

### **3 Evidence of the importance of greenspace**

Evidence of the importance of greenspace is growing. Research is showing a range of benefits such as the economic benefit, importance to the quality of life, health and for environmental sustainability.

#### **3.1 The economic benefit**

Research by The Trust for Land in America calculated the economic benefit of the greenspace network in the city of Philadelphia (population 1.5million). The study calculated that the greenspace network in terms of seven factors (*clean air, clean water, tourism, direct use, health, property value and community cohesion.*) contributed £16million to the city revenue, £11 million in municipal cost savings.<sup>1</sup>

The Fife Coast and Countryside Trust has estimated that the coastal path contributes £24 million to the Fife economy<sup>2</sup>.

#### **3.2 The quality of life**

In terms of quality of life, over 95% per cent of people believe it is very or fairly important to have green spaces near to where they live.<sup>3</sup>

Parks and green spaces are the most frequently used service of all the public services tracked. A survey in England showed that 87 per cent of the population have used their local park or open space in the last year, and 79 per cent have used it in the last six months. This compares with 32 per cent that had visited concert halls, and 26 per cent who had visited galleries<sup>4</sup>.

Well designed green and open spaces can benefit communities in a variety of ways including increasing levels of social contact and social integration, particularly in underprivileged neighbourhoods<sup>5</sup>.

<sup>1</sup> [http://www.tpl.org/content\\_documents/PhilaParkValueReport.pdf](http://www.tpl.org/content_documents/PhilaParkValueReport.pdf)

<sup>2</sup> [http://www.fifecoastandcountryside.co.uk/past-projects\\_45\\_7.html?name=tns\\_coastal\\_path\\_usage\\_study&view=74](http://www.fifecoastandcountryside.co.uk/past-projects_45_7.html?name=tns_coastal_path_usage_study&view=74)

<sup>3</sup> 91 *Survey of public attitudes and behaviours to the environment survey, 2007 and 2009*  
<http://cabeurl.com/ax>

<sup>4</sup> *HLF funding for public parks 1st April 1994 – 31st March 2009*, Heritage Lottery Fund Policy and strategic development department data briefing, October 2009.

<sup>5</sup> Sullivan WC, Kuo FE and Depooter SF (2004) The fruit of urban nature: Vital neighbourhood space. *Environment and Behaviour* 36(5): 678-700; Coley RL, Kuo FE, Sullivan WC (1997) Where does community grow? The social context created by nature in urban public housing. *Environment and Behavior* 29(4): 468- 494; Pretty J, Peacock J, Hine R, Sellens M, South N and Griffin M (2007) Green exercise in the UK Countryside: Effectson health and psychological well-being, and implications for policy and planning. *Journal of Environmental Planning and Management* 50(2): 211-231.

In one study, green space in a housing complex encouraged more social activity and more visitors. Residents also knew more of their neighbours and said that their neighbours were more concerned with helping and supporting each other<sup>6</sup>.

A natural play environment at school also helps reduce bullying, increases creative play, improves concentration and a feeling of self worth in children<sup>7</sup>.

### 3.3 Health benefits

A Swiss study in a forest park in Zurich found that visitors reported decreases in headaches and in their levels of stress – the positive effects increased with the length of stay and with the level of physical activity undertaken<sup>8</sup>.

Mortality from circulatory diseases were lower in populations living in the greenest areas<sup>9</sup>

The psychological benefits of jogging in an urban park outweigh those of street jogging<sup>10</sup>. 'Green gyms', keeping fit by engaging in activities in the open air, have been shown to result in positive physical and mental health outcomes<sup>11</sup>.

Children's physical activity levels are increased when they live closer to parks, playgrounds, and recreation areas<sup>12</sup>.

In densely populated urban areas, green space located within walking distance is more likely to promote physical activity outside the home<sup>13</sup>.

<sup>6</sup> Sullivan WC, Kuo F and DePooter SE(2004) The Fruit of Urban Nature: Vital Neighbourhood Spaces Environment and Behaviour 36 (5): 678-700.

<sup>7</sup> Ridgers ND, Stratton G, Fairclough SJ and Twisk J W (2007) Children's physical activity levels during school recess: A quasi-experimental intervention study. International Journal of Behavioral Nutrition and Physical Activity 4: 19; see also 'Playtime initiatives could reduce childhood obesity' (2009) University of Essex. [http://www.essex.ac.uk/events/event.aspx?e\\_id=982](http://www.essex.ac.uk/events/event.aspx?e_id=982)

<sup>8</sup> Hansmann, R., Hug, S.-M. & Seeland, K. (2007) Restoration and stress relief through physical activities in forests and parks. Urban Forestry & Urban Greening, 6, 213-225.

<sup>9</sup> Mitchell R and Popham F (2008) Effect of exposure to natural environment on health inequalities: An observational population study. The Lancet 372 (9650): 1655 – 1660.

<sup>10</sup> Bodin M and Hartig T (2003) Does the outdoor environment matter for psychological restoration gained through running? Psychology of Sport and Exercise 4: 141-15

<sup>11</sup> BTCV (2008) BTCV Green Gym national evaluation report: Summary of findings. [http://www2.btcv.org.uk/gg\\_evaluation\\_0308.pdf](http://www2.btcv.org.uk/gg_evaluation_0308.pdf)

<sup>12</sup> Davidson K and Lawson C (2006) Do attributes of the physical environment influence children's level of physical activity? International Journal of Behavioural Nutrition and Physical Activity 3 (19): 1-17.

<sup>13</sup> Giles-Corti B and Donovan R (2003) Relative influences of individual, social environmental, and physical environmental correlates of walking. American Journal of Public Health 93 (9): 1583-1589; Takano T, Nakamura K and Watanabe M (2002) Urban residential environments and senior citizens' longevity in megacity areas: the importance of walkable green spaces. Journal of Epidemiology and Community Health 56: 913-918.



The survival of older people increases where there is more space for walking near their home, with nearby parks and tree-lined streets<sup>14</sup>.

### 3.4 Environmental sustainability

Greenspace can improve air quality, coniferous trees can capture particulates and toxic gases such as nitrogen dioxide and ozone<sup>15</sup>.

A study in Stockholm, Sweden found that urban and suburban forests act as a refuge for threatened species of bird whose numbers had been decreasing in rural areas. Crucial to achieving this was the establishment of green corridors that included large areas of natural vegetation, a network of important habitats and a range of both mature and decaying trees<sup>16</sup>.



Figure 2 : Paxton Nursery, Methil winner of outdoor play photograph competition

<sup>14</sup> Maas J, Verheij RA, de Vries S, Spreeuwenberg P, Schellevis FG and Groenewegen PP (2009) Morbidity is related to a green living environment. *Journal of Epidemiology and Community Health* 63: 967–97.

<sup>15</sup> Bolund, P. and S. Hunhammar (1999). "Ecosystem services in urban areas." *Ecological Economics* 29(2): 293-301

<sup>16</sup> Mortberg, U. and H. G. Wallentinus (2000). "Red-listed forest bird species in an urban environment - assessment of green space corridors." *Landscape and Urban Planning* 50(4): 215-226.