

# Woods for Health





Forestry Commission Scotland, NHS Health Scotland and Scottish Natural Heritage share a strong interest in using Scotland's green environment to promote better health for all through encouraging regular physical activity and relaxation outdoors.

Our organisations are committed to combine our energies and expertise in encouraging greater use of the outdoors to promote better health and quality of life for people in Scotland.

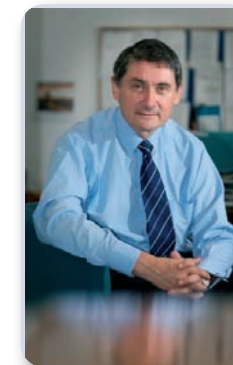
## Foreword

Like the rest of the western world, Scotland experiences growing rates of avoidable diseases such as heart disease, diabetes and cancer. These diseases bring a high cost to society and the economy. For those people affected by them there are significant personal costs and a reduction in quality of life. Although we know with certainty that moderate physical activity in fact something as simple as walking regularly can prevent or delay the impact of many avoidable chronic diseases, regrettably, levels of physical activity are still low across Scotland.

The good news is that trees, woods and forests can play a key role in helping to promote better physical and mental health for all by providing greenspace environments where people can be physically active and recover from stress.

Forestry Commission Scotland, Community Health Care Partnerships and NHS Boards are working together to encourage the use and enjoyment of greenspace by all. I know that strenuous efforts are being made to establish new woodlands close to urban communities and to open up existing woodlands close to where people live. And, as this strategy illustrates, evidence underpinning the physical and mental benefits of woodlands and greenspace is increasing steadily. In welcoming the publication of Woods for Health I encourage GPs and clinical practitioners to recognise the key health improvement role that trees, woods and forests can play and I recommend greater use of these outdoor places in helping to tackle the underlying causes of ill health in Scotland.

**Dr Harry Burns**  
Chief Medical Officer, June 2009





## Woods for Health Strategy

The Scottish Government's implementation plan **Good Places, Better Health** aims to ensure greater connections between environment and health policy. As the forestry directorate of the Scottish Government, advising on and implementing forestry policy and managing the national forest estate, Forestry Commission Scotland has a key role to play in helping to achieve this aim.

**Woods for Health** sets out our strategy for woods and health in Scotland for the years 2009–2011. We aim to create new health promoting opportunities in our green environment, particularly trees, woods and forests, to improve the health and life expectancy of Scotland's people and reduce health inequalities in Scotland. This strategy presents a persuasive case for NHS Boards and Community Health Care Partnerships to use the outdoors more in public health policy and to highlight the potential for green environments to make a significant contribution towards the health agenda.

## What is health?

Health is defined by the World Health Organisation as 'a state of complete physical, mental and social wellbeing and not merely the absence of disease or infirmity'. Not a single, homogeneous entity, therefore health can be regarded in terms of physical, mental and social aspects. It is now widely acknowledged that there is more to health than simply the absence of illness and that there is a role for all agencies including those in the environmental sector to support health improvement activities. The environments in which people live and work influence health directly (e.g. through toxic, allergenic, or infectious agents) and indirectly (e.g. through influencing behaviours such as the availability of local places to walk or cycle). They may also affect mental health and wellbeing, which in turn may affect physical health.

We know that the physical environment that surrounds us is key to our health and wellbeing. Historically the focus has been upon creating environments free from significant hazards. Whilst this continues to be important, we now recognise an additional need to create physical environments which nurture better health and wellbeing.<sup>1</sup>



## Why Woods for Health?

Scotland is committed to matching the health standards of the best performing countries in Europe and tackling the underlying causes of ill health. The biggest killers in Scotland remain heart disease, cancer and stroke, but other health challenges are emerging; obesity, mental health disorders, social isolation, diabetes, violent behaviour, substance abuse and suicide.

Health inequalities are increasing in Scotland, life expectancy is significantly shorter in more deprived neighbourhoods. One of the reasons for this is that more affluent communities often enjoy high quality local greenspace, whilst poorer communities commonly endure a degraded environment, with limited access to high quality greenspace. Helping to narrow this inequality is one of our main objectives.

Physical environments can have a positive impact upon health and wellbeing, but poor quality surroundings can have the opposite effect. Scotland's health is not improving fast enough for the poorest sections of our society. Health inequalities remain our major challenge.<sup>2</sup>





Why a strategy?

The purpose of this strategy is to help us focus on how we can deliver the Scottish Government's healthier, greener, safer and stronger strategic objectives. It sets out ways in which we can support more people in Scotland to live longer, healthier more fulfilled lives, and how we can help to reduce inequalities of opportunity through specific actions. It aims to influence health outcomes by supporting the health sector to make greater use of outdoor environments (especially woodlands) for health improvement activity. This will involve direct actions (by providing woodland opportunities near to people) and indirect actions (through influencing behaviours).

What are the main challenges?

The main challenges to improving health in Scotland are:<sup>3,4</sup>

- An ageing population.
- Persistent health inequalities.<sup>2</sup>
- Increasing trend towards obesity.<sup>5,6</sup>
- Continuing shifts in the pattern of disease towards long-term conditions.
- Growing numbers of people with multiple conditions and complex needs.
- Increasingly sedentary population.
- Improved social distribution of woodlands and green spaces.



Why are woods and greenspace good for health and wellbeing?

There is a strengthening body of evidence to support the view that greenspace and woodlands provide the ideal setting to promote health and physical activity.<sup>7</sup> A large percentage of these benefits are derived from people becoming more physically active in outdoor settings through activities like walking and cycling. Although our understanding of how woodlands and greenspace can help to keep people well is incomplete and more empirical evidence is required to support this link in the UK, there is well-documented evidence of the physical, psychological and social benefits that access to good quality greenspace and woodland can provide. Research evidence shows that these environments have a moderate but positive impact on people's health and wellbeing.<sup>8,9,10,11</sup> Attractive environments motivate people to visit and take exercise and a correlation has been found between people's happiness and the presence of accessible, green, safe, pleasant places in which to walk and relax.<sup>2</sup> The use of forests by people has been shown to contribute to mental, physical and social benefits.



Mental benefits

- Anger reduction.
- Attention restoration.
- Restorative effect from stress and mental fatigue.
- Positive mood and enhanced mental health and wellbeing.
- Enhanced feelings of wellbeing and satisfaction with life.
- Enjoyment and stimulation of the senses.
- Relaxation.

Physical benefits

- Reduced risk of heart disease, obesity, type 2 diabetes, cancer, osteoporosis and other life-threatening conditions.
- Opportunities to improve stamina and physical mobility.

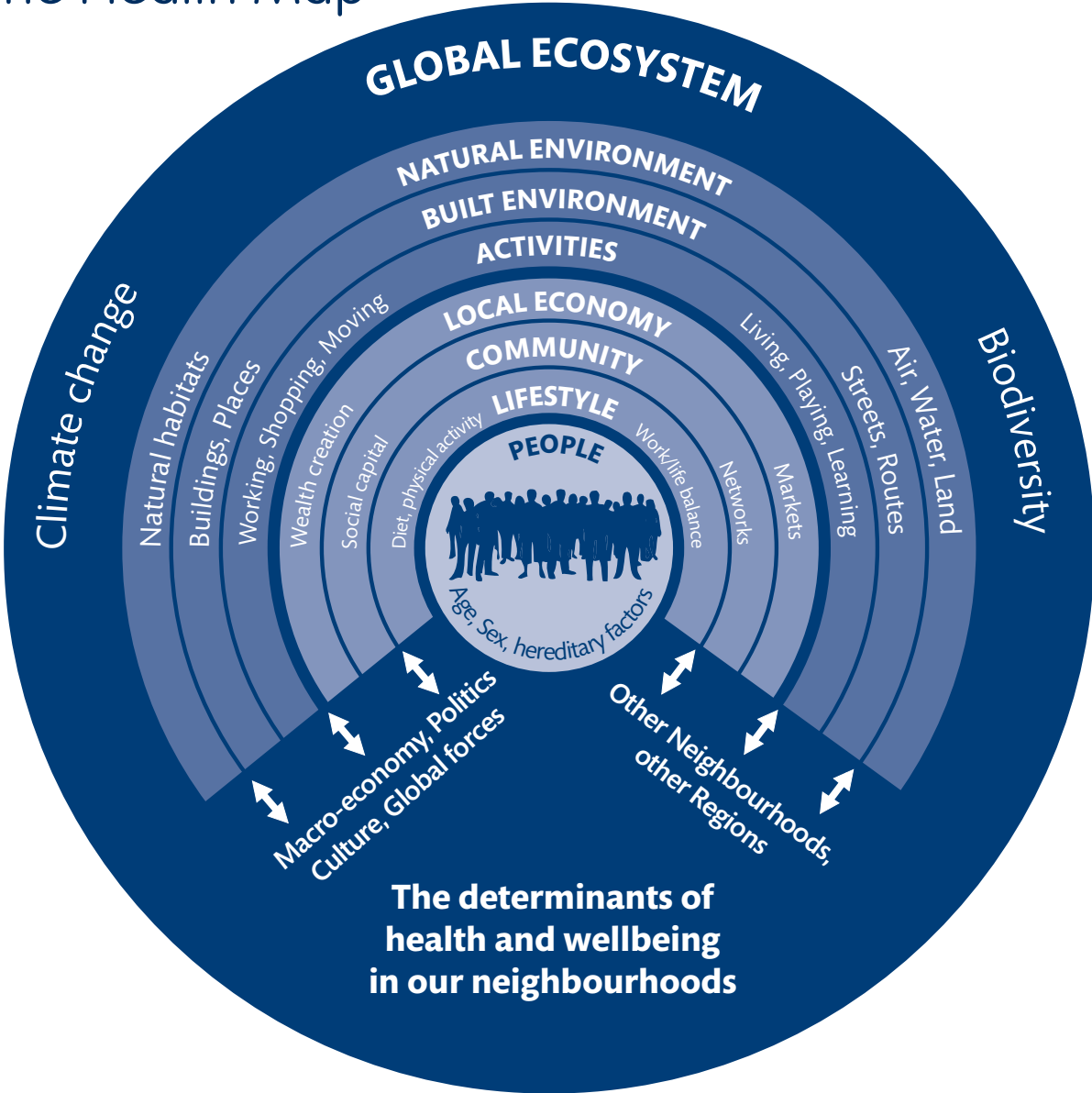
Social benefits

- Improved perception of neighbourhoods.
- Increased social interaction and stronger communities.
- Reduction in inequalities between the richest and poorest in society.
- Improved sense of place and relationship with woodlands for individuals and communities.



Factors that have a significant (better or worse) influence on health are known as determinants of health. While health services make a valuable contribution, most of the key determinants to improving health lie outside this influence, e.g. education, employment, housing, and environment. The World Health Organisation suggests that improving health is the process of “enabling people to increase control over, and improve their health.”<sup>12</sup> The diagram below presents the determinants of health in terms of layers of influence, starting with the individual and moving to wider society.

The Health Map



Source: Dahlgren, G. and Whitehead, M. (1991). Policies and strategies to promote social equity in health. Stockholm, Institute for Futures Studies.

In particular, research tells us that:

- Levels of physical activity amongst children, young people and adults are affected by how close and accessible woodlands and greenspace are to where they live.
- Exercise and physical activity in woodlands and greenspace have a positive association with promoting wellbeing and recovery from stress.
- Being able to view woodlands seems to have a positive effect on reducing stress and combating mental fatigue.
- Behavioural and emotional problems in children, such as attention deficit disorder, may be improved by exposure to woodlands and greenspace.<sup>13</sup>
- Views of greenspace from a hospital bed can speed up patient recovery time and reduce the length of time patients need to spend in hospital.<sup>14</sup>
- People are more likely to participate in communal activities in woodlands thereby helping to reduce social barriers and isolation.
- Greener neighbourhoods give rise to stronger communities with better social ties and connectivity.

In summary, woodlands and greenspace have a key role to play in enriching people’s lives by improving social interaction and helping people become more active, try new activities, discover nature and cope better with stress and anxiety.



Khush Dil

The Khush Dil (happy heart) initiative was set up to encourage black and ethnic minority families and community groups to enjoy the health benefits of using woodland.



The project was developed by Central Scotland Conservancy and involved the health and education officers meeting with community groups in Glasgow and Edinburgh to talk about the benefits of using and viewing woodland. A series of radio ads were aired on Awaz FM and a live question and answer show was recorded to answer listeners’ enquiries.

A promotional leaflet was distributed in community venues and places of worship to advertise a programme of ranger-led woodland visits. Community groups signed up for the visits and enjoyed a healthy woodland walk, environmental art activities and some relaxation. The programme engaged new community groups and supported them to visit local woodland for the first time and learn about recreation opportunities in the national forest estate including David Marshall Lodge.

Khush Dil was supported by Awaz FM and worked closely with community groups across Mandirs, Gurudwaras and Mosques.

## What are the added benefits of woodland?

Within the natural environment, trees and woodlands provide a range of specific benefits physical, mental and spiritual in addition to those of greenspace more generally. At a physical level, trees provide shelter from the wind and rain and can aid in the reduction of noise. They provide shade from the glare of the sun and they intercept pollutants and air particulates. Daily contact with living things larger than ourselves provides us with a sense of proportion and scale: evidence shows that people generally have a very positive emotional and spiritual response to trees and woodland and recognise the calming benefits that they bring. Thus woodland has been shown to help moderate the effects of stress and mental fatigue. People value the restorative setting that woodland provides. Older adults have a fondness for greenspace that includes trees and woodland cover. Research has also highlighted the importance of woodlands as an opportunity to get away from the stresses and strains of everyday life.

Trees and woods confer a sense of cover and seclusion that can enhance the experience of being out of doors. More people can be absorbed in a wooded environment than open greenspace and the disturbance effect is far less pronounced. For children, woodland offers rich opportunities for play, which are more challenging and more diverse than other types of greenspace. Children engaged in woodland settings are more likely to interact and socialise as part of a group, as demonstrated by Forest School research. This is of particular value to children with varying emotional health since the forest setting can help stabilise anger, which is linked to reduced physical and mental health, depression and increased antisocial behaviour.<sup>15</sup>



## What have we achieved so far?

Improved health and wellbeing of people and their communities was identified as one of three main desired outcomes from the 2006 Scottish Forestry Strategy. In 2006 Forestry Commission Scotland appointed a national health advisor with a public health background to implement these strategic health and wellbeing outcomes. This successful appointment was supported by the creation of two regional health advisors: one in Central Scotland and the second in the Highlands and Islands. Access & Health comprised one of seven key themes identified as priorities for action within the Strategy, which set out our purpose as:

- Making access to woodland easier for all sectors of society.
- Using woodland access to help improve physical and mental health.
- Providing a greater range of ways for people to enjoy woodlands.

In enhancing opportunities for health and enjoyment, our objectives included:

- Remove the cultural and perceptual barriers to woodland access for all sectors of society.
- Provide attractive opportunities for responsible outdoor access.
- Help the health care sector make greater use of woodlands.
- Maximise the potential of green networks in the city regions.
- Encourage better interpretation of woodlands and their context.
- Increase opportunities for enjoyment in woodlands.
- Engage younger audiences.

### Branching Out – Conservation and greenspace on referral.

Branching Out is an innovative service development offering conservation and greenspace on referral for people experiencing mental health problems in the Greater Glasgow area. It uses woodlands to help individuals cope with enduring mental health problems and progress towards flourishing mental health. During a twelve-week programme of outdoor activities, Branching Out participants are involved in a wide range of conservation work, bushcraft activities, environmental art, health walks and tai chi.

The positive outcomes from a 12-month evaluation of Branching Out were: low attrition rates, significant increases in physical activity and strong trends towards improvement in health and wellbeing for those with the worst original scores.

*"I wasn't an outdoor person. I'd decided to go and give it a week or so and after the first week I absolutely loved it. And then the rest of it, I absolutely adored the course."*  
*Branching Out participant.*





In 2007 we launched the first **Woods for Health** Strategy which set out our commitment to health improvement and our desire to deliver lasting solutions in partnership. Since then we have established close working relationships and linkages between the environment and health sectors in Scotland, gained experience through programmes of work and gained a greater understanding through commissioned research. As a result of this strategy many initiatives are currently increasing access, improving physical and mental health and developing innovative approaches.



## Map pack study

Live It, Breathe It, Walk It was piloted by Forestry Commission Scotland in partnership with Paths to Health and Castlemilk Environment Trust to investigate how woodland walks can help improve the health and wellbeing of people living in built up urban areas.

The study used participatory appraisal techniques to work with the local community to produce six walking routes and a map pack. It measured walking levels before and after the map packs were distributed, to monitor what effect they had on walking behaviour.

Local residents were consulted about the natural environment in the area in order to highlight barriers and motivations to walking. This approach helped the community articulate local environmental factors that act as barriers or blockages to walking and enjoyment of the outdoors.

Evaluation results indicate awareness of the map pack was high, 52.5%, and that 34.5% of those who had seen the map pack had actually used it for walking. The follow up research recorded a 3.7% increase in individuals from a random sample, meeting the national recommendations for physical activity.

"The routes in the map packs are highlighted clearly and I enjoy checking out the different trees that are around the path." *Local resident.*



## What are our future priorities?

Forestry Commission Scotland will engage in health improvement, anticipatory care and secondary prevention actions:

- Health improvement action will be aimed at supporting people to make positive choices and decisions that can increase healthy life expectancy and quality of life by helping people make greater use of greenspace and woodlands.
- Anticipatory care and preventative actions will involve new initiatives such as "woodland health walks on prescription" in GP surgeries and "Greenspace on referral" for community settings.
- Secondary prevention action will include providing services for people who have established health problems, chronic disease and mental health issues. Activities will include woodland rehabilitation and green gym schemes that can help prevent secondary episodes or relapse.

Our aim is to make a significant contribution to delivery of the Scottish Government's strategic objectives for a greener, safer, stronger and especially healthier nation. We aim to increase the awareness of and participation in health, promoting active use of trees, woods and forests, providing opportunities which support more people to flourish and live longer and healthier lives, and reduce health inequalities. In doing so we recognise the Scottish Government's five national outcomes and their related national indicators (see overleaf).

## Scottish Mental Health Arts & Film Festival

The Scottish Mental Health Arts & Film Festival aims to engage audiences and tackle stigma by exploring the relationship between mental health and creativity, celebrating the artistic achievements of people with experience of mental health issues and promoting positive mental health and wellbeing.

As part of this Festival, Branching Out groups created a display entitled 'Our Green Space'. This showcased a variety of environmental artwork produced by the groups. The display included photographs of leaf animals, sawdust people and willow woven sculptures. A large carbon footprint trail made of tree trunk stepping-stones brought together the feet of the many participants into one large piece of artwork. The display also premiered the Branching Out short film that was produced to raise awareness of the project.







National Outcomes <sup>16</sup>	National Indicators <sup>16</sup>
1. We live longer, healthier lives.	<ul style="list-style-type: none"><li>• Increase the proportion of adults making one or more visits to the outdoors per week.</li><li>• Increase the average score of adults on the Warwick-Edinburgh Mental Wellbeing Scale by 2011.</li></ul>
2. We live in well-designed, sustainable places where we are able to access the amenities and services we need.	<ul style="list-style-type: none"><li>• Reduce overall ecological footprint.</li><li>• Increase the percentage of adults who rate their neighbourhood as a good place to live.</li><li>• Increase the proportion of journeys to work made by public or active transport.</li></ul>
3. Our children have the best start in life and are ready to succeed.	<ul style="list-style-type: none"><li>• Reduce the rate of increase in the proportion of children with their Body Mass Index outwith a healthy range by 2018.</li></ul>
4. We have tackled the significant inequalities in Scottish society.	<ul style="list-style-type: none"><li>• Decrease the proportion of individuals living in poverty.</li><li>• Reduce mortality from coronary heart disease among the under 75s in deprived areas.</li></ul>
5. We value and enjoy our built and natural environment and protect and enhance it for future generations.	<ul style="list-style-type: none"><li>• Increase the proportion of adults making one or more visits to the outdoors per week.</li><li>• Increase the percentage of adults who rate their neighbourhood as a good place to live.</li></ul>

What are we going to do?

Specifically we will do the following:

- Create opportunities and provide support for people living in our most deprived communities, through woodland programmes, grants and partnerships.
- Engage with under represented groups.<sup>17</sup>
- Improve access to woodlands close to where people live and work.
- Increase opportunities for adults and children to regularly use woodlands.
- Increase opportunities for improving physical health, mental health and wellbeing, and community cohesion through engagement with trees, woods and forests.
- Increase volunteering opportunities to encourage people to get involved in practical activities in woods.

A separate Action Plan (available at [www.forestry.gov.uk/scotland](http://www.forestry.gov.uk/scotland)) sets out what we aim to do in detail.

Natural play area within a primary school

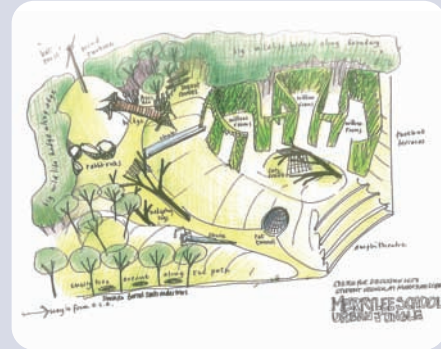
Children’s drive to play is instinctive and they exhibit an instinctive attachment towards the natural environment.

The aim of this project is to develop a natural play area within a primary school. Allowing pupils to reconnect with the natural environment, create their own play, increase levels of physical activity and develop social and interpersonal skills.

A new build primary school in Merrylee, Glasgow was identified as the pilot site.

A design was developed in conjunction with the student and parent councils. Glasgow City Council and the local Merrylee Area Committee provided additional funding for the capital works. The site will incorporate topography such as hills and hollows, surfaces like sand and gravel along with shrubs and trees. It will also include features like dead wood, boulders and a bridge.

In addition, independent research will evaluate the impact of the new natural play space.





## What linkages exist?

Connections to other areas of our work include Learning, Social health and wellbeing, Recreation, and Value for Money linkages.

### Learning and skills development

Our **Woods for Learning Strategy**<sup>18</sup> recognises that the use of woods for learning provides opportunities for physical activity and can contribute to children's health and wellbeing. Connecting children with woodlands at a young age is vital. Curriculum for Excellence is based on the recognition that if children have opportunities to be active, successful, confident, and responsible they will grow into adults holding the same values and exhibiting the same behaviours. The frequency of childhood visits to woodlands is the single most important predictor of how often people visit woodlands as adults.<sup>19</sup> Woods are restorative and reduce stress levels, and teachers have noted that children are calmer after regular visits to woodland. Woodlands provide a positive learning environment for children who have attention deficit disorder and children with special educational needs including those on the autistic spectrum. Active Schools, Forest Schools and Forest Kindergartens all provide active outdoor learning in natural environments, encouraging children to take part in learning through physical play for example. Active Schools also gives pupils opportunities to make a positive contribution to their health through sports and walking and cycling to school. For young people such active participation has been shown to lead to greater participation in such activities later in life as well as instilling feelings of wellbeing and a disposition towards caring both for themselves and the environment.

### Social health and wellbeing

Involving people in health improvement activities in woodlands can provide benefits both for participants and their communities as a whole. People are more likely to participate in communal activities in woodlands because of their suitability as environments for social interaction, thereby helping to reduce social barriers and isolation. Individuals can experience an

#### Physical activity at Forest School

For the maintenance and promotion of good health children should accumulate at least sixty minutes of moderate and vigorous physical activity every day (Chief Medical Officer 2004; Scottish Executive 2003). Encouraging children's greater participation in physical activity is a key approach to the improvement of public health.

This research investigated the value of the outdoor learning programme 'Forest School' as a source of school time physical activity. With Forest School the emphasis is on education in the outdoors rather than specifically education about the outdoors. The participants also take part in a range of non-academic activities including active games, art projects and building dens.

The children were found to be significantly more active during Forest School days than on typical school days; the levels of activity during Forest School were 2.2 times greater than those on active school days and 2.7 greater than on inactive school days.



increase in self-esteem and self-confidence, personal identity, sense of belonging, ownership, empowerment, wellbeing and quality of life. Benefits to the community can include social connectedness, cohesion, integration, stability and resilience. Greener neighbourhoods give rise to stronger communities with better social ties and connectivity. Volunteering provides one way of helping to achieve this: it is more about providing benefits to the people and communities who use woodlands and less about the actual work achieved on the ground.

### Recreation

The Scottish Government Strategy, Let's Make Scotland More Active,<sup>20</sup> aims to enable people in Scotland to enjoy the benefits of having a physically active life. Woodlands and forests play a key role in helping to achieve this, not just in rural areas but increasingly in the urban environment through WIAT (Woodlands in and around Towns).<sup>21</sup> The WIAT initiative is helping to build healthy physical activity into the daily lives of individuals who often exhibit low levels of physical activity. WIAT woodlands provide sustainable and robust environments, offering informal outdoor recreation opportunities particularly where other opportunities are lacking and where communities experience high levels of social exclusion. Such woodlands can absorb many people whilst still providing a 'get away from it all' experience, accommodating both informal recreation and more formal activities and events throughout Scotland. The national forest estate and its associated road and track infrastructure offer a major resource for recreational visits. Its networks of recreational facilities and programmes of organised events provide significant opportunities to improve health and wellbeing and enhance the quality of user experience. Forest Enterprise Scotland intend to deliver the strategy by implementing and monitoring a "forests for health" partnership programme commencing in 2009/10. Core paths also provide a framework of routes that support wider networks of other paths, enabling reasonable public access links throughout Scotland. Recent research found that 79% of the Scottish adult population agreed or strongly agreed that woodlands are places to exercise and keep fit.<sup>22</sup>





Value for money

Trees, woods and forests are an important asset for health and there is suggestive evidence of substantial economic benefits arising from lower rates of illness and a reduced requirement for medical intervention and health care. More effort is required to understand fully the cost benefit of greenspace and woodland and this is one of the actions that can be taken forward in partnership between the environment and health sectors. However, best current estimates suggest that the annual health benefit of Scottish woodlands is estimated to be at least £10 million.<sup>23</sup> Economic benefits can be evaluated according to levels of engagement that vary from the introduction of trees in the redesign of hospital environments to the role of urban regeneration woodlands in contributing to reversing cycles of social deprivation. Studies that examined the economic benefits of accessible green spaces for physical and mental health suggest that health care benefits are likely to be sustained if attractive and accessible greenspace is situated close to where people live.



Forest School: evidence for restorative health benefits in young people

**Background** - The research explored whether forest settings could offer psychological benefits to adolescents with varying emotional needs.

**Method** - Mental health was explored in young people (aged 10-13) across three behavioural states: no behaviour problem, significant behaviour problem and mental disorder. Restoration was measured in two different settings both before and after a typical day at school versus Forest School.

Results

- The school setting significantly depressed mood across all behaviour groups.
- The forest setting was advantageous to mood in all behaviour groups.
- The intensity of the restorative experience was greatest in those experiencing the worst mental health.

**Conclusion** - The forest setting was advantageous to mood. A key finding was the ability of forest settings to stabilise anger across three groups. Anger in young people is linked with reduced physical and mental health.

*Source: Roe, J. (2008) The Restorative Power of Natural and Built Environments. Doctoral thesis, Heriot-Watt University.*

How will the strategy be implemented?

Implementation will be through direct intervention, grant schemes and challenge funds and working with and through partners. Specific actions are set out in a rolling three-year Scottish Forestry Implementation Plan intended to help meet the Scottish Government's national performance framework and strategic indicators. The first Action Plan covers the period 2009 to 2011 and includes the following actions:

- Maintain a national health advisor and two dedicated regional health advisors;
- Provide capital and revenue funding for implementing specific projects;
- Undertake measures within the WIAT and Forestry for People challenge funds;
- Undertake national partnership initiatives with NHS Health Scotland, Scottish Natural Heritage and Scottish Environment and Rural Service partners;
- Develop local initiatives with Community Health Care Partnerships;
- Commission new research around knowledge gaps;
- Develop methods and tools to monitor and evaluate health outcomes of pilot programs and initiatives.

An annual review process will be established to monitor progress against the strategy Action Plan and to ensure that target and indicators are being met.



Woodland mountain biking as part of core physical education

This project aimed to encourage pupils to participate in mountain biking responsibly in a woodland setting as part of secondary school PE and after-schools programme.

A local urban mountain bike trail and skills loop at Cumbernauld Glen was developed as a resource for schools to utilise.

Through partnership with Scottish Wildlife Trust and Cycling Scotland two secondary schools in Cumbernauld now offer mountain biking as an option within core PE.

Feedback from the schools highlights that mountain biking is seen as a more exciting and 'cool' option, offering pupils a different type of activity compared to the more traditional team sport based options.

This option has proven to be popular amongst teenage girls who comprise one of the key target groups to engage with when trying to increase physical activity levels.

"I used to have a bike when I was younger but haven't had one for a while. Since starting this though, I want one. There aren't really any downsides to it." *Fifth year pupil.*



## What will success look like?

The 2011 review of the Woods for Health Strategy will provide an opportunity to examine to what extent the environment and health sectors in Scotland have become more connected and whether there is a shared understanding and implementation of Scottish Government policy. A successful future will show an increase in the number of high quality natural environments that nurture health and wellbeing. A higher proportion of adults and children from all sectors of society should be able to access and take part in woodland recreation activity on a regular basis.



### Greening hospital grounds

Greening up the NHS estate will create attractive and more welcoming environments for people. The natural environment is one of the key determinants of health. High quality greenspace near hospitals can help promote recovery and feelings of wellbeing amongst staff, visitors and patients.

This new Forestry Commission initiative aims to work with NHS Boards across Scotland to make better use of the outdoor NHS estate.

The vision is to harness hospital grounds and use them for health improvement activity. Activities include planting more trees and shrubs, leading conservation activity and establishing sensory trails, rehabilitation paths, places to sit and view nature and sheltered areas for physiotherapy.

Forestry Commission Scotland is currently working with NHS Tayside to draw up plans for a pilot at Ninewells hospital in Dundee. Work is also under way with NHS Highland to map hospital grounds in the Highlands and Islands area and use rapid appraisal techniques to identify suitable sites for development.

## Success in 2011 will be measured against the following indicators:

- Have we created more woods near to people?
- Have we increased opportunities for adults and children to regularly use woodlands?
- Do all sectors of society have access to better quality woodland?
- Are we providing better public information on woodland services?
- Have barriers to woodland use been reduced for all sectors of society?
- Have health promotion opportunities in woodlands increased?
- Have volunteering opportunities in woodlands increased?
- Are more health professionals referring and using woods and greenspace for health improvement activity?
- Through case studies and research is there a better understanding of what it is about trees, woods and forests that are good for people's health?
- Have methods and tools for monitoring health improvement activity in woodland been established?





## References

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<sup>2</sup>Equally Well. Report of the SG ministerial task force on health inequalities. 2008.  
[www.scotland.gov.uk/Publications/2008/06/25104032/0](http://www.scotland.gov.uk/Publications/2008/06/25104032/0)

<sup>3</sup>Scottish Executive (2005). The Scottish Health Survey - 2003 Results. Scottish Executive, Edinburgh.

<sup>4</sup>NHS National Health Service 2008. ScotPHO Health and Wellbeing Profiles 2008.  
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<sup>5</sup>Healthy Eating, Active Living: An action plan to improve diet, increase physical activity and tackle obesity. (2008-2011) [www.scotland.gov.uk/Publications/2008/06/20155902/0](http://www.scotland.gov.uk/Publications/2008/06/20155902/0)

<sup>6</sup>Foresight, Tackling Obesities: Future Choices (2007). Project Report Second Edition. The Government Office for Science, London.

<sup>7</sup>Woodlands and Greenspaces and the Promotion of Health and Physical Activity. Physical Activity and Health Alliance Briefing Paper No. 8 [www.paha.org.uk/paha/3763.html](http://www.paha.org.uk/paha/3763.html)

<sup>8</sup>Pretty, J., Peacock, J., Sellens, M. & Griffin, M. (2005a). The mental and physical health outcomes of green exercise. International Journal of Environmental Health Research, 15: 319-337.

<sup>9</sup>Pretty, J., Griffin, M., Peacock, J., Hine, R., Sellens, M. & South, N. (2005b). A countryside for health and well being: the physical and mental health benefits of green exercise. Report for the Countryside Recreation Network, Sheffield.

<sup>10</sup>Kaplan, S. (1995). The restorative benefits of nature: toward an integrative framework. Journal of Environmental Psychology, 15: 169-182.

<sup>11</sup>MIND. 2007. Ecotherapy the green agenda for mental health.  
[www.mind.org.uk](http://www.mind.org.uk)

<sup>12</sup>WHO (1994) quoting Dahlgren, G. and Whitehead, M. (1991). Policies and strategies to promote social equity in health. Stockholm, Institute for Futures Studies.

<sup>13</sup>Faber Taylor, A., Kuo, F.E. (2008), "Children with Attention Deficits Concentrate Better After Walk in the Park", Journal of Attention Disorders, August 25, 2008.

<sup>14</sup>Ulrich R S. 1984. View through a window may influence recovery from surgery. Science 224, 420-21.

<sup>15</sup>Kerr, M.A. and Schneider, B.H. (2008), "Anger expression in children and adolescents: a review of the empirical literature" Clinical Psychology Review, 28(4):559-77.

<sup>16</sup>Scotland Performs. [www.scotland.gov.uk/About/scotPerforms](http://www.scotland.gov.uk/About/scotPerforms)

<sup>17</sup>i.e. equality and diversity groups: Age, Gender, Disability, Religion & Beliefs, Ethnicity & Race and Sexual Orientation.

<sup>18</sup> Forestry Commission Scotland Woods for Learning Strategy.  
[www.forestry.gov.uk/forestry/inf-d-6cjdgl](http://www.forestry.gov.uk/forestry/inf-d-6cjdgl)

<sup>19</sup>Ward Thomson, C., Aspinall, P. and Montarzino, A. 2008. The Childhood Factor: Adult Visits to Green Places and the Significance of Childhood Experience. Environment and Behaviour 40(1):111-143.

<sup>20</sup>Let's Make Scotland More Active: A strategy for physical activity. Physical Activity Task Force. 2003.  
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<sup>21</sup>WIAT Programme. [www.forestry.gov.uk/forestry/inf-d-5w2nfz](http://www.forestry.gov.uk/forestry/inf-d-5w2nfz)

<sup>22</sup>Public Opinion of Scottish Forest Survey (2007). Forestry Commission Scotland.

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[www.forestresearch.gov.uk/website/forestresearch.nsf/ByUnique/INFD-6S8CSP](http://www.forestresearch.gov.uk/website/forestresearch.nsf/ByUnique/INFD-6S8CSP)

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