values associated with European forests in relation to key indicators of sustainability	Forest Research – EFORWOOD deliverable	Literature review and analysis of social and cultural values of European forests	Literature review of existing literature and typologies of social and cultural value	A generic template of indicators for social and cultural values of European Forests including: - employment - harvesting of non timber forest products - governance - community - recreation and tourism - education and learning - health and well-being - landscape and aesthetic - culture and heritage Each of these sections have a number of indicators associated with them.	The template of indicators provided is a work in progress and can be revised in response to experts and stakeholders.	GL RS
Jay, M. and Schraml, U. 2009	Understanding the role of urban forests for migrants – uses, perception and integrative potential	Urban Forestry and Urban Greening 8 (4): 283-294	The objectives of the study were (1) to develop an understanding of the migrant perspective on urban forests, investigating their recreational use patterns and perceptions and (2) to find out the ways in which the recreational use of urban forests can play a role in social integration processes.	Qualitative The study was carried out in the city of Freiberg, south-west Germany. Convenience sampling was used in combination with theoretical sampling with two criteria: 1. To belong to one of the three groups of migrants this study focuses on (Turkish, Russia-Germans, and people from the Balkans) 2. To be over 18 due to adults' perceptions showing a higher consistency and constancy in their schema. In total, the sample included 30 individuals: 13 interviewees from the Turkish community, 13 Russia-Germans and 4 persons from the Balkan countries.	- Some of the Turkish migrants who emigrated as young adults underlined the unity of nature and human beings and the need to be close to nature in everyday life. They strongly distinguished themselves from what they called the 'western mentality', explaining that it separates man and nature and secludes man from one another. Those interviewees perceived the urban forest as a place where humans can live or at least be in contact with nature. This perception is contrary to the native German perception of urban forests, in which human activities are restricted (walk in the pathway, no fires etc.) - Older interviewees from the Balkan countries and Russia-Germans often referred to their home forests as a source of food. They also needed a safe urban forest with infrastructure. The younger interviewees perceived the forests more as a primal form of nature and were sceptical regarding the influence of man on nature. - Previous direct experiences from an individual's childhood seemed to play a particularly important role in the construction of one's forest perception. - Fairytales and other stories, real or imaginary, also influence the perception of forest and contribute in an indirect way to one's forest experience - Literature and poetry can also contribute to the development of one's forest perception -In addition, the findings showed specific influences of the media on the migrants' perceptions and valuations of urban forests. - In terms of urban forests as a link between the home and host country, strong emotional bonds appeared in the form		PRJ PR

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					of remembrance or having feelings of nostalgia. - Moreover, urban forests played a role not only as concrete places that reminded individuals of another place or region but also as an abstract subject, causing individuals to remember their past way of life in their home country in general. - Such strong symbolic ties underlie the attachment of migrants to urban forests and show the central position forests can occupy in identification processes - Spiritual bonds could be identified during the interviews, especially with the interviewees of the Turkish community. Most of the Turkish interviewees insisted on the necessity of protecting nature and the forests. Even if they rarely visited the forests, these interviewees seemed to attach great importance to them. Some individuals perceived the strong attachment of German society to its forests and its involvement in nature protection; this aspect was viewed as being positive because of its shared nature. In this case, urban forests play a role in identificational integration as a symbolic space representing common values. - Findings indicated that urban forests seemed to support a sense of belonging or at least of not being excluded from the host society. Even if they are located in the city's surroundings, forests pathways show little reminder of the German language or other cultural aspects that could induce feelings of marginality or exclusion.		
Konijinendik, C. 2008	Forests and the city: the cultural landscape of urban woodland	Springer, New York	Exploration of cultural importance of urban woodlands	Drawing on a range of research and literature	Main areas covered: -the spiritual forest: spiritual meanings over time -forest of fear: fears associated with forests -fruitful forest: subsistence function forests have often for urban poor. -Forests of power: from wooded commons to elitist prestige -The great escape: forests for recreation -A work of art: art in the forest -The wild side of town: changing means of nature/wilderness -The healthy forest for well-being -The forest of learning and education -The social forest -A forest of conflict -A forest for the future	Brings together a lot of information about urban forests and forestry.	BK
O'Brien, E. 2006	A question of value: what do trees and forests mean to	Landscape Research, 257-275	What are the values and meanings people associate with	Qualitative Focus groups with seven groups, two of which were urban or included urban respondents. Urban in Vermont terms is different than other areas as it is a state with a very low	Vermont is 78% forest covered -Respondents felt that the forested landscape of the state gave it a distinctive character. - Being able to roam the forests in childhood gave people a	Only a few urban respondents were involved in the study and urban areas in Vermont have low populations.	PRJ PR

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	people in Vermont?		forests in Vermont, USA	population	sense of identity and life long interest in the environment - The forests and certain trees species symbolised a particular identity for some. - Maples were seen as especially significant for Vermont and is the tree most prominent when autumn colours arrive. - Urban respondents tended not to have the connection to the land, in a work sense, that their rural counterparts did. They thought about the forests more in terms of activity and leisure. - There was symbolic importance of trees as representing life, the natural world and a health environment - For some the forested landscape was a means of developing personal identities through long lasting connections and experiences.		
Tyrväinen, L., Mäkinen, K. and Schipperijn, J. 2007	Tools for mapping social values of urban woodlands and other green areas	Landscape and Urban Planning 79 (2007): 5-19	The development of a method for describing the experienced qualities of green areas for strategic green area planning purposes.	Quantitative and qualitative: 1. Postal survey conducted in Helsinki, Finland of general attitudes towards and benefits felt to be derived from green areas as well as site specific information about experience values. Random sample of 1000 residents aged 15-75, 421 (41%) responded. 2. Local residents were asked to identify those areas on a map of the study area that had particular positive qualities, such as beautiful scenery, peace and quiet and the feeling of being in a forest as well as those with negative features. 3. The results were compiled in map form using GIS software highlighting the most valued sites as well as problem areas within the study area.	- The results suggest that the method developed here is communicative and relatively easy to use in both collaborative green area planning and land-use planning. - Social value mapping is a tool designed to capture the valuations of local green area characteristics which makes it possible to bring the values of residents into the decision-making process in such a way that they become comparable to other values. - If recorded systematically, social aspects can be made equally viable in a GIS as, and more comparable with, ecological and technical aspects of planning, thus allowing for more balanced and sustainable city planning. - The method facilitates communication of green area values, and otherwise silent groups can also express their opinions. - The maps show areas with qualities that should also be sustained in the future as well as development areas where values are currently missing. - For land-use planning, the results show the highlights of green areas that should be protected from being developed for other land-uses.	- Based on self-reported values but human values vary substantially, for example, with culture, location, needs and/or preferences. - The approach emphasises outdoor use aspects and larger green areas compared with more passive use such as views from the window and smaller green areas. - More work needed to develop methods of canvassing different age group valuations more effectively and understanding better how different phases of life influence green-area valuations and relationships. - Also work needed to identify physical parameters in terms of area size and vegetation structure which define the desired environmental qualities. - The title refers to urban woodlands but the tool described in the paper is largely a generic green space tool.	PRJ PR

1.3 Health and Well-being

1.3.1 Introduction

Definition: What is covered in this section?

The World Health Organisation defines health as a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity. Our focus in pulling together evidence is primarily on physical health, self reported health, and attention and cognitive functions with reference to social well-being. We have not included studies that focus on green space and make no mention of trees, woods or forests. We have not included experiments that use photos or simulations to show vegetation to people indoors. We do not include the many studies that focus on parks and we include only a small number of papers on trees and pollution uptake that specifically focus on the ill health avoided. We also focus mostly on primary research rather than the many reviews of green space and health that have been conducted in recent years.

Key evidence

Thirty eight relevant sources have been identified, nine are grey literature, one is a book and the rest are from peer reviewed journals. Eight studies focus on children and young people. Almost half of the studies were undertaken outside of the United Kingdom.

Key themes from the research include:

1. The focus of the studies is on a diverse range of activities from interventions such as Forest Schools, to experiments such as tree climbing, to general use of wooded areas and therapeutic/restorative approaches.
2. Restorative and therapeutic benefits to people of contact with, or a view of, trees and woods is mentioned by nearly half the studies. Research suggests that the restorative benefits are greater for those with poorer mental health.
3. Increases in physical activity due to nearby trees and woodlands is mentioned in a small number of studies. The evidence of increases or improvements in physical activity associated with nearby woods is mixed with some studies reporting increases and others no change. This may be due to the quality of spaces; if quality is poor people may not feel able to use such spaces for physical activity. Or increases may only occur through specific interventions that encourage greater physical activity. Longitudinal research has not been undertaken to see if these improvements last in the long term.
4. Frequency of childhood visits is associated with aspects of healthy activity, emotional engagement with natural or green spaces, and confidence to visit places alone and may be a predictor of how often people visit woods as adults.
5. Children at Forest School are more physically active than on typical school days, even the school days with physical education activities.
6. Usefulness of trees and canopy cover in helping people to adapt to climate change – e.g. shade, pollution uptake, potential lower asthma prevalence.
7. Potential hazards that may be detrimental to health associated with woodlands include pollen, Lyme disease, toxic plants.
8. Contact with trees and woods can improve children's attentional and cognitive functioning.

Links to other parts of the inventory

There are links to the social interaction section as socialising can be a key motivation for people to use and enjoy woodlands for physical and mental well-being. Also links to safety and crime and accessibility and usage as barriers to accessing woodlands will impact on any health and well-being benefits people may gain from use of woods.

Methodological strengths/ limitations

Most of the studies use cross sectional design focusing on a particular point in time. There are a small number of studies that have used before and after measures in order to explore the change of a particular intervention. There is limited longitudinal data collected and limited use of control groups.

There is stronger evidence for the restorative and therapeutic benefits of trees and woods through both quantitative and qualitative research approaches than for the physical benefits. Interesting methods have been developed to identify the amount of vegetation around residential buildings.

Gaps in evidence

Studies have often contrasted natural areas with urban areas; more work is needed to contrast different types of urban environments with and without tree and woodland cover with more natural spaces. Some of the classic studies by Kaplan, and Kuo and Sullivan in the USA have not been repeated in the UK. There are also opportunities to undertake some of the cognitive and attentional studies that have been undertaken in USA and Sweden.

1.3.2 Table of Evidence

AUTHOR /S & DATE	DOCUMENT TITLE	PUBLICATION / PUBLISHER AND LINK	FOCUS	METHODS	FINDINGS/CONCLUSIONS – ESPECIALLY THOSE RELATED TO TWF	QUALITY OF EVIDENCE / GAPS / COMMENTS	CODE
UK RESEARCH AND LITERATURE							
Day, R. 2007	Place and experience of air quality	Health and Place, 13: 249-260	Examine how concepts of place effects are relevant to understanding public's experience of air pollution	Quantitative and qualitative Examined 4 neighbourhoods in London Borough of Barnet. Use of Borough's data on pollution and exceedence areas. Interviews in each neighbourhood (8-12 in each) Questionnaire survey of 200	80% of air pollution in Borough is from traffic sources. The presence of trees and greenery were held to be important as they had a physical function of actively cleaning the air and also providing oxygen which improved the air. The trees, woods and parks had a symbolic and therapeutic value that helped protect people from the experience of pollution and allowed them to think their neighbourhood was still healthy		PRJ PR
Edwards, D., Elliott, A., Hislop, M., Martin, S., Morris, J., O'Brien, L., Peace, A., Sarajev, V., Serrand, M. and Valatin, G. 2008	A valuation of the economic and social contribution of forestry for people in Scotland.	Forestry Commission	Valuing forestry for people through the themes of health, education, recreation, employment and volunteering, contribution to the economy, culture and landscape and community capacity.	Qualitative and quantitative 1. Questionnaire survey in 2006 and 2007 of a representative sample of the Scottish population (about 1,000 people in each survey) 2. A range of other methodologies were used in the large scale study.	- An estimated 5% of the Scottish population had been on an organised event in a wood that involved physical activity in the previous 12 months. - 2.5% of Scottish population were estimated to be exercising on five or more days of the week in woodland - 2% were estimated to be exercising between 3-4 times per week in woodland - 82% agree or strongly agree that woodlands are places to reduce stress and anxiety. - health and well-being events involved 13% of all visits by the public to Forestry Commission Scotland events in 2006/7 - 79% agree or strongly agree that woodlands are places to exercise and keep fit.	This was a large scale 2 year study of the value of forestry for people in Scotland.	GL publis hed PR
Jamieson, N. and Diggins, G. 2009	Public Opinion of Forestry 2009, Scotland: Results of the Scotland Survey of Public Opinion of Forestry	Forestry Commission Scotland http://www.forestry.gov.uk/pdf/POFScotland2009final.pdf/$FILE/POFScotland2009final.pdf	Presents the results of the 2009 public opinion of forestry survey in Scotland and compares, where appropriate, with previous Scotland surveys and the UK 2009 survey. It highlights any differences in opinion amongst adults in Scotland by geographic variables (e.g.	Quantitative Survey of 1,040 adults in Scotland and regression analysis used to undertake socio-demographic comparisons and geographic comparisons.	- Of those respondents who had visited woodland, respondents from urban areas (72%) were more likely to say that they felt social health and well-being benefits than those from rural areas (50%)		GL PR

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			region and degree of rurality) and socio-demographic variables (e.g. gender and age).				
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 identify in Warrington New Town, UK	Landscape and Urban Planning 79 (3-4): 273-287	An evaluation of 'woodland in the ecological style' as a setting for contemporary housing by means of a case study of Birchwood, Warrington New Town, UK.	Quantitative and qualitative: 1. Postal questionnaire on residents' satisfaction with the visual appearance of their street and various aspects of it; their favourite places in the local area (within a 1 mile radius of their home); and, lastly, places in the local area that they considered unsafe. Random stratified sample and systematic sampling. 1181 questionnaires posted, 336 returned (28% response rate) 2. In-depth semi-structured interviews with a 39 of the questionnaire respondents who had volunteered for interview.	- Most Birchwood resident s liked the visual appearance of their street, though they had both positive and negative feelings towards its 'trees and greenery'. - Woodland in the local area figures prominently amongst the residents' favourite places though some feared that they would be the victims of physical or sexual assault, or robbery or intimidation from groups of young people in the woodland, and women felt particularly vulnerable. - Whilst the woodland was significant for many residents it was not strongly identified with Birchwoods as a place: the quality of the community as symbolised by the behaviour of local individuals, community groups and institutions was regarded as a more potent measure of local identity. - Colourful and well-tended landscape interventions had the ability to act as signs of a caring community. - While signs of individual and collective care in the landscape contribute to communal place identity, individual experiences of wilder urban green spaces, including those of a restorative nature, are formative of individual place attachment. - Urban dwellers should be able to choose their preferred way of interacting with woodland, residential settings should accommodate a wide variety of user needs, and the vegetation on and around the streetscape should be proactively managed in consultation with the community. - While woodland in the ecological style is valued as a setting for a wide range of restorative experiences, it seems that the less positive meanings associated with the woodland could compromise its ability to act as a restorative urban environment for a number of urban dwellers. - Most urban dwellers need signs of caring human intervention in their immediate residential environment, in the form of cultivation of private gardens, overtly decorative public planting and intensive landscape maintenance. However, they also suggest that many urban dwellers have an equally pressing need for accessible wilderness-like areas of green space close to where they live.	- The questionnaire measures did not address many of the issues that emerged from the interviews with sufficient precision, suggesting that it would have been preferable to run semi-structured interviews first, and to use them as a means of generating questionnaire measures. The questionnaire could then have been used more effectively to gauge just how representative the selected interview responses, on which many of the findings in the paper were based, actually were. - More research is needed to compare the restorative potential of different types of urban green space and the impact of cultural, personal and localised factors. - While the restorative experience is clearly central to many residents' perception of the Birchwood woodlands, there are other woodland meanings that cannot be fully accounted for by this theoretical perspective: the themes of ecocentrism and living in the rural idyll seem to be more closely related to current cultural and social concerns. - Further work needed on how different theoretical constructs (residential satisfaction, restorative experiences and place identity) interlock with each other.	PRJ PR

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					- The ecological woodland approach deserves to be reconsidered as a means of providing an integrated landscape structure for new urban development. The vision of the woodland as rural idyll may also have positive implications for sustainable development: people are less likely to want to move to increasingly rural locations if they feel that many of the advantages of rural life can be obtained by living in a woodland setting within the urban fabric, or on the urban periphery.		
Kessel, A., Green, J., Pinder, R., Wilkinson, P., Grundy, C. and Lachowycz. K. 2009.	Multidisciplinary research in public health: a case study of research on access to green space	Public Health, 123: 32-38	Exploration of the physical and demographic parameters of access to Thames Chase Community Forest and how these changed between 1990 and 2003	Quantitative and qualitative GIS analysis of physical access to TCCF Ethnographic research including: - participant observation - non participant observation - in-depth interviews - attendance at conferences and meetings	- Between 1990 and 2003 there was an increase of TCCF sites open to public access overall however improvement in access distance was greater for affluent areas. - Ethnographic research revealed multiple meanings and interpretations of TCCF. - Consideration of the health benefits of the outdoors was not a significant determinant for many when contemplating whether to use TCCF.	Can only provide indirect evidence about the potential bearing of TCCF to health and well-being	PRJ PR
Lafortezza, R., Carrus, G., Sanesi, G. and Davies, C. 2009	Benefits and well-being perceived by people visiting green space in periods of heat stress	Urban Forestry and Urban Greening, 8: 97-108	Aimed to investigate the benefits and well-being generated by urban forests and green spaces on people when heat stress episodes are more likely to occur	Quantitative Six green spaces selected in two countries in metropolitan areas – Gateshead (UK) and Milan and Bari (Italy) Mean climatic data was gathered for the period of 1981-2006. Questionnaire on site survey in green spaces 400 in UK and 400 in Italy covering - demographics - use of green space - level of psychological and physical benefits perceived during the visit	Green space offering shaded locations and accessible water could benefit people and to some extent alleviate symptoms of thermal discomfort under heat stress conditions. - People using green spaces to perform physical activity reported higher benefits compared to those walking or relaxing. - Shade seeking behaviour shows that users in Milan and Bari are seeking more shade than in Gateshead explained by cultural familiarity of people in Italy with high intensity of sun and background heat levels. - In urban environments green space can mitigate some climatic features related to heat stress reducing their effects and providing comfortable outdoor settings.	Some of the effects identified although significant are quite weak, a convenience sample was used.	PRJ PR
Lovell, R. 2009	Physical activity at Forest School	Forestry Commission Scotland, Access and Health research note	Investigation of the value of Forest School as a source of physical activity in Edinburgh.	Quantitative and qualitative 1. Investigation of children's rates of physical activity during FS sessions, and compared to a typical school day with and without timetabled physical activity. Using accelerometers. 26 children 2. Interviews in pairs with children to understand perceptions and experiences of the physical activity at FS and in other contexts (24 children) Children were aged 9-11.	- The children were found to be significantly more active during Forest School (FS) than on typical school days. The level of activity at FS was 2.2 times greater than those on the active school day and 2.7 times greater than on the inactive school day - The children on average exceeded the daily recommended one hour of moderate and vigorous physical activity on the FS days (89.4 minutes). - On the typical active school day children did 29.1 minutes of activity and 20.5 minutes on the inactive school day. - The children engaged in higher number of bouts of	In studies of children's physical activity girls are consistently shown to be less active than boys, However there was no significant difference in amount of activity at FS but there were significant differences on typical school days.	GL PR (PhD researc h)

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					continuous activity on FS days in comparison to school days - The children enjoyed the active games, building dens and being able to run about at FS		
Morita, E., Fukuda, S., Nagano, J., Hamajima, N., Yamamoto, A., Iwai, Y., Nakashima, T., Ohira, H. and Shrakawa, T. 2007.	Psychological effects of forest environments on health adults: shinrin-yoku (forest air bathing, walking) as a possible method of stress reduction.	Public health, 121: 54-63	Shinrin-yoku is a major form of relaxation in Japan. The aim of the study was to evaluate the psychological effects of shinrin-yoku in a large number of participants and identify the factors related to these efforts.	Quantitative Survey, participants were aged 20 or over and visited the forest over 4 days in November and December 2004. They had to complete a self administered questionnaire on 2 occasions, once on arriving at the forest and once after their walk. They also had to complete a questionnaire twice on a control day. 498 people participated – 244 males and 254 females.	- The study revealed that acute emotions are improved by participating in shinrin-yoku. - In this study hostility and depression scores decreased significantly as a result of participation in shinrin-yoku compared with the control day. - In each subgroup the environment had a significant main effect on most outcomes with the forest environment being advantageous particularly for positive emotions. - The findings suggest that no specific method and or type of forest are required to gain beneficial psychological effects. - The study revealed that stress levels affect the magnitude of the psychological effects with those feeling chronically stressed gaining more beneficial effects.	A limit of the study is that 95% of participants experienced a liking for forest walks and this is unlikely to be a representative sample of the general population.	PRJ PR
Morris, J. and Doick, K. 2009	Monitoring and Evaluating Quality of Life for CSR 07	Forest Research http://www.forestry.gov.uk/pdf/CSR07_final_annual_report_2008_09.pdf/	Year one of the development of a monitoring and evaluation framework to measure performance against Forestry Commission England corporate Quality of Life Targets using three 'Flagship' case study sites.	Framework delivery during Year 1 of the project has been split between the implementation of research methods to generate baseline values at the three Flagship sites, and developmental work to establish complementary methods to be implemented during Years 2 and 3 of the project. Three Flagship sites: 1. Bentley Community Woodland in Doncaster (peri-urban) 2. Birches Valley Forest Centre in Cannock chase (rural) 3. Ingrebourne Hill Community Woodland (urban) At each of the Flagship sites, the following methods have been implemented in Year 1 and are therefore reported in this study: 1. On-site surveys - covering key use, engagement, quality of experience and personal and social benefit indicators (implemented in Summer / Autumn of 2008) 2. Catchment surveys -covering key use, engagement, quality of experience and personal and social benefit indicators (implemented in September and October 2008) 3. Catchment profiling -involving the spatial definition of each site's catchment area (using 500m and 4km boundaries) and using available socio-demographic descriptors to characterise, or profile, each site's catchment population.	- Consistently high proportions of each catchment and visitor population benefit in terms of health and healthy lifestyles, general well being, and in terms of improvements to the physical environment - Consistently high proportions of each catchment and visitor populations felt that the community benefits included health and healthy lifestyles, general well being and improvements to the physical environment.		GL PR
Morris, J.	Monitoring and	Forest Research	This document is	Quantitative	- High proportions of visitors to Bentley and Birches Valley		GL

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and Doick, K. 2010	Evaluating Quality of Life for CSR 07. Final annual report 2009/10	http://www.forestry.gov.uk/pdf/CSR07_final_annual_report_2009-10.pdf/	an interim progress report between the baseline year (2008-09 – see above) and the final report (2010-11) for the "Monitoring and Evaluating Quality of Life for CSR 07" project.	During its second year, framework development and testing has continued via: - On-going data collection for the headline indicators via on-site surveys - Extension of the framework methodology for data collection via site management practices - A national survey, implemented through the Public Opinion of Forestry Survey in April 2009.	benefit in terms of relaxation, exercise, and general enjoyment, and these are consistent with the results obtained in the baseline year - There has been a drop in the personal benefits delivered by Ingrebourne in comparison with the baseline year.		PR
O'Brien, E and Snowdon, H. 2007	Health and well-being in woodlands: a case study of the Chopwell Wood Health Project	Arboriculture Journal, 30:45-60	Evaluation of the Chopwell wood health project near Gateshead.	Quantitative and qualitative Part A 229 children had 4 organised visits each to Chopwell wood to undertake various activities The children completed questionnaires about the visits pre (174 questionnaires) and post visit (161 Questionnaires) Part B Chopwell Wood was offered as a location for GP referrals to undertake exercise over a 13 week period. This was linked to the GOAL (Gateshead Opportunities for Active Lifestyles) scheme a Gateshead wide GP referral scheme. 33 people participated in the GP referral scheme at Chopwell wood. Part C Survey at Chopwell wood of users – 207 completed.	Part A Parents and staff felt very strongly that the programme had had a positive influence on young people, including: - Increased awareness of nutrition and healthy lifestyles. - Increased knowledge, awareness and appreciation of nature and the environment. - Increased levels of physical activity. Young people had very positive perceptions of woodland prior to the programme. Post-programme, there was a significant increase in the percentage of pupils regarding the wood as 'a healthy place' (87% post, compared to 74% pre). Part B - There were a total of 33 referrals to the GOAL scheme who subsequently participated in Chopwell Wood-based activities. Of these, 13 were from the 5 locally targeted GP practices and 20 from practices throughout Gateshead. - The completion rate of the 13-week programme for these individuals was three times higher than that for the scheme overall (91% compared to 30%). - Feedback from scheme participants indicates that the primary facilitator (and potentially the main barrier) to initial and continued engagement with the GOAL scheme and, participating in activities at Chopwell Wood is the Physical Activity Area Co-ordinator (P.A.A.C.). - The majority of individuals continued to participate in Chopwell Wood activities post-programme. - The predominant impact in individuals' lives had been the improvement in physical health as a result of participating in the scheme, particularly due to significant weight loss. Social networks had also been developed.	Self reported attitudes rather than a focus on any objective health measures. However the children, site users and adults refereed by GP's to the wood were all positive about their experiences and contact with the woodland. There is some evidence that use of the wood continued outside or after the organised activities had taken place.	PRJ PR

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					Part C - 99% of respondents felt that visiting Chopwell Wood had a positive impact on their health and well-being - 60% thought that visiting had an impact on health through undertaking physical activity and 40% thought that visiting had an impact on both their mental and physical health. - Health benefits were experienced by visitors regardless of the frequency of visits, indicating the potential for health improvement for all visitors.		
O'Brien, L. Greenland, M and Snowdon, H. 2006	Using woodlands and woodland grants to promote public health in England	Scottish Forestry, 60: 18-24	Focus on the West Midlands Woodland and Health Project and its impact	Qualitative study 1. 47 Interviews with project leaders and organisational representatives 2. Attendance at 7 walks run by those involved in the project to interview 51 participants	Interviews with walkers suggests that creating or enhancing access to places for physical activity was effective in getting people to exercise more. Walkers started walking for - health concerns - something to do - rehabilitation - friendship - scared to walk alone - to get fitter - health concerns about type 2 diabetes They enjoyed - feeling fitter - keeping the doctor happy - feeling happier - losing weight - getting out into fresh air	Walkers were not representative of the wider population as they were generally older, as the health walks took place on weekdays during the day.	PRJ PR
O'Brien, L and Morris, J. 2009	Active England: The woodland projects	Report to the Forestry Commission. http://www.forestresearch.gov.uk/fr/INFD-6W8KLM	Evaluation of five woodland projects that received lottery funding to encourage under-represented groups to be more physically active in woods	Qualitative and quantitative 1. 2898 questionnaires completed at 8 woodland sites across the five projects by site users. Approximately 98% White British. 2. Projects in Greenwood Community Forest (Nottinghamshire) and Great Western Community Forest (Wiltshire) are urban, Rosliston in the National Forest is peri-urban and Bedgebury Forest (Kent) and Haldon (Devon) are rural. 3. Activity and focus groups with 114 project users and those not involved in the projects. Almost twice as many women than men out of the 114. Approximately 25 were from a black and minority ethnic group 4. Age range from 16 to 75+.	The research identified two primary motivations for project users to get involved: 1) socialising and meeting new people; and 2) the chance to become more active to improve health. - Users identified the following key benefits of getting involved in regular, organised and led activities: - Socialising - Contact with nature - Mental and physical health improvements - A sense of achievement and self-improvement - Enjoyment - Positive influence on other areas of life. - Evidence from users suggests that involvement in the project activities often led to more active lifestyles. - Users particularly valued the projects because they took place in woodlands and green spaces, providing them with a rich aesthetic, sensory and restorative experience of the natural environment.	- Qualitative research provides data about how involvement in the projects had enabled users to engage in more healthy lifestyles and be more active. - Objective health measures were not used to measure change. Data on the amount of physical activity people undertook was gathered but as individual users were not tracked over time any changes in physical activity levels cannot be attributed to the project.	GL PR

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					- Engaging people in physical activity through the Active England projects has had an impact on people physiologically. For example, many project users described improvements in fitness, mobility and weight loss. There was also evidence of positive psychological impacts, with some testifying to increased levels of confidence, improvements in general well-being and the joy and sense of belonging that comes from meeting new people and becoming part of an organised group. - The research reveals that involvement in physical activity in woodlands can act as a gateway to a range of personal and social benefits.		
O'Brien, L and Murray, R. 2007	Forest School and its impacts on young children: case studies in Britain	Urban forestry and Urban greening, 6: 249-265	The impacts of Forest Schools on young children in Britain	Qualitative 24 children from 7 schools in Worcestershire, Shropshire and Oxfordshire were observed for 8 months in 2004/5/. Four of the Forest Schools were in urban areas. On average the children attended 15 sessions each which is approximately 45-60hours of contact time at Forest School.	One of the themes of the research was physical skills improvement characterised by the development of physical stamina and gross motor skills – the physical skills and coordination allowing the free and easy movement around the Forest School site. Also the development of fine motor skills – the effective use of tools and the ability to make structures and objects e.g. shelters, dens, creative art.	Small number of children involved. No comparison with the children's behaviour indoors in the classroom apart from comments by teachers of children's behaviour indoors and outdoors.	PRJ PR
O'Brien, L. Townsend, M and Ebden, M. 2010	'Doing something positive': volunteers experiences of the well-being benefits derived from practical conservation activities in nature	Voluntas: International Journal of Voluntary and Non profit organisations, 21: 525-545	Examining the impacts of volunteering on volunteers emotional well-being	Qualitative and quantitative 88 volunteers working for 10 different volunteering organisations such as the Forestry Commission, National Trust, British Trust for conservation volunteers etc. Interviews undertaken with volunteers in urban and rural areas in Northern England and southern Scotland while on their volunteer activity day. Use of an emotional state scale questionnaire before and after the volunteering activities. Questionnaire on well-being.	The emotional state scale indicated that the volunteers in general felt emotionally positive prior to volunteering with a mean score of 81% across the 12 emotional parameters. At the completion of activities volunteers recorded a mean of 85% indicating they felt more positive. The mean difference of 4.4 indicates this was a statistically significant positive emotional shift during the period of volunteering. Benefits of volunteering were identified as: • Being outdoors • Spiritual • Physical • Social • Mental • Learning and skills development • Meaning and satisfaction Motivations to volunteer included • Environmental awareness and appreciation • Training and skills • Activity • Personal contact and encouragement	More men than women were interviewed as more men were in the groups on the days the researchers collected data. Difficulties with comparing across the groups as they were very different.	PRJ PR
Owen, R. 2008	An evaluation of cydcoed: the social and economic benefits of	Forest Research http://www.forestry.gov.uk/pdf/Cydcoed_final_report_Jan09.pdf/$FILE/Cy	Large scale 2 year evaluation focusing on community woodlands in	Qualitative and quantitative. Survey and in depth look at 24 of the 163 projects. (153 responses 40% female and 60% male) A survey was also undertaken of all projects with a response rate of 77.3%	- These results are based on the 24 projects looked at in detail. - Over 90% of respondents felt the woods to be an important part of creating a sense of well-being through offering a relaxing and stress free areas	Large scale mixed methods evaluation	GL PR

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	using trees and woodlands for community development	dcoed_final_report_Jan09.pdf	Wales in urban and rural areas		- 50% indicated an improvement in their overall well-being since being involved in the project. - Just over half agreed that taking part had led them to take more regular exercise - 40% stated their physical health had improved		
Powe, N. A and Willis, K. G. 2004	Mortality and morbidity benefits of air pollution (S02 and PM10) absorption attributable to woodland in Britain.	Journal of environmental management, 70: 119-128	Study assessed the S02 and PM10 absorption by trees in terms of life expectancy of the population and reducing hospital admissions.	UK National Air Quality Information Archive provides data on relevant pollutants. Pollution absorption modelled Cross section approach taken.	- Working at a resolution of 1Km^2 and with woodland over 2 ha it is estimated that for Britain as a whole woodland saves between 5 and 7 deaths that would otherwise have been brought forward and between 4 and 6 hospital admission per year. - The economic value of the health effect of woodland is estimated to be at least £900,000 per year. - Smaller areas of woodland often located close to population sometimes strategically planted close to pollution sources will generate additional air pollution absorption benefits to those estimated here. - The largest impact is in south east which has a high proportion of woodland and high population density.	Many simplifying assumptions were made due to limited resources. A problem with the cross sectional approach is estimating how long the individual would live with a reduced PM10 and S02 dosage.	PRJ PR
Roe, J. 2009	Forest School: evidence for restorative health benefits in young people	Forestry Commission Scotland: Access and health research note	Focus on mental health across three behavioural states ranging from no behaviour problem to significant behavioural problem to mental disorder	Quantitative Restoration was measure in two settings - before and after typical school day - before and after FS day Two studies 1. young children in mainstream school aged 11-13 (n=10) exploring outcomes of school versus FS between two groups those with good versus poor behaviour. 2. study of young people in specialist school aged 10-12 (n=8). Outcomes explored of school versus FS settings in young people with severe behaviour problems resulting in mental disorder Undertaken in Scotland	- The school setting significantly depressed mood across all behaviour groups. - The Forest School setting was advantageous to mood in all behaviour groups but particularly in those children suffering mental disorder. - The intensity of the restorative experience was greatest in those with worst mental health. - The forest setting appeared to increase cognitive reflection on personal projects but not to a statistically significant level. - A key finding was the ability of forest settings to stabilise anger across all three groups.	Carrying out research on young people with behavioural difficulties imposes practical limitations on methodology and sample size	GL PR (PhD Research)
Tiwary, A., Sinnett, D., Peachey, C., Chalabi, Z., Vardoulakis, S., Fletcher, T., Leonardi, G., Grundy, C., Azapagic, A... and Hutchings,	An integrated tool to assess the role of new planting in PM_{10} capture and the human health benefits: A case study in London	Environmental Pollution 157 (2009): 2645-2653	The role of vegetation in mitigating the effects of PM_{10} pollution and the corresponding health benefits.	Quantitative: - An integrated modelling approach is presented which utilises air dispersion (ADMS-Urban) and particulate interception (UFORE) to predict PM_{10} concentrations both before and after greenspace, using a 10 x 10km area of East London Green Grid (ELGG) as a case study. - The corresponding health benefits, in terms of premature mortality and respiratory hospital admissions, as a result of the reduced exposure of the local population are also modelled.	- Tree-planting schemes in urban areas can make a positive contribution to air quality bringing additional benefits to human health. - PM_{10} capture from the scenario comprising 75% grassland, 20% sycamore maple and 5% Douglas fir was estimated to be 90.41 t yr^{-1}, equating to 0.009 t ha^{-1} yr^{-1} over the whole study area. - The human health modelling estimated that 2 deaths and 2 hospital admissions would averted per year. - The contribution greenspace makes to improving local air quality is dependent on the percentage cover of trees and their species	- There are a number of uncertainties associated with the health impacts modelling. - Makes reference to some similar studies not included in this inventory:	PRJ PR

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T. R. 2009							
Ward Thompson, C. Aspinall, P. Montarzino, A. 2008.	The childhood factor: adult visits to green places and the significance of childhood experiences	Environment and Behaviour, 40: 111-143.	Explores the significance of childhood experience of woodlands and other natural spaces in relation to adult patterns of use and attitudes.	Quantitative approach primarily with some interviews and focus groups. Based on two studies 1 Central Scotland 2 East Midlands Survey approach taken	- Results show how childhood experience may be a predictor of how often people visits woods as adults. - Not visiting as a child is more of a predictive of not visiting as an adult than vice versa. - Frequency of childhood visits is associated with aspects of healthy activity, emotional engagement with natural or green places, ease of access and confidence to visit places alone. - Males were more likely to make frequent daily visits. - Daily visits in childhood are particularly predictive of adult visits.		PRJ PR
Wilson, N. 2009	Branching out: green space and conservation on referral	Report to Forestry Commission Scotland http://www.forestry.gov.uk/pdf/Branching_Out_Report.pdf/$FILE/Branching_Out_Report.pdf	Examining the Branching Out scheme focused on mental health service users in Glasgow undertaking conservation activities in woodland	Quantitative and qualitative 77 people (57 male and 20 female) completed SF12, Warwick Edinburgh Mental Wellbeing Scale, Scottish physical activity questionnaire pre and post intervention 29 interviews with clients	- The SF12 post intervention questionnaire identified increases in physical functioning, body pain, general health, vitality and mental health. - Significant increase post activity in physical activity - For those reporting the poorest mental health, poorest physical health and poorest physical activity the intervention appeared to have a dramatic effect on those parameters	As a service evaluation there was no control group. No data was gathered from those who dropped out of the programme.	GL PR
EUROPEAN AND INTERNATIONAL RESEARCH AND LITERATURE							
Fjortoft, I and Sageie, J. 2000	The natural environment as a playground for children. Landscape description and analyses for a natural playscape	Landscape and Urban Planning, 48: 83-97	Exploring how a small forest is a playscape for children in Norway	Vegetation and contour mapping data used along with observation of children (46 aged 5-7 years) compared to a reference group of 29 children. The study was carried out over 9 months	Play activities defined as: (and observed by kindergarten teachers) - Functional – playing tag, leap frog, hide and seek - Construction – building dens and shelters - Symbolic – fantasy play Motor fitness of the children improved Significant differences in balance and co-ordination skills for the children using the wood.	Interesting study looking at how a small forest afforded play areas for young children with an analysis of vegetation and topography.	PRJ PR
Gathright, J., Yamada, Y. and Morita, M. 2006	Comparison of the physiological and psychological benefits of trees and tower climbing	Urban forestry and urban greening, 5: 141-149	Exploring the differences in Japan between tree climbing and tower climbing.	Quantitative 11 people recruited – inexperienced climbers who were given 4 days of training each. Physiological measures: Measure HR (heat rate) and IBI (interbeat interval) Measured cortisol by saliva swab before during and after climb Used Uchida-Kraepelin stress test Psychological measures: Personal mood states questionnaire Short self evaluation questionnaire	- Both the tree and tower climbing increased the TPS (total power spectrum) and SNS (sympathetic nervous system). PNS (parasympathetic nervous system- reduction in nervous tension) was elevated only after tree climbing. - The psychological tests revealed an increase in vitality, and a decrease in tension, confusion and fatigue while tree climbing. - Tree climbing was associated with positive emotions and tower climbing was associated with negative emotions.	Offers a new perspective on restorative benefits of trees. Small subject group used.	PRJ PR
Giles-Corti, B,	Increasing walking: how	American Journal of Preventative	Exploration of whether public	Quantitative 1. Environmental audit of public open space (POS) over 2	- Those with very good access to large attractive POS were 50% more likely to achieve higher levels of walking.		PRJ PR

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Broomhall, M., Knuiman, M., Collins, C., Douglas, K., Ng, K., Lange, A. and Donovan, R. 2005	important is distance to attractiveness and size of public open space?	Medicine, 28: 169-176	open space encourages physical activity	acres within 408 square kilometers of Perth Australia. Placement of trees was included in the audit. 2. Interviews with 1803 adults aged 18-59. 3. Observations made of 772 people in POS	- Those that used POS were nearly 3 times more likely as others to achieve recommended levels of physical activity. - When asked about attributes of POS that they liked or that influenced physical activity respondents stated – trees, water features, bird life and size.		
Hansmann, R., Stella-Maria, H. and Seeland, K. 2007.	Restoration and stress relief through physical activity in forests and parks	Urban Forestry and Urban Greening, 6: 213-225	Exploring stress and use of forests and parks in Zurich.	Quantitative Focusing on: Irechelpark (Park) Zurichberg Forest (Forest) 164 people surveyed and 81 interviewed Focus on stress (through asking about stress headaches) and subjective well-being	- When asked (from a list of 8) to choose three things they would recommend to friends to reduce stress the answers were: • Walk in the forest (68.9%) • Undertake sport (48.1%) • Listen to music (35.4%) - Even park visitors recommended walking in the forest more than visiting parks as good advice for friends suffering from stress. - More respondents exercised in the forest (34.6%) than at the forest edge (20.9%) or in the park (15%). - The health benefits of visiting the forest were seen positively by forest visitors (94.4%) but the health benefits of visiting the park was seen a bit less positively by park users (84.6%).	Short terms effects only were assessed in the approach.	PRJ PR
Kaplan, R. 2001	The nature of the view from home: psychological benefits	Environment and Behaviour, 33: 507-542	Focuses on content of the view from home and its associations with psychological well-being and residential satisfaction.	Quantitative Participants were residents in 6 apartment communities in Ann Arbor Michigan with different levels of outdoor natural elements. 188 responses out of 564 households. Mail survey which included a list of questions and booklet of 40 photos taken at the 6 apartment communities showing the range of potential views from them.	- Nature areas played a strong role in explaining satisfaction with neighbourhood - Nature views played an important role in participants satisfaction with nature - Having trees in view were important to being 'at peace' and 'not distracted'. - Participants who had views of trees and fields were less likely to be forgetful and disorganised - Views of trees were important to sense of being restored and having one's directed attention intact. - Individuals who spent time outdoors walking, hiking, jogging were more likely to indicate they felt positive, focused, effective and alert. From the 40 photos - Most preferred scenes were nature ones showing relatively unmanaged woods.		PRJ PR
Kaplan, S.	The Urban Forest as a	Bradley, G.A. ed. Urban Forest	The special role that nature has in	N/A – no primary research. Based on previous research experience and literature review.	- *Cost effectiveness*: Restorative experiences produce large benefits for a relatively small investment, with few negative		BC RS

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	Source of Psychological Well-Being	Landscapes: Integrating Multidisciplinary Perspectives. University of Washington Press, Seattle and London. P. 100-108	improving people's lives and in particular nature's capacity to restore the mind and spirit and allow recovery from mental fatigue.		side effects. - *Special landscapes*: If everyone who could benefit from the restorative potential of nature experiences were to put this knowledge to use, it could create an enormous pressure on the landscape. Therefore, ways in which each kind of special environment could be designed or managed to serve as a restorative environment should be considered. - *Institutional Implications* – Legal, political, administrative, and economic factors have the potential, if approached with insight and ingenuity, both to protect landscapes with restorative potential and to foster their creation.		
Karjalainen, E., Sarjala, T. and Raitio, H. 2010	Promoting human health through forests: overview and major challenges	Environmental Health and Preventative Medicine, 15: 1-8.	Drawing together existing research	Review article No information given on whether this was a systematic review. Explore issues of human health and forests on a global scale so includes food sources.	Benefits to health include: - Physiological and psychological health – stress reduction - Forest food – fruits, nuts, fungi, wild leaves, insects - Forests as a source of bioactive compounds and drugs including polyphenols, phyloestrongens, caroteriods, sterols, stilbenes which possess biological activities such as anti-cancer activity, antiatherongenic and antioxidant potential Diseases and hazards - Lyme disease - Malaria associated with forests - Exposure to physical hazards such as fire, drought, soil slides - Dangerous wildlife and toxic fruits - Pollen from trees, shrubs and weeds.	Benefits and hazards outlined	PRJ RS
Korpela, K., Ylen, M., Tyrväinen, L. and Silvennoine, H. 2008.	Determinants of restorative experiences in everyday favourite places.	Health and Place, 14: 636-652	Investigate the determinants of restorative experiences in people's favourite places	Quantitative Mail survey to people in two Finnish cities: Helsinki and Tampere. 1273 people responded Ten months later 710 volunteers from the first survey were mailed a shorter survey. The main survey had 74 major questions.	- Natural settings such as parks, beaches or forests constituted the largest category among favourite places. - The more worried a person is at work or about money the more restoration they experience in their favourite place. - Nature hobbies, childhood nature experiences and being alone in green areas were positively correlated with restorative experiences. - The more a person visited outdoor nature alone and the more recent uplift they had had in their social relations the stronger the restorative effect. - Using favourite places, length of stay and nature orientedness were determinants of restorative experiences	A large share of the variance in the models could not be explained. Interactions between the independent variables were not included in the regression analysis and may explain some of the remaining variance.	PRJ PR
Kuo, F. E. 2001	Coping with Poverty: Impacts of Environment and Attention in the Inner City	Environment and Behaviour 33 (5): 5-34	The study examines whether the presence of trees and grass nearby assists urban	Quantitative The study looked at residents who lived in homes both with and without green spaces nearby in a 3-mile long public housing corridor in Chicago, Illinois. Levels of nearby nature were assessed using standardized	Findings suggested that people living in urban public housing close to vegetation, for example with views of trees, were significantly more effective in managing major life issues and better equipped to cope with stress.	Although frequent reference is made to the role of trees, the study does not unpick the relative merits of different types of vegetation.	PRJ PR

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			public housing residents in restoring the psychological resources they need to handle the challenges facing them which are also likely to be depleted by the struggle against poverty.	sets of photographs and multiple independent raters. 45 minute structured interviews were conducted with 145 residents covering attentional capacity, life functioning, and a number of control variables likely to be associated with life functioning.			
Lovasi, G. S., Quinn, J. W., Neckerman, K. M., Perzanowski, M. S. and Rundle, A. 2008	Children living in areas with more street trees have lower prevalence of asthma	Journal of Epidemiol Community Health 62: 647-649	The relationship between street trees and asthma prevalence	Quantitative: 1. Data on the prevalence of asthma among children aged 4-5 years and on hospitalisations for asthma among children less than 15 years old were available for 42 health service catchment areas within New York City. 2. Street tree counts were provided by the New York City Department of Parks and Recreation. 3. The proximity to pollution sources, sociodemographic characteristics and population density for each area were also measured.	- Areas with more street trees experienced a lower prevalence of early childhood asthma. - Street tree density was high in the most densely populated areas and in areas with less poverty, and was negatively correlated with the two measures of asthma burden. - Higher street tree density was associated with a lower prevalence of childhood asthma even after adjustment for potential confounders (including sociodemographic characteristics, population density and proximity to pollution sources), but the association between street trees and hospitalisations as a result of asthma was no longer significant after adjustment. - Unadjusted estimates suggest that an increase in tree density of 1 standard deviation (SD, 343 trees/km^2) would be associated with a 24% lower prevalence of asthma and a 26% lower risk of hospitalisation as a result of asthma. - After adjustment for potential confounders, it is estimated that the same increase in street tree density would be associated with a 29% lower early childhood prevalence of asthma. The association between tree density and hospitalisations as a result of asthma was not significant after adjustment.	- The study does not permit inference that trees are causally related to the prevalence of childhood asthma at the individual level. These observational data may be subject to residual confounding or confounding by unmeasured characteristics. More studies needed to see if results are replicated elsewhere. - Future studies may be more robust if they are able to measure and control for characteristics of the home environment, such as the presence of allergens.	PRJ PR
Martensson, F., Boldemann, C., Soderstrom, M., Blennow, M., Englund, JE. and	Outdoor environmental assessment of attention promoting settings for pre school children	Health and Place, 15: 1149-1157	Investigates the restoration potential of green outdoor environments for children in preschool settings with different	Quantitative Eleven preschools were selected to include a variety of outdoor environmental characteristics and socio-economic status'. 200 children aged 4.5-6.5 years participated. Numbers participating at each preschool varied from 9-30. Measured: - attention behaviour - physical activity	- Main finding is that green outdoor environments correlated to the attention of preschool children supporting the hypothesis that green outdoor environment has salutogenic potential for children attending preschool. - The study shows that children in preschools with green, spacious and well integrated environments have higher attention.	Limit of the study is the variation in the number of participating children across the preschools. The tool to measure the qualities of the outdoor environment could be criticised as a blunt measure.	PRJ PR

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Grahn, P. 2009			environmental features in Stockholm, Sweden.	- UV exposure Outdoor environment assessed by 1. Outdoor play environment categories 2. Sky view factor measuring visible sky above the play areas in preschool outdoor environments. Use of early childhood attention deficit disorder evaluation scale applied to measure attention. Data on parent's socio economic status and mother's education. Body Mass Index of children assessed and time spent outdoors recorded by staff.			
Nowak, DJ., Crane, DE. and Stevens, JC. 2006	Air pollution removal by urban trees and shrubs in United States	Urban Forestry and Urban Greening, 4: 115-123	Modelling study focusing on urban trees and air pollution	Quantitative modelling approach Use of hourly meteorological and pollution concentration data across the coterminous US	- Pollution removal (03, PM10, N02, S02, CO) varied among cities with total annual pollution removal by US trees estimated at 711,000metric tons (worth $3.8billion). - Management of the urban tree canopy cover could be a viable strategy to improve air quality and help meet clean air standards.	Estimates of pollution removal may be conservative as some of the modelling was based on homogenous canopies.	PRJ PR
O'Campo, P., Salmon, C and Burke, J. 2009	Neighbourhoods and mental well-being: what are the pathways?	Urban Forestry and Urban Greening, 15: 56-68	Examine the impact of neighbourhood characteristics on health outcomes	Qualitative with some quantitative work Use of concept mapping with participants recruited from Toronto a large urban area. 36 people participated.	Participants noted green trees, bike paths, parks and walkable areas were strongly related to good mental well-being.	Intensive process of concept mapping meant a small sample size was used.	PRJ PR
Sullivan, W., Kuo, F. and Depooter, S. 2004	The fruit of urban nature: vital neighbourhood spaces	Environment and Behaviour, 36: 678-701	Explore the possibility that the presence of trees and grass may be one of the key components of vital neighbourhood spaces.	Quantitative 758 observations of individuals in 59 outdoor common spaces in a residential development in Chicago. 27 were relatively green and 32 were relatively barren.	- More people were found in the green spaces than the barren. - Green spaces attracted more individuals who were alone. - 90% more people were using the green spaces than the barren - 83% more individuals engaged in social activity in the green spaces.	Study of a particular social housing area in Chicago with findings that may not be more generalisable. Strength is focus on poor urban housing areas with residents of lower socio economic status than average Americans.	PRJ PR
Townsend, M. 2006	Feel blue? Touch green! Participation in forest / woodland management as a treatment for depression	Urban Forestry & Urban Greening 5: 111-120	Pilot project in Australia intentionally engaging people suffering from depression and related disorders in supported nature-based activities in a	Qualitative and quantitative: Findings based on this project and three previous studies but this project involved: 1. Sampling through referral of potential participants by local medical practioners and support workers with each participant committing to at least 10 hours of supported hands-on nature-based activities 2. Key informant interviews with relevant professionals to identify barriers likely to inhibit participation in the project and to identify mechanisms for over-coming these barriers.	- There appears to be potential for the use of civic environmentalism to promote health, wellbeing and social connectedness for individuals and the wider population, as well as for groups with identified health vulnerabilities. - However, the realization of the benefits of such an approach will be dependent on co-operation between the environment and health sectors to create and promote opportunities for increased civic environmentalism, and to identify and address the barriers to their effective use.	- Doesn't establish why woodland any different/better than any other green space. - Does not provide evidence about the relative contributions of social relationships and exposure to nature. - Limited quantitative/control group data and findings largely based on self-reporting of benefits from participants	PRJ PR

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			woodland environment.	3. Training in 'mental health first aid' for those working with the project participants. 4. Implementation of a hands-on nature-based activity programme, including a range of activities, times and levels of engagement. 5. Provision of opportunities for participants to engage in associated social interaction, through barbecue lunches and the like. 6. Facilitation of involvement through the provision of transport and child care. 7. Process and impact evaluation (including pre- and post-measures, based on a range of validated scales). Formal recognition of the contribution of the project participants to the maintenance of the area through the presentation of certificates of acknowledgement.			
Wells, N. 2000	At home with nature: effects of greenness on children's cognitive functioning	Environment and Behaviour, 32: 775-795	Exploring nearby natural environment on wellbeing of children residing in poor urban environments	Quantitative 17 children participated in study – 9 boys and 8 girls - They were tested pre-move in their poor urban housing with little vegetation surrounding them - They were tested post move as they went to better housing. - The cognitive tests focused on attention and the mothers of the children answered the questions - A naturalness scale of the residential environment was used	- The exploratory study suggests that the effects of the natural elements within the home environment can have a profound effect on children's cognitive functioning. - Children who experienced the most increase in natural elements post move were more likely to be able to direct their attention several months after moving to the new home.	Strengths of research were a longitudinal pre-move and post move approach. Small sample size.	PRJ PR
Wolf, K. L. 2008	City Trees, Nature, and Physical Activity	Arborist News 17 91): 22-24	An overview/review of research concerning trees and their impact on public health. It focuses on the role that trees and other elements in nature play in encouraging physical activity	N/A – no primary research	- Parks and open spaces support physical activity, particularly if there is easy access but to date, few studies have tested for user response associated with varied vegetation character and management in parks, so the specific role of tree canopy is uncertain. - Largely overlooked in research to date is the role of tree stewardship programs and health. Volunteer stewards who routinely tend trees or work on urban forestry projects are probably gaining health benefits. - Many studies indicate the widespread aesthetic preferences that people have for trees, water and other natural elements.	- For the most part it discusses greenspace as a whole as opposed to just trees.	PRJ RS

1.4 Local Economy and Benefit Valuation

1.4.1 Introduction

Definition: What is covered in this section?

Trees, woods and forests can contribute to local economies by attracting business to an area with a quality landscape; through employment; by improving consumers experiences while shopping; improving local roadsides, squares and raising house prices; improving perceptions of neighbourhood quality and by attracting people to move to an area. All of these may increase spending activity or value within the local economy.

Key evidence

Thirty three sources are identified, eight are grey literature from the UK and the rest are published papers from outside the UK.

Key themes from the research include:

1. Half a dozen studies look at trees and woods and their influence on property prices in urban areas. Various methods are used to look at residential property prices and tree/woodland cover. All found that trees/woods increased property value.
2. The Trees in Town 2 study is a large scale study in England that had 2 strands: 1) was a tree survey in 147 towns and 2) was a survey of Local Authorities (LA) policies and practices. This study outlines an average of nearly 3 full time equivalent jobs per LA in tree related work. 58% of LA's also employed consultants on tree work.
3. Six studies used willingness to pay methods to explore loss of urban trees and green space, motivations for improving air quality and defending the existence right of trees, payment of a tree care tax, willingness to pay to use woodlands recreationally, and willingness to pay to avoid construction on forest land. Respondents were willing to pay for these issues to differing degrees.
4. Wolf's studies focus on the perceptions of trees amongst consumers in business settings and how they rated, enjoyed retail areas and road sides with tree cover. It is suggested trees can be significant elements in place marketing; large trees and a full canopy were enjoyed most.
5. Planted trees are also estimated to reduce energy and mitigate pollution.
6. The Cydcoed programme focused on developing projects in community woods in Wales in urban and rural areas and identified jobs created and jobs safeguarded through the projects, as well as an estimated cost from people undertaking training or receiving income from working on the projects.

Links to other parts of the inventory

Perceptions of the aesthetic value of trees and woods link to most of the other parts of the inventory; apart from safety and crime.

Methodological strengths/ limitations

The economic method of willingness to pay which is assessed through quantitative surveys has been critiqued over a number of years, highlighting concerns with this type of approach. These concerns include issues of how much background information is given to respondents before they choose a monetary option of what they might pay, the fact that studies are based on hypothetical scenarios, and because the approach assumes people's preferences are fixed and unchanging.

There are generalisation (to other residential areas) issues and problems with the hedonic pricing methods which look at property prices and tree cover.

Gaps in evidence

In the UK there is little focus on how trees have an impact on business settings for both businesses and consumers. Much of the work undertaken in the UK on the contribution of trees to the local economy is focused more on rural areas rather than urban areas.

1.4.2 Table of Evidence

AUTHOR /S & DATE	DOCUMENT TITLE	PUBLICATION / PUBLISHER AND LINK	FOCUS	METHODS	FINDINGS/CONCLUSIONS – ESPECIALLY THOSE RELATED TO TWF	QUALITY OF EVIDENCE / GAPS / COMMENTS	CODE
UK RESEARCH AND LITERATURE							
Britt, C and Johnston, M. 2008	Trees in town II: a new survey of urban trees in England and their condition and management	Department for Communities and Local Government http://www.google.co.uk/search?hl=en&source=hp&q=trees+in+towns+survey&meta=&aq=f&aqi=g1g-s1&aql=&oq=&gs_rfai=	A national survey of England's urban trees and their management was commissioned by the Office of the Deputy Prime Minister (ODPM) in February 2004. This survey, 'Trees in Towns II' builds on the original 'Trees in Towns' survey undertaken for the Department of the Environment in 1992/3, with the aim to provide up-to-date information on the national urban tree stock and urban tree management by local authorities. Strand 1 – national tree survey Strand 2 – policies and practice in local authority urban tree management	Quantitative Strand 1: Tree survey – 147 towns surveyed with 4ha plots selected for each land use type. 590 plots surveyed on the ground in 2004: one plot per land use per town. Aerial photographs, for a total of 1,783 plots, were analysed to measure the extent of tree canopy cover. Strand 2: Survey on policies and practices sent to all 389 Local authorities in England, 258 replies (66% response rate)	- Local authorities employ 700 full time equivalents on tree related work averaging 2.98 FTE's per local authority. - Nearly 63% of individual officer staff engaged on tree related work were in full time posts that were devoted to this type of work. - The average total annual tree budget for LA's for 2003/4 was £271,000 including staff costs. Extrapolating this across all LA's in England produces an estimated value of nearly £160 million for LA arboriculture. - On average LA's spend £1.38 on trees per head of the population. - 58% employed consultants on tree related work in 2003/4 – on average £5,700 each. - Only 4% of all trees and shrubs were judged to make a neutral or negative contribution to the urban environment. - Approximately 82% were regarded as making either 'some' or a 'considerable' contribution, and 14% as 'outstanding'. - Assessments of the contribution of trees to the urban environment were largely subjective. For this reason, apparent regional differences, in particular, must be interpreted with caution. - Yorkshire and The Humber (50%) and the NW (42%) each had a relatively high proportion of trees of outstanding value. More than 70% of trees in these two regions and in London made either an outstanding or considerable contribution to the local environment. - The West Midlands and NE regions had the lowest proportions of trees adjudged to have either outstanding or considerable value and the highest proportions with either neutral or negative support. - Trees in open space areas were most likely to make either an outstanding or considerable contribution to the urban environment. The lowest proportions in the outstanding or considerable categories were in medium and high density residential areas. - The highest proportion and density of trees making an outstanding contribution was recorded in open space plots (26%) and the lowest proportion in medium density residential areas.	Good response rate of 66% from Local authorities in England.	GL published PR

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					- The proportion of trees regarded as having a neutral effect, or detracting from the local environment, was very small in all land use classes. - Although numbers were still very small, London had more trees ($1.3ha^{-1}$) that were thought to detract from the urban environment than any other town size group.		
District Valuer, 2005	Bold Colliery community woodland. District valuers report on property values.	Report prepared for Forestry Commission	Exploring changes in property prices	Quantitative Five locations were identified as typical of the locality with typical property values these were analysed using data about individual property sales from 1985, 91, 96 and 2004	The development of a community woodland on the former Bold colliery site directly enhanced existing property values in the surrounding area by £15 million. As a result of development of the community woodland, new development to the value of £75 million has been realised.	Not clear how the estimate of 15 or 75 million was reached. Not enough detail given. Not peer reviewed.	GL
Edwards, D., Elliott, A., Hislop, M., Martin, S., Morris, J., O'Brien, L., Peace, A., Sarajev, V., Serrand, M. and Valatin, G. 2008	A valuation of the economic and social contribution of forestry for people in Scotland.	Forestry Commission Scotland	Valuing forestry for people through the themes of health, education, recreation, employment and volunteering, contribution to the economy, culture and landscape and community capacity	Qualitative and quantitative 1. Questionnaire survey in 2006 and 2007 of a representative sample of the Scottish population (about 1,000 people in each survey) 2. A range of other methodologies were used in the large scale study including a survey of community woodland groups in Scotland.	- 57% of the adult Scottish population were said to be influenced by greenspace (woods, parks and countryside) in their decision to live at their current address. - Approximately 557,000 people, or 242,000 households, in Scotland are estimated to have visible woodland within 1 km of their homes. - Total number of woods managed by community woodland groups in Scotland is estimated to be 245 covering 18,275ha. - Total income received by community woodland groups in Scotland is estimated to be £4.5 million between mid 2006 and mid 2007. 50% was grants from public bodies, 17% donations, 10% membership fees, 6% sales of forest produces, 6% sales of goods and services.	Large scale 2 year valuation of contribution of forestry to people in Scotland. Case study area of the Glasgow and Clyde Valley to cover urban issues.	GL published PR
GFA RACE and GHK. 2004	Revealing the value of the natural environment in England	A report to the Department for the Environment, Food and Rural Affairs	Revealing the value of the natural environment	Research summary of quantitative data This report combines a variety of previous studies and published sources to estimate the economic impacts of different types of rural environmental activity in England. While in a few cases national estimates of the impact of environmental activities are available, the bulk of the information obtained is of two types: 1. Regional or local level estimates of the impacts of environment related activity; 2. National estimates of the significance of different sectors, without separating the effects of specific activities related to the environment.	Since 1995 the National Forest estimates that an extra 330,000 visitors entered the area, spending £128 million annually and more than 500 new jobs have been created.	Data comes from EMDA and Regional Partners (2002) The Environmental Economy of the East Midlands.	GL RS
Lucas, K., Walker, G., Eames, M., Fay, H. and Poustie, M. 2004	Environment and Social Justice: Rapid Research and Evidence Review	Sustainable Development Research Network (SDRN) http://www.sd-research.org.uk/wp	The key objective of the review was to summarise the evidence for environmental inequalities and	N/A – literature review	- There is no research that has specifically estimated the cost to a community or particular social groups from lack of access to countryside and/or woodland	The focus is not solely on woodland or on urban areas and urban woodland. Indeed, 'countryside' and 'woodland' are defined as including urban fringe woodlands, country parks, local	GL Published RS

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		- content/uploads/envsocialjusticereview.pdf	injustice in the UK in relation to 21 topic areas identified as relevant by DEFRA, one of which was access to countryside and woodland			farmland or green belt areas and inland waterways, but not urban parks.	
Morris, J. and Doick, K. 2009	Monitoring and Evaluating Quality of Life for CSR 07	Forest Research http://www.forestry.gov.uk/pdf/CSR07_final_annual_report_2008_09.pdf/	Year one of the development of a monitoring and evaluation framework to measure performance against Forestry Commission England corporate Quality of Life Targets using three 'Flagship' case study sites,	Framework delivery during Year 1 of the project has been split between the implementation of research methods to generate baseline values at the three Flagship sites, and developmental work to establish complementary methods to be implemented during Years 2 and 3 of the project. Three Flagship sites: 1. Bentley Community Woodland in Doncaster (peri-urban) 2. Birches Valley Forest Centre in Cannock chase (rural) 3. Ingrebourne Hill Community Woodland (urban) At each of the Flagship sites, the following methods have been implemented in Year 1 and are therefore reported in this study: 1. On-site surveys - covering key use, engagement, quality of experience and personal and social benefit indicators (implemented in Summer / Autumn of 2008) 2. Catchment surveys -covering key use, engagement, quality of experience and personal and social benefit indicators (implemented in September and October 2008) 3. Catchment profiling -involving the spatial definition of each site's catchment area (using 500m and 4km boundaries) and using available socio-demographic descriptors to characterise, or profile, each site's catchment population.	- Low proportions of catchment and visitor populations for all three sites derive any economic benefits from the sites.		GL PR
Morris, J. and Doick, K. 2010	Monitoring and Evaluating Quality of Life for CSR 07. Final annual report 2009/10	Forest Research http://www.forestry.gov.uk/pdf/CSR07_final_annual_report_2009-10.pdf/	This document is an interim progress report between the baseline year (2008-09 – see above) and the final report (2010-11) for the "Monitoring and	Quantitative During its second year, framework development and testing has continued via: - On-going data collection for the headline indicators via on-site surveys - Extension of the framework methodology for data collection via site management practices - A national survey, implemented through the Public Opinion of Forestry Survey in April 2009.	Significant increases were observed from baseline year at Ingrebourne for three social benefit categories ('It contributes to the local economy', 'It's a place where people can learn about the environment', 'It gets people involved in local issues'), and at Birches Valley for 'It contributes to the local economy'.		GL PR

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			Evaluating Quality of Life for CSR 07" project.				
Owen, R. 2008	An evaluation of cydcoed: the social and economic benefits of using trees and woodlands for community development	Forestry Commission Wales	Large scale 2 year evaluation focusing on community woodlands in Wales in urban and rural areas	Qualitative and quantitative. Survey and in depth look at 24 of the 163 projects. (153 responses 40% female and 60% male) A survey was also undertaken of all projects with a response rate of 77.3%	- One quarter of survey respondents indicated benefits from general work experience. - One third of respondents indicated acquisition of skills that could be useful in future employment. - Direct benefits to individuals resulting from being able to access a training course or from income received from working on a project (limited to Cydcoed group members only) are estimated at £2,879.400 - 5% of sample benefited from full time employment - 2% of sample benefited from part time employment - 60 jobs were estimated to be created in the wider community and 280 jobs were estimated to be safeguarded by the projects.	Large scale mixed methods evaluation	GL PR
EUROPEAN AND INTERNATIONAL RESEARCH AND LITERATURE							
Bernath, K. and Roschewitz, A. 2008	Recreational benefits of urban forests: Explaining visitors' willingness to pay in the context of the theory of planned behaviour	Journal of Environmental Management 89 (2008): 155-166	This study examines the potential of the theory of planned behaviour to explain willingness to pay (WTP) in a contingent valuation survey of the recreational benefits of the Zurich city forests.	Quantitative Random sample mail survey with 558 returns (a response rate of 38%) Two aspects of WTP responses, protest votes and bid levels, were analyzed separately. In both steps, models with and without the psychological predictors proposed by the theory of planned behaviour were compared.	- Whereas the inclusion of the psychological predictors significantly improved explanations of protest votes, their ability to improve the performance of the model explaining bid levels was limited. - The results indicate that the interpretation of bid levels as behavioural intention may not be appropriate and that the potential of the theory of planned behaviour to improve contingent valuation models depends on which aspect of WTP responses is examined.		PRJ PR
Brack, C. L. 2000	Pollution mitigation and carbon sequestration by an urban forest	Environmental pollution, 116: 195-200	Exploration of pollution mitigation and energy reduction.	Quantitative Number health and size of trees planted in streets and parks Calculated dollar value of trees in terms of energy reduction, pollution mitigation and carbon sequestration.	Planted trees were estimated to have a combined value in terms of energy reduction, pollution mitigation and carbon sequestration of $20-67 million during the 2008-2012 time period.	No detail	PRJ PR
Dombrow, J. Rodriguez, M. Sirmans, C. F. 2000	The market value of mature trees in single family housing markets	Appraisal Journal, 68: 39	On mature trees in Baton Rouge, Louisiana, USA	Quantitative Hedonic property price Dummy variable to indicate single family residential properties that had mature trees	The presence of mature trees on a parcel contributed about 2% to home sale prices.	No detail	PRJ
Donovan,	Trees in the	Landscape and	Use of hedonic	Quantitative modelling approach	- On average street trees add $8870 to sales price and	Extrapolating the study results to	PRJ

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GH. Butry, DT 2010	city: valuing street trees in Portland Oregon	urban planning, 94: 77-83	price model to estimate effects of street trees on sale price and time on market of houses in Portland	26% of city has canopy cover. Visited 3479 single family homes which represented all house sales in east side Portland between July 1st 2006 and April 26th 2007. At each house recorded number of street trees that fronted property. Measured diameter of street trees, height of each tree and type. Recorded data about house. Collected cadastral data with aerial photos to calculate crown areas of a street tree within 100 ft of middle of each houses front property.	reduce time on market by 1.7 days. In addition the benefits of street trees spill over to neighbouring houses. - As provision and maintenance of street trees in Portland is the responsibility of adjacent property owners our results suggest that if provision of sites is left solely to homeowners there will be too few street trees from a societal perspective. - The benefits of street trees in Portland significantly outweigh their maintenance costs.	other cities could be problematic but could be done to cities with similar house markets, demographics and tree cover.	PR
Ellis, C. D., Lee, S. and Kweon, B. 2006	Retail land use, neighbourhood satisfaction and the urban forest: an investigation into the moderating and mediating effects of trees and shrubs	Landscape and Urban Planning 74: 70-78	Examines the relationship between retail land use and neighbourhood satisfaction along with the moderating and mediating effects of trees and shrubs in the US.	Quantitative 1. Survey questionnaire, random sample (800 mailed out, 311 (41%) returned with valid street address which was essential for the study. Only used those that lived within 1500ft of retail land = 122). The survey included questions on neighbourhood satisfaction. 2. The amount of retail land use located within 1500ft of the centroid of each respondent's home parcel was measured and recorded. 3. Data on the tree and shrub cover were derived from satellite imagery. 4. These measures were then compared.	- Retail land is negatively related to neighbourhood satisfaction. - Tree and shrub cover moderates and mediates the negative effects of retail on neighbourhood satisfaction. - To maintain neighbourhood satisfaction and protect public welfare, communities should consider adopting development regulations that provide for sufficient trees and shrubs in residential areas. In particular, residential areas built near retail land uses might benefit most from such provisions.	80 people chose zero bids for the following reasons: - This is a job for government not citizens - Nature should not be measured in terms of money - Trees exist on their own rights - You cannot afford - 20% reduction of green space is acceptable - Urban development is more important than urban greening.	PRJ PR
Gatrell, J. D. and Jenson, R. R. 2002	Growth through greening: developing and assessing alternative economic development programmes	Applied Geography 22: 331-350	How communities can capitalize on the specific (economic) benefits of urban forestry	Qualitative and quantitative: Case study approach looking at two Florida communities to determine the extent of urban forest cover and identify potential economic benefits (in energy savings) associated with it. Non-economic benefits are also discussed.	- The possibility exists for communities to develop environmental policies that enable them to remain not only attractive but also competitive. - Urban forestry efforts can be leveraged to meet the desired policy outcomes and economic returns necessary to satisfy the needs of the entire community. - Empirical evidence has shown that local strategies and contingencies have resulted in significantly different urban forests. It has illustrated how comprehensive canopy cover regulation can be effective without discouraging – and even encouraging – new growth. - Remote sensing technologies can be used to assess the overall effectiveness of smart-growth strategies. - Qualitative policy differences have resulted in observable differences in the tree canopy and demonstrated that remote sensing technologies are an effective assessment tool for charting and quantitatively assessing such outcomes		PRJ
Jim, C. Y. 2006	Formulaic expert method to integrate evaluation and valuation of	Environmental monitoring and assessment. 116: 53-80.	Values of individual heritage trees in Hong Kong	Quantitative Expert method developed by author Detailed data on size, health, structure, appearance, rarity and habitat of heritage trees	Values for individual heritage trees ranged from HK$3 million to HK$4.39 million depending on tree species and characteristics.	No detail	PRJ

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	heritage trees on compact city						
Jim, C. Y. and Chen, W. Y. 2009	Ecosystem services and valuation of urban forests in China	Cities 26 (4): 187-194	Review of studies on the major ecosystem services provided by urban forests in China, including microclimatic amelioration (mainly evapotranspiration-cooling effects), carbon dioxide sequestration, oxygen generation, removal of gaseous and particulate pollutants, recreational and amenity.	N/A – literature review	- Urban forests are integral components of urban ecosystems, which could generate significant ecosystem services, such as offsetting carbon emission, removing air pollutants, regulating the microclimate, and recreation. - These ecosystem services contribute to improving environmental quality, quality of life, and sustainable urban development. - Despite a long history of inserting vegetation in human settlements in China, modern scientific study of this natural-cum-cultural resource did not start until the 1990s. Specifically, the identification and valuation of ecosystem services provided by urban forests are relatively new but fast growing research fields. - Various valuation techniques have been applied, most of which are still at the embryonic stage. There are rooms to improve the research scope and methods.		PRJ RS
Lo, A. Y and Jim, C Y. 2010	Willingness of residents to pay and motives for conservation or urban green spaces in the compact city of Hong Kong	Urban Forestry and Urban Greening, 9: 113-120.	Study of resident's recreational use of urban green spaces and assesses the monetary value of these areas	Quantitative 495 urban residents from different neighbourhoods and socio-economic groups were interviewed face to face using questionnaire survey.	- Over 80% of residents were willing to pay to recover a possible loss of urban green spaces. It yielded a monthly average payment of approximately $9.90 per household for five years. - Over 70% visited urban green space at least weekly. - Motivations for payment were for improving air quality and defending the existence right of trees	No detail	PRJ PR
Maco, S and McPherson, G. 2003	A practical approach to assessing structure, function and value of street tree populations in small communities	Journal of Arboriculture, 29. 2:84-97.	Demonstrates approach to quantify the structure, benefits and costs of street tree populations in resource limited communities. Use city of Davis	Quantitative Used rapid sampling combined with existing data published by US Forest Service. Model produced four types of information: 1. Resource structure (diversity, age etc) 2. Resource function (magnitude of environmental and aesthetic benefits 3. Resource value (dollar value of benefits realised) 4. Resource management needs (sustainability, canopy etc).	- Davis maintained nearly 24,000 public street trees that provided $1.2 million in net annual environmental and property value benefits, with a benefit cost ratio of 3.8:1. - Average $52.43 net benefit per tree. - Nearly 20% of trees were in residential zones with only 4% in the down town core area - 40% of annual benefits were attributed to environmental value - On average privately maintained trees along streets in Davis did not perform as well as publicly cared for trees providing less than 70% of the net benefits on a per tree	Further testing of the model is needed to assess practicality and applicability to other cities where city street and development patterns may differ.	PRJ

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			California as case study		basis.		
Mansfield, C., Paltanayak, S. K., McDow, W., McDonald, R. and Halpin, P. 2005	Shades of green: measuring the value of urban forests in the housing market	Journal of Forest Economics, 11. 3: 177-199	Focus on property prices and role of forests	Quantitative Hedonic Property price % of residential single family parcel that was forested, acres of forest on a parcel, % of forested land within 400m, 800m and 1600 m buffers around parcel, distances to private and institutional forests	- Proximity to both forestry types and proportion of parcel that was forested increased home sale prices, increasing forest cover on parcel by 10% adds less than $800 to home sales prices. - Adjacency to private forests add more than $8,000	No detail given	PRJ PR
Rusterholz, H.P., Bilecen, E.., Kleiber, O., Hegetschweiler, K. T., and Baur, B. 2009	Intensive recreational activities in suburban forests: A method to quantify the reduction in timber value	Urban Forestry and Urban Greening 8: 109-116	Testing a method developed to estimate the actual reduction in timber value due to recreation damage.	Quantitative A method for estimating the reduction in timber value due to recreation damage was developed. The method was tested in two suburban (oak–hornbeam and beech) forests sustainably maintained by a selective management system and with free access in north-western Switzerland.	- Considering the total forest areas, 9.4% of oak trees and 23.0% of beech trees were damaged by recreational activities. The resulting reduction in timber value averaged 19 and 53 € ha^{-1} a^{-1} in the two forests. - The annual reduction in timber value due to recreation-induced damage can account for up to16% of the total proceeds. The monetary benefits of forest recreation in these areas, however, by far exceed the damage to trees.		PRJ PR
Sander, H. Polasky, S. Haight, R. 2010	The value of urban tree cover: a hedonic property price model in Ramsey and Dakota counties, Minnesota, USA	Ecological Economics, 69: 1646-1656	Uses hedonic price modelling to estimate urban tree cover value in US counties.	Quantitative modelling approach Produced a dataset with a series of structural, neighbourhood and environmental variables for each property in the dataset using GIS. Data on sale price used from Metropolitan Twin Cities Parcel Dataset.	- Local tree cover is valued by purchasers of residential single family properties in urban areas. Specifically these results indicate that higher percentages of tree cover within 100 metres and 250 metres radii of a parcel increase home sale price. - A 10% increase in tree cover within 100metres increases average house sale price by $1371 (0.48%) and within 250m by £836 (0.29%). - Tree cover beyond 250m did not contribute significantly to sale price. - These results suggest significant positive effects for neighbourhood tree cover, for instance for shading and aesthetic quality of tree lined streets, indicating that tree cover provides positive neighbourhood externalities.	The study dealt with spatial auto correlation and neighbourhood effects, factors that have not been covered by most other analyses.	PRJ
Treiman, T and Gartner, J. 2006	Are residents willing to pay for their community forests? Results of a contingent valuation survey in Missouri, USA	Urban Studies, 43, 9: 1537-1547	Willingness to pay for tree care fund	Quantitative survey Contingent valuation approach to look at willingness to pay a tax to establish a tree care fund for the local area 44 communities in Missouri	Residents of communities with populations greater than 50,000 strongly supported establishment of a tree care fund with a tax of $14-$16 per household per year.	No detail	PRJ PR

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Tyrväinen, L. 1997	The amenity value of the urban forest: an application of the hedonic pricing method.	Landscape and Urban Planning, 37:211-222.	Hedonic pricing to assess amenity value or urban forests	Quantitative Hedonic pricing method used. Apartment sales data (1006 apartments) was collected in Joensuu in Finland.	- Urban forests are an appreciated environmental characteristic and their benefits are reflected in property prices. - In Finland several surveys suggest quality of the living environment is an important criterion for choosing a permanent residence. - According to the study distance to wooded recreation and the total amount of forested area in the housing district are good variables for describing urban forest benefit.	Two assumptions were made: 1) that the entire urban area could be treated as a single market and 2) that the housing market was in or near equilibrium	PRJ
Tyrväinen, L. 2001	Economic valuation of urban forest benefits in Finland	Journal of Environmental Management, 62. 1: 75-92	Willingness to pay to avoid construction on forest land	Quantitative survey Contingent valuation approach to explore willingness to play to avoid construction on forested land and for wooded recreation areas.	- Half of respondents were willing to pay to avoid construction on forested land. - Average WTP of 76-206FIM/year ($19.23-$53.56). - More than two thirds were willing to pay for use of wooded recreation area – average $10.92-$13.78 per month	As above	PRJ PR
Tyrväinen, L. and Miettinen, A. 2000	Property prices and urban forest amenities	Journal of Environmental economics and management, 39. 2: 205-223.	Exploring property prices in Finland, Salo	Quantitative Hedonic property price Distance to closest forest and existence of forest view for terraced houses	- Property values decrease by 5.9% on average with a 1Km increase in distance to forest - Properties with forest views are 4.9% more expensive than properties that are otherwise similar	As above	PRJ PR
Tyrväinen, L. and Väänänen, H. 1998	The economic value of urban forest amenities: an application of the contingent valuation method.	Landscape and Urban Planning 43 (1-3): 105-118	The suitability of the contingent valuation method in assessing urban forest benefits and presents the main results of an empirical study conducted in Joensuu, the capital of North Carelia, Finland The study was designed to measure the use-values of urban wooded recreation areas, and the residents' willingness to pay for small forest parks contributing to the quality of the	Quantitative survey Contingent valuation methods used.	- The results suggest that most visitors were willing to pay for the use of wooded recreation areas. - Furthermore, approximately half of the respondents were willing to pay to prevent the conversion of forested parks to another land-use. - The results can be used to assess the profitability of the management of urban forests. In addition, the results are useful in assessing the value of green space benefits in different land use options.		PRJ PR

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			housing environment.				
Vesely, E. T. 2007	Green for green: the perceived value of quantitative change in the urban tree estate of New Zealand.	Ecological Economics, 63: 605-615	Willingness to pay to avoid loss or urban trees	Quantitative survey Contingent valuation approach Willingness to pay to avoid 20% decrease in urban tree estate	Household average annual WTP to avoid 20% reduction in urban tree estate was NZD 184 for a three year period ($143).	As above	PRJ PR
Wolf, K. L. 2004a	Trees and Business District Preferences: A case Study of Athens, Georgia, U.S.	International Society of Arboriculture 30 (6): 336-346	The preferences and perceptions of visitors to the Athens central business district regarding trees.	Quantitative and qualitative: Survey, including photo preference section, sections on retail behaviour, a section on respondent demographics and a final page for any thoughts or comments about trees and plants in the business district. This was distributed on the street and 365 surveys were completed.	- The presence of trees enhances public judgement of visual quality in many outdoor environments. - People respond to scenes based on the balance between human influence and natural content, with more nature in a scene evoking higher landscape preference. - Large trees and full canopy are most preferred. - Modern architecture that is visually buffered by trees is more preferred than historic architecture having no trees. - Clean, well-kept buildings are essential for creating a welcoming consumer environment, yet the balance of building age and nature amenity is important. - Plants affect consumers' judgements of visual appeal. - Visual quality in urban settings can be enhanced with careful blending of hardscape and nature. - The trees and preference effect was influenced little by respondents' personal traits, familiarity with the district, or shopping style. Judgments of visual quality are directly associated with trees, and are shared by all Athens CBD visitors.	Preference analysis results are consistent with other retail district studies.	PRJ PR
Wolf, K. L. 2005	Business District Streetscapes, Trees, and Consumer Response	Journal of Forestry 103 (8): 396-4000	An overview of a multi-study research programme investigating how consumers respond to trees in various business settings in cities and towns, with implications for the economics of local communities	Quantitative Survey approach	- Across multiple studies a comprehensive measurement approach was used to better understand consumer perceptions and behaviour in the presence of trees. Statistically significant differences were found on four groups of measures – visual quality, place perceptions, shopper patronage and product pricing – with forested districts having higher ratings and values. It is important to note that the highest ratings were granted to places having full, mature tree canopy, indicating careful maintenance over decades. - Trees serve functions beyond environmental benefits, particularly for retail and commercial interests. - Trees and landscapes can be significant elements in place marketing. Trees help create place and connect to deeply felt preferences and appreciations that people have for nature.	The four concept framework of: 1. visual quality 2. place perceptions 3. shopper patronage 4. product pricing give a comprehensive measure of the value of the green consumer environment	PRJ

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					The urban forest is an important part of the vibrant, satisfying places that shoppers enjoy.		
Wolf, K. L. 2006	Assessing Public Response to Freeway Roadsides	Transportation Research Record: Journal of the Transportation Research Board 1984: 1002-111	To assess and quantify public preferences and perceptions with regard to trees in high-speed and freeway roadsides	Quantitative: 1. Roadside Preference Survey (3000 mailed, 404 responses, response rate = 16%) 2. Community Perception Survey (1000 mailed, 113 responses, response rate = 16%)	- Respondents judged images with increasing amounts of roadside vegetation, including trees, to have a higher amenity value. - The presence of more extensive community greening was associated with positive consumer inferences and greater willingness to pay for goods and services. - Results provide an empirical basis for flexible highway design and promote planning options for roadside urban forests that address multiple stakeholder interests.	Low response rate to the survey of 16%	PRJ PR
Wolf, K. L. 2007	The Environmental Psychology of Shopping: Assessing the value of trees	Green Design 14 (3): 39-43	An overview of a multi-study research programme investigating how consumers respond to trees in various business settings in cities and towns, with implications for the economics of local communities	Quantitative and qualitative	As above	Response rate ranged from 10% to 80% across the studies	PRJ PR
Wolf, K. L. 2009	More in Store: Research on City Trees and Retail	Arborist News 18 (2): 22-27	An overview of a multi-study research programme investigating how consumers respond to trees in various business settings in cities and towns, with implications for the economics of local communities	Quantitative and qualitative	As above	As above	PRJ PR
Zanderson, M., Termansen, M. and Jensen, F. S.	Evaluating approaches to predict recreational values of forest	Journal of Forest Economics 13: 103-128	A case study of how the welfare benefits of a large public urban-fringe	Quantitative Changes in the total recreation value over a 20 year time period of a large newly established forest are estimated using a mixed specification of random utility models and a geographic information system. The models are estimated	- Results suggest that the recreation value of the new forest increased 70 times over the 20 years, primarily due the maturing of the forest and changed patterns of visitor behaviour. - The value transfer to the new forest ranges between an		PRJ

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2007	sites		afforestation project, called Vestskoven, (in Copenhagen) changed between 1977 and 1997. The case study is then used to evaluate the extent to which values can change over time and identify the main determinants. Then the authors conduct and test different function transfers based on 52 forests in North Zealand, the same region as Vestskoven, in order to test the extent to which we are able, today, to predict the value of a 30 year old forest.	using data from two identical surveys in 1977 and1997. Three different spatial value transfers were conducted and tested on the new forest.	underestimate of 57% to an overestimate of 349%, depending on the sampling of the choice set used as the study sites in the transfer.		

1.5 Safety, Crime and Anti-social Behaviour

1.5.1 Introduction

Definition: What is covered in this section?

Trees and woods can contribute to feelings of community and personal safety by providing attractive and good quality places that are well used and enjoyed by different groups of people (see primarily the social interaction section). However in deprived urban and peri-urban places (and some other areas) the quality of woods can sometimes be poor and the resource can suffer from a range of anti-social behaviour problems and criminal activities such as flytipping, car dumping etc. This raises concerns about lack of social control and impacts on people's feelings of safety. These are the main topics covered in this section.

Key evidence

Thirty one sources have been identified in this section, half of which are classed as grey literature.

Key themes from the research include:

1. Concerns about safety – particularly for women on their own and particularly those from an ethnic minority background.
2. Concerns about injury – particularly for older people who are worried about falls.
3. Concerns about anti-social behaviour – often includes a focus on teenagers who may be hanging out and are viewed as causing trouble or creating mess.
4. Younger children often describe woods as both fun and scary.
5. Parents would not like children to play in woods without an adult present.
6. Litter, vandalism, evidence of anti-social behaviour makes people think that the woods are not cared for or respected by users.
7. Men are more positive about being alone in woods than women.
8. Overgrown vegetation, woods that felt too enclosed, narrow paths bordered by thick vegetation made many feel more insecure when alone.
9. The greener a buildings surroundings the fewer crimes committed.
10. Levels of aggression were lower amongst women who had nature nearby to their residence.

Links to other parts of the inventory

There are links to the social interaction section as people often feel safer and more comfortable accessing woods with family, friends or joining in organised activities. There are also links to the accessibility and usage, and the health and well-being sections since perceptions of safety, crime and anti-social behaviour can impact upon people's willingness to access and use woods and therefore impact upon their ability to experience the health benefits on offer.

Methodological strengths/ limitations

Almost half of the studies were qualitative with the rest being either a combination of qualitative and quantitative or only quantitative. The majority of research identified draws on primary research which is a strength. The mixed methods used are a strength as findings from quantitative surveys have been explored in more detail through in-depth qualitative approaches providing important insights into particular issues. The majority of the research is cross sectional e.g. undertaken at a particular point in time. Some of the quantitative surveys such as the Public Opinion of Forestry are longitudinal and can illustrate trends over time. No control groups were used in the research identified. The last two bullet points above are findings related to a particular study in a poor housing area of Chicago, USA. The findings from these studies may not be generalisable to other areas.

Gaps in evidence

- Longitudinal research with a specific cohort of people could identify the links between childhood experiences in woods and adult feelings of safety.
- Evaluation of what types of woodland based interventions/activities might enable fears about safety to be overcome for key groups such as women.

- Replication of the Chicago studies in the UK would be very useful to explore whether greenery around buildings reduces crime and aggression. This would be very difficult to achieve methodologically due to the Chicago study focusing on a particular housing area which had identical buildings with differing levels of greenery surrounding them.
- Evaluation of the extent to which childhood use and enjoyment of woodlands provides confidence and familiarity with woods in adulthood, thus potentially reducing concerns about safety.

1.5.2 Table of Evidence

AUTHOR /S AND DATE	DOCUMENT TITLE	PUBLICATION / PUBLISHER AND LINK	FOCUS	METHODS	FINDINGS/CONCLUSIONS – ESPECIALLY THOSE RELATED TO TWF	QUALITY OF EVIDENCE / GAPS / COMMENTS	CODE
UK RESEARCH AND LITERATURE							
Bishop, K., Kitchen, L., Marsden, T and Milbourne P. 2002	Forestry, community and land in the South Wales valleys	Forestry Commission	3 year research project to explore the ways in which individuals and groups in areas in the South Wales valleys forest construct and interact with forest.	Qualitative 1. review of policy documents 2. Interviews with FE staff 3. Content analysis of newspaper coverage of local forestry issues 4. Case studies of four villages/towns – including focus groups, interviews and observations	- Tensions identified between different sectors of the community e.g. local teenagers and older residents. - Some of the plantations seen as 'wood factories' dark and unwelcoming. - Viewed by some as a location for unlawful and anti-social behaviour with the trees providing a screen of secrecy. - Issues of joy riding, dumping and stripping stolen cars, drug dealing and drug taking		GL Published PR
Bell, S. Ward Thompson, C and Travlou, P. 2003	Contested views of freedom and control: children, teenagers and urban fringe woodlands in central Scotland	Urban Forestry and Urban Greening, 2: 87-100	Explored how important forests are to local people, which forests people use or abuse, how people use forests and the implications of this for managers	Qualitative 1. Focus groups 2. Site observations	- Parents (mostly mothers) who were interviewed did not let their children into woods alone. Irrespective of where they lived or what woods they use parents reported that children and young teenagers are not let out of their sight and are not allowed to go and play by themselves. - Children enjoyed using woods and felt safe in them even if their parents were worried about safety.	Evidence shows difference between parent's views and young people's views about woodlands and safety issues.	PRJ PR
Burgess, J. 1995	Growing in confidence: understanding people's perceptions of urban fringe woodlands	Countryside Commission	A study of perceptions and attitudes to woodlands by different groups	Qualitative 1. 97 people went on 13 woodland visits and then spent 1.5 hours in discussion groups	- All women feared being in woodland alone - Women from ethnic communities needed to be in large groups to feel safe - Men were slightly concerned about being mugged but more anxious about getting lost or trespassing. - Men realised that a woman on her own might see them as threatening and this affected their behaviour - Men were anxious about perceived threat to wives, daughters of sexually motivated crime	Identified fears and concerns expressed by different groups. Suggests options to reduce fears – e.g. provide signage and info, think about design and management, provide rangers, provide group activities.	GL published PR
Burgess, J. 1998	But is it worth taking the risk? How women negotiate access to urban woodlands: A case study.	In 'New Frontiers of space, body and gender. Chpt 9: 115-128. Routledge	A study of perceptions and attitudes to woodlands by different groups	Qualitative methods 1. Focus on Bestwood Park in Nottinghamshire and Bencroft-Wormley woods just north of M25 London. 2. Thirteen woodland visits and discussion groups (9 groups of women, including Asian and Afro-Caribbean women as well as white women, and 4 groups of men) 3. Interviews with providers	- Due to profound anxieties women and children feel and the social pressure they experience access to woodlands is constrained. - Women used a range of coping strategies such as self exclusion, taking a dog, going with friends, partner. - Woodlands felt enclosed due to height of trees, density of vegetation, thickness of tree canopy and this led to concerns about hiding places for individuals who might be a threat to safety. - Trees and bushes are potential hiding places	Highlights the importance of looking at how social factors impact on use of woods and feelings of safety. Usefully highlights that the effects of flashing are restrictions to women's freedom.	BC published PR

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					- Narrow paths bordered by thick vegetation can create a sense of entrapment - Woods were felt to be darker than other settings and visibility can be reduced. - Environmental incivilities e.g. graffiti, litter, burnt out cars can lead to a sense of danger and unsafety.		
Carter, C. Lawrence, A. Lovell, R. and O'Brien, L. 2009.	The Forestry Commission public forest estate in England: social use, value and expectations	Forestry Commission	Study to explore evidence concerning the value of the public forest estate managed by FC.	Qualitative and quantitative 1. Questionnaire of 1775 people in England – a representative sample 2. 10 discussion groups with people in urban, peri-urban and rural areas	- Concerns about flytipping, damage to woods, burnt out cars and unsavoury characters. - Women said they were more likely to access woods with a dog or with others rather than alone. - Men were more likely to feel safe accessing woods	Study mainly outlines positive experiences and perceptions of woodland use.	GL PR
Crowe, L and Bowen, K. 1997	If you go down to the woods today	Landscape Design, 216: 26-29	Research to investigate how children feel about woods and examine their experience of woods in the nineties.	Qualitative and quantitative 1. Questionnaires 2. discussion groups 3. creative artwork exercise with 100 children age 7-10 from 4 primary schools in Sheffield.	- Children generally shared a perception of woods as fun, even if the woods could be 'scary' they were good for people - Children's perceptions of woods are greatly affected by the use and abuse of woods. - Litter and vandalism make children think that the area is uncared for and potentially dangerous.	Further research was suggested to explore whether children today are losing out on creative and beneficial use of woods compared to previous generations.	PRJ PR
Edwards, D., Elliott, A., Hislop, M., Martin, S., Morris, J., O'Brien, L., Peace, A., Sarajev, V., Serrand, M. and Valatin, G. 2008	A valuation of the economic and social contribution of forestry for people in Scotland.	Forestry Commission	Valuing forestry for people through the themes of health, education, recreation, employment and volunteering, contribution to the economy, culture and landscape and community capacity.	Qualitative and quantitative 1. Questionnaire survey in 2006 and 2007 of a representative sample of the Scottish population (about 1,000 people in each survey) 2. A range of other methodologies were used in the large scale study.	-Of the 72% of the Scottish adult population that had woods near to where they lives 74% said they felt safe visiting them and 22% said they did not feel safe visiting them. 33% of women (with woods nearby) did not feel safe visiting them, while this was the case for only 12% of men. -Black and minority ethnic groups were less likely to feel safe than other groups	This was a large scale 2 year study of the value of forestry for people in Scotland.	GL publis hed PR
Grant, N and Smillie, A. 2007	UK public opinion of forestry	Forestry Commission	Opinions and perceptions of forestry in UK	Quantitative surveys representative samples 1. UK sample about 4000 2. Wales 950 3. Scotland 1000 4. Northern Ireland 1000	-Answers to question by those who have not visited woods in the past few years and a comparison from 2001 to 2007 Question- concerns that woods are not safe – given as a reason for not visiting - in 2001 1% out of 447 who had not visited woods - in 2003 3% of 1339 - in 2005 3% out of 1328 - in 2007 3% out of 435	A change from 2001 but after that the level of those citing concern about safety in woods as a reason not to have visited in last few years stayed at a low of 3%.	GL PR

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Jamieson, N and Diggins, G. 2009	Public opinion of forestry UK	Forestry Commission	Opinions and perceptions of forestry in UK	Quantitative surveys designed to be representative of general population 1. UK sample 2011 2. Wales 1002 3. Scotland 1040	- 9% agreed that woods are dangerous places that children should avoid - 42% agreed they would be unhappy if their child played in woods without an adult present	Public Opinion surveys run every 2 years so differences in trends can be seen over time.	GL PR
Jollands, M 2009	Wildfires in Wales	Interim report to Forestry Commission	Exploration of fire setting in South Wales Valleys	Qualitative 1. Interviews with people from local communities 2. informal discussions 3. Observations	- Concerns that kids and young people are setting fire to forests in south Wales. - interviews felt the motivations for fire setting might include boredom, protest, fun, excitement	Provides an in depth study into fire setting in an urban deprived area planted with mainly conifers.	GL PR
Jorgensen, A. and Anthopoulou, A. 2007	Enjoyment and fear in urban woodlands – Does age make a difference?	Urban Forestry & Urban Greening 6 (2007): 267-278	The ways in which age affects urban dwellers' aspirations, values and fears concerning woods, and woodland accessibility. It focuses on the views of elderly people (aged over 65) of Norfolk Heritage Park, an urban park containing a variety of woodland settings located in Sheffield, UK.	Mostly quantitative with some qualitative pilot interviews: 1. Semi-structured pilot interviews with a judgement sample of 15 adults over 65 to identify key issues and to discover how this group of people would articulate their ideas about woodland in order to inform design of the questionnaire measures. 2. 120 structured questionnaire (97 returned – 81% response rate) in four parts covering frequency of visits, whether they used the parks as much as they would like, what would encourage them to go more often, attitudes about the experiential qualities of the woodland, perceptions of safety in the woodland, woodland characteristics that might mitigate against identified risks, and information about the respondent.	- Walking was the most popular leisure activity. - Most respondents did not visit urban parks as often as they would like, regardless of age. - Whilst many of the meanings associated with urban woodland ('relaxation', 'peacefulness', 'seasonal change', 'scenery' and 'education') were shared amongst age groups, elderly respondents particularly valued the woods for their links with the past, and opportunities for immersion in the natural world. - Some respondents from all age groups had fears about their personal security in the woodland, and the concerns of the elderly were heightened by their perceived frailty, reduced mobility and sense of vulnerability; this age group had a corresponding need for particular measures to alleviate these problems. - Preliminary evidence suggests that adults of different ages have differing perceptions and requirements in relation to urban woodlands.	- Gender imbalance in respondents (61 females/36 males) but results suggest the effects of age and gender are generally separable and that the gender imbalance did not therefore compromise the findings. - Major methodological flaws: the small sample size (n = 97), the nature and variety of methods used to recruit respondents and uneven distribution of the sample across age groups (20-45: n = 33; 46-65: n = 25; >65: n = 39) may have compromised the replicability and generalisability of the findings.	PRJ PR
Kuo, F. E. and Sullivan, W. C. 2001	Environment and Crime in the Inner City: Does Vegetation Reduce Crime?	Environment and Behavior 33: 343-366	Examining the relationship between vegetation and crime in an inner-city neighbourhood in Chicago	Quantitative. 1. The study looked at a large public housing development in Chicago where the amount of vegetation outside buildings varied significantly. 2. 2 years worth of Chicago Police Department year-end Uniform Crime Reports were analyzed. 3. Ariel and ground-level photography was used to assess levels of vegetation around 98 apartment buildings, which were independently rated on a five point scale. 4. Four additional variables possibly related to vegetation and the number of crimes reported per building were also assessed.	- Consistent, systematically negative relationships were revealed between the density of trees and grass around the buildings and the number of crimes per building reported to the police. - The greener a building's surroundings, the fewer total crimes; moreover, the relationship extended to both property crimes and violent crimes. - Vegetation contributed significant additional predictive power above and beyond four other classic environmental predictors of crime. And out of all possible combinations of available predictors, vegetation was identified as one of the two predictors in the best possible model of crime.	- Talks specifically about the role of trees (and grass) but does not distinguish the particular role of trees compared with other forms of vegetation.	PRJ PR
Lovell, R. 2009	Physical activity at Forest School	Forestry Commission	Exploration of physical activity	Quantitative and qualitative 1. Children wore accelerometers while at school and at	- Forest School allowed for positive experiences of woods for boys and girls in their local woodland spaces that they	The Forest School activity allowed the children to experience their	GL publis

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		Scotland	undertaken by children at Forest School compared to school play ground and PE lessons.	Forest School which allowed for data gathering on physical activity amount and intensity (26 children) 2. Interviews with children in pairs about woods and experiences of Forest School (24 children) Children were aged 9-11 and located in central Scotland	otherwise feared and used little.	local woods.	hed PR
Lucas, K. Walker, G. Eames, M. Fay, H and Poustie, M.	Environment and social justice: rapid research and evidence review	Policy Studies Institute	A review to assist officials in government to better understand key issues and possible policy interventions for tackling environmental inequalities	Review of qualitative and quantitative research it includes: 1. Immediate locality (front door issues) 2. Access to wider services issues 3. Planning, infrastructure and development issues Includes a section on access to countryside and woodlands.	Findings drawing on research outlined in the evidence section suggests: - People are deterred from using woodlands alone due to fears for safety, whether because of other people or from injury. - Retired people are potentially an important category of woodland users but they are often anxious about their safety. - Women demonstrated feelings of fear towards the idea of being in the woods alone and this was greater when the women came from an ethnic minority background.	Covers a wide range of environmental issues.	GL RS
Macnaghten, P and Urry, J. 2000	Bodies in the woods	Body and Society, 6: 166-182	How social groups engage with and perform their bodies in different types of woodland environments	Qualitative 1. Focus groups in England, Scotland and Wales including women, Asian women, Asian youth, fathers, older people.	- For mothers and children woods were associated with danger and needed regulation so they could feel safe. - For young Asian women woods were dark and dirty and scary places	A study that explores embodied experiences highlighting significant differences between different groups.	PRJ PR
Morris, J. and Urry, J. 2005	Growing places: a study of social change in the National Forest	Forestry Commission http://www.forestresearch.gov.uk/pdf/fr0412_growing_places.pdf/$FILE/fr0412_growing_places.pdf	Exploring how changes to the natural environment in the National Forest bring about changes to the people who live, work and spend leisure time there.	Qualitative methods 1. Participant observations including time spent talking to groups and individuals as they undertook various practical activities both forest related and non-forest related. 2. 45 interviews with a range of respondents from local groups, clubs, and organisations including the National Forest and Forestry Commission.	- Group activities within the National Forest provided the setting for discussions about appropriate behaviour and moral conduct of those who used and visited the area. - Vandalism and anti-social behaviour were viewed negatively and those who were involved in these activities were seen as not caring or respecting the environment.	A study that takes a holistic look at how changes to the physical environment can create new meaning and social connection for local people. Research gaps identified a need to look at contribution of change to local and regional economy. Also new work to explore complex linkages between the natural and social forest.	GL published PR
Morris, J., O'Brien, L., Lawrence, A., Carter, C., Ambrose-Oji, B and Peace, A. 2010	Access for all? Barriers to accessing woodlands and forests in Britain	In press	Drawing together approximately 15 pieces of primary research to explore issues of accessibility.	Research summary using qualitative and quantitative research from about 16 studies, including surveys, in-depth interviews and focus groups. Sample size of over 22,000	Barriers include: - Badly maintained woods e.g. concerns about flytipping, car dumping etc. - Parental concerns about children's safety in woods - Concerns that woods are not safe which is more of an issue for those in deprived areas - Lack of confidence can be an issue for some people such as disabled people or those from black and ethnic minorities. - Embedded deprivation for those in poor areas can restrict	Useful drawing together of a range of research (16 studies – large sample size) focusing specifically about barriers to accessing woodlands.	PRJ RS

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					social and actual mobility - Apprehension of other types of users such as dog walkers, horse riders, quad bikers etc. Barriers for non visitors to woodlands were: **Mobility –**women, older people (55+ yrs), C2DE, disabled people and white people (p<0.01). **Woods too far away** – BME (p<0.05). **No car –** women, 65+ yrs, C2DE, disabled (p<0.01), white people (p<0.05). **Not interested** – men, decreasing barrier with increased age class (16-24>24-35 etc.), non-disabled, white (p<0.01). **Too busy** – 35-44 age class most busy (decreasing probability either side of this age class), ABC1, non-disabled, BME (p<0.01) For forest visitors, the following clusters emerge as significant: **No barriers -** White, middle-aged (45-64 yrs) with no disability (p<0.01). Men (p<0.05). **Weather + lack of facilities -** C2DE (p<0.01). Female, white (p<0.05). **Too far away -** ABC1 and BME (p<0.01). Female, 55+yrs (p<0.05). **No car + too far away + mobility reasons** - Age class (increasing probability either side of 35-45 yrs age class) and disabled (p<0.01), female, C2DE (p<0.05). **Too busy -** Men, younger age classes (16-54 yrs), ABC1 and no disability (p<0.01). **Not interested -** Males with no disability (p<0.01). **Mobility reasons –** 65+yrs, C2DE and disabled (p<0.01). **Woods not safe + lack of facilities** - 55+yrs, disabled (p<0.05). **Other reasons -** 55+yrs (p<0.05).		
O'Brien, E. 2006	Social housing and green space: a case study in Inner London	Forestry 79 (5): 535-551	Exploring local residents (of two social housing estates) relationship with their local woodland: Peabody Hill Wood.	Qualitative and quantitative: 1. Postal questionnaire on whether people used the wood and why (565 sent out, 63 returned = 11% response rate) 2. Focus groups with 3 residents groups 3. Session at local youth club to find out from children how they use the wood. 4. Observations made at community woodland clearance and tree-planting day Observations made during walk through wood with local residents	- A key theme from the focus group research was 'problems, concerns and fears'. This covered concerns about personal safety within the woodland and the dumping of rubbish. - Other concerns were about muggings in the wood and streetlights in the wood being damaged on a regular basis. - Car dumping and overgrown vegetation were also major issues for residents. - Residents also felt a sense that the management of the wood was declining and it was being abandoned. - There were also concerns about gangs in the local area and	- Very low response rate to questionnaire and sample not representative of all residents on the estates. - Qualitative data provided rich descriptions of residents concerns about the wood as well as why they valued it.	PRJ PR

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					young people hanging around in the woodland. - Graffiti on the footpaths within the wood provided evidence of lack of management.		
O'Brien, E. 2007	Publics and woodlands in England: well-being, local identify, social learning, conflict and management.	Forestry, 78: 321-336	Exploring the social and cultural value of trees and woods in urban and rural areas	Qualitative 1. 16 focus groups in total in North west and South East England involving 123 people 2. 8 focus groups in Ambleside (Cumbria) and Liverpool 3. 8 focus groups in Southampton and Heathfield (East Sussex. 4. Focus groups involved a range of specific groups e.g. walking group, woodland group (friends of), ramblers group, mothers with young children, conservation members group, non white ethnic minority group and residents of local areas. 5. Age range from 21-75	- Safety concerns was an issue for women in all of the groups and many were not comfortable using woods alone, they preferred company or taking a dog - Those women who were more familiar with using woodlands tended to feel more comfortable and less concerned about safety. - 4 women had been flashed at in green space or woodland and this made them wary. - Respondents spoke about how media stories of bodies buried in woods heightened concerns even though these types of events were rare. - Being responsible for their children's safety also made some of the women less likely (on their own) to go to places they were not familiar or comfortable with.	- Large number of focus groups in urban and rural areas provides rich details of how trees and woods are used and viewed as part of people's everyday lives.	PRJ PR
O'Brien, L. , Greenland, M and Snowdon, H. 2006	Using woodlands and woodland grants to promote public health in England	Scottish Forestry, 60: 18:24	Focus on the West Midlands Woodland and Health Project and its impact	Qualitative study 1. 47 Interviews with project leaders and organisational representatives 2. Attendance at 7 walks run by those involved in the project to interview 51 participants	Walk co-ordinators and voluntary walk leaders considered the barriers for walk participants to be: - fear of unknown places - fear of people and anti social behaviour - fear of getting lost - people sometimes feel strange walking alone The led walks allowed people to overcome these fears and participate in woodland use.	Highlights that led activities can provide those with concerns about safety with the confidence to get involved.	PRJ PR
O'Brien, L and Tabbush, P. 2005	Accessibility of woodlands and natural spaces: addressing crime and safety issues	Forestry Commission	Record of a seminar created to explore issues of reducing concerns about crime and anti-social behaviour in woods and other natural spaces	Seminar with presentations by different organisations sponsored by Forest Research, Lancashire Constabulary, Cabe Space and English Nature	Seminar workshops on - access and risk perception - access and exclusionary behaviour - access and liability - crime reduction and rehabilitation of offenders - location and design of accessible woodlands	Useful issues raised by presenters at the seminar and by participants through the workshops. More research needs to be undertaken to understand people's behaviours and where improvements or design might help to reduce fear.	GL publis hed
O'Brien, L and Morris, J. 2010	Active England: The woodland projects	Report to the Forestry Commission. http://www.forestresearch.gov.uk/fr/INFD-6W8KLM	Evaluation of five woodland projects that received lottery funding to encourage under-represented groups to be more physical	Qualitative and quantitative 1. 2898 questionnaires completed at 8 woodland sites across the five projects by site users. Approximately 98% White British. 2. Projects in Greenwood Community Forest (Nottinghamshire) and Great Western Community Forest (Wiltshire) are urban, Rosliston in National Forest peri-urban and Bedgebury Forest (Kent) and Haldon (Devon) are rural. 3. Activity and focus groups with 114 project users and those	- The qualitative work identified that many of the women felt safer when they joined led activities e.g. health walks, nature walks, cycle rides. They didn't have to worry about safety issues or getting lost. - Media was identified as sometimes making people more fearful as it heightened awareness of rare attacks. - Evidence of litter, anti-social behaviour or drug taking (e.g. needles) made people wary and concerned about personal safety when alone or only with children.	- Useful combination of qualitative and quantitative data - Research non users of the projects provided useful insights into some of the barriers experienced by different groups of people.	GL PR

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			active in woods	not involved in the projects. Almost twice as many women than men out of the 114. Approximately 25 were from a black and minority ethnic group 4. Age range from 16 to 75+.	- Some women with children did not want dense trees as they wanted a clear view of where their children were. The quantitative data identified that anti-social behaviour was more of a barrier to accessing woods in urban areas than in rural areas. - The quantitative surveys showed that those in the Community Forests were more likely than those going to the more rural sites to be more worried about anti-social behaviour.		
O'Brien, E and Snowdon, H. 2007	Health and well-being in woodlands: a case study of the Chopwell Wood Health Project	Arboriculture Journal, 30: 45-60	Evaluation of the Chopwell wood health project near Gateshead	Quantitative and qualitative Part A 229 children had 4 organised visits each to Chopwell wood to undertake various activities The children completed questionnaires about the visits pre (174 questionnaires) and post visit (161 Questionnaires) Part B Chopwell Wood was offered as a location for GP referrals to undertake exercise over a 13 week period. This was linked to the GOAL (Gateshead Opportunities for Active Lifestyles) scheme a Gateshead wide GP referral scheme. 33 people participated in the GP referral scheme at Chopwell Part C Survey at Chopwell wood of users – 207 completed.	- A number of statements were provided in the questionnaire and one was 'the wood is a scary place' - School A pre visit 7% said the wood was scary and 5% post visit - School B pre visit 5% and post visit 8% - School C pre visit 5% and post visit 5%	It is not clear why there was an increase in the wood being viewed as scary by School B.	PRJ PR
TNS Travel and Tourism. Various years	Quality of experience	Forestry Commission	Community surveys in different areas to explore people's quality of experience in using local woods http://www.forestry.gov.uk/website/forestry.nsf/byunique/infd-5wwjpt	Quantitative and qualitative 1. Surveys in people's home of those who live within a particular distance of a wood e.g. 1 mile 2. Interviews with a small number selected in local area	- The surveys and interviews explore reasons for not visiting local woods e.g. do not feel safe. - Quotes from interviews highlight concerns about drugs, young people. - The Community surveys are most relevant as they cover mostly urban woodland.	Provides results from a number of sites across Britain.	GL PR
Ward Thompson, C. Aspinall, P, Bell, S. Findley, C. Wherrett, J and Travlou,	Open space and social inclusion: local woodland use in central Scotland	Forestry Commission	Explored how important forests are to local people, which forests people use or abuse, how people use	Qualitative and quantitative 1. Focus groups 2. 339 Questionnaires completed across the five communities outline below 46% male and 54% female) 3. On site observations of use and abuse 4. Looking at five communities: Alloa, Corstorphine in Edinburgh, Lennoxtown, Whitburn, Wishaw.	- From focus group two factors were highlighted preventing fuller woodland use: safety and forest abuse. - Fears of safety from other people and for older people from injury in the forest. This made using woods alone less desirable - Men were generally more positive about walking alone in woods than women	- Useful study of different communities groups and their local woods. - Research gaps identified as how to target specific groups e.g. teenagers to find out about use of woods and needs. Effective ways of	GL publis hed PR

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P. 2004			forests and the implications of this for managers.		- Factor analysis of questionnaire attitudinal data found that woodland perceptions were associated with 1. fear 2. feeling at peace and at home 3. quietness/vandalism. -Woodland perceptions which were good predictors of woodland use included feeling vulnerable, fear of accidents, and the social stigma attached to being alone in woods. - Physical site quality matters more to people who visit woods less frequently. Freedom from rubbish is important to people.	enabling children to experience woods, producing models for the effective involvement of other professionals e.g. youth workers, Also the need to design welcome entrances to woods.	
Weldon, S and Bailey, C. 2007	New pathways to health and well-being in Scotland: research to understand and overcome barriers to accessing woods.	Forestry Commission	Research to understand and explain better the factors influencing people's access to woods and explore new approaches to people's use of Scottish woods.	Qualitative action research approach including activity with people and focus groups. The groups included: 1. Mother and toddler group, Motherwell (7 people) 2. Young men 16-22 seeking work, Galashiels (5 people) 3. Older people attending a day car centre, Drumchapel 4. Youth group 11-15, Dundee (7 people) 5. Mixed local residents, Ardnamurchan (8 people) 6. Interviews with scheme providers and organisational representatives	- The mother and toddler group in Motherwell was the group that talked about personal safety and were fearful in woods and green spaces when alone due to parts of their environment being unsightly, uncared for and unsafe.	- Action research approach allowed researchers to participate in activity in a wood with participants and observe how they used the spaces as well as the focus groups that provided opportunity for greater discussion.	GL PR
EUROPEAN AND INTERNATIONAL RESEARCH AND LITERATURE							
Herzog, T R. and Miller, E. J. 1998	The role of mystery in perceived danger and environmental preference	Environment and Behavior, 30: 429-449	Explores the relationships between mystery, danger and preference of physical features in urban alleys and forests.	Quantitative 1. Questionnaire 2. Use of place photographs 446 undergraduates at a Michigan university USA participated in 31 sessions of 4-22 people. Participants each rated 36 slides of settings (urban alleys and forests) on five variables.	- Mystery was a positive predictor of both danger and preference - The setting was a significant predictor of both danger (greater for alleys) and preference (greater for forests) - Danger was a more common reaction for urban alleys - Mystery was a more common reaction for forests - Curving pathways and shadows were the kinds of features that enhanced mystery - Mystery can contribute to both preference and fear	Highlights that areas that may be perceived as somewhat dangerous can also be places of mystery.	PRJ PR
Krenichyin, K. 2004.	Women and physical activity in an urban park: enrichment and support through an ethic of care	Journal of Environmental Psychology, 24: 117-130	Focus on the ways that the park supported or inhibited the activities of women who regularly use the park for sports and exercise	Qualitative 1. Interviews with 41 women aged 18- 85 years old 2. Women recruited in Prospect Park in Brooklyn and interviewed at home or in a coffee shop.	- The park functioned not only as a democratic and diverse public space but also more specifically as a place where women found practical support for physical activities. - Having others nearby in the park was important for social support for physical activity and perceived safety in general - There were some concerns about safety but as the park was well used by many people this was less of an issue for the women interviewed.	- Trees not main focus of study as - - The research was undertaken in a park. - Photos used in paper showed trees within the park	PRJ PR
Kuo, F and Sullivan, W. 2001	Environment and crime in the inner city: does vegetation reduce crime	Environment and Behavior, 33: 343-367.	Exploration of crime levels and vegetation in housing estates in Chicago USA	Quantitative 1. assessment of crime reports 2. observation and assessment of vegetation surrounding housing apartments explored the relationship for 98 apartment buildings	- The greener a building's surroundings the fewer total crimes (both property and violent crimes) - Vegetation may deter crime by increasing informal surveillance - Trees and vegetation may increase outdoor contact	The housing apartments where this study and others took place in Chicago is unusual in that the buildings are many, they are very similar, residents are primarily	PRJ PR

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					between residents in a public space.	African American's on low income or unemployed who are not able to choose which building they live in within the complex. The buildings have different amounts of vegetation and tree cover.	
Kuo, F and Sullivan, W. 2001	Aggression and violence in the inner city: effects of environment via mental fatigue	Environment and Behavior, 33: 543-	Exploration of whether contact with nature mitigates mental fatigue.	Qualitative and quantitative 1. Interviews with residents of Robert Taylor Homes Chicago with 145 women residents. 76 lived in buildings with high levels of nearby nature. 69 lives in buildings with low levels of nearby nature. Quantitative scale used to explore attentional functioning and aggression. 2. Assessment of levels of trees and vegetation near buildings by photographs and independent raters.	- Levels of aggression were higher in this population than national US samples - Levels of aggression and violence were significantly lower for women who had nearby nature (trees and shrubs) outside their apartments. - Those in the greener areas had better performance on attentional functioning tests -Nearby nature therefore seems to reduce aggression by improving attentional functioning	- Same as above a very particular type of housing estate used in Chicago. - Future research could do more to explore the relationship between nature and aggression. - This study focused on women, men could also be studied.	PRJ PR
Staats, H and Hartig, T. 2004	Alone or with a friend? A social context for psychological restoration and environmental preferences	Journal of Environmental Psychology, 24: 199-211	Explore restoration effects when in different environments with a friend or alone	Quantitative approach - 106 students from Leiden University (Netherlands), mean age 21 - Questionnaires used to measure attitudes and preferences - Use of scenarios to get participants to imagine themselves with or without a friend and attentionally fatigued or not fatigued - Use of slides simulating a walk in a forest or a walk in an urban centre - Participants asked to rate the likelihood of recovery from fatigue, social simulation outcomes from the urban walk and the forest walk	- Attentional fatigue increased preference for the forest environment rather than the urban one - Having company increased preference for the urban environment but not the forest - Having company in the forest environment aids restoration (if people are concerned about safety) - However if safety in the forest is not a concern then restoration is aided by the absence of company	- Experimental study using scenarios and questionnaires. Use of slides to illustrate forest and urban environment is not the same as being in these areas. - Students may not be representative of wider populations. - None of the slides showed any threatening elements of either the natural or urban environment	PRJ PR

1.6 Social Interaction, Sense of Community and Pride

1.6.1 Introduction

Definition: What is covered in this section?

This section covers evidence relating to the role of trees, woods and forests in urban and peri-urban areas in terms of enabling or facilitating social interaction among individuals and groups (such as friends, family, strangers, geographic communities and communities of interest). It includes sources which refer specifically to the benefits (or problems) attached to such interaction, as well as evidence relating to the role of trees, woods and forests in fostering a sense of community and pride in the local area. While it does include evidence which provides country-level statistics about organised events, it does not include sources relating to specific organised events or activities related to trees and woodlands (such as volunteer, community and educational events) which have brought people together unless they specifically refer to the social and community benefits we address in this section of the inventory.

Key evidence

Twenty eight papers have been identified, fourteen of these are grey literature from the UK, and fourteen are from peer-reviewed journals. Of the fourteen papers from the peer-reviewed journals, thirteen are from outside the UK.

Key themes from this research include:

1. Forests can, on the one hand be an inclusionary space and a source of local pride, but on the other hand can also be exclusionary.
2. Nearly two-thirds of all local authorities in England have run community tree-planting events.
3. It is estimated that around 65% of the Scottish adult population think that woodlands are good places to meet with friends and family.
4. Woodlands provide employment and volunteering opportunities; can induce a sense of civic responsibility for, and ownership of, local resources; help reduce stress and promote other emotional and mental health improvements associated with positive social interaction; help build a stronger sense of identity and belonging; increase social inclusion and community cohesion and enhance community capacity to achieve shared goals through increased social capital.
5. Participatory environmental projects are strong tools of community development, however, empowerment outcomes from urban and community forestry are far from given.
6. For many people, the importance of group activities and the social element of a range of organised woodland activities (for example, physical exercise programmes or environmental volunteering) can become as important as the activity itself.
7. Social objectives of woodland management have to be balanced with other objectives such as timber production and urban forests need to be managed for users with a desire for social interaction as well as for users who want lower social densities within the woodland.
8. Spaces with trees attract larger groups of people, as well as more mixed groups of youths and adults, than spaces devoid of nature. Such spaces facilitate the development and maintenance of neighbourhood social ties and social cohesion by providing opportunities for informal social contact.
9. Vegetation such as trees and neighbourhood social ties can impact upon people's perceptions of neighbourhood safety.
10. More green space, including trees, in people' living environment has been associated with enhanced feeling of social safety except in strongly urban areas where green spaces incorporating trees have been associated with reduced feelings of social safety.
11. In relation to immigrant populations, urban forests can support a sense of belonging or at least of not being excluded from the host society.
12. Youngsters' communication and recreation patterns can allow them to make friends in public urban green spaces. Such spaces are therefore important for improving the social interactions that can lead to social inclusion. Open space can be a catalyst for cross-cultural coexistence.

Links to other parts of the inventory

There are links to the safety and crime section of the inventory as perceptions of woodlands as unsafe or areas where anti-social or criminal activity takes place can be impacted upon by a lack of social ties. Moreover, trees and green spaces have been both linked to enhanced feelings of safety and reduced feelings of safety, the latter particularly so in highly urbanised localities. There

are also links to the health and well-being section as undertaking group activities can help to motivate individuals to maintain their health-benefiting exercise for a longer time period and enhanced social integration and interaction can impact beneficially on individual as well as community well-being. There are links to the accessibility and usage section in terms of the preferences of visitors to woodlands in relation to levels of social interaction or stimulation. Finally, there are also links to the culture and landscape section as the social and cultural values attached to woodlands can be an important element in feelings of pride, and or ownership of the local neighbourhood generally, and of a particular woodland specifically.

Methodological strengths/ limitations

While there is some interesting and useful evidence from the UK, there is little which addresses specifically the role of trees, woods and forests in enhancing and fostering social interaction, inclusion, community cohesion and a sense of pride.

Gaps in evidence

While there are many sources which allude to numerous benefits that woodlands and trees can provide in terms of social interaction, inclusion and pride, much more research is needed into the specifics of how or whether woodlands and trees differ from other green space types in this respect. There is also a lack of clear evidence highlighting the features of a neighbourhood or community which need to be present in order for the benefits of green space and trees to be felt most keenly or which groups in society may benefit from its effects the most. Furthermore, it is not evident what impact the quality of a green area, with or without trees, has on its social interaction fostering potential.

1.6.2 Table of Evidence

AUTHOR /S & DATE	DOCUMENT TITLE	PUBLICATION / PUBLISHER AND LINK	FOCUS	METHODS	FINDINGS/CONCLUSIONS – ESPECIALLY THOSE RELATED TO TWF	QUALITY OF EVIDENCE / GAPS / COMMENTS	CODE
UK RESEARCH AND LITERATURE							
Bishop, K., Kitchen, L., Marsden, T and Milbourne, P 2002	Forestry, community and land in the south Wales Valleys	In 'Trees are Company: social science research into Woodlands and the Natural Environment' www.forestry.gov.uk/pdf/treesarecompany.pdf/.../treesarecompany.pdf	To study the social construction of community life and its relationship with the surrounding forest	Qualitative 1. Focus on four case study areas: Resolven, Blaengwynfi, Maerdy, Fochriw. 2. Review of policy documents 3. Interviews with FC staff 4. Interviews and discussion groups with local residents 5. Ethnographic research	Key themes: - The forest as an exclusionary space e.g. industrial and unwelcoming impressions, neglect and withdrawal of key services, exclusion and confused space - The forest as an inclusionary space e.g. value of the role the forests play in place identity. - The forest as differentiated and contested space e.g. differentiation in social and spatial terms, a source of local pride but also a space from which people are excluded	3 year in depth study of south Wales valleys and forests.	GL Published PR
Britt, C and Johnston, M. 2008	Trees in town II: a new survey of urban trees in England and their condition and management	Department for Communities and Local Government http://www.google.co.uk/search?hl=en&source=hp&q=trees+in+towns+survey&meta=&aq=f&aqi=g1g-s1&aql=&oq=&gs_rfai=	A national survey of England's urban trees and their management was commissioned by the Office of the Deputy Prime Minister (ODPM) in February 2004. This survey, 'Trees in Towns II' builds on the original 'Trees in Towns' survey undertaken for the Department of the Environment in 1992/3, with the aim to provide up-to-date information on the national urban tree stock and urban tree management by local authorities.	Quantitative Strand 1: Tree survey – 147 towns surveyed with 4ha plots selected for each land use type. 590 plots surveyed on the ground in 2004: one plot per land use per town. Aerial photographs, for a total of 1,783 plots, were analysed to measure the extent of tree canopy cover. Strand 2: Survey on policies and practices sent to all 389 Local authorities in England, 258 replies (66% response rate)	- Community tree planting schemes were the most frequent event or activity undertaken by the local authorities in terms of community involvement with trees, with nearly 66% of the local authorities involved in this. - Nearly 24% of the local authorities had organised at least one large-scale tree-related event, involving more than 100 people, over the past five years. The most common type of event was a fair, festival, show or open day focusing on trees. - Nearly 92% of local authorities reported no monitoring of the level of involvement of people from minority groups in their community events and activities related to trees.	Good response rate of 66% from Local authorities in England.	GL published PR

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			Strand 1 – national tree survey Strand 2 – policies and practice in local authority urban tree management				
Edwards, D., Elliott, A., Hislop, M., Martin, S., Morris, J., O'Brien, L., Peace, A., Sarajev, V., Serrand, M. and Valatin, G. 2009	A valuation of the economic and social contribution of forestry for people in Scotland.	Forestry Commission. http://www.forestry.gov.uk/pdf/fcrp101.pdf/$FILE/fcrp101.pdf	Valuing forestry for people through the themes of health, education, recreation, employment and volunteering, contribution to the economy, culture and landscape and community capacity.	Qualitative and quantitative 1. Questionnaire survey in 2006 and 2007 of a representative sample of the Scottish population (about 1,000 people in each survey) 2. Case study research in two areas: a) Glasgow and Clyde Valley and b) Loch Ness.	-The number of volunteers in forest-related work in Scotland is estimated to be around 7,500, while the number of volunteer days in the 12 month period from mid-2006 to mid-2007 is estimated to be around 47,400 - Around 1,500 public events were organised by Forestry Commission Scotland between August 2006 and August 2007, involving an estimated total of 134,000 visits. - An estimated total of 138 community woodland groups are active in Scotland, with an estimated total membership of around 13,500 - The total number of woodlands managed by community woodland groups in Scotland is estimated to be around 250, covering a total of 18,275 hectares, or around 1.4% of the total woodland area in Scotland. - Around 65% of the Scottish adult population are estimated to agree or agree strongly that woodlands are good places to meet with friends and family. - On the basis of case study research in the Loch Ness and Glasgow and Clyde Valley regions, the range of benefits to the people of Scotland included the following: - Employment and volunteering opportunities provided by forest-related organisations and initiatives, and due to visits to the region associated with forests and woodland. - A sense of civic responsibility for, and ownership of, local resources. - Stress reduction and other emotional and mental health improvements due to woodland visits and woodland views, and due to associated social interaction with friends or family. - Stronger sense of identity and belonging associated with particular wooded landscapes. - Increased social inclusion and community cohesion associated with shared experiences of forests through visits, or volunteering and employment, associated with forests.	Large scale 2 year study including a range of qualitative and quantitative methods. Covers urban and non-urban areas.	GL Published PR

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					- Increased community capacity to achieve shared goals, through increased 'bonding' social capital (i.e. within communities), and 'bridging' social capital (i.e. between members of communities and external partners).		
Kazmierczak, A. E. and James, P. 2007	Role of Urban Green Spaces in Improving Social Inclusion	in Amaratunga, D., Haigh, R., Ruddock, L. and Alshawi, M. eds. Proceedings of the 7th international postgraduate conference in the built and human environment 27th-29th March 2007, Salford, pp 354-365 http://www.els.salford.ac.uk/outputs/papers/kazmierczak_BuHu07.pdf	Literature review based paper arguing that urban green spaces in socially excluded areas can increase community cohesion and inclusion of individuals into society.	N/A - Literature Review	- While voluntarism is often a strong feature of poor areas (Forrest and Kearns, 2001), people living in the most disadvantaged neighbourhoods have lower levels of residential involvement in neighbourhood tree planting and community green-up efforts than better-off citizens (Melles, 2005).	References mentioned: - Forrest, R. and Kearns, A. (2001) Social cohesion, social capital and the neighbourhood, Urban Studies 38(12), pp2125-2143 - Melles, S.J. (2005) Urban bird diversity as an indicator of human social diversity and economic inequality in Vancouver, British Columbia, Urban Habitats 3(1), pp25-48	GL RS
Morris, J. and Doick, K. 2009	Monitoring and Evaluating Quality of Life for CSR 07	Forest Research http://www.forestry.gov.uk/pdf/CSR07_final_annual_report_2008_09.pdf/	Year one of the development of a monitoring and evaluation framework to measure performance against Forestry Commission England corporate Quality of Life Targets using three 'Flagship' case study sites,	Framework delivery during Year 1 of the project has been split between the implementation of research methods to generate baseline values at the three Flagship sites, and developmental work to establish complementary methods to be implemented during Years 2 and 3 of the project. Three Flagship sites: 1. Bentley Community Woodland in Doncaster (peri-urban) 2. Birches Valley Forest Centre in Cannock chase (rural) 3. Ingrebourne Hill Community Woodland (urban) At each of the Flagship sites, the following methods have been implemented in Year 1 and are therefore reported in this study: 1. On-site surveys - covering key use, engagement, quality of experience and personal and social benefit indicators (implemented in Summer / Autumn of 2008) 2. Catchment surveys -covering key use, engagement, quality of experience and personal and social benefit indicators (implemented in September and October 2008) 3. Catchment profiling -involving the spatial definition of	- Relatively low values emerge for benefits relating to local participation and community cohesion on all three sites. - Visitors were more likely than the catchment population to agree with statements about the community benefits of the sites - A comparatively high proportion of the Birches Valley's catchment population felt that the site benefits the local community		GL PR

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				each site's catchment area (using 500m and 4km boundaries) and using available socio-demographic descriptors to characterise, or profile, each site's catchment population.			
Morris, J. and Doick, K. 2010	Monitoring and Evaluating Quality of Life for CSR 07. Final annual report 2009/10	Forest Research http://www.forestry.gov.uk/pdf/CSR07_final_annual_report_2009-10.pdf/	This document is an interim progress report between the baseline year (2008-09 – see above) and the final report (2010-11) for the "Monitoring and Evaluating Quality of Life for CSR 07" project.	Quantitative During its second year, framework development and testing has continued via: - On-going data collection for the headline indicators via on-site surveys - Extension of the framework methodology for data collection via site management practices - A national survey, implemented through the Public Opinion of Forestry Survey in April 2009.	- Interestingly, at both Birches Valley and Bentley, the proportion of visitors deriving social benefits ('It's a good place to socialise', 'It brings the community together', 'It gets me involved in local issues') had dropped significantly. This may be a reflection of the drop in visitor numbers observed at Bentley, but it is unclear why this result was also obtained at Birches Valley where visitor numbers have remained stable. The results for Ingrebourne suggest a drop in the personal benefits delivered by the site in comparison with the baseline year. - A general increase in perception of the social benefits delivered by all three sites in comparison with the baseline year - As with personal benefits, at Bentley there was a fall in the perception of the impact of the site on social cohesion and participation ('It brings the community together', 'It gets people involved in local issues'). Again, this may be a reflection of the observed fall in visitor numbers at Bentley during the reporting period. – The increase in perceptions of social benefits at Ingrebourne is in contrast to the decline in personal benefits. This suggests that while an individual may not perceive the site to be of direct personal benefit, this does not preclude the perception of benefits to the wider community.		GL PR
Morris, J. and Urry, J. 2006	Growing Places: a study of social change in the National Forest.	Forest Research http://www.forestresearch.gov.uk/fr/INFD-6XCHWF	Exploring: the linkages between changes to the physical and social environments; how people who live in the Forest perceive the changes that have taken place; the motivations of 'active' participants in the Forest (Tree planting,	Qualitative. 1. 'Compressed ethnography' of life in the Forest: The principal method was to participate with groups or individuals as they engaged in a range of activities in the Forest, such as going for walks, going on site visits, working on farms, planting trees, attending meetings, taking photographs and doing volunteer work. 2. Desk- and web-based research of official reports and documentation 3. Formal interviews with a wide range of people involved in Forest-related activities, projects or initiatives.	- Generally the National Forest is positively perceived. For many people, the Forest is closely associated with improving environmental and economic conditions, and these positive perceptions of place feed into a growing trust and support for the 'Institutional' Forest (national Forest Company and partner organisations), a willingness to be associated with the Forest brand and an optimistic, forward-looking vision for the area. - There are some important linkages between the Forest and the area's changing economy. In particular, the Forest can be seen as a catalyst for new networks of co-operation between economic and political actors. - Social interactions are the dominant feature of Forest experiences. There are strong linkages between landscape change and developing social capital in the Forest, with forested places providing the setting for the reconfiguration	The National Forest covers rural and urban areas	GL Published PR

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			volunteering, education initiatives)		of social networks and new forms of 'connectedness'. In particular, an increase in access is leading to a significant and positive transformation of the relationship between farmers and the wider community. - The research concludes, therefore, that not only trees but also communities are growing in the National Forest.		
O'Brien , E. 2004 O'Brien, E. 2005	A sort of magical place: people's experiences of woodlands in northwest and southeast England (2004). Publics and woodlands in England: well-being, local identify, social learning, conflict and management (2005)	Forestry Commission 2004. http://www.forestry.gov.uk/pdf/fr0305_magical_place.pdf/$FILE/fr0305_magical_place.pdf Forestry, 2005. 78 (4): 321-336	Focus on social and cultural value of trees and woods in urban and rural areas	Qualitative - Four case study areas were included, two urban and two rural. - Urban areas in the study included Southampton and Liverpool/Knowsley. - 4 focus groups in each of the urban areas and 4 each in the rural areas – Healthfield (East Sussex) and Ambleside (Cumbria). 123 people in total.	-A key theme from the focus groups was community, place and personal identity. This included childhood memories of woods and woodland use; it included issues of public involvement and how people found out about changes to the woodland landscape. - The research emphasised the importance of outdoor locations that provide a setting for social interaction and for forming and strengthening social bonds. Respondents talked about enjoying quiet moments alone in woodlands but they also often spoke about the value of visiting places with friends, partners or family. Activities such as recreation and picnicking and settings such as woodlands that allow for different types of social interactions to take place are important - This also relates to improving people's physical well-being as they will often exercise more regularly in the company of others such as families, friends or as part of a group because of the support and encouragement afforded by that company. - Woodlands and other natural environments are not only physical locations they are also associated with a variety of experiences and memories. The relationship between people and places is often a very personal one and is related to people's connection to, and previous experience of using, green spaces and woodlands. - Strong emotional attachment to specific familiar areas was described with enthusiasm and seemed to increase with numerous visits over many years. This may also be related to safety worries in that people who were familiar with particular areas because they used them regularly felt less worried about their own personal safety in these places.	Large number of focus groups – sixteen in total.	GL Publis hed PR PRJ PR
O'Brien, L. and Morris, J. 2009	Active England: 'Park Life' – Greenwood Community Forest	Forest Research http://www.forestry.gov.uk/pdf/active_england_greenwood_site_report.pdf/	Information on the design, delivery and evaluation of an urban woodland project that received lottery	Qualitative and quantitative The project was based in Greenwood Community Forest and focused on two sites – Bestwood Country Park and Kings Mill Reservoir 1. On-site surveys to profile visitors and visits (a total of 881 questionnaires were completed at the two sites in 2006 and	- Users highlighted the importance of group activities, providing opportunities to meet new people and to develop and strengthen bonds of friendship and mutual support. - Lack of confidence and fear of anti-social behaviour were cited by users as the most significant barriers to increased levels of participation, reaffirming the importance of group activities and 'facilitated' access.		GL PR

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			funding to encourage under-represented groups to be more physically active in woods.	2007). 2. Spatial analysis to produce a catchment profile of the surrounding population of each site/s (within an approximate 20 mile radius). 3. Qualitative research involving focus groups with 'users' and 'non-users' of the projects to explore the benefits and barriers to using woodlands and green spaces for physical activity (a total of 18 people participated in the focus groups).	- Women non-users stated that they wouldn't feel safe alone in woodland. Here the source of danger or risk was clearly of a social nature, and had little to do with the physical environment of the forest or woodland. All agreed on the critical importance of being part of an organised group, to provide a sense of security, company in which to enjoy visits to green spaces, and also to provide a structure and schedule for activities.		
O'Brien, L and Morris, J. 2009	Active England: 'Get Active in the Forest' – Rosliston Forestry Centre	Forest Research http://www.forestry.gov.uk/pdf/active_england_rosliston_site_report.pdf/	Information on the design, delivery and evaluation of a peri-urban woodland project that received lottery funding to encourage under-represented groups to be more physically active in woods.	Qualitative and quantitative: 1. On-site surveys to profile visitors and visits (a total of 382 questionnaires were completed at Rosliston). 2. Spatial analysis to produce a catchment profile of the surrounding population of each site/s (within an approximate 20 mile radius). 3. Qualitative research involving focus groups with 'users' and 'non-users' of the projects to explore the benefits and barriers to using woodlands and green spaces for physical activity, and interviews with project staff to obtain a self-assessment of project performance (a total of 28 people participated in the focus groups and 2 staff members were interviewed).	- Users highlighted the importance of group activities, providing opportunities to meet new people and to develop and strengthen bonds of friendship and community. For many, the group has become as important as the activity itself.		GL PR
O'Brien, L., Townsend, M. and Ebden, M. 2008	'I'd like to think when I'm gone I will have left this a better place' Environmental volunteering: motivations, barriers and benefits	Report to the Scottish Forestry Trust and Forestry Commission. http://www.forestry.gov.uk/pdf/Env_Volunteering_Full_Report.pdf/$FILE/Env_Volunteering_Full_Report.pdf	The overall aim of the research was to explore the motivations, benefits and barriers to outdoor environmental volunteering.	Qualitative and quantitative There were four levels to the research including: 1. A review of literature on volunteering with particular reference to environmental volunteering and the policy context for volunteering in Britain. 2. Interviews with representatives at a national level (11) of organisations that recruit and manage volunteers. 3. Interviews with local representatives (15) of organisations that manage volunteers (e.g. the person leading the volunteer group). 4. Interviews with volunteers (88) while they undertook their voluntary activities. Sampling was purposive.	- It was found that one of the benefits to environmental volunteering was social well-being. Meeting new people and social contact was a benefit frequently mentioned by the majority of the volunteers as particularly important. Once people have retired, are bereaved, or are not working then a major source of socialising, through work or with a partner, is no longer available to them and they need to find activities and occupations that allow them to meet others. However the young people also stressed the importance of socialising and the enjoyment of working as a team. - The range of backgrounds of the volunteers was considerable in both age and socioeconomic terms. A number of the volunteers also had health problems: physical and mental or emotional. Some of the groups were very mixed and volunteers were likely to meet a range of different people, and this was something that was appreciated. - This research shows that volunteering can be a means of re-integrating marginalised people into society. Environmental volunteering can contribute to social capital and community development, and can enhance people's values for the environment. It can also improve self- esteem, giving people meaning and a sense of identity.	The study covered both urban and rural volunteering.	GL PR

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Owen, R. and Lewis, N. 2008	An evaluation of Cydcoed: the social and economic benefits of using trees and woodlands for community development in Wales.	Forest Research http://www.forestry.gov.uk/fr/INFD-76KC7H	Evaluation of the £16m Cydcoed programme in the Objective 1 area of Wales (West Wales and the valleys), which did not specifically focus on urban forestry but gave grants to community groups who wanted to plant new woods or improve existing woodland.	Qualitative and Quantitative: 1. Desk research established the baseline performance for projects against the aims, objectives and targets of both the Cydcoed programme and the individual projects. 2. To add context, ten semi structured interviews were also used. These were undertaken with key employees within the Cydcoed programme and within the wider organisation of FCW. 3. Suite of quantitative and qualitative indicators developed and quantitative data was collated from the individual project completion reports. 4. Questionnaire survey to all projects (response rate 77.3%) 5. In order to add further depth and context to the overall study, the research allowed for a detailed examination of a representative twenty-four Cydcoed projects chosen using specific selection criteria.	- Social capital takes time – often years – to accrue. It would be beneficial to revisit Cydcoed project communities in the future to examine the longer term effects of the intervention. - To date, approximately 18,000 school children have been involved to some degree in Cydcoed projects. Project groups have 8,955 members and work with a further 6,490 people from other community groups. - Over half of those questioned agreed their level of trust in the community had increased as a result of taking part in a Cydcoed project and around 75% agreed that they knew more people as a result of Cydcoed. - Eighty five percent indicated that the quality of life for the community had improved by being involved in Cydcoed and 79% thought the projects had helped develop stronger ties between people in their community. - Almost half of those questioned indicated that Cydcoed had provided them with an opportunity to volunteer. This suggests a latent desire to be involved in community activities. - Over a third of respondents to the research claimed the project had reduced, or stopped, anti social behaviour in and around the woodlands and one third indicated the projects had provided a place for children to play. - Case study research shows that knowledge and skills developed through Cydcoed are now being cascaded through the community. Whilst it is difficult at this stage of Cydcoed to ascertain the true depth of increased social capital, there is little doubt that projects have increased trust, networks and relationships at the individual and community level.	Focus not purely on urban projects but on urban, peri-urban and rural projects within the Objective 1 region of Wales. One recommendation of the evaluation report was that any future intervention is delivered on a pan-Wales basis but with particular emphasis on highly deprived rural and urban areas.	GL PR
Tabbush, P 2010	Cultural Values of Trees, Woods and Forests	Forest Research http://www.forestry.gov.uk/website/pdf.nsf/3ece6ef6a6bb8f2080256a15005b9fd4/e423eb3495889e968025775800483559/$FILE/Cultural_value_woods_full_report_March2010.pdf	Exploring cultural values and how these are or might be incorporated into forest planning and decision making	Qualitative 1. Interviews with forestry professionals 2. Interviews and participation in events with Friends groups in Chopwell Wood, Tyne and Wear and Thames Chase Community Forest	Cultural services included: - Cultural assets – such as physical assets like historic sites and the attributes to which people attach cultural significance. - Health and well-being – opportunities for social contacts and activity - Education – opportunities for young people - Stories – cultural value can be enhanced by stories people tell about particular places. - Practices – the things people do in woods that build up cultural appreciation and stories. - Economic – enhancing local economic activity. - Enhancing cultural value – e.g. through the creation of art works	Highlights importance of taking cultural value into consideration in decision making and planning.	GL PR

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Tabbush, P. M. and O'Brien, L. 2008	Research Summary - The 'Faith Woodland' project in Maulden Woods: an evaluation	Forest Research http://www.forestry.gov.uk/pdf/SERG_Faith_woodlands_research_summary.pdf/	Evaluating the establishment of a Faith Woodland (bringing together people of different cultural backgrounds) site on Forestry Commission land (Maulden Woods) looking at the processes through which the scheme was developed, and the objectives and achievements of the scheme to establish its main features and benefits.	Qualitative 1. A series of site visits were undertaken and eight interviews were held with the main actors responsible for the project. 2. An open day was held at the site which presented an opportunity to contact a number of participants who represented the 'targets' of the initiative. Four people from different backgrounds were selected for in-depth interviews by telephone.	Maulden Wood is situated close to two urban centres of population – Luton and Bedford, Project included creation of: - scared space for prayer and contemplation - a labyrinth - inspirational signs - talks and visits - picnic sites Benefits included: - Increased confidence to access woods - Space and opportunity for meeting people and capacity building - Opportunities for access, health and learning - Principal actors, such as the rangers, and project partners had very different sets of objectives, but there was no sense of conflict between them. - The process by which partnerships had been forged relied heavily on existing social networks. - Relations between the project and the local FCE staff have been good. Nevertheless, it was clear that there was some tension between the management objectives of the woodland, which for FCE concerned conservation of habitats (the site has SSSI status) and timber production (economic woodland management), and the objectives of the project, which were social objectives including community outreach, woodland access and improving environmental awareness. A balance between these objectives is a general requirement for sustainable forest management that requires local community engagement in the context of national policy through the forest design planning process. - The Faith Woodland project is an excellent example of community outreach in action, with the spiritual or religious storyline representing only one of a number of ways of engaging with local communities.	Project evaluation, no baseline data gathered	GL PR
EUROPEAN AND INTERNATIONAL RESEARCH AND LITERATURE							
Arnberger, A. and Haider, H. 2005	Social effects on crowding preferences of urban visitors	Urban Forestry and Urban Greening 3 (3-4): 125-136	An image-based stated choice approach was used to investigate the conditions	Quantitative Respondents (*N*=213) evaluated several sets of images depicting trail use scenarios with different levels of social crowding conditions and several types of social interferences. Forest users were segmented into three groups based on their global evaluations of use levels during weekends and	- Crowding-averse respondents reacted much more negatively to scenarios with high-use levels, heterogeneous trail use conditions, and violations of personal minimum spatial requirements caused by the presence of others. This user group felt overcrowded because social conditions experienced in the area interfered with their main visiting		PRJ PR

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			determining why visitors to an urban forest in Vienna feel crowded or not.	work days, resulting in a crowding-averse, a crowding-tolerant, and a crowding-indifferent segment.	goals, especially to walk with their dog unleashed and to recreate. - By contrast, crowding-tolerant respondents disliked very low-use and high-use situations, and preferred a certain amount of social stimulation in the form of some encounters, and more heterogeneous trail use conditions.		
Arnberger, A., Aikoh, T., Eder, R., Shoji, Y. and Mieno, T. 2010	How many people should be in the urban forest? A comparison of trail preferences of Vienna and Sapporo forest visitor segments	Urban Forestry and Greening 9 (3): 215-225	Differences in trail preferences for social conditions of visitors to forests in Vienna and Sapporo in 2006 using a standardised image-based stated choice approach.	Quantitative On-site visitors to two comparable peri-urban forests – the Lobau Forest in Vienna, Austria (*n*=373), and the Nopporo Forest in Sapporo, Japan (*n*=256) – evaluated the same sets of computer manipulated images depicting 128 trail scenarios with different levels of social stimulation. Latent class segmentations, in three sub-segments of similar sizes, differentiated by partly opposite preferences for social conditions, were derived for both samples.	- A positive contribution of social stimulation to preferences was found for about 17% of Nopporo and 9% of Lobau respondents, while for close to 50% of Lobau respondents and 38% of Nopporo respondents very low levels of social stimulation were preferred. - The results indicate that urban forests should be managed for users with a desire for low social densities as well as a denser social setting providing some levels of social stimulation.		PRJ PR
Coley, R. L., Sullivan, W. C. and Kuo, F. E. 1997	Where Does Community Grow?: The social context created by nature in urban public housing	Environment and Behavior 29 (4): 468-493	How the availability of nature influences the use of outdoor public spaces in two Chicago public housing developments.	Quantitative: 1. Observational data were collected on the presence of trees and vegetation in the public spaces within one high-rise and one low-rise public housing development 2. Observational data were also collected on the presence, characteristics, and behaviours of residents using these spaces.	- Natural landscaping encourages greater use of outdoor areas by residents. - Results consistently indicated that the presence of trees has an important impact on public housing residents' use of outdoor space. - Spaces with trees attracted larger groups of people, as well as more mixed groups of youth and adults, than did spaces devoid of nature. - More dense groupings of trees and trees that were located close to public housing buildings attracted larger groups of people. - The findings suggest that natural elements such as trees promote increased opportunities for social interactions, monitoring of outdoor areas, and supervision of children in impoverished urban neighbourhoods.	- Focus on areas with trees but no comparison with other 'nature' areas so cannot assess if areas with trees have distinct qualities as opposed to other types of greenspace. - Not clears if the presence of high-nature common areas actually increases the social interactions of public housing residents, or whether pleasant outdoor spaces simply influence the venue of such social experiences.	PRJ PR
Ellis, C. D., Lee, S. W., Kweon, B. S. 2006	Retail land use, neighbourhood satisfaction and the urban forest: an investigation into the moderating and mediating effects of trees and shrubs	Landscape and Urban Planning 74 (2006): 70-78	The relationship between retail land use and neighbourhood satisfaction along with the moderating and mediating effects of trees and shrubs.	Quantitative. 1. The study included residents living in single-family housing located in typical suburban-type subdivisions with adjacent commercial strip development. 2. Mail-in survey responses were geo-referenced to land parcel centroids, and compared to the amount of retail land use, and tree and shrub cover existing within 1500 feet. 3. Tree and shrub cover was measured using multi-spectral satellite imagery classified with a normalized differences vegetation index (NDVI). 4. Existing land use and parcel data were acquired from the	- Results indicate that the amount of tree and shrub cover within a 1500 ft radius of single-family households significantly moderates and mediates the negative relationship between the amount of nearby retail land use and neighbourhood satisfaction. - These results have important implications for urban planners and landscape architects. Specifically, the findings suggest that communities should increase provisions for protecting and establishing trees and shrubs in neighbourhoods near retail land uses.		PRJ PR

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				local city planning agency.			
Elmendorf, W. 2008	The Importance of Trees and Nature in Community: A Review of the Relative Literature	Aboriculture & Urban Forestry 34 (3): 152-156	A review of the literature relating to the beneficial and connected relationships among nature, social settings and social processes like interaction.	N/A – literature review	- The literature argues that the natural environment is a critical component of personal and community pride and well-being and a stimulus for collaborative action. - Furthermore, it argues that empowering people to become involved in the process of landscape and park creation and maintenance increases social interaction, builds community capacity, and supports both development of community and community. - Tree plantings and other civic environmental projects can be used to promote both healthy environments and healthy social structure even in the most deteriorated neighbourhoods. As such, participatory environmental projects are strong tools of community development, and the work of arborists and urban foresters can play an important part on the process of community.	Most of the literature reviewed covers all 'nature' as opposed to just trees.	PRJ RS
Jay, M. and Schraml, U. 2009	Understanding the role of urban forests for migrants – uses, perception and integrative potential	Urban Forestry and Urban Greening 8 (4): 283-294	The objectives of the study were (1) to develop an understanding of the migrant perspective on urban forests, investigating their recreational use patterns and perceptions and (2) to find out the ways in which the recreational use of urban forests can play a role in social integration processes.	Qualitative The study was carried out in the city of Freiberg, south-west Germany. Convenience sampling was used in combination with theoretical sampling with two criteria: 1. To belong to one of the three groups of migrants this study focuses on (Turkish, Russia-Germans, and people from the Balkans) 2. To be over 18 due to adults' perceptions showing a higher consistency and constancy in their schema. In total, the sample included 30 individuals: 13 interviewees from the Turkish community, 13 Russia-Germans and 4 persons from the Balkan countries.	- Findings indicated that urban forests seemed to support a sense of belonging or at least of not being excluded from the host society. Even if they are located in the city's surroundings, forests pathways show little reminder of the German language or other cultural aspects that could induce feelings of marginality or exclusion. - All of the interviewees generally perceived other users as a positive contribution to their visit, rarely mentioning conflicts. - Although social interactions in the form of contact with other visitors were underlined by the majority of the interviewees as being a positive factor of visiting urban forests, the contact seems to have remained on a 'small-talk' level.		PRJ PR
Kuo, F. E., Sullivan, W., Coley, R. L. and Brunson, L. 1998	Fertile Ground for Community: Inner-City Neighbourhood Common Spaces	American Journal of Community Psychology 26 (6): 823-851	The formation of neighbourhood social ties through informal social contact which occurs in inner-city neighbourhood common spaces	Quantitative 1. Data were collected from a large public housing development in Chicago occupying a three-mile corridor where the buildings are identical but the amount of vegetation in neighbourhood common spaces varies considerably from building to building. 2. A final sample of 145 residents was established (out of a possible 207). 3. Two-part structured interviews were undertaken with all	- Findings showed that for 145 urban public housing residents randomly assigned to 18 architecturally identical buildings, levels of vegetation in common spaces predicted both the use of common space and neighbourhood social ties. - Use of common spaces mediated the relationship between vegetation and neighbourhood social ties. - Vegetation and neighbourhood social ties were significantly related to residents' senses of safety and adjustment.	Mentions trees specifically but does not distinguish their unique role compared to other types of vegetation. Issues of generalizability: it seems likely, as the authors point out that the relationship between greenness of common spaces and neighbourhood social ties found in	PRJ PR

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			and the role of trees and grass.	participants where they rated greenness, mood, stress and mental fatigue in the first part of the interview, and information about participants' neighbourhood social ties, sense of safety, and sense of adjustment were collected in the second part.	- Greener common spaces facilitate the development and maintenance of neighbourhood social ties because levels of vegetation in common spaces affect its use, and that use of a common space affects neighbourhood social ties by providing opportunities for informal social contact among neighbours.	this study is moderated by a number of other factors: the condition and availability of other neighbourhood common spaces, the extent to which other features of the physical environment are supportive of neighbourhood social ties, the inherent potential for neighbourhood ties in a population, and levels of resident mobility. Poor urban neighbourhoods seem likely to combine the features in which the effects of greenness on social ties are likely to be most powerful but more research is needed to test this hypothesis and to look at the implications of the findings of this study for wealthier communities.	
Maas, J., Van Winsum-Westra, M., Verheij, R. A., de Vries, S. and Groenewegen, P. P. 2009.	Is green space in the living environment associated with people's feelings of social safety?	Environment and Planning A 41: 1763-1777	Whether the percentage of green space in people's living environment affects their feelings of social safety positively or negatively. More specifically the extent to which this relationship varies between urban and rural areas, between groups in the community that can be identified as more or less vulnerable, and the extent to which different types of green space exert different	Quantitative 1. 83,736 Dutch citizens were interviewed about their feelings of social safety. 2. The percentage of greenspace in the living environment of each respondent was calculated, and data analysed by use of a three-level latent variable model, controlled for individual and environmental background characteristics.	- Social safety is defined as referring to safety resulting from human behaviour and interactions between people in public spaces. - Findings suggest that more green space in people's living environment is associated with enhanced feelings of social safety – except in very strongly urban areas, where enclosed green spaces are associated with reduced feelings of social safety. - Spaces with trees were classified as 'closed' green spaces. - Contrary to the common image of green space as a dangerous hiding place for criminal activity which causes feelings of insecurity, the results suggest that green space generally enhances feelings of social safety. - The results also suggest, however, that green space in the most urban areas is a matter of concern with respect to social safety.	The authors note some limitations of their study: - The data used for this study were not originally collected to measure the relationship between the amount of green space in people's living environment and feelings of social safety. Hence, we had to work with four-digit postcode sectors to calculate the percentage of green space which might be regarded as a rather crude measurement. Data at the neighbourhood level or six-digit postcode level would perhaps have been better, but the necessary data were not available. - The data used on green space, although assessed on a small scale do not take small green spaces in the living environment into account: only green space with a dominant position in the 25m x 25 m grid cell was regarded as `green space' in the dataset. Small bushes around a block of	PRJ

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			influences.			homes may be relevant to feelings of social safety, but were not taken into account in this study. - The measure of feelings of social safety is rather general and not necessarily related to people's direct living environment. Furthermore, the questionnaire did not provide insight into where, at what time, and why people felt unsafe. - They were only able to look at a limited set of possibly confounding environmental characteristics in this study. Furthermore, no information was available on the quality of the green areas. Specific factors like maintenance of green areas, social cohesion, and sense of anonymity may shed more light on the negative effect of closed green spaces in very strongly urban areas, and should be taken into account in future research. - Likewise, they could only investigate the relationship for some vulnerable groups (women and the elderly) in the population. Future studies should differentiate between ethnic groups, people with mental illnesses, disabled people, and lower socioeconomic groups, for example. - This study could not specify how large an area of green space is needed to enhance feelings of social safety, as the study provides insight only into the general relationship between the percentage of green space in the living environment and feelings of social safety. Future research should study in more detail how much green space is needed and	

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						the specific type of green space necessary.	
Maas, J., van Dillen, S. M. E., Verheij, R. A. and Groenewegen, P.P. 2009	Social contacts as a possible mechanism behind the relation between green space and health.	Health and Place 15 (2009): 586-595	This study explored whether social contacts are an underlying mechanism behind the relationship between green space and health.	Quantitative 1. Measurement of social contacts and health in 10,089 Dutch residents 2. The percentage of green space within 1 and 3km radius around postal code coordinates was calculated for each individual's address. 3. Adjustments were made for socio-economic and demographic characteristics	- Less green space in people's living environment coincided with feelings of loneliness and with perceived shortage of social support. - Loneliness and perceived shortage of social support partly mediated the relation between green space and health.	- While this paper discusses the role of trees, the analysis does not distinguish between types of greenspace. The authors note some limitations of their study: - The study uses objective environmental measures and while they reduce the risks of respondent bias, subjective environmental measures can also provide important information. Thus, combining objective measures and measures of individual's perception will improve our understanding of how the green environment affects social contacts. - The data used on green space, although assessed on a small scale do not take small green spaces in the living environment into account: only green space with a dominant position in the 25m x 25 m grid cell was regarded as `green space' in the dataset. Small-scale green spaces, which have been shown to influence the strength of neighbourhood social ties and informal social contacts among neighbours in underprivileged areas in Chicago, are not regarded as green space in this study because they had no dominant position in the grid cell. - Due to the cross-sectional design of the study, it is not possible to make a statement about the direction of causation. It is possible that people who like to have more social contacts chose to live in greener environments because these environments offer meeting opportunities. - The data used does not show if the	PRJ

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						social contacts of people took place in green environments. Future research should focus on whether green space in different environments is actually used as a place to meet others. - Some possibly important control variables could not be taken into account. Besides meeting opportunities, several other conditions are important for the development of local communities and social ties (such as individual motivation, community attachment, community identity, social interaction and pedestrianism) but in this study, the focus was purely on meeting opportunities in the form of a green environment. It remains unknown how the other conditions influence the relation between green space and social contacts.	
Seeland, K., Dübendorfer, S. and Hansmann, R. 2009	Making friends in Zurich's urban forests and parks: The role of public green space for social inclusion of youths from different cultures	Forest Policy and Economics 11 (2009): 10-17	An empirical study of pupils and teachers in schools in Zurich looking at leisure activities in urban forests and public green spaces and their potential to facilitate social interaction between Swiss and immigrant young people.	Quantitative (using qualitative methods to develop and test quantitative questionnaire) 1. Observation of youngsters' behaviour in green spaces. 2. Classroom group discussions and semi-structured interviews to develop and pre-test questionnaire. 3. Questionnaire survey of schools and communities with high, medium and low proportions of immigrants.	- In the forest, taking a walk, playing adventure games, cooking a barbeque and running or doing other kinds of sports are favourite activities. In parks and play grounds, playing football and meeting people rank highest. Play was found to be the predominant activity of the younger pupils, whereas socialising and talking were reported more frequently by secondary school pupils. These findings show that certain activities and interactions are supported by the place and space where they occur, and that certain patterns of outdoor leisure pursuits coincide with age. - Cross-cultural friendships in the poorest area of the town with the highest percentage of foreigners were infrequent. - Pupils in higher grades were more likely to have missed peer groups than younger children, and teenage girls especially cross barriers of ethnicity and nationality. - Outdoor contacts can be regarded as a major way for pupils to bridge the peer group divide. For both Swiss and immigrant youngsters, outdoor locations like forests, parks and playgrounds are important places for making friends. - Whereas the forest seems to be visited more frequently by Swiss pupils, parks and playgrounds are visited by foreign and Swiss pupils to the same extent, This suggests that		PRJ PR

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					these latter places have considerable potential for fostering the social inclusion of immigrants. - Youngsters' communication and recreation patterns can allow them to make friends in public urban green spaces. Such spaces are therefore important for improving the social interactions that can lead to social inclusion. Open space can be a catalyst for cross-cultural coexistence. - To bridge the cultural divide, planners in Swiss and other Western societies will have to develop the underutilised potential or urban green spaces by creating social inclusion programs that link school, green spaces and leisure activities. - In addition to cross-cultural approaches to green space design itself, proactive approaches to the socially inclusive use of green spaces are required. Such approaches can include cultural events, organized sports and leisure-time activities that attract people from various cultural backgrounds. - To make urban social policy planning more sustainable and to facilitate urban green space planning that supports a socially integrated approach, active participation in the planning process is required of every group that considers itself relevant to this process.		
Sullivan, W. C., Kuo, F. E. and Depooter, S. F. 2004	The Fruit of Urban Nature: Vital Neighborhood Spaces	Environment and Behaviour 36: 678-699	The article explores the possibility that the presence of trees and grass may be one of the key components of vital neighbourhood spaces i.e. spaces that encourage/facilitate social contact among neighbours	Quantitative: 1. Review of evidence for and against an effect of vegetation on the vitality of residential outdoor spaces. 2. Data were collected at a large public housing development in Chicago. 3. To assess the level of vegetation in the outdoor spaces 35mm slide photographs of the neighbourhood were taken from a helicopter and ground-level photos were also taken. 4. The slides were reviewed by five students in Landscape Architecture and Horticulture and each outdoor space was rated on a scale 0-4 where 0=no trees or grass and 4=a space completely covered with tree canopy. 5. A sample of 59 outdoor spaces was selected. 6. Each space was observed on four separate occasions and observations were recorded about 758 people in the spaces, their location in the space and their activity.	- The presence of trees and grass is related to the use of outdoor spaces, the amount of social activity that takes place within them, and the proportion of social to non-social activities they support. - On average 90% more people used green as opposed to barren spaces - 83% more individuals engaged in social activity in green versus barren spaces. - For females, green spaces were found to support proportionally more social activity than more barren spaces. - No significant relationship between green cover and the use of outdoor spaces for teens was found. - It seems likely that spending more time in nearby common spaces with trees and grass fosters informal face-to-face contacts among neighbours that lead to more social interaction. - Trees and grass help create vital neighbourhood spaces in inner-city settings. - The presence of trees and grass in neighbourhood spaces increases the use of those spaces and the number of individuals involved in social interactions within them.	While discussion focuses on trees, the authors talk of 'green spaces' and areas with trees interchangeably so it is not clear the distinct role of trees over 'generic' green space or if the authors only consider spaces with trees to constitute green spaces.	PRJ PR

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					- By increasing face-to-face contact and the number of individuals involved in social interactions, trees and grass in inner-city common spaces contribute to the social cohesion and vitality of a neighbourhood.		
Townsend, M. 2006	Feel blue? Touch green! Participation in forest / woodland management as a treatment for depression.	Urban Forestry & Urban Greening 5 (2006): 111-120	Pilot project in Australia intentionally engaging people suffering from depression and related disorders in supported nature-based activities in a woodland environment.	Qualitative and quantitative: Findings based on this project and three previous studies but this project involved: 1. Sampling through referral of potential participants by local medical practioners and support workers with each participant committing to at least 10 hours of supported hands-on nature-based activities 2. Key informant interviews with relevant professionals to identify barriers likely to inhibit participation in the project and to identify mechanisms for over-coming these barriers. 3. Training in 'mental health first aid' for those working with the project participants. 4. Implementation of a hands-on nature-based activity programme, including a range of activities, times and levels of engagement. 5. Provision of opportunities for participants to engage in associated social interaction, through barbecue lunches and the like. 6. Facilitation of involvement through the provision of transport and child care. 7. Process and impact evaluation (including pre- and post-measures, based on a range of validated scales). Formal recognition of the contribution of the project participants to the maintenance of the area through the presentation of certificates of acknowledgement.	- There appears to be potential for the use of civic environmentalism to promote health, wellbeing and social connectedness for individuals and the wider population, as well as for groups with identified health vulnerabilities. - However, the realisation of the benefits of such an approach will be dependent on co-operation between the environment and health sectors to create and promote opportunities for increased civic environmentalism, and to identify and address the barriers to their effective use.	- Doe not establish why woodland is any different/better than any other green space. - Does not provide evidence about the relative contributions of social relationships and exposure to nature. - Limited quantitative/control group data and findings largely based on self-reporting of benefits from participants	PRJ PR
Westphal, L. M. 2003	Urban Greening and Social Benefits: A study of empowerment outcomes	Journal of Arboriculture 29 (3): 137-147	The paper provides a framework in which to consider social benefits of urban and community forestry projects.	Qualitative. 1. Semi-structured interviews were undertaken with residents involved in Chicago's Greencorps programme [a technical assistance programme for Chicagoans interested in landscaping projects in their neighbourhood] living in four residential blocks in Chicago. Two of these Greencorps project sites had been deemed a success by Greencorps staff in terms of social benefits and two were had not. In the interviews the respondents were asked about the photos they had taken (see point 2). 2. Photo elicitation (a research technique that uses photographs as a part of the data gathering process). Respondents were given a single-use camera and asked to take ten pictures of things they thought had changed for the	- Empowerment outcomes from urban and community forestry are possible but far from a given. - Local organizers need to be not just empowered but empowering, drawing on their neighbours' strengths and fostering productive involvement in the local area. - Different types of projects may be empowering for an individual or group at different points in their development. - It can be useful to form a network with other community development projects, programmes or groups. - Urban and community forestry plays a key role in enhancing quality of life. This role can be furthered by careful thought and planning regarding the myriad potential social benefits available through urban and community greening processes. - Through enhanced experiences of green landscapes and		PRJ PR

AUTHOR /S & DATE	DOCUMENT TITLE	PUBLICATION / PUBLISHER AND LINK	FOCUS	METHODS	FINDINGS/CONCLUSIONS – ESPECIALLY THOSE RELATED TO TWF	QUALITY OF EVIDENCE / GAPS / COMMENTS	CODE
				better or worse on the block over the last five years. 3. Both the photos and the interviews about the photos were analyzed using empowerment theory.	programmes fostering active involvement in urban greening, urban and community foresters can be a very real part of the solution to difficult social issues faced by communities large and small.		

2. Programme Inventory

Introduction

This section identifies urban regeneration, place-shaping and place-making programmes in Great Britain in which trees, woods and forest play the main role. It concentrates on programmes and does not include individual small-scale projects because resources would not allow for such a comprehensive study which would inevitably include hundreds if not thousands of entries. For the same reasons, it does not include regeneration, place-making or place-shaping programmes where trees and woods are not the main focus. An example of such a programme might be the Heads of the Valleys Programme in Wales, a 15 year regeneration strategy running from 2006, in which there will be a forest/woodland component but it will not be the main focus.

The intention is to provide a snapshot of some of the major programmes which have been undertaken or are still ongoing which have utilised trees and woods for social regeneration, place-making and shaping benefits. This section of the inventory is broken down into three tables, one for each of the countries, England, Scotland and Wales.

The table of programmes relating to England is broken down into two sections, the first focuses on Community Forests with the whole national community forests programme listed initially, followed by a breakdown of the twelve different community forests which were created as part of this programme since they individually also constitute programmes by the definition used in this report (see introduction). The second section focuses on six other urban regeneration or place-making programmes within England which focus on trees and woodland.

The table of programmes relating to Scotland has six entries, including three relating to different phases of one programme – Woodlands in and Around Town, while the Wales table has two entries.

2.1 England

PROJECT NAME AND DATE	DESCRIPTION / OBJECTIVES	AREA	LEAD BODY	PARTNERS	FUNDING	ROLE OF FC	ACHIEVEMENTS	MONITORING / EVALUATION AND EVIDENCE PRODUCED	CONTACT / LINK
COMMUNITY FORESTS									
Community Forests. 1990 onwards	The Community Forest programme was established by the then Countryside Commission as a pilot project to demonstrate the potential contribution of environmental improvement to economic and social regeneration. The three initial pilots quickly grew to a national programme of twelve forests, which made use of broad-based partnerships to pioneer activity and deliver lasting change. 8 survive as of October 2010. The shared objectives of the forests were: - Economic regeneration (improving image of areas) - Economic development (employment and rural diversification) - Social welfare (through education, health and recreation opportunities) - Environmental improvements (remediation of derelict land, creating new habitat, tackling climate change). The founding basis for each Forest is a government-approved Forest Plan, a 30-year vision of landscape-scale improvement.	England's Community Forests are located in and around the largest towns and cities.	Originally the Countryside Commission	Each Community Forest is a partnership between local authorities and local, regional and national partners including the Forestry Commission and Natural England.	Initially, core funding was provided in part by central government via the Countryside Commission Countryside Agency and Forestry Commission. Countryside Agency funding ended in 2005 and Forestry Commission funding ended in 2007. Since then Community Forests have become more independent of national funding bodies but as a result, at least in part, 4 have ceased to exist. All together the Community Forests have secured an investment of over £175 million.	Partner and funder up to 2007.	- Planted over 10,000 hectares of new woodland - Brought more than 27,000 hectares of existing woodland under management - Created or improved 12,000 hectares of other habitats - Planted or restored 1,200 kilometres of hedgerows - Opened up 16,000 hectares of woods and green-space for recreation and leisure - Restored or created more than 4,000km of footpaths and cycle routes - Engaged and involved hundreds of thousands of people in finding out about and improving their local areas. - Secured investment of over £175 million to improve people's quality of life.	All community forests in England report on 7 priorities agreed by DEFRA: 1. Creating woodland of more than 20ha or less than 20ha meeting locational requirements, i.e. close to housing 2. Securing access to and good management of existing woodland 3. Creating or re-opening good quality walking/cycling/riding networks for leisure/community use 4. Securing involvement through community participation 5. Securing financial and in-kind investment 6. Creating woodland, other than that included in Priority 1 that has landscape, heritage or biodiversity value 7. Securing landscape, heritage and biodiversity benefits in non-woodland habitats A monitoring report was produced for the national Community Forest programme in 2004 (www.communityforest.org.uk/resources/monitoring_report.pdf) , and an evaluation report in 2005 (www.communityforest.org.uk/resources/evaluation_report.pdf) See also Lawrence, A., Anglezarke, B. Frost, B, Nolan, P. and Owen, R. 2009. What does Community Forestry mean in a devolved Great Britain? International Forestry	www.communityforest.org.uk

PROJECT NAME AND DATE	DESCRIPTION / OBJECTIVES	AREA	LEAD BODY	PARTNERS	FUNDING	ROLE OF FC	ACHIEVEMENTS	MONITORING / EVALUATION AND EVIDENCE PRODUCED	CONTACT / LINK
								Review 11 (2): 281-297.	
Red Rose Forest. 1991 onwards.	The most urban-focused of the 12 original Community Forests in England (there are now only 8 remaining). It includes a street trees project. Objectives: To increase tree cover, encourage investment and visitors and play a vital role in making the North West of England a greener more rewarding place to live, work, visit and do business. The Red Rose Forest Plan is for 40 years and part of the Red Rose Forest mission is to plant 25 million trees over that time as the first step towards a full programme of regeneration and renewal of Greater Manchester.	Greater Manchester (250 square miles)	Red Rose Forest Partnership	FUNDING PARTNERS: Core funding: - MBC Bolton - MBC Bury - MBC Trafford - MBC Wigan - City of Manchester - City of Salford Project funding: -North West Regional Development Agency - United Utilities - Natural England - Forestry Commission - Greater Manchester Waste Disposal Authority - Others OTHER PARTNERS - 7 local authorities - 7 government agencies - 7 environmental organisations - 11 private sector supporters - 3 media and marketing organisations - hundreds of smaller organisations - volunteers	Secured £38m worth of investment	Partner	Since 1992: - 1,183ha of new woodland affecting over 1.5 million people - Opened up 1,900ha of woodland for public access - Secured £38m worth of investment Since 2001: - Over 2,000 street trees on over 100 streets planted Between 2005-2007: - Over 1,000 community events held, involving 1,000s of people Green Tips project has carried out extensive work to reduce anti-social behaviour, improve access and security, and turn old landfill sites into beautiful, safe community woodlands. In 2007: - Produced the 1st directory of biomass fuel suppliers in the North West.	"Not as much as we would like". There has been no structured evaluation of the street trees project. Red Rose Forest has been a longstanding successful initiative, lasting since 1991. As such there is a wealth of expertise here in terms of how to work in partnership with a range of bodies, secure funding, and engage the community.	http://www.redroseforest.co.uk
The Mersey Forest. 1994 onwards.	The largest of the Community Forests in England. TMF is both a concept and an area within which all will work in partnership to transform the landscape through woodland planting and the creation of associated habitats to produce long term sustainable benefits for the economy, people and wildlife. The aim of The Forest Partnership is to create 8,000 ha of new community woodlands and deliver a wide range of associated environmental, economic and	Merseyside and North Cheshire (465 sq miles)	The Mersey Forest Company	FUNDING PARTNERS: - Cheshire County Council - The City of Liverpool - 7 Borough Councils - FCE - Natural England - Northwest Development Agency - Environment Agency - United Utilities OTHER PARTNERS - A wide range of public,			- More than 6,000 ha of new woodland and improved habitats - More than 70% of the woodlands in TMF have been brought into management -Reclaimed 700ha of brownfield land - Created over 120 jobs - Boosted property prices - Involved 1,000s of local people in local forestry projects - Involved over 100 schools in improvements in their play areas - Over 2,500ha of new community	In 2007 an independent comparator study into the impact of The Mersey Forest was published http://www.merseyforest.org.uk/files/1213.018 FINAL REPORT.pdf In early 2008 the Mersey Forest Awareness Survey was published http://www.merseyforest.org.uk/files/MERSEY FOREST BENCHMARK REPORT.doc	http://www.merseyforest.org.uk/pages/us_overview.asp

PROJECT NAME AND DATE	DESCRIPTION / OBJECTIVES	AREA	LEAD BODY	PARTNERS	FUNDING	ROLE OF FC	ACHIEVEMENTS	MONITORING / EVALUATION AND EVIDENCE PRODUCED	CONTACT / LINK
	social benefits through sustainable landscape improvements to The Mersey Forest area over the 30-year period of the development of The Forest.			private and voluntary sector organisations			woodland - 1100ha of other habitat created - Woodland cover has been increased by 63% across the Forest area. - Woodland creation has been used as a catalyst for over 10,000 community events involving hundreds of thousands of people.	In October 2009, Regeneris Consulting produced an evaluation of 'The Economic Contribution of The Mersey Forest's Objective One-Funded Investments' which estimated that on an annual basis, a gross monetised benefit of £5.5 million (in 2009/10 prices) and a net additional monetised benefit of £2.0 million once displacement effects have been taken in to account. On a net present value basis this equates to around £71 million. http://www.merseyforest.org.uk/files/Economic%20Contribution%20report%20and%20appendices.pdf Other Mersey Forest documents and studies can be found at http://www.merseyforest.org.uk/pages/us_documents.asp	
Thames Chase Community Forest. 1990 onwards	Thames Chase is one of the original 12 Community Forests (only 8 remain) in England. It is a partnership project with a long term aim 'To renew and regenerate the landscape at the edge of East London and South Essex by creating Thames Chase, the Community Forest: a varied wooded landscape for local people to influence, create, use, enjoy and cherish'. It's target is to increase woodland cover in the Thames Chase are to 30% by 2030, from just 8% cover when Thames Chase was established in 1990. This will require the planting of 5.5 million trees on some 2,000ha of land. The work of Thames Chase falls into six key areas: 1. Creating new woodlands 2. Managing existing woodlands 3. Creating and improving access	40 square miles (104km^2) of green belt land in East London and South West Essex, around the towns of Upminster, Romford, Dagenham, Grays and Brentwood		The formal partnership consists of five local authorities (Essex County Council, Thurrock Council, London Borough of Barking and Dagenham, Brentwood Borough Council and London Borough of Havering). They are supported by the Forestry Commission as the national agency that promotes community forestry.	Previously it was funded by the local authorities and the FC but as of the end of March 2007 the FC no longer provides funding and the Thames Chase Trust has been formed.	Partner	Between 2000 and 2003, the Forestry Commission invested round £3.6million in Thames Chase. In these three years, the Commission acquired over 330ha of land, planted 400,000 trees and built 24km of accessible paths. This was over a total of 10 sites.	In 2009, a 3-year project was initiated by Forest Research (funded by Forestry Commission England) to capture the contribution that trees, woods and forests make to the quality of life of people living and working in the vicinity. Ingrebourne Hill Community Woodland (part of Thames Chase Community Forest) is one of three flagship case study sites chosen for this project. A report has been produced which presents the results of research undertaken at Ingrebourne Hill in 2008 to establish baseline values for indicators related to the Quality of Place and Quality of Life objectives set out under Aim 4 of	http://www.thameschase.org.uk/

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	4. Involving local people 5. Conserving and enhancing the natural environment 6. Working in partnership and attracting funding							the Strategy for England's Trees, Woods and Forests and Forestry Commission England's corresponding Corporate Plan. http://www.forestresearch.gov.uk/pdf/CSR07_Ingrebourne_Hill_0809.pdf/	
South Yorkshire Forest. 1991 onwards	The South Yorkshire Forest works to deliver a comprehensive regeneration package for the South Yorkshire area. It plants trees, but it also work with local authorities and local industries to promote sustainable use of resources, with communities to educate and encourage healthy, sustainable enjoyment of their green spaces and wildlife and with businesses to develop attractive settings for investment.	Over 200 square miles of South Yorkshire's urban and rural landscape.		Forestry Commission, Objective 1, Rotherham and Barnsley Metropolitan Councils, Sheffield City Council		Partner			
The Greenwood Community Forest. Early 1990s onwards	The Greenwood Community Forest Partnership works to enable Nottinghamshire's communities to create, improve and enjoy woodlands and other high quality accessible green spaces in a sustainable way that benefits the environment, landscape and the local economy. Mission: To work in partnership to enable Nottinghamshire's communities to create, care for and to use woodlands and other high quality accessible green spaces in a sustainable way that benefits the environment, landscape and the local economy. Strategic Aims: *1. Green infrastructure* To develop a strategic approach to green space provision for multiple public benefits, with Greenwood being recognised as a leader for this approach within the East Midlands	161 square miles of Nottinghamshire.		Nottinghamshire County Council, Ashfield District Council, Broxtowe Borough Council, Gedling Borough Council, Mansfield District Council, Newark and Sherwood District Council, The Forestry Commission, Natural England.		Partner	- Over 1300 hectares (3,200 acres) of new woodland has been planted. That's over 3.5 million trees. - Around 900 hectares (2,200 acres) of existing woodland has been brought into management and 300 hectares (7,400 acres) of woodland has been opened for recreation and access. - Over 350 km (210 miles) of hedgerows have been created or restored. - Over 1,200 hectares (3,000 acres) of heaths, limestone grasslands and wetland areas have been created or improved to benefit biodiversity and heritage. - 950 km (590 miles) of routes have been opened up or improved and more than 8,300 community events have taken place. These have included school visits to use the Community Forest as an outdoor classroom.	Greenwood Good Practice Guide: Examples of innovative projects that are helping create the Greenwood Community Forest http://www.greenwoodforest.org.uk/images/content/pdfs/Good%20Practice%20Guide.pdf Park Life Report http://www.greenwoodforest.org.uk/images/content/pdfs/park_life_report.pdf	www.greenwoodforest.org.uk

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	2. Landscape regeneration To facilitate new woodland planting and other landscape change, taking into account the green infrastructure strategy and the needs of biodiversity, landscape character and adaptation to climate change. *3. Caring for greenspace* Support partners in managing and promoting local greenspaces to improve their quality and to gain a greater recognition of their many benefits for the community. *4. Community engagement* Champion the involvement of volunteers and community groups in caring for greenspace. *5. Access for all* Encourage wider participation and enjoyment of the countryside from under-represented and disadvantaged groups *6. Health* Encourage more people to use greenspace for physical activity and so to gain health benefits *7. Woodland economy* Stimulate new ways of gaining financial benefit from woodlands, to support the local economy and encourage sympathetic woodland management. *8. Climate Change* Assist in the process of adapting to the consequences of climate change *9. Promoting the partnership* Increasing recognition of Greenwood's value and achievements, particularly to support further funding bids. *10. Sustaining the partnership* Securing increased funding from a wider range of sources, to allow partners to deliver additional benefits for the environment and community.								
Forest of Mercia. Early 1990s	The Forest of Mercia aims to: 1. Improve the Environment 2. Regenerate Communities	92 square miles of South		Natural England, Forestry Commission, Staffordshire Country Council, Cannock	From all partners.	Partner	Annual Figures for 2008-2009: - Woodland creation 2ha (target 3)	Annual Review 2008/2009 http://www.forestofmercia.org.uk/NR/rdonlyres/11D0CCA5-922A-	http://www.forestofmercia.

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onwards	3. Enhance Quality of Life This is achieved through work on the ground, encouraging involvement and inclusion and through regional awareness raising and influencing. COMMUNITY - Encouraging local residents to benefit from the environment on their doorstep, through recreation, enjoying the wildlife, through volunteering, or through simply having fun! EDUCATION - Using the natural environment as a sound basis for learning, to encourage an understanding of trees, woodlands and forestry and of the wider environment FORESTRY - Working together to plant and manage new and existing woodlands, for today, for the future and for the benefit of us all	Staffordshire and parts of the West Midlands		Chase Council, Lichfield District Council, South Staffordshire Council, Walsall Metropolitan Borough Council.			- Woodland Management 47 ha (target 40) - Habitat creation 1.75 ha (target 3) - Habitat management 8.5 (target 30) - Number of Street/Urban Trees planted 756 (target 500) - Number of Health Events 5 (target 10) Number of Education Events 23 (target 20) - Number of Community Events 44 (target 30) - Number of Volunteer days 195 (target 150) - Access Improvements or Creation (Linear Metres) 11,630 (target 5,000) - Attendance of Young People on the Education Inclusion Project (based on percentage of those attending project) 93% (target 90%) - Education / Vocational attainment of the Young People on the Education Inclusion Project (based on percentage of trainees achieving units towards N.V.Q. qualifications or equivalent) 100% (target 90%)	4437-919D-05B0FDCFA0A5/122465/ForestofMerciaAnnualReview20082009.pdf	org.uk
Great Western Community Forest 1994 onwards	GWCF is creating high-quality environments for local people by diversifying land-use, revitalising derelict landscapes, enhancing biodiversity and providing new opportunities for leisure, recreation, cultural activity, education, healthy living and social and economic development. GWCF plays a crucial role in contributing to sustainable development in Swindon, the urban fringes and in the varied and beautiful surrounding countryside. Aims: 1. Create a multi-purpose forest embracing Swindon and its environs, with a rich mixture of woods, farmland, open spaces, towns and villages. 2. Increase tree cover within the forest area	168 square miles stretching from Wootton Bassett to Faringdon and the North Wessex Down to the Thames.							http://www.forestweb.org.uk/gwf-index.htm

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	until it reaches an average of 30% 3. Encourage community involvement in the creation and maintenance of the forest and to instil a strong sense of local identity within the region. 4. Maintain and enhance biodiversity within the forest. 5. Maximise public access to the forest for work and leisure 6. Encourage sustainable development within the forest area, including employment opportunities that make use of the forest itself. 7. Improve the overall quality of the landscape within and surrounding Swindon in particular, so that people from the town and its surrounding villages will want to use, cherish and enjoy the area.								
Forest of Avon. 1992 onwards	The Forest of Avon works with people across the West of England (formerly Avon) to champion trees and plant more of them to maintain and improve the quality of life in the area. It aims to deliver a comprehensive package of urban, economic and social regeneration, creating high-quality environments for millions of people by revitalising derelict land, providing new opportunities for leisure, recreation, and cultural activities, enhancing biodiversity, preparing for climate change and supporting education, healthy living and social and economic development.	221 square miles. West of England sub-region, formerly Avon (includes Bristol, Bath, Weston-super-Mare and Chipping Sodbury)	The Forest of Avon Trust	Avon Wildlife Trust, Bath and North East Somerset Council, Bristol City Council, BTCV, Environment Agency, Forest of Avon Products, Forest of Avon Trust, Forestry Commission England, Farming and Wildlife Advisory Group, The National Trust, Natural England, NHS, North Somerset Council, South Gloucestershire Council, Woodland Trust.	In 2008/09 the forest was funded largely by the local unitary authorities and grant programmes, plus some additional corporate support. A Forest of Avon Trust has now been established to support the aims of the Forest of Avon and secure additional funding and resources.	Partner	- Over 1million trees planted. - 1000s of hectares of woodland brought into management - Over 1000km of local paths improved.	Forest Schools Evaluation http://www.forestofavon.org.uk/sites/default/files/Forest%20School%20Evaluation%20Project.pdf Annual review 2008/2009 http://www.forestofavon.org.uk/about/news/annual-review	www.forestofavon.org.uk
The Great North Forest. 1990 – No longer exists	The Great North Forest was the first of England's Community Forests.	96 square miles of South Tyne and Wear and		Local government and central government partners including, Forestry Commission, Sunderland City Council,	As of October 2006 £22 million investment from public, private and voluntary sectors.		By October 2006: -Over 2 million trees planted and delivered over 1200 ha of new woodland - Brought over 1300 ha of existing		

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		North East Durham		Chester-le Street District Council, Derwentside District Council, Durham County Council, Gateshead Council, South Tyneside Council.			woodland into sustainable management - Improved 1600 ha of paths and recreational routes - Developed a wide range of local recreational facilities		
Forest of Marston Vale. 1991-2008? No longer exists		61 square miles of Bedfordshire	Marston Vale Trust	Marston Valley Trust, Office of the Deputy Prime Minister, Department of Communities and Local Government, Landfill Communities Fund, the Millennium Commission, Bedfordshire County Council, Mid Bedfordshire District Council, Bedford Borough Council, Natural England's Aggregates Levy Sustainability Fund, Cranfield Parish Council and Houghton Conquest Parish Council	Funding of over £20 million has been brought into the Marston Vale since 1991. In 2004 the Marston Valle trust was awarded a total of over £2.9 million from the Office of the Deputy Prime Minister. In 2006, the Department for Communities and Local Government approved a £2.3 million bid from the Forest. Funds, support and resources (such as staff) have also come from the landfill Communities Fund, the Millennium Commission, Bedfordshire County Council, Mid Bedfordshire District Council, Bedford Borough Council, Natural England's Aggregates Levy Sustainability Fund, Cranfield Parish		By 2008 it had: - Planted over a million trees - Planted or restored over 50 km of hedgerow - Created 75km of conservation field margins to benefit farm wildlife - Launched 6 Forest Trails - Brought 300 hectares of existing woodland into management - Created numerous schemes to improve village environments		http://www.marstonvale.org/index.html

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					Council and Houghton Conquest Parish Council				
Watling Chase Community Forest. 1991 - ? No longer exists as re-absorbed into Hertfordshire County Council's countryside and environment structure, delivering its Forest Plan through internal projects and the local Groundwork Trust.		72 square miles in south Herefordshire and north London around the towns of Potters Bar, St Albans, Bushey, Borehamwood and Barnet.		Countryside Management Service, the Countryside Agency, Forestry Commission, Herefordshire County Council, Hertsmere Borough Council, City and District of St Albans, Welwyn Hatfield Council					
The Tees Forest. 1991 - ? No longer exists.	The Tees Forest aimed to use multipurpose forestry to improve the countryside in and around the towns and villages of Teesside, creating a well wooded landscape for work, wildlife, recreation and education.	350 square kilometres from the five local authority areas of Middlesbrough, Hartlepool, Redcar and Cleveland, Stockton-on-Tees, and Darlington.							
OTHER PROGRAMMES									

PROJECT NAME AND DATE	DESCRIPTION / OBJECTIVES	AREA	LEAD BODY	PARTNERS	FUNDING	ROLE OF FC	ACHIEVEMENTS	MONITORING / EVALUATION AND EVIDENCE PRODUCED	CONTACT / LINK
Newlands. 2003 onwards	Large-scale regeneration project in the North West, aiming to regenerate brownfield land. Objectives: To reclaim large areas of derelict, underused and neglected land across England's Northwest and transform them into thriving, durable community woodlands	900ha of North West England	FCE	FUNDING PARTNERS: - FCE - Northwest Regional Development Agency OTHER PARTNERS: - The Red Rose Forest - The Mersey Forest - The Pennine Edge Forest - Groundwork Northwest - BTCV - The Land Restoration Trust	£59m (£23m first phase, a further £36m agreed in 2007)	Lead	GIS methodology combining social, economic and environmental factors to provide an evidence based sifting and targeting programme for investment developed: the Public Benefit Recording System (PBRS) http://www.pbrs.org.uk/ At April 2009 347 hectares regenerated. Over £15.2 million invested in creating quality environments in the Northwest from October 2002 – April 2009 Eight projects implemented to April 2009 Average capital cost per hectare approximately £37,000	17 success measures or indicators have been established to help define the social impact of new Newlands' community woodlands and evaluate what has worked well and what could be improved. These are detailed in the reports listed below. Social baseline evaluations have been undertaken for 8 sites for the period June – October 2008: Measuring the social impact of Bidston Moss community woodland. November 2007 – January 2008 http://www.newlandsproject.co.uk/a/Social%20Indicators%20Report%20-%20Bidston%20Moss.pdf Measuring the social impact of Brickfields – a new community woodland. June – October 2008 http://www.newlandsproject.co.uk/a/Social%20Indicators%20Report%20-%20Brickfields.pdf Measuring the social impact of Town Lane – a new community woodland. June – October 2008 http://www.newlandsproject.co.uk/a/Social%20Indicators%20Report%20-%20Town%20Lane.pdf Measuring the social impact of Moston Vale – a new community woodland. June – October 2008 http://www.newlandsproject.co.uk/a/Social%20Indicators%20Report%20-%20Moston%20Vale.pdf Measuring the social impact of LIVIA Salford – a new community	Newlands Project Development Officer: Adam.Davison@forestry.gsi.gov.uk http://www.forestry.gov.uk/newlands http://www.newlandsproject.co.uk

PROJECT NAME AND DATE	DESCRIPTION / OBJECTIVES	AREA	LEAD BODY	PARTNERS	FUNDING	ROLE OF FC	ACHIEVEMENTS	MONITORING / EVALUATION AND EVIDENCE PRODUCED	CONTACT / LINK
								woodland. June – October 2008 http://www.newlandsproject.co.uk/a/Social%20Indicators%20Report%20-%20LIVIA%20West%20-%20Salford.pdf Measuring the social impact of LIVIA Bury – a new community woodland. June – October 2008 http://www.newlandsproject.co.uk/a/Social%20Indicators%20Report%20-%20LIVIA%20East%20-%20Bury.pdf Measuring the social impact of Brockholes Wetland and Woodland nature Reserve. June – October 2008 http://www.newlandsproject.co.uk/a/Social%20Indicators%20Report%20-%20Brockholes.pdf Measuring the social impact of Belfield – a new community woodland. June – October 2008 http://www.newlandsproject.co.uk/a/Social%20Indicators%20Report%20-%20Belfield.pdf A report has also been produced titled: Newlands Green Streets: pilot project. Evaluation Report April 2009 Some economic baseline work has also been undertaken.	
Black Country Urban Forest. 1995 – 2000?	The Black Country Urban Forest is a mosaic of trees and woods in the spaces between buildings and other urban land uses. Consequently, the new woodlands are, on average, relatively small with a range from 0.1ha to 6ha. Objective: To make urban forestry the	West Midlands conurbation, including Wolverhampton and the	The Black Country Environmental Partnership	FUNDING PARTNERS: - Millennium Fund - Wolverhampton MBC - Walsall MBC - Dudley MBC - Sandwell MBC - National Urban Forestry Unit	£4.2m funding received in 1995 from the Millennium Commission and match funded for each project by various agencies	Partner	Brought over 900ha into sustainable management – including the planting of street and garden trees, new woodland and managing existing woodland tree planting, woodland management, local events and activities. Support for woodland based businesses. Biodiversity studies.	Johnston, M. 2002. A Review of the Black Country Urban Millennium Programme, 1995-2001. Arboricultural Journal 26: 111-139	

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	characteristic landscape of the Black Country. Aims to plant or bring into sustainable management 900ha of woodland in the Black Country by the year 2000. This Target: to plant 1 million trees in the area by the Millennium	metropolitan boroughs of Dudley, Sandwell and Walsall		- Wildlife Trust for Birmingham - BTCV - Groundwork Black Country OTHER PARTNERS: - Local communities			It that it is now unclear who is responsible for the trees that were planted as part of the Black Count Urban Forest programme and many believe their ownership has returned to the owners of the land on which they grow. http://en.wikipedia.org/wiki/Black_Country_Urban_Forest		
Capital Woodlands Project. 2006 – 2009.	A 3-year London Biodiversity Partnership programme of work which aimed to improve London's woodlands for all its citizens and sought to raise appreciation of London's woodlands and increase public benefit and participation by undertaking access, biodiversity, community and training work both in six 'flagship' woodlands and throughout the capital. Key areas of work are the dissemination of good practice in the management of London's woodlands, training in woodland management skills, strengthening links between woodlands and communities, supporting the educational use of woodlands in London, and the support and recruitment of woodland conservation volunteers.	London	Trees for Cities	Trees for Cities, the Greater London Authority, the Forestry Commission, BTCV, the London boroughs of Bromley, Corydon, Haringey, Merton and Redbridge, and the Peabody Trust.	£999,500 Heritage Lottery Fund	Partner	- More than 2,000 people engaged though woodland fun days. - At least 6,000 volunteer days at over 100 sites, worth around £300,000 to London's woodlands - At least 134 hectares of woodland improved - Over 5,000 school children participating - Over 50% long tern unemployed trainees now with job outcomes following woodland management course.	Capital woodlands – the highlights: http://www.capitalwoodlands.org/site/download/13 Social Dynamics of London's Trees, Woodlands and Green Spaces: http://www.capitalwoodlands.org/site/download/17	capitalwoodlands@treesforcities.org
South Yorkshire Coalfield Restoration project. 2001 - 2005	The South Yorkshire Coalfields Restoration project was part of the Government's National Coalfields Programme and the objectives of the initiative were to encourage and provide: - urban greening - conservation management - social enterprise - recreation and educational resources - timber production Following on from the restoration and regeneration, community engagement work was initiated to encourage a sense of ownership of the sites, provide a recreational resource and physical and mental health and well-being benefits to	Over 400ha of brownfield land in South Yorkshire	Yorkshire Forward	Barnsley Metropolitan Borough Council, Doncaster Metropolitan Borough Council, Rotherham Metropolitan Borough Council, Sheffield City Council, Yorkshire Forward, Objective 1, Renaissance South Yorkshire, English Partnerships, Forestry Commission, Land Restoration Trust, Groundwork Dearne Valley	£56 million. On the majority of sites, the restoration was funded by the regional development agency, Yorkshire Forward through English Partnerships. The land ownership then passed to the Land Restoration Trust who fund the Forestry Commission to manage and maintain the sites through a dowry	Partner - the FC has: provided restoration advice and guidance; supervised and monitored restoration, infrastructure	- The successful restoration of over 400 hectares of brownfield land. Former spoil heaps have been transformed into a mix of woodland, grassland, wetland for wading birds, water margins, open water and read beds. - Local people now have access to an additional 460ha of Community woodlands, planted with deciduous and coniferous trees. - Green Gym: two groups meet weekly, with an open session that involves Doncaster Millennium Volunteers and Cherry Grange Rehabilitation Centre. - Goldthorpe Salvation Army Youth Group participates in orienteering, outdoor sports and educational activities	Regenerating the English Coalfields – interim evaluation of the coalfield regeneration programmes http://www.communities.gov.uk/publications/citiesandregions/regeneratingenglish South Yorkshire Community Rangers www.forestry.gov.uk/forestry/INFD-7D4G82	

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	local people, to provide educational opportunities for schools and other learning groups, and increase partnership working in the area, and to increase partnership working in the area and encourage social enterprise.				from English Partnerships. The exception is Edlington Colliery where the site restoration was funded through a coal washing scheme by Ogdens in conjunction with the Forestry Commission and Doncaster Metropolitan Borough Council. The ongoing maintenance and management are funded jointly by the Forestry Commission and Doncaster Metropolitan Borough Council.	construction and greenspace establishment; managed aftercare contracts; carried out wide scale community engagement and educational activities and provided staff to patrol and manage sites and work with local communities.	at Thurnscoe Community Woodland, in return for litter picking. - The art project Woodland Wishes works with schools from Dinnington, with children writing a wish e.g. 'I wish there were more places for birds to nest'. The wishes are planted on-site and they get involved in making the wishes come true. Schools, user groups and local artists have also worked together to design and create sculptures based on local history and wildlife. - Artwork designed by primary schools and painted by local youth groups has been used to produce murals to decorate a climbing wall, create an 'art gallery' in the forest, and revitalise two underpasses on the sites. - Community Rangers actively encourage local people to use the woodlands for self-led events e.g. sponsored walks and the 'big sit in' to record bird species. - Children learn about growing plants in the Sunflower Garden. - The Rangers also provide activities during the school holidays – such as Easter eggstravaganzas, shelter building, minibeast hunts and music events. - Community Rangers arrange sessions for students known for anti-social behaviour on practical conservation, teambuilding and survival skills to increase understanding of the woodland environment. Groups of 12 year olds, suspended from school up to 13 times for physical and verbal abuse, attend weekly sessions on condition that they are well-behaved at school all week. - Long-distance and 'teatime walks' and 'Walking to Health' events are offered in a physical activity programme for people of all ages and fitness levels.		

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							- Rangers provide information, dog food and questionnaires for dog walkers at Dog Pit Stops to get feedback on the site from regular users.		
The China Clay Heathland and Woodland Projects. 1997 - 2004	The china clay company, IMERYS own most of the china clay area in Cornwall. With support from others, IMERYS undertook a major landscaping scheme on their land to recreate areas of lowland heath, restore other heathland areas and carry out an extensive tree planting project. This has consisted of two projects: The Woodland Project and the preceding Tomorrow's Heathland Heritage project The woodland project aimed to - plant a total of 339ha of new native woodland - restore 325ha of existing woodland to native woodland - convert 116ha of old shelter belts to native woodland - remove invasive shrub species such as Rhododendron, Japanese knotweed, gorse and bracken - provide 11.9km of new and improved access routes for walkers, cyclists and horse riders.	The centre of Cornwall, to the north of St Austell	Natural England	IMERYS, DEFRA, English Nature, Forestry Commission, district and city councils	Funding for the scheme has been provided by IMERYS, DEFRA, English Nature, Forestry Commission, district and city councils, with a further £2.4M from the Heritage Lottery Fund.	Partner	Heathlands project: 750 hectares of lowland heathland was restored on former mining sites Woodland project: - Over 1 million trees planted. - 380ha of new native broadleaf woodland on non-agricultural land - 440ha of existing woodland restored - 116 ha of non-native shelterbelts converted to native woodland. 11km of new and improved footpaths and bridleways created		
Nottinghamshire Coalfield Restoration – Greening the Coalfield project and community engagement through Community Rangers. 1997 – 1999 Tree-planting and	The restoration (through the planting of 2 million trees) of 14 Nottinghamshire coalfield colliery tips over eight different sites covering 2,050 acres (around 830ha). The scheme was a result of British Coal's obligation to restore colliery tips following the closure of Nottinghamshire's coalfields. All the land was transferred from British Coal to Notts County Council who own it indefinitely. After the trees and other habitats were established, the management of the sites, except Cotgrove, were taken on	830ha of Nottinghamshire coalfields (Manton, Bevercotes, Cotgrave, Sherwood, Shirebrook, Bidworth and Silverhill)		Greening the Coalfields: Nottinghamshire County Council, Forestry Commission, British Coal Community Engagement: Notts County Council, Sherwood Forest Trust, Greenwood Community Forest, Newark and Sherwood District Council, Forestry Commission.	£14 million from British Coal for Greening the Coalfields. Community Rangers - £800,000 project. £450,000 from CRT, Alliance Sub-regional Strategic Partnership and Heritage Lottery Fund in spring 2001 and four Community Rangers were	Partner – worked with British Coal and the County Council to design the restoration scheme for each site and	Over 2000 acres of spoil heaps restored: 30 miles of woodland tracks created, 25 acres of heathland created and 1.3m trees planted. Infrastructure was installed – footpaths, car parking and benches – to enable access for the 12 communities living nearby. By 2007 the community engagement work had achieved the following: - Approximately 100 volunteer days per year - Approx. 500 school pupil visits per year	Regenerating the English Coalfields – interim evaluation of the coalfield regeneration programmes http://www.communities.gov.uk/publications/citiesandregions/regeneratingenglish Nottinghamshire Community Rangers http://www.forestry.gov.uk/pdf/em-casestudies-nottscommunityrangers.pdf/$FIL	Jo Lindsay jo.lindsay@forestry.gsi.gov.uk

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restoration of coalfields. 2001 onwards, community rangers project (although project-specific funding ended in 2006)	by the Forestry Commission on 999 year leases. Four of the sites were in the Greenwood Community Forest (also listed in this inventory). Benefits the scheme hopes to achieve were: - Economic regeneration – through inward investment and timber production - Social – more attractive areas for public use, an increase in the area of land available to the public, and improved public access. - Environment – visual environmental improvements through creating an attractive mix of native broadleaf species that will encourage a wide variety of wildlife - New technology – new technology for decompacting the shale and placing the soil was developed as part of the project. Following on from the 'Greening the Coalfield' scheme, the Forestry Commission, Notts County Council and Sherwood Forest Trust agreed to work together to manage the sites, including the provision of Community Rangers to facilitate local involvement in the management of the sites. They have worked with communities to encourage them to engage with and take responsibility for their local greenspace and have their say in how the sites are/were developed.				employed from summer 2001.	then worked with various partners on community engagement activities.	- Training provided in countryside management skills - 19 volunteers gained long-term placements on the Shadow Rangers mentoring scheme. Seven 'shadows' (37%) found employment in the environmental sector upon completion of the scheme. - More than 15 schools within walking distance of sites are regularly involved in woodland-based activities - Volunteers have worked on Biodiversity Action Plan (BAP) targeted projects to support habitat creation for butterflies, water vole and other species. - *Skillforce* has worked on the project for three years organising team building and problem solving exercises with young people struggling with mainstream schooling; weekly sessions with 15 students on 8 sites contribute towards GCSEs and other certification such as the Duke of Edinburgh Awards. - The project has supported 30 young people through the Notts Youth Offending Service 'Work in the Community' scheme - Rangers support six Friends Groups which assist in site management, project work, event planning and fundraising. - An archaeological project has evolved from the discovery of parish boundary stones. Volunteers are working with Sheffield Hallam University to identify and interpret archaeological sites. - Team building project days run for local businesses through the 'Business in the Community' scheme. - The project ethos has inspired a sister project in South Yorkshire	E/em-casestudies-nottscommunityrangers.pdf	

2.2 Scotland

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The Millennium Forest for Scotland. 1994-2001	The Millennium Forest for Scotland was set up to mark the turn of the millennium. Its aims were twofold – to help bring about significant physical restoration of native woodland cover and to re-establish social, cultural and economic links between communities and their local woods. The work carried out has been varied - planting new trees, fencing out grazing animals to allow regeneration or building footpaths to enable people to enjoy the woods. In addition to the woodland restoration projects, individuals across Scotland undertook personal projects as part of the Millennium Forest for Scotland Millennium Awards Scheme. Awards of around £3 000 were granted to 290 people who put forward imaginative ideas for projects that linked communities and woodlands.	The Millennium Forest is far more than one woodland. It comprises 80 individual projects working on nearly 400 woodland sites, spread across the length and breadth of Scotland.	Millennium Forest for Scotland Trust	Each project within the Millennium Forest for Scotland has represented a partnership between individuals and organisations as diverse as government bodies, local authorities, environmental charities and local community groups.	The Millennium Forest for Scotland Trust acted as the mechanism for securing the £11.3m of National Lottery funds, pledged by the Millennium Commission. It was supported by the Millennium Commission from its inception in 1994 to the practical completion of its portfolio of projects in 2001. Although the main period of activity is past, this support continues for several years to secure the establishment of the living and growing resource. The total investment in the Millennium Forest has been in the region of £30m. Many organisations have contributed land, time and co-funding to the individual projects.		- 3,577 ha of new planting - 6,174 ha of new regeneration - 12,506 ha into active management - 200 km of footpath created/restored		http://www.millenniumforest.co.uk/
Central Scotland Forest. 1995-2015 (and beyond?)	It is not a conventional forest but is spread throughout the central belt of Scotland. The core aim is to double woodland cover by 2015. Supporting aims are to: help make	620 square miles bounded by Edinburgh, Glasgow, Falkirk/Stirlin	Central Scotland Forest Trust	East Dunbartonshire Council, Falkirk Council, Forestry Commission, North Lanarkshire Council,				Baseline research was undertaken in 2005 – the Social Impact Study http://www.csft.org.uk/about/publications/141_social-impact-	http://www.csft.org.uk

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	Central Scotland a place where people want to live, work and play; provide opportunities for communities to engage with and benefit from the forest; and support economic development related directly to the Forest.	g and Lanark		Scottish Enterprise National, Scottish Enterprise Dunbartonshire, Scottish Enterprise Edinburgh and Lothians, Scottish Enterprise Forth Valley, Scottish Enterprise Lanarkshire, Scottish Heritage, South Lanarkshire Council, The Scottish Executive, West Lothian Council				study-documents Publications include: A focus group report, a campaign evaluation, research reports, findings from a greenspace survey, attitudes and perceptions reports, a social impact study, http://www.csft.org.uk/about/publications	
Edinburgh Community Woods Urban Forest Project (incorporating Craigmillar Urban Forest Project). 1996-2000	Planting initiative, spread across 70 small sites in City of Edinburgh. One large site of 25ha was included in this known as the Craigmillar Urban Forest Project. Objectives = to increase from 4% to 10% the tree cover in Edinburgh, using school grounds; golf courses; playing fields; public parks; transport corridors; watercourses and wildlife corridors	Edinburgh	City of Edinburgh Council	FUNDING PARTNERS - City of Edinburgh Council - Millennium Forest for Scotland - Scottish Enterprise - FC - SNH OTHER PARTNERS - schools - communities - voluntary orgs - social work centres - the public	£1,091,800	Funding and temp. management of one site	250,000 trees planted over 100 ha with 10,000 citizens involved and 71 community woodlands planted.	Very little. There were surveys done in 2005/6.	http://edinburgh.gov.uk/CEC/City_Development/Planning/Landscape/Edinburgh_Urban_Forest_Project/Urban.html
Woods In and Around Towns (WIAT) Phase I April 2005-March 2008	Large-scale funding initiative creating working partnerships in Scotland's urban areas. Objectives: To increase the contribution of woodland to quality of life in Scotland's urban and post industrial areas. Supports priorities on social justice, quality of life, enhancing urban landscapes and healthy lifestyles. Links directly with the Scottish Executive's Forest Strategy. 1. Increase recognition of the benefits of	In woods within 1km of settlements with a population over 2000	FCS	Over 300 partners and organisations involved. PARTNERS INCLUDE: - FCS - Community Woodland Association, - Greenspace Scotland - Glasgow and Clyde Valley Structure Plan Joint Committee	Phase I = £30m	FCS Lead	- 600ha woodland created - over 3000 schoolchildren involved - over 7000 people involved in events - over 300 partners or organisations involved - £8.3m invested. The WIAT woodland improvement challenge fund was introduced in 2004 and over the first four bidding rounds, committed £7.2M for 102 projects involving improvements to over 4000ha of urban woodland.	Progress Report' - summer 2006, www.forestry.gov.uk/.../**WIAT**summer06update.../**WIAT**summer06update-fcfc110.pdf	Bob Frost: bob.frost@forestry.gsi.gov.uk http://www.forestry.gov.uk/website/forestry.nsf/byunig

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	urban woods and green networks. 2. Identify priority areas for targeting resources. 3. Improve the quality of existing urban woods for people and wildlife 4. Increase the creation of woods around towns on derelict and underutilised land and on land associated with new development 5. Demonstrate effectiveness and value for money			- Scottish Natural Heritage - Dundee City Council - Aberdeen City Council - Woodland Trust - Glasgow City Council - City of Edinburgh Council,					ue/infd-5w2nfz
WIAT Phase II April 2008-March 2011	WIAT II retains the focus on woodland creation, bringing woodland into active management and encouraging use by people. It will be evolved towards: - A more outcomes focused approach. - Earlier evaluation planning. - More emphasis on long-term woodland management integrated into the operations of the organisations with responsibility for that woodland. - Further development of local authority based partnerships for WIAT. - Greater linkage with the Scotland Rural Development Programme (SRDP).	In woods within 1km of settlements with a population over 2000	FCS	As above	Phase II = £8m per year WIAT activities are funded through two grants Forestry Challenge Funds and Rural Development Contracts. Forestry Challenge Funds are administered by Forestry Commission Scotland under the Scotland Rural Development Programme (SRDP). Rural Development Contracts are also part of the SRDP but are administered by the Scottish Government Rural Payments and Inspections Directorate.	FCS Lead		Baseline survey March 2007 - provides dataset of people's attitudes, perception and values towards their local open space and woodlands and will be used to assess the impact of the WIAT programme on target communities. http://www.forestry.gov.uk/pdf/WIATBaselineSurveyFinal300307.pdf/ WIAT Phase II Policy Document (http://www.forestry.gov.uk/pdf/fcfc120.pdf/$FILE/fcfc120.pdf): "We will monitor against target outputs, cost estimates and analysis of efficiency and effectiveness. We will define success by progress against the outcome indicators and fit projects into the Framework for Evaluation of Social Forestry Initiatives. We will cross-reference WIAT with other relevant programmes. We will publish an annual progress report". There are 9 success indicators for Phase II linked to National Purpose Targets which Can be viewed on page 11 of the	Bob Frost: bob.frost@forestry.gsi.gov.uk http://www.forestry.gov.uk/website/forestry.nsf/byunique/infd-5w2nfz

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								WIAT Phase II Policy Document. In 2008/09 an evaluation framework was piloted for selected health-related forestry initiatives, built into WIAT, Forestry for People Challenge Funds and various social forestry programmes.	
Woodlands In and Around Towns (WIAT) National Network of Demonstration Sites. May 2009 onwards	Identify a network of sites across the four city regions to demonstrate the range of benefits delivered through the WIAT programme. The network will provide a strategic focus for the targeting of future resources to develop exemplars of sustainable urban forest management	4 City Regions	FCS	- Aberdeen City Council - Aberdeen Greenspace - British Waterways Scotland - Callander Estates - Castlemilk Environment Trust - Central Scotland Forest Trust - Cycling Scotland - Dundee City Council - Edinburgh and Lothians Forest Habitat Network Partnership - Edinburgh and Lothians Greenspace Trust - Edinburgh City Council - Glasgow and Clyde Valley Green Network Partnership - Glasgow City Council - Midlothian Council - NHS - North Lanarkshire Council - Paths to Health - Paths for All - Scottish Wildlife Trust	Both through FES/FCS and external funding	FCS Lead		M & E being planned currently.	Bob Frost: bob.frost@forestry.gsi.gov.uk http://www.forestry.gov.uk/website/forestry.nsf/byunique/infd-5w2nfz

2.3 Wales

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Cydcoed Phase I and II. Phase I, 2001 – 2004 Phase II, 2003 - 2008	Not specifically an Urban Forestry project, but giving grants to community groups who want to plant new woods or improve woods existing woodland Objectives: 1. Use community forestry to deliver social inclusion and to create social capital. 2. To help create and maintain high capacity community groups able to influence decisions about their locality. 3. Woods that provide long-term social, environmental and economic benefits. 4. Individuals able to play a positive role in their communities.	Wales – Objective 1 region (West Wales and the Valleys)	Initially developed and run by Tir Coed but later absorbed fully into Fprestry Commission Wales (FCW) in 2002	Funding partners to Forestry Commission Wales = Welsh Assembly Pathways to Prosperity scheme and EU	Cydcoed was funded through the EU Objective 1 programme and the Welsh Assembly Government's Pathways to Prosperity scheme. Phase I = £4m Phase II = £12m Available as 100% grants to small community group projects	FCW Lead	Phase I funded 40 projects and Phase II funded 123 projects. 37 new community woodlands, 316 ha planted (NB not all urban) Numerous benefits were achieved, the full details of which can be viewed in the evaluation report (see 'Evidence Produced# column for details).	No baseline data. Lack of ongoing monitoring. As part of the Cydcoed evaluation programme, undertaken by FR, "An evaluation of Cydcoed: the social and economic benefits of using trees and woodlands for community development in Wales" report was produced in November 2008. Link: http://www.forestresearch.gov.uk/pdf/Cydcoed_final_report_Jan09.pdf/$FILE/Cydcoed_final_report_Jan09.pdf The Cydcoed evaluation programme provided a summative evaluation of Cydcoed Phase I and II, analysing the extent to which they had achieved the longer term desired outcomes of the programme.	http://www.forestry.gov.uk/forestry/INFD-5KSFAT
Treegeneration 2004 - 2008	Pilot initiative providing grants and practical assistance to small scale planting initiatives in urban areas. Objectives: - To help improve urban areas in Wales by providing advice and support, including funding, for urban tree planting. - Pilot project to test feasibility of national urban forestry initiative in Wales. NB there was no expression of aims or specific targets in project documentation	North East Wales – Wrexham and Flintshire	FCW	FUNDING PARTNERS: - FCW - CCW - Wrexham County Borough Council -Flintshire County Council OTHER PARTNERS: - Groundwork Wrexham and Flintshire - Welsh Development Agency - BTCV	£159,200 (£113,000 in grant aid for urban tree planting)	50% of core funding, including employment of Treegeneration Officer who was embedded in the two councils.	By the end of the delivery phase of Treegeneration in 2008, 20 projects had been given financial assistance and 6 projects had been given non-monetary assistance. Outputs were: - 30ha of urban woodland created - 59,300 native trees planted - 2,200 people involved in tree planting	No baseline data. Biannual visual inspections of planting. In October 2008, FR produced a report "Treegeneration: A review of the urban forestry pilot project for North East Wales". Link: http://www.forestresearch.gov.uk/pdf/TreeGeneration_Review_Jan2009.pdf/$FILE/TreeGeneration_Review_Jan2009.pdf	http://www.treegeneration.org/benefits_trees.htm

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				- schools - community groups - businesses				This included comments on M&E "The lack of baseline data, indicator development and a programme of monitoring and evaluation makes it difficult to assess the true impact of Treegeneration"	