

Functional Horticulture - Value of Urban Green

Space

Dr Ross Cameron r.w.cameron@Sheffield.ac.uk



£1 spent =
£30.30 return on health benefits &
£23.30 on reduced crime / ASB (*Land Trust, 2016*)

Green cladding - Reduction in building energy consumption –
Insulation in winter (12-30% saving) (*Liu and Harris, 2008; Cameron et al., 2015*)
Shading / passive cooling in summer (25% saving) (*Ashie et al., 1999*)

Air Quality Improvements
Urban trees in USA worth £2.8B pa, (*Nowak et al., 2006*)

Gardening:
23 million households (87%) have access to a private garden.
Regular physical activity (*Crespo et al., 1996*)
British households av. 71 hr a year gardening (*MINTEL 1997*).

Linked with-

- Physical health
- Psychological health
- Understanding of natural world / environmental issues
- Understanding food and its nutritional value
- Social cohesion (community gardens) – but also neighbourliness

(*Cameron & Hitchmough, 2016*)

Rainwater capture and infiltration – Flood avoidance £79K - £238K ha⁻¹ (*Silvennoinen et al., 2017*)

Value of green space in Manchester pa =
Premium on property values £3.3M;
Parks – physical activity £6-10M;
Mental Health £550M-766M
≈¹/₁₂ of *total* health budget
(*Manchester Green Infrastructure Strategy TR, 2015*)

Economic –
1/3 of tourists to the UK will visit a heritage garden or park - £7B pa
Domestic short visits – gardens and parks - £4B pa
Most popular UK destinations with entrance fee
Kew Gardens = 3rd, RHS Wisley = 12th (*Guardian and VisitEngland, 2016*)

Acts as a noise baffle – both physical and psychological value (*Yang et al., 2011*)

Biodiversity - Gardens and allotments – high biological abundance esp. of certain taxa – e.g. pollinating insects / amphibians (*Turnbull, 2012*)

Green roofs, walls and pocket parks act as ecological corridors

City – cooling (Parks and gardens mitigate the urban heat island effect, 4-11°C cooler)