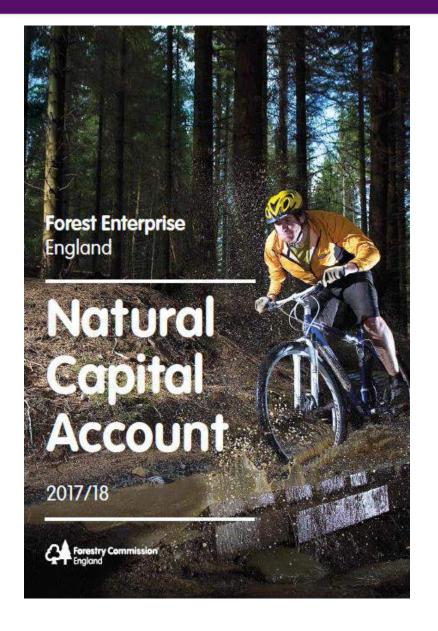


- 1. Valuing recreation: Issues and approaches
- 2. The supply of forest recreation
- 3. Demand for recreation
- 4. Valuing the benefits



Valuing nature

Ecosystem service	
Provisioning	Food provision
	Fuel provision (woodfuel)
	Wood provision
Regulating	Carbon sequestration
	Temperature regulation
	Stormwater regulation
	Air purification
	No: - mitigation
Cultural	Health
	Nature and landscape connections
	Social development and connections
	Education and learning
	Economy
	Cultural significance
	Source: Forestry Commission (2017)



Valuing recreation

Visits to outdoors

Employment and economy

Aesthetic value

Mental health and subjective wellbeing

Physical health

Education and learning

Social connections

Sense of place

Cultural and spiritual

Market

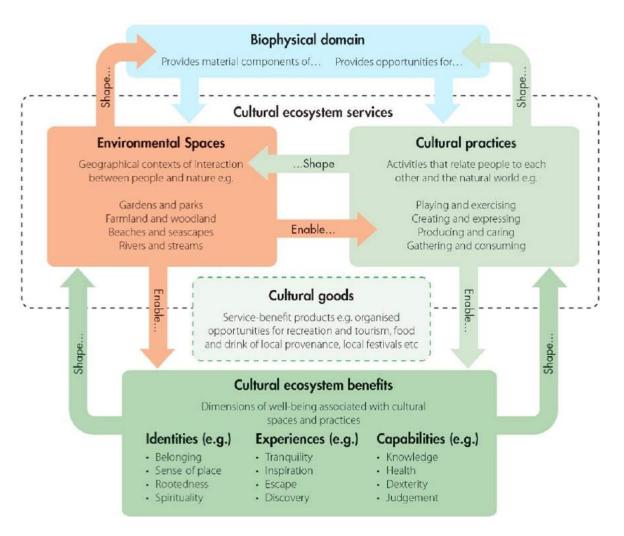
Non-market

Non-monetary

Cultural ecosystem services

Cultural Values

Norms and expectations influencing and influenced by services, benefits and their biophysical context



Source: Fish et al., 2016





Aesthetic value

Mental health and subjective wellbeing

Physical health

Education and learning

Social connections

Sense of place

Cultural and spiritual

Economic

Wellbeing

Intrinsic

Recreation supply



Access to forests and woodlands

- Access standards
- Woods for People (Forestry Commission and Woodland Trust)

Characteristics of Forests and Woodlands:

- Public Forest Estate
- Great Britain National Forest Inventory
 - Latest 5 year cycle contains new data on social value of forest cover
 - New opportunities to integrate social and recreational information with other forest characteristics



Recreation supply

Recreational use

- Off road motor cross
- Informal gathering / camping
- Equine use
- Bikes
- Dog walking
- Den building
- Private enterprise
- Outdoor education

Hunting

- Game enticing
- Game feeding
- Evidence of hunting
- Designations in land use

Abuse

- Recreational abuse
- Fires
- Vandalism
- Litter
- Commodities (e.g. bike parts)
- Farm/forestry waste
- Dangerous waste
- Soil compaction

General roads and paths

- Roads
- Railways
- Paved tracks
- Unpaved tracks (rides)

Recreation specific roads & paths

- Public rights of way
- Informal path
- Formal path
- Outdoor education activity
- Off road motor cycle tracks
- Bridleway
- Cycle way
- Path with way markers
- Access encouraged away from paths

Access

Distance to road

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- Distance to settlement
- Distance to edge of forest area
- Accessibility to surveyors

Recreational infrastructure

- Cabins and holiday houses
- Campsite and wild camping
- Car parks and picnic areas
- Information centre
- Other facilities specifically for recreation

Historic features

- **Monuments**
- Structures
- Linear features

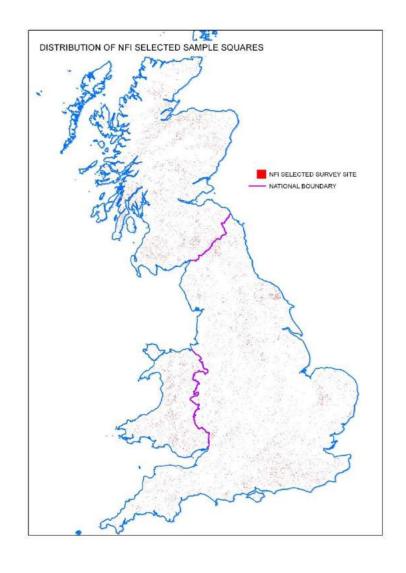
Veteran trees

- Veteran and heritage trees
- Ancient woodland
- Woodland origin
- **Water features**



Recreation supply







Source: GB NFI

Recreation demand



- National surveys of engagement. In the UK:
 - Monitoring of Engagement with the Natural Environment in England (MENE)
 - Scotland's People and Nature (SPANS) / Scottish
 Recreation Survey (ScORS) / Scottish Household Survey
 - Welsh Outdoor Recreation Survey (WORS) / National Survey for Wales
- Public Opinion of Forestry Survey
- Public Forest areas: Market research information, visitor counts, quality of experience and permissions systems
 - e.g. Northern Ireland Forests Visitor Survey, All Forests



Valuing visits: monetary

Market valuation:

- Income
- Expenditure

Non-market valuation:

- Revealed preference:
 - -Travel cost method
- Stated preference:
 - Choice experiments
 - Willingness to Pay







Frequency, duration and type of activities

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- Metabolic equivalent of task
- Quality Adjusted Life Years (QALYs)



Economic value of forest recreation (Moseley et al., 2017)

- Valued using **QALYs**
- Compare interventions and relative health benefits



Non-monetary measure of value for a range of social goods

Subjective wellbeing measures:

- ONS-4 (Office for National Statistics, 2018)
 - Life satisfaction
 - Anxiety
 - Happiness
 - Worth of life

Issues with a common measure of wellbeing

- Communicating and monitoring
- Wellbeing Adjusted Life Years (WALYs; Johnson et al., 2016)

14



Benefit transfer

Transfer of known benefit from one population or ecosystem to a new policy, management or research context

- Transfer value either per beneficiary
- Value per hectare

Better data

- Integrated household surveys bring new opportunities (National Survey for Wales)
- But visits to natural environment could be better represented in other surveys



What is still missing?

- Little done to integrate barriers and inequity of participation to the value of recreation
- The "cost" of outdoor recreation waste, socio-ecological pressure

Value is not always "out there" to be measured:

- Socio-cultural practice is dynamic
- Phenomenology of experience
- Social construction of value

16



Black Wood of Rannoch





"It is important to remember that the solitude and silence of today is very recent. In history the Black Wood was full of humans as they were felling trees, grazing animals. It must have been a rather noisy place. We have to honour the past, but remember it honestly"

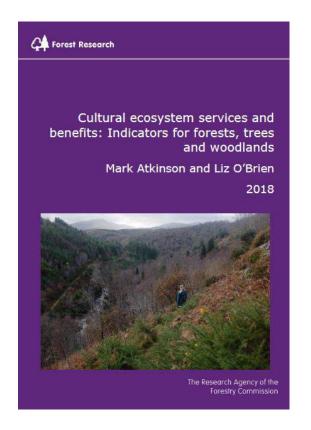
SOURCE: Collins & Goto studio, 2013; Collins, Goto & Edwards, 2014

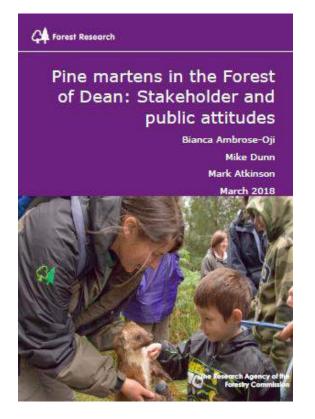


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Research Report

A valuation of the economic and social contribution of forestry for people in Scotland

