

Trees and forests in British society

Ten years of social science

Forest Research is the research agency of the Forestry Commission (FC) and for many years has helped those involved in forestry policy and practice to make sound decisions and use the best forest management methods. Over the past 15 or so years, although generally confident in their ability to resolve technical queries, forest managers have increasingly found themselves needing to deal with social issues and impacts. The '90s also saw increasing demand for evaluation of public investment in services and a drive for evidence on which to base future policy. As a result there was growing demand for guidance on social issues, both to help forest managers meet social objectives and to ensure forest policy and practice was based on a better understanding of social values, benefits, structures and processes.

In 2000, in response to this increased need, Forest Research set up a group of social and economic scientists to complement its existing natural scientists, forming the Social and Economic Research Group (SERG). SERG is a multidisciplinary team bringing together skills in sociology, anthropology, economics, forestry, political science and geography. Since 2000, our research has expanded from an initial interest in well-being and woodland access to include research into economics, governance and the way that knowledge and understanding of the natural world is constructed. As a multidisciplinary team our work covers qualitative research and the application of social theory to inform policy and practice, with a strong capability in quantitative methodology.



What difference has our research made?

Over the past ten years we have explored what Britain's trees and woodlands mean to people, how they are used and how they can contribute to the social and cultural life of the country. We have helped forest managers and rangers to use the results of research to make their work relevant and effective. Our work assists the FC and other woodland owners to take account of social factors in their management of woodlands and forests, such as:

- public opinion;
- human well-being and social inclusion;
- community organisation;
- institutional arrangements for decision-making and delivery (e.g. policies, partnerships).

As well as demonstrating the social impacts of projects, our social researchers have helped facilitate stakeholder consultation and participation processes. We have also developed an extensive network of policy makers, practitioners and academics across Britain and Europe.

The group works closely with FC Scotland, FC England and FC Wales to provide both generic and country-specific knowledge and evidence. Our large-scale evaluations of complex interventions have informed the design of subsequent initiatives and shown how they can be tailored to reach diverse groups of people.

We also work for, and alongside, a wide range of government agencies, universities and non-government organisations, carrying out bespoke research and consultancy projects. We have played an important part in helping the FC develop new areas of activity such as climate change, the increasing focus on urban forestry, the need for greater understanding of diversity and equality issues and the contribution woods can make to community development. We are well placed to meet these challenges and make a significant contribution to knowledge about the role of trees and woods to society in 21st century Britain.



Our research areas

Here, we highlight a selection of our past and ongoing research. Some of this work has been undertaken in collaboration with partners in the United Kingdom, Europe, Australia and the United States.

1 How trees, woods and forests contribute to well-being

Well-being is a cornerstone of the Government's social policies, spanning a wide range of arenas such as health, community cohesion, education, justice and the environment. Well-being includes having basic human needs met, being in a positive physical and mental state, having good relationships and worthwhile work. For most, well-being is enhanced by time spent in high-quality, often natural environments. However, debates about well-being frequently focus specifically on health, income and economic activity.

Current research into the well-being effects of woodlands and wooded environments focuses on health and restoration, culture and identity, education and learning, and volunteering. Our research into well-being is cross-cutting and has included national-scale studies. Examples are our study of the economic and social contribution of forestry to people in Scotland, and a study of the social contribution of the Public Forest Estate in England, which showed how people across the country value woods and forests.

Health

Our research into the links between trees and human health has included projects such as the Chopwell Wood Health Project, where GPs referred patients to Chopwell Wood (Gateshead) to take part in activities to benefit their health, and local schools visited the wood to let pupils join activities and learn about nutrition, healthy eating and stress reduction. In our study of 'Active England', a programme that aimed to increase community participation in sport and physical activity across England, our findings highlight the important contribution that trees and woods make to people in terms of relaxation, restoration and social contact with others. We also find that particular groups, such as those on low incomes, black and ethnic minority groups, and those not used to visiting woodlands, often need led activities to give them the confidence to engage with the woodland environment.



Culture and identity

Trees and woodlands contribute to sense of place. We have explored the cultural values people associate with local urban woodlands through research in London (Peabody Hill Wood, Lambeth), Liverpool and Southampton. Our work has also focused on the impacts of new woodlands, such as the National Forest in the West Midlands. We are reviewing the cultural benefits of trees and woodlands, and how these can be more explicitly included in forest decision-making processes. The different types of cultural benefit that we have identified include:

- sites and features – such as scheduled ancient monuments, ancient forests and sculptures;
- activities, practices, skills and events – including traditional crafts, coppicing, musical events, and mountain biking;
- meanings, identities and representation – such as spiritual and emotional attachment to natural or cultural forest sites and inspiration derived from art.

In one study we carried out research with people in Scotland who collect non-timber forest products such as foliage, berries, and fungi. We found that collecting these products gives a very personal connection to a forest and is part of the social and cultural lives of those collecting them.

Education

Our participatory evaluation of Forest Schools in England and Wales, and our review of the role of trees and woodlands in outdoor education and learning found that Forest School can contribute to children's personal and social development. We identified the features of Forest Schools that help children who struggle to learn and flourish in conventional classroom settings, such as freedom to explore the natural environment using multiple senses and a high adult-to-pupil ratio. Our research into outdoor formal education in woods, forests and other settings suggests that this type of educational approach can have cognitive, social and physical impacts for children and young people.

Volunteering

Volunteering in woodlands and other nature spaces can be highly positive both for the volunteers and the organisations that manage them. We evaluated 'Offenders and Nature' programmes, in which people serving a prison or community sentence do conservation work as part of their rehabilitation. We also studied the motivations and benefits of environmental volunteers carrying out practical work for ten different environmental organisations. Our findings show that active, hands-on engagement with nature can be an important part of recovery and social inclusion for marginalised members of society.



2 Accessibility, diversity and equality

Access and accessibility

Woodland access and accessibility are the most significant factors affecting how the public benefits from woodlands. Access relates to the physical provision of woodlands for people to visit, whether publicly or privately owned, through different types of informal and legislative provision. Accessibility refers to the extent to which different groups of people feel able and empowered to visit woods, which is often neglected compared to woodland access targets that focus more on woodland size and proximity. Much of the available data focuses on the physical provision of access and less on the perceptions and experiences of different sectors of society and what enables or prevents them from accessing woodlands.

We have identified a range of socio-economic/cultural and psychological issues that prevent people in particular groups within society from enjoying woodlands. These include women on their own, black and minority ethnic groups, and those from poorer socio-economic backgrounds. Enabling certain sectors of society to visit woods requires carefully designed and tailored interventions that may lie outside the conventional remit of woodland management.



Diversity and equality

Diversity and equality is a theme running through much of our research. Current UK equality legislation supports six broad strands of diversity: gender, race or ethnicity, disability, age, sexuality, faith or belief. Understanding how social diversity and economic means affect access to woodlands is necessary to build awareness of how the FC's policies and services can benefit all sectors of society. Diversity and equality are investigated as a cross-cutting issue in many of our projects, but we have also conducted and managed several studies with a specific diversity focus. For example, we assessed the contribution of forestry grants to providing equal access to forests for disabled people.

We have found that forests, and the initiatives that take place in them, can have positive impacts for many diverse groups. These include strengthened social and familial relationships, new sensory and skills-based experiences, improved health and well-being, and encouraging younger people to take part in exciting forms of independent play. However, our evidence also shows that many barriers to woodland use – physical, perceptual and organisational – remain common to different groups. Key issues include:

- a need for easy woodland access;
- appropriate site design;
- provision of facilities;
- a clear sense of welcome.

While there is a high level of institutional and sectoral awareness about promoting access for diversity groups, there is a continuing need for advice on how best to contact and work with individuals and organisations from a wide variety of backgrounds.





3 Community development

We have carried out research into community development – i.e. the building of active and sustainable communities based on social justice and the removal of barriers preventing people from participating in the issues that affect their lives. We advise managers on appropriate models for community forestry, the role of forests in sustainable community enterprises, and urban community place-making. For example, some models include community ownership of the woodland, which presents new challenges and opportunities for community development, local economy and democracy. We have explored community experiences, focusing on the meanings of ownership, the challenges in terms of business management skills, governance challenges (i.e. community organisation and democracy), external relations with other organisations and communities, and sustainability.

Different policy and practice in England, Scotland and Wales has led us to research the importance of local and national context in understanding both the opportunities and constraints for community forestry. Devolution in Wales and Scotland has led to the transfer of ‘forest rights’ to the local level, through increasing grassroots demand for representation in forest management and policy, provision of policy support and capital grants, as well as the development of organisations and networks to support community forestry groups. Many of the groups in Wales and Scotland are constituted as not-for-profit companies or charitable trusts focused on building woodland-based enterprises. In England many community woodlands focus on conservation for public benefit, and provide communities with opportunities for conservation volunteering or recreation.

Also in England a special case is the National Forest, comprising 200 square miles in the West Midlands, which represents a major new resource for recreation and tourism, creating new wildlife habitats, restoring damaged landscapes and offering attractive, productive uses of farmland. Ethnographic research revealed that the National Forest is a significant driver of social change, highlighting ways in which this model of social forestry is resulting not only in the growth of trees, but also the growth of communities.



In a large study in Wales we evaluated the Cydcoed programme. This is a European Union-funded project to use community forestry to achieve a number of aims, including creating and maintaining high-capacity community groups that are able to influence decisions about their locality and creating woods that provide long-term benefits. Our evaluation included all 163 projects established with Cydcoed funding and assessed the contribution that they have made towards the Welsh Assembly Government's social policies. Key successes have been improved social cohesion and social capital.



4 Forests and governance

Forest governance is to do with the decision-making processes that affect sustainable forest management and the integration of trees and woodlands into wider planning frameworks. We study both formal (e.g. government legislation) and informal (e.g. social networks) structures and processes involved in forestry across Britain's public and private forests.

Our interest is wide-ranging and multidisciplinary. Our social scientists contribute to the development of forest management policies and practices by encouraging better understanding of the range of policy issues, communication pathways and linkages between science, policy and practice.

Stakeholder engagement

With the shift to sustainable forest management in the 1990s, the FC adopted a principle of public involvement in forest design planning. We are developing 'good practice' guidance to summarise lessons from experience and apply them across a wider range.

The FC is dedicated to managing Britain's public forests sustainably and supporting and motivating other landowners to do the same. Reaching private landowners is a high priority and we are supporting our colleagues with a review of evidence on landowner attitudes and behaviour.

New policy areas, such as using wood for fuel and increased woodland creation for climate change mitigation, require understanding of stakeholder interests. Using wood as a

renewable source of energy can deliver considerable benefits, not only through mitigating climate change but also in social and economic terms. We are using case studies to explore opportunities and barriers in these new areas.



Partnerships and collaborations

Working in partnerships is essential in environmental management and governance today. Partnerships can be organised in a number of different ways, from formal arrangements to informal collaborative management. The FC works with a wide range of partners including third-sector organisations, private business and land managers, Local Authorities and other public agencies. Exploring these relationships is a large part of our research. We have researched stakeholders, for example through collaborations on deer management, and identified factors involved in effective partnerships and collaborations. These include funding models, management and communication, and social and professional networks.

Urban governance

Increasingly the Forestry Commission is seeking to deliver benefits through trees and woods in and around urban areas. Creating and managing woodlands in these areas, together with the maintenance of individual 'street trees', requires the FC to interact with many stakeholders not traditionally involved in forestry. Challenges include understanding the 'urban public', especially in terms of their diversity, and attitudes towards management, interacting with urban land managers such as Local Authorities, and negotiating urban political structures and processes which may differ significantly from rural contexts.

Our research into governance provides cross-cutting generic lessons to inform operations in urban areas, such as those relating to stakeholder engagement and partnership working. We are also carrying out several research projects specifically for urban areas, including assessing the social and economic values of street trees, reviewing the benefits of 'green infrastructure', and linking trees and woods to urban place-making and successful cities.

Science, policy and practice

A new field for our research is the creation and management of knowledge. We are focusing on the design, outcomes and effectiveness of links between forestry research, policy and practice. One study focused on perceptions of social science within the FC. We are also researching the challenges of incorporating science, innovation and diverse knowledge sources into forest management. For example, in Wales the new forest strategy encourages low-impact silviculture. Our research has looked at the demands such policy shifts place on organisational structure and culture. Our findings are being used in the adaptive management of forests in the face of climate change uncertainty.

Another field of work looks at the way information about risk is understood and acted on by countryside users. One specific focus is Lyme disease. Many people take much pleasure from visiting the great outdoors and there are an increasing number of campaigns to encourage more people to experience green spaces to improve their health and well-being. Our study explores how best to warn users about animal-related diseases and encourage appropriate behaviour without causing alarm.



Supporting forest decision making

Connected to the knowledge management work above, we have a group of projects that focus on the social processes underpinning the development and use of new decision support tools in forestry. New forest management priorities, advances in technical knowledge, and response to climate change all require forest managers to work in different ways. We work with end-users and other stakeholders to understand their perceptions of management challenges, the tools available, and the institutional and policy contexts in which they are applied.

Much of the evidence for this is coming from our contribution to EU-funded projects to produce decision-support tools for policymakers and planners in the forestry and land-use sectors in Europe. Examples of these are:

- The EU Integrated Project, SENSOR, which developed 'Sustainability Impact Assessment Tools' (SIAT) to inform European policymakers of the likely impacts of new policies on land-use related functions and services. Our research helped to understand the needs of potential end users and the institutional context in which SIAT would operate; we also developed a participatory impact assessment tool that could validate the outputs of the quantitative computer-based SIAT model.
- EFORWOOD, a similar project that was restricted to the forestry sector, but included the entire European forestry-wood chain. Our contribution was to develop a method to assess the impacts of forest management on recreational use.
- The Northern ToSIA project of the EU Northern Periphery Programme, which seeks to operationalise the tools developed by EFORWOOD within Scotland, Norway, Sweden and Finland. Our primary role is to collaborate with stakeholders to inform the development of the tools and to increase the likelihood of their uptake.

Lessons from these EU projects can inform the commissioning, development and implementation of other kinds of decision support systems for use within the forestry and other land-use sectors. Our experience has been applied in several other projects to monitor and evaluate the social impacts of policies such as the Scottish Forestry Strategy.



5 Economics and social forestry

Our economic research covers a wide range of studies that use economic tools to assist the FC and the UK forestry sector achieve sustainable forest management objectives. Work falls into five main topics.

The economics of climate change mitigation and adaptation

Our work has compared the cost-effectiveness of silvicultural options and has assisted development of forestry management tools. Work covers carbon sequestration and carbon substitution benefits associated with using wood instead of more carbon-intensive products in construction, or burning fossil fuels.

Payments for ecosystem services

This work explored experiences and perceptions in the United States in the fields of water, biodiversity, carbon and avoided tropical deforestation payments for ecosystem services schemes. Our findings were published in a research report and formed a set of policy briefs. This research contributed to the FC's development of a code of good practice for UK carbon forestry projects.



Valuing the benefits of woodlands

We valued a range of ecosystem services as part of our study of the economic and social contribution of forests to people in Scotland. A study of valuation methods used to quantify the health benefits of street trees (including through providing shade – expected to become more important due to climatic changes leading to increased summer temperatures) is in progress. We are also valuing changes in UK woodland ecosystem services for the UK National Ecosystem Assessment.

The economic effects of green infrastructure

We are carrying out a critical review of evidence of the economic benefits of green infrastructure projects. We are also involved in an interdisciplinary project aimed at synthesising evidence on the benefits, costs and status of green infrastructure.

The economics of woodfuel supply

This work involved a review of woodfuel supply costs using geographic information system (GIS) analysis. This fed into government consultations on the introduction of a renewable heat incentive.



6 What's next?

There are substantial challenges for forestry research in providing evidence to inform climate change adaptation and mitigation, and in managing its impacts. There is growing interest in ecosystem services and how such a framework can contribute to land use integration. These themes require sound biophysical knowledge, but also a comprehensive understanding of social and economic context, human well-being, values and decision-making methods. Coupled with the topics mentioned above, these themes provide an exciting research agenda for our group. We welcome opportunities to collaborate with land managers and other researchers in addressing these challenges, and would be pleased to respond to specific opportunities to work in partnership.

How to find out more

For further details on any of these research projects, a full list of all social and economic research carried out by Forest Research and information about our social scientists, visit www.forestresearch.gov.uk/peopleandtrees

For general information about Forest Research and its other areas of expertise, visit www.forestry.gov.uk/forestresearch

If you need this publication in an alternative format, for example in large print or another language, please telephone us on 0131 314 6575 or send an email request to: diversity@forestry.gsi.gov.uk