

Draft
Scottish
Forestry Strategy
2006



SCOTTISH EXECUTIVE

Draft Scottish Forestry Strategy 2006

Forests for Scotland - The Scottish Forestry Strategy

Issued for Consultation 6 March 2006

Please send comments on this draft, revised Scottish Forestry Strategy, to:

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Foreword to Consultation Draft

This draft revision of our Scottish Forestry Strategy owes much to the many people who responded to the first consultation, and I start by thanking everybody involved.

I spoke at the launch of the first Strategy in November 2000, during my first period as Forestry Minister. It was an exciting time, just after devolution, when we were choosing our own way forward. Aware as I was of all the benefits that forestry could bring, I believe the atmosphere was quite different then. There were tensions over the kind of forestry people wanted to see. Groups were set up to encourage views to be exchanged: the Forestry for People Advisory Panel, the Scottish Forestry Forum, and the Timber Transport Forum among them. It is instructive to see how the work of these, and other, groups has evolved.

Coming back as Forestry Minister for a second time, I see how much has changed. There is a new optimism. As reflected in our new sustainable development strategy, *Choosing our Future*, people realise that social, environmental and economic outputs are all inter-linked, and strive rather more for the best result as a whole. At the same time Regional Forestry Forums now give voice to a regional expression of aspirations for forestry.

Local authorities and others in the public, private and voluntary sectors, have realised what woodlands can deliver, and the work of the Woods In and Around Towns initiative has been gaining momentum by leaps and bounds. In the Ministerial Statement I made to Parliament in January, I drew attention to the resources we are spending to increase the contribution of forests to our quality of life. I also announced that Scotland's forthcoming Climate Change Programme will include, for the first time, a target for the whole of the forestry sector.

One sixth of Scotland is now wooded, so it is important to continue thinking about how we integrate our forestry thoughts and actions with the development of other programmes. For example, our Land Management Contracts will seek to streamline the way we provide incentives for those who manage the land, and we recently put our Rural Development Strategy out to consultation. We may not always have as many resources as we would like, and this is all the more reason why we have to work together, to make the most of what we have. As a starting point we need the very best ideas.

This draft Strategy is rightly focused on outcomes contributing to: health and well-being; competitive and innovative businesses; and a robust and adaptable environment. I believe these are outcomes that matter to everyone. Please, though, encourage everybody you know who may have an interest to become involved and to comment on this draft. Together we will shape a Strategy that will help steer forestry policy, programmes and practice so that Scotland's woodlands and forests will be highly valued, used and enjoyed by generations to come.

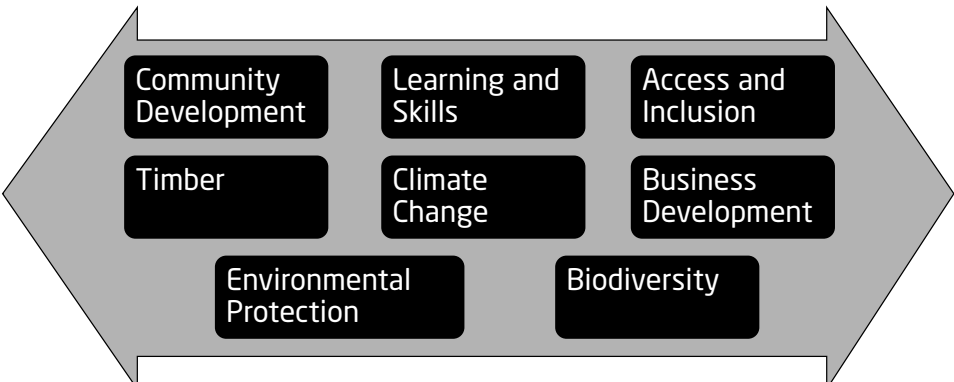


Rhona Brankin
Deputy Minister for Environment and Rural Development
March 2006

Executive Summary

The Scottish Forestry Strategy is the Scottish Executive’s framework for taking forestry forward through the first part of this century and beyond. It sets course for a diverse and resilient forestry sector, in tune with the environment, employing many people in enterprises of all scales, and providing the numerous other services and benefits required by people now and in the future.

The time-horizon for the Strategy is to 2025, but with an eye to the longer term and with a focus on the key priorities over the next 10 years.

Vision	Scotland's trees, woodlands and forests are a central part of our culture, environment and economy. People are benefiting widely from them, actively engaging with and looking after the resource for the use and enjoyment of generations to come.		
Principles	<ul style="list-style-type: none"> • Sustainability – through sustainable forest management • Social inclusion – through helping to provide opportunities for all, and helping to build stronger communities. • Forestry for and with people. 		
Outcomes	Improved health and well-being of people and their communities.	Competitive and innovative businesses contributing to the growth of the Scottish economy.	High-quality, robust and adaptable environment.
Objectives	<ul style="list-style-type: none"> • Support community development. • Enhance opportunities for health and enjoyment, through access and recreation. • Contribute to growth in learning and skills. • Protect and promote cultural heritage. 	<ul style="list-style-type: none"> • Develop a more efficient and competitive timber supply chain. • Increase the contribution of forestry to tourism. • Support the development of markets for forest products. • Facilitate rural business diversification and development. 	<ul style="list-style-type: none"> • Help to tackle climate change. • Help to protect and enhance biodiversity. • Contribute positively to soil, water and air quality. • Contribute to landscape quality.
Key Themes			

Executive Summary – continued

The Strategy is underpinned by the principles of sustainable development and social inclusion, through “forestry for and with people”.

To achieve the Vision, Outcomes and Objectives, eight Key Themes will be progressed. These include priorities for action for existing, as well as new, work.

Key Targets

- The new Scottish Climate Change Programme will contain specific forestry commitments. These will be confirmed and included in the final, revised Scottish Forestry Strategy.
- Woodland expansion, to meet a variety of social, environmental and economic needs, will be in the region of 9,000 –10,000 hectares each year.

By 2015:

- about one quarter of the population should have access to at least one area of woodland greater than 2 hectares within 500 metres of their homes;
- about two thirds of the population should have access to at least one area of woodland greater than 20 hectares within 4 kilometres of their homes;
- we should have expanded the area of native woodlands by at least 40,000 hectares;
- we should have brought at least an additional 50,000 hectares of native woodland in to management to improve its condition, including a focus on Sites of Special Scientific Interest (SSSI) to contribute towards the Executive’s target of bringing 80% of SSSI features into favourable condition by 2008, and 95% by 2010;
- we should have begun the restoration of a further 9,000 hectares of Plantations on Ancient Woodland Sites to native woodland; and
- the private and state sector should be forecasting a national, sustained level of timber availability, and accurate forecasts of timber quality should be available.

By 2025 (and beyond):

- there should be a sustained level of timber production of about 8 – 8.5 million m³ each year (to be refined following further discussion with the forestry sector).

By 2030:

- About 80% of semi-natural woodlands and 60% of planted native woodlands should be in favourable ecological condition.

Delivery

Almost two-thirds of Scotland's woodland area is owned and managed by private individuals, commercial organisations, charities, community groups, and a wide array of other interests. They have a primary role in helping to deliver this Strategy, and need the appropriate information, guidance and support to do so.

Delivery of the Strategy will be achieved through: detailed work programmes; partnership working; the evolution of grant schemes and appropriate regulation; and the management of national forest land. An underlying requirement is to help achieve effective land-use integration and to reflect regional and local priorities.

Required delivery actions are:

- Regional Forestry Forums will continue to have an important role in advising Forestry Commission Scotland on the regional implementation of the Strategy.
- Forestry Commission Scotland will help to develop the role of Community Planning Partnerships for increasing forestry's delivery against wider local priorities.
- The role of long-term forest plans will be consolidated as a basis for local consultation on woodland creation and management.
- For the national forest estate, Forestry Commission Scotland will continue to implement the recommendations of the 2004 Review, respond publicly to the more recent Environment Review, and develop a detailed vision.

Monitoring and Reporting

- Forestry Commission Scotland will take the lead role in "championing" the Scottish Forestry Strategy.
- The Scottish Executive will monitor progress in implementing the Strategy.
- A suite of 40 Indicators of Progress is proposed, and a Forestry Commission Scotland individual will be given overall responsibility for monitoring and reporting on progress to the Scottish Executive.
- The Scottish Forestry Strategy is expected to have a shelf life of about ten years. However, the actions relating to Key Themes will need to be refreshed after about five years. The Indicators of Progress will, therefore, be reported on, by the Commission, mid-way through the five years and prior to the refreshment exercise. The reports will be made available to the public.

Strategic Environmental Assessment

The revision of the Scottish Forestry Strategy is being guided by a Strategic Environmental Assessment. As part of that process, an Environmental Report has been prepared. See www.forestry.gov.uk/sfssea

Structure of The Strategy

Part One: Context

The Resource
General Forest Policy Context
The Scottish Context
The Review Process

Part Two: Vision

Principles & Structure
Vision
Outcomes & Objectives
Key Themes

Part Three: Delivery

Introduction
Integrated land use
Regional and local priorities
The role of partnership
The national forest estate
Grants and regulation
Required action
Monitoring and reporting

Appendices

1. Glossary
2. Progress Since 2000
3. Forestry Context
4. Linkages with the Scottish Forestry Strategy 2000
5. Indicators of Progress

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The Resource

1.1.1 Forestry is a remarkable land use. It can provide, simultaneously: a home for wildlife; somewhere to play, exercise or simply recuperate from the stresses of modern life; a place to work or learn; a sustainable supply of environmentally friendly building materials and other products, such as food; a source of renewable energy; more beautiful town and rural landscapes; a way of storing carbon; clean air; reduced flood risks; and screens for noise. This unique, multifunctional role is something that has been increasingly recognised since the 1980s.

1.1.2 There are now 1.33 million hectares (13.3 thousand square kilometres) of woodland in Scotland, of which 35% (by area) is managed by Forestry Commission Scotland. However, despite having excellent conditions for growing trees, Scotland has, for historical reasons, significantly less woodland than many other countries.

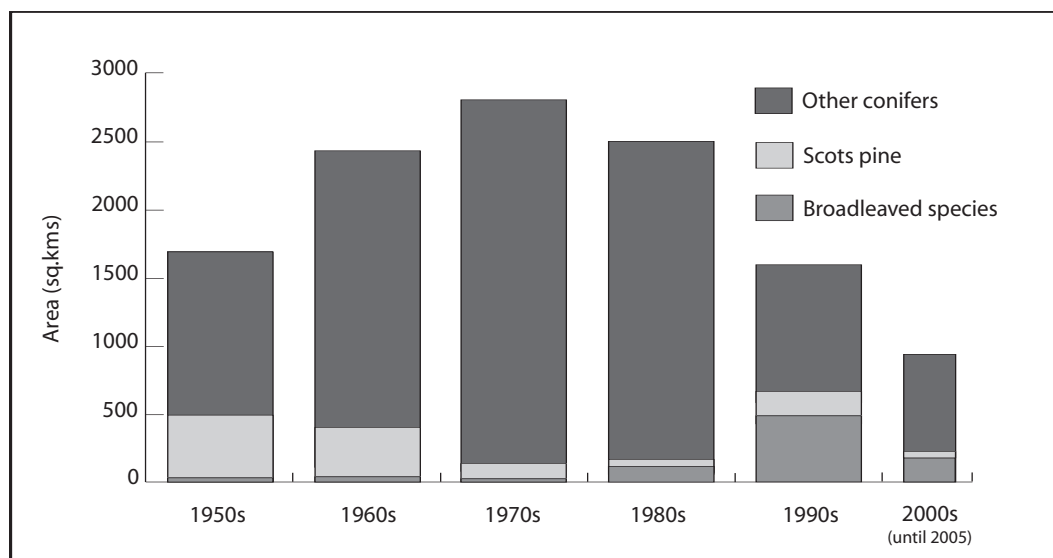
Table 1. International comparisons of forest and woodland areas

	<i>Thousands of square kilometres</i>	<i>Percentage of land area</i>
Scotland	13	17.1
UK	28	11.6
EU-25	1,396	36.3
Europe (including Russia)	10,394	46.0
World	38,695	29.6

1.1.3 At the start of the 20th century total woodland cover in Scotland was just 5%, and only a third of that was native woodlands of semi-natural origin. Today, woodland cover stands at just over 17% of Scotland’s land area, most of which is the result of concerted planting efforts by the state and private sectors over the past 75 years, primarily with introduced conifers such as Sitka spruce, Norway spruce, Lodgepole pine and Japanese larch.

Figure 1: Planting and Regeneration

Graph by decades since 1950s showing proportion of broadleaves, Scots pine and other conifers.



Context – continued

1.1.4 Forestry must demonstrate its relevance to people today. However, today's woodlands may be around for decades, if not centuries, to come, and it is impossible to second-guess what economic, social or climatic conditions may exist at that time. A successful forestry strategy must, therefore, aim to provide a range of options for our successors as well as providing for today's needs. This lies at the very heart of sustainability.

General Forest Policy Context

1.2.1 At "Rio" (1992) the blunt message for economic development was that nothing less than a transformation of attitudes and behaviour, at a global level, was required to halt the destruction of irreplaceable natural resources and pollution of the planet (particularly "global warming"). This has been abbreviated to *sustainable development*, described as "development that enables all people, throughout the world, to satisfy their basic needs and enjoy a better quality of life, without compromising the quality of life for future generations". The agreements made at Rio, including the *Statement of Forest Principles*, underpin much of what has followed in forestry.

1.2.2 Sustainable Forest Management (SFM) is now regarded as a key component of sustainable development. In the United Kingdom (UK) the requirements for sustainable forest management are set out in the *UK Forestry Standard*, with independent verification of this now possible through the internationally recognised *UK Woodland Assurance Standard (UKWAS)*, and the environmental labelling of UK-grown forest products. By 2006 almost two thirds of the woodland area in Scotland had been certified, including all the national forest estate.

Sustainable Forest Management recognises the need to link the social, economic and environmental values of forestry, based on good evidence and through effective engagement with people. At its simplest it means making sure that today's woodlands are still here, with the same or better benefits, for our children's grandchildren.

1.2.3 The *European Union (EU) Forestry Strategy* sets a framework for co-operation on forestry issues among member states. Its principles relate to sustainable forest management and the multifunctional role of forests. Although forestry in the EU remains the responsibility of member states, many aspects of EU legislation directly affect forestry on matters such as biodiversity, water quality, assessments of environmental impacts and broad land use issues (such as the Common Agricultural Policy). In general, support for rural land uses is moving away from "production" and more to the provision of services. At the same time, and with the enlargement of the EU, there is likely to be increasing downward pressure on public finances. Other sources of funding, enhancing business opportunities and adding value to forest products will, therefore, become increasingly important aspects of forestry.

The Scottish Context

1.3.1 Forestry is the responsibility of Scottish Ministers. Forestry Commission Scotland (FCS) acts as the Scottish Executive's Forestry Department, although it is still part of the Forestry Commission, Great Britain. It has a statutory duty to achieve a reasonable balance between timber production and environmental issues. The Nature Conservation (Scotland) Act 2004 also introduced a general duty on all public bodies to

further the conservation of biodiversity and to have regard to the Convention on Biological Diversity agreed at Rio. Social responsibilities are not defined by statute but are well documented in a range of Scottish Ministers' policy guidelines.

1.3.2 Since devolution in 1999, a wide range of strategy and policy documents have been produced in Europe, the UK and Scotland (see Appendix 3). Forestry's role is now extremely broad and can contribute to many of these, including: sustainable development; rural development; community development; health; education and lifelong learning; renewable energy; planning; natural heritage; landscape (urban as well as rural); water; access; and transport.

A summary of Scotland's needs

(summarised from the wide range of policies and strategies initiated by Scottish Ministers since 1999)

General Priorities

- The top priority is economic growth to raise the quality of life of the Scottish people through increasing economic opportunities for all, on a socially and environmentally sustainable basis;
- followed by: jobs, good education, transport, reduced crime and better health; and
- delivered in an integrated way through an innovative and productive economy that delivers high levels of employment, and a just society that promotes social inclusion, sustainable communities and personal well-being. This must be done in ways that protect and enhance the physical, cultural and natural environment, and uses resources and energy as wisely and efficiently as possible. High-quality public services must become readily accessible to all.

General Principles

- People should not be disadvantaged by who they are or where they live ("social justice").
- People should not have to live in degraded surroundings with a poor quality of life ("environmental justice").
- Everyone should have the same opportunity to enjoy a good quality of life and access to appropriate services ("closing the opportunity gap" and "social inclusion").

Rural Scotland:

- Acknowledged and valued for its distinctiveness and for its integral part in Scotland's success.
- Recognition that it has different priorities, needs and circumstances from urban areas.
- Rural communities, and particular sections within them, have unique challenges. Interventions need to be sensitive to, and appropriate for, the rural setting.
- Land uses need to be better integrated.

Climate Change:

- Recognition of the overwhelming scientific consensus that the world's climate is changing and that it is the most severe problem we now face.
- A need to tackle climate change through adaptation and mitigation measures.

The Review Process

1.4.1 **Forests for Scotland - The Scottish Forestry Strategy** (www.forestry.gov.uk/sfs) was published in 2000 and was the Scottish Executive's first integrated framework for the long-term development of forestry in Scotland. It contained a commitment to review its "Priorities for Action" within five years but, since 2000, the extent of changes at international and national level indicated the need for a wider review. The first public consultation on the review took place during 2005 (see above link) and included a number of public events hosted by the five Regional Forestry Forums.

1.4.2 As part of the review process we took stock of forestry's progress in Scotland since 2000 (see Appendix 2). This, and the consultation exercise, highlighted a number of important opportunities and challenges for forestry in the next 10-20 years. In brief these are:

Relevance

1.4.3 Forestry is not an end in itself. It must meet the needs of, and benefit, those who live in or visit Scotland, both in the short-term and in the long-term. By becoming relevant today and in the longer term, the future of our trees, woodlands and forests, together with their diverse benefits, will be more secure.

"Forestry is not about trees, it is about people. And it is about trees only insofar as trees can serve the needs of people."

Jack C Westoby (United Nations Food and Agriculture Organisation, 1967)

Climate change

1.4.4 Climate change is happening now and is one of the most significant issues facing the world. Action is required.

1.4.5 In Scotland a number of factors have brought climate change into focus, including: the review of the UK and the Scottish Climate Change Programmes; the biomass report of the Forum for Renewable Energy Development in Scotland; the Scottish Parliament's Environment & Rural Development Committee report on climate change; the *Wood Fuel for Warmth* report by the Sustainable Development Commission in Scotland; Sir Ben Gill's Biomass Task Force report; and the tripling of oil prices between 2001 and 2005.

1.4.6 The EU has recognised that, in addition to the need for profound reductions in overall demand for energy, it needs to break its dependence on fossil fuels, and that biomass is one of the main alternatives.

1.4.7 The UK and Scotland have a number of commitments to address climate change:

- the UK's obligation under the *Kyoto Protocol* is to reduce greenhouse gas emissions by 12.5% by 2008-2012 compared with 1990. The UK Government has set a more ambitious domestic target to reduce carbon dioxide emissions by 20% below 1990 levels by 2010, with a longer-term goal to reduce those emissions by some 60% by about 2050. Policies to address these targets will be outlined in the forthcoming UK Climate Change Programme; and
- Scotland has committed to making an equitable contribution to the UK's action on climate change. As part of the review of the Scottish Climate Change Programme, the Scottish Executive has developed the concept of the "Scottish Share", which will, for the first time, quantify our equitable contribution in terms of carbon. The new Scottish Climate Change Programme will be published in early 2006, and will include a forestry-related target.

1.4.8 Over the foreseeable future, helping adapt to and mitigate climate change will be one of the key roles for forestry in Scotland. It can contribute to this through:

- *adaptation* – by planning and managing woodland ecosystems to minimise the harmful impacts of climate change;
- *mitigation* - by reducing emissions (where wood fuel substitutes for fossil fuels), and by substituting timber and wood products for energy-intensive materials such as concrete and steel;
- *carbon sequestration* – by locking up carbon during the growth of biomass, and through the conservation of other major carbon sinks (stores), particularly peat bogs and soils; and
- *education/engagement* - by increasing people's awareness of climate change and the actions they can take to help.

Sustainable development

1.4.9 A measure of the impact of the resources we are using is our “ecological footprint”, an estimate of the land and sea area required to provide all the energy, water, transport, food and materials we consume. In 2001, it was estimated that the average Scot had an ecological footprint 2.4 times the global average.

1.4.10 In 2005, Ministers set out their strategy for sustainable development, *Choosing our Future – Scotland's Sustainable Development Strategy*, that focused on:

- reducing Scotland's global footprint;
- improving the quality of life of individuals and communities in Scotland, securing environmental justice for those who suffer the worst local environments; and
- protecting our natural heritage and resources for the long term.

1.4.11 Economic growth, to raise the quality of life of the people of Scotland, is the top priority of Scottish Ministers – but not at any cost. It has to be done in a way that is sustainable and which breaks the link with environmental damage. By going for such “green growth”, exciting new opportunities for employment (“green jobs”) will arise, based on new technologies (such as renewable energy) or new business directions, such as eco-tourism and sustainable construction.

1.4.12 Forestry has the potential to be an exemplar of sustainable development. To do so it must demonstrate:

- that our woodlands, together with their associated habitats, are managed within their environmental limits;
- how forestry can help deliver a strong, healthy and just society; and
- how it contributes to a strong and stable economy.

It must achieve this by:

- providing opportunities for people to be fully engaged in their local forests through effective, participatory systems of involvement with all levels of society; and
- basing decisions on sound scientific evidence as well as public attitudes and values.

Context – continued

Economic development

1.4.13 A strong and sustainable economy is critical to the long-term success of Scotland. *Smart Successful Scotland* sets out a strategic direction for the Enterprise Network based on business growth and improving skills. It is underpinned by *the Framework for Economic Development in Scotland*, which sets out how economic development can complement environmental stewardship.

1.4.14 Managing forests in a sustainable manner for the range of values they provide will not be possible if the sector as a whole is not economically viable. Although markets for environmental services are growing, wood and wood products will remain important sources of income.

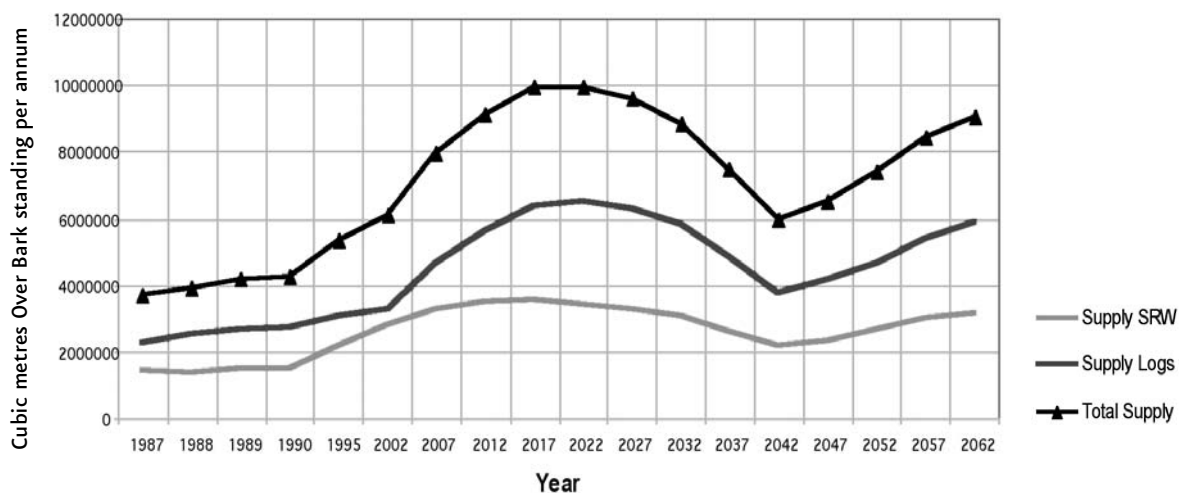
1.4.15 Woodlands provide the vital backdrop for, and help to support, Scotland’s biggest business – the tourism industry - which employs more than 200,000 people and contributes about £4.5 billion to the Scottish economy each year. The sector’s ambitious plans for growth (a 50% increase in tourism revenue by 2015) represent a significant opportunity for those engaged in forestry and woodland-related businesses.

1.4.16 About 7,600 jobs are provided directly by forestry in Scotland and another 3,100 in the primary wood-processing industry. Between 1999 and 2003, forest employment rose at a faster rate than any of the other primary rural industries, with most of this linked to increasing timber production. Private sector investment in the industry has continued at about £60 million each year over the last fifteen years. In addition, forestry and wood-processing contribute about £650 million each year to the Scottish economy, or about 1% of GDP.

A full account of the timber industry and its aspirations for growth can be found in the Scottish Forest Industries Cluster publications: *Scotland’s Forest Industries* and *Roots for Growth*.

1.4.17 Scotland can provide a sustainable supply of certified timber. Timber availability has the potential to rise from its current annual level of almost 7 million m³ (about 60% of the UK total) to more than 10 million m³ by 2020 as the extensive afforestation of the 1970s and 1980s matures. Recent investments in wood processing, coupled with new investment proposals, including woodfuel energy, offer a market for these increased volumes of (mainly coniferous) wood. However, timber availability is then forecast to fall back to current levels by 2050, due to the significantly reduced levels of coniferous afforestation over the past 15 years.

Figure 2: Trends in wood production and availability in Scotland



1.4.18 Wood-processors require a consistent and reliable supply of timber if they are to continue to invest in the industry. This could be achieved in a number of ways, including importing more timber, but there is also significant merit in “smoothing” the supply of timber from Scottish forests. This would enable a phased “restructuring” of plantations (the key mechanism for diversifying their age structure as well as the range of tree species and open space).

1.4.19 The value of forestry’s raw material (wood) is now worth about half of what it was in the early 1990s. This has significantly reduced the profitability of forestry and the ability of the sector to invest in the future (whether for timber or for environmental and social aims). However, in the longer term, rising oil prices, climate change, international instability and the global sustainability agenda, point to the desirability of continuing to have a significant timber resource at home, provided this is of sufficient quality and diversity to facilitate a wide range and scale of business opportunities.

1.4.20 To remain competitive with international markets, wood processing requires high levels of investment, technological development and consistency of raw material in terms of supply and wood properties. In general, only the larger mills can meet these requirements, and only by relying on a wide catchment area. However, enhancing local economic value was a key message from our first consultation and can complement, rather than compete with, larger-scale timber utilisation. Examples include the production of high-quality softwood timber (from, for example, Douglas fir, Scots pine and European larch), the production of wood-fuel and opportunities to develop the hardwood and non-timber forest products sectors.

1.4.21 Timber haulage remains a major challenge. It is often the single biggest cost component of roundwood, has the potential to impact significantly on communities, and can damage weak, minor public roads. Co-operative working between the industry, local authorities and local communities, for example through the *Regional Timber Transport Groups*, is helping to identify and resolve problems. On the wider sustainability agenda it also remains an objective to reduce “timber miles”, either by the use of sea and rail or by developing local processing capacity, particularly for lower-value products.

1.4.22 Delivering the full benefits of multifunctional forestry requires a skilled, properly equipped workforce. Enhancing job quality by skills development, and integrating with agricultural work to supply year-round, stable local employment, are two potential solutions. However, the cost of training is seen as a significant barrier for small forestry businesses, particularly with the current rates of staff turnover. It will be important to break this “vicious circle”.

1.4.23 There are, therefore, a number of economic challenges facing the forestry sector if it is to increase its contribution to sustainable development in Scotland. These are:

- adding value to wood as a raw material through product innovation and market penetration (particularly in the construction sector);
- maintaining timber production at a sustainable level and with confidence in the consistency and quality of the raw material;
- reducing financial, social and environmental costs in the supply chain;
- diversifying the economic potential of forestry so that it is capable of delivering greater benefits locally, as well as contributing to our national timber needs;
- ensuring that woodlands planted, or managed, mainly for timber production are well designed and capable of bringing significant, additional social or environmental benefits to the local area; and
- ensuring that those undertaking forestry work have the employment conditions, skills, equipment and motivation to meet the demanding safety and environmental standards of the industry, at a competitive cost.

Context – continued

Rural development

1.4.24 Rural Scotland accounts for 89% of Scotland's landmass, but less than one third of the population. It is not a single entity, and considerable variation exists, particularly between remote rural areas and those close to urban centres. It includes pockets of severe deprivation.

1.4.25 *Rural Scotland - A New Approach* will be refreshed in 2006 and is expected to set out a number of high-level outcomes to guide rural policy development. These will be reflected in the Scottish Forestry Strategy. In addition, the *Forward Strategy for Scottish Agriculture: Next Steps* (2006) recognises that forestry offers potential opportunities for agricultural diversification.

1.4.26 Rural development funding in Europe (2007 – 2013) will be based on the following four strategic priorities:

- improving the competitiveness of agriculture and forestry by supporting restructuring, development and innovation;
- improving the environment and the countryside by supporting land management;
- improving the quality of life in rural areas and encouraging diversification of economic activity; and
- enhancing the role of the “bottom-up”, locally driven approach to innovation and development.

These priorities will be reflected in the Scottish Rural Development Programme.

1.4.27 The future priorities for forestry's role in rural development are:

- securing community engagement and empowerment to achieve additional, tailored local benefits, including appropriate sites for affordable housing;
- helping to achieve significant rural diversification through land-use integration, a wider range of business opportunities, and the nurturing of transferable skills to provide year-round, quality local employment; and
- supporting economic development and the creation of green jobs by encouraging investment in a broader range of complementary, small-scale and large-scale forestry-related businesses.

The wider social agenda

1.4.28 The wider social agenda is about tackling inequalities, ensuring everyone has the same opportunities in life (“closing the opportunity gap”) and raising the quality of life for all – both now and in the future. However, people's quality of life differs throughout Scotland, these inequalities being caused by a number of social, educational and economic barriers. These include poor housing, degraded local environments, unemployment, low income, fuel poverty, poor mental and physical health, disability, or a lack of appropriate education. Our ageing population will also create additional challenges for health and social inclusion.

“An ability to participate in leisure and social activities is believed to be an important contributing factor to overall quality of life.”

(McCormick et al, 1996 - taken from the Scoping Study of Older People in Rural Scotland 2003).

1.4.29 Forestry can make a significant contribution to the wider social agenda. The naturally therapeutic sights, sounds and smells of woodland help to reduce stress and are an inexpensive way to encourage people to get active. Degraded local environments can be transformed by well designed woodland, adding

to local identity and creating a sense of pride. But the social agenda is about far more than simply doing things **for** people - it is about working **with** people and communities to encourage and equip them to influence their own lives. By engaging people in the design and management of local woodlands, community confidence and ability grows, and with it a number of transferable skills. Forestry, therefore, can be an important entry point for community “empowerment” and “capacity building”, helping to secure public benefits at best value to the tax-payer.

The **Forestry for People Advisory Panel** was formed in 2000 as a response to the first Scottish Forestry Strategy. It has advised Forestry Commission Scotland on: optimising the benefits from forestry for local communities, especially in rural areas; stimulating greater community involvement in forestry; and developing and disseminating best practice in the encouragement and management of community involvement. The Panel’s final report in 2005 concluded:

“People are now very much at the heart of Scottish forestry - with forestry demonstrating a clear ability to effectively deliver and support a wide range of important public benefits. There is also an ever increasing desire from individuals and communities to engage positively in forestry and realise the benefits and opportunities that forestry can offer – within both rural and urban areas.”

1.4.30 The challenge for forestry is to do significantly more than it is currently doing, with the social agenda as a central part of its work. This is not an “either/or” choice, because one of the great strengths of forestry is its ability to integrate, and deliver, multiple benefits. The forestry sector needs to be proactive in communicating to relevant organisations (such as Community Planning Partnerships) its capacity to work in partnership to deliver wider goals cost-effectively and quickly.

Water, air and soil

1.4.31 The maintenance or enhancement of soil, water and air quality is fundamental to the principles of sustainable forest management.

1.4.32 Soils are an irreplaceable resource. The broad need is to address the primary risks to them, i.e. erosion, contamination, compaction, sealing and loss of organic matter. Climate change is likely to have profound implications for soil management.

1.4.33 In the past, many plantations were planted too close to watercourses and with ploughing techniques that accelerated run-off and sedimentation, fuelling an impression that forestry is bad for water quality. The opposite is the case, provided good forest design and practice are implemented. With climate change and the probability of an increased frequency and intensity of storm events, the potential economic and social benefits of riparian and flood plain woodlands, combined with sensitive forest management practices, have never been greater. However, it will be important for those involved in land use to work together in an integrated and co-operative way. The *Water Environment and Water Services (Scotland) Act 2003* provides a mechanism for this through the development of River Basin Management Plans.

1.4.34 Woodlands, because of their canopy structures, intercept more air-borne pollutants than other types of vegetation. This is a good thing in towns and cities because it can help to improve local air quality, and also has benefits in terms of wind and noise reduction. However, where woodlands occupy a significant proportion of vulnerable water catchments, those same canopies work to our disadvantage by capturing the pollutants emitted by power stations, industry and transport. This can worsen the effects of acid deposition.

Context – continued

1.4.35 The decline in pollutant emissions over the past two decades has led to improvements in many water bodies. However, as a precaution, any new planting or replanting proposals in catchments at, or likely to exceed, their “critical load” now require detailed discussions with the Scottish Environment Protection Agency (SEPA) to determine whether to proceed.

1.4.36 As with all land use activities, forestry operations can impact directly on soil, water and air resources if work is not carried out to stringent standards (as described in the *Forests and Water Guidelines*). Waste management in forestry and the wood-processing sector is also an increasingly important factor, both in terms of environmental credentials and business efficiency.

Enhancing biodiversity.

1.4.37 The countryside, with its natural and cultural heritage, is part of our national identity, and safeguarding it makes good economic sense (Scotland’s nature supports, directly, almost 93,000 jobs, and generates £2.2 billion each year for the economy). However, and despite considerable conservation effort, biodiversity continues to decline in the UK, mainly due to the effects of habitat fragmentation and intensive land management. By supporting the aims, objectives and implementation plans of the Scottish Biodiversity Strategy, the Scottish Forestry Strategy seeks to help reverse that decline.

Native woodlands

1.4.38 Scotland’s ancient, semi-natural woodlands, covering just 2% of our land area, are some of our most diverse ecological systems, but are now just a tiny proportion of what used to be our natural forests. The very best of our ancient woodlands have statutory EU and UK designations to protect them. In turn, there are commitments to maintain or restore their favourable ecological condition, and also to expand them. These commitments are set out in the *UK Biodiversity Action Plan* and the *Scottish Biodiversity Strategy*. In addition there are Habitat Action Plans for the principal native woodland types and a range of other nationally, or locally, important habitats.

1.4.39 Of the ancient woodland resource, almost half consists of “Plantations on Ancient Woodland Sites”. The priority on such sites is to protect the remaining ancient woodland communities, and then expand them at an appropriate scale and rate.

1.4.40 There is considerable potential to increase the range of benefits from native woodland. Their ecological value is often higher than other types of woodland, but there is significant scope for them to deliver wider social and economic benefits.

Table 2: The distribution of different types of native woodland in Scotland.

Woodland Type	Estimated Area (‘000 hectares)		Percentage of native woodland area	
	Total	Semi-natural	Total	Semi-natural
Upland birchwoods	90	(74)	23.0	(19.0)
Upland oakwoods	50	(35)	13.0	(9.0)
Native pinewoods	181	(31)	46.0	(8.0)
Upland mixed ashwoods	21	(14)	5.5	(3.5)
Wet woodlands	21	(14)	5.5	(3.5)
Lowland mixed broadleaved	28	(10)	7.0	(2.5)

Other woodlands

1.4.41 Other types of woodland in Scotland also have a significant role in enhancing biodiversity. Improving the woodland structure and composition (through “restructuring”) of many of the plantations established in the second half of the past century not only improves their value for wildlife, but also their appearance for visitors and their capacity to produce a sustainable supply of timber or woodfuel. Likewise, there is merit in broadening the multifunctional role of broadleaved and native woodlands, including their capacity to produce a sustainable supply of timber. Biodiversity can also be enhanced by the way woodlands are managed, particularly when lower impact methods of felling and regeneration are used.

Other Habitats/Species and natural heritage features

1.4.42 Threatened, rare and internationally important species and habitats remain a top priority for biodiversity conservation in Scotland, and many have legal protection. In addition, the *UK Biodiversity Action Plan* and the *Scottish Biodiversity Strategy* contain commitments via *Species Action Plans* and *Habitat Action Plans*. *Local Biodiversity Action Plans* take these a stage further by proposing action for regionally and locally important species and habitats. The management and expansion of woodlands must take account of these habitats and species, some of which may actually warrant woodland removal, for example on high-quality, raised bogs.

1.4.43 **Genetic conservation** is a less obvious conservation priority, but is likely to become even more important as we try to adapt to climate change.

Protecting woodlands and biodiversity

1.4.44 In parts of Scotland, woodland grazing pressure, primarily by deer, but also by sheep, has been too high to sustain the desired range of habitats. Effective deer management has started to address that issue and, in some areas, deer densities are now more in balance with the needs of woodland biodiversity. Elsewhere, the use of boundary deer fencing has been controversial but necessary, particularly where adjacent land uses (such as sporting estates) retain higher deer densities to fulfil their management objectives. There are no easy solutions, but collaborative deer management across the relevant deer range, and to an agreed Deer Management Plan, is most likely to produce long-term solutions.

1.4.45 Elsewhere, protection against domestic stock, rabbits and (in some areas) grey squirrels may also be required. Conversely, there is growing evidence of the beneficial role of cattle in encouraging ground flora diversity in certain types of native woodland. Sheep may also have a part to play in the conservation of the historic environment on open ground.

Making the connections

1.4.46 The key aim for the forestry sector is to strengthen the role of natural processes within Scotland’s woodlands. This means taking action not just for individual species, habitats and special sites, but also on the landscape-scale restoration and expansion of habitat networks. The uncertainties of climate change give added impetus to this objective.

Enhancing the historic environment

1.4.47 Our historic environment and biodiversity have been intimately linked over thousands of years. Virtually everything we see in Scotland has been influenced by human hand (the “cultural landscape”). The design and management of forests needs to be sensitive to such local identities.

1.4.48 In addition to Scheduled Ancient Monuments (which are protected by law), there are more than

Context – continued

238,000 sites recorded in the National Monuments Record for Scotland. Countless more have yet to be discovered. The historic environment is all around us, and enriches our lives as well as those who visit Scotland. Visiting historic sites is, consistently, one of the most popular activities for tourists in Scotland.

1.4.49 Although considerable improvements have been made in the way that the historic environment is protected in Scottish woodlands, there has been less progress in enhancing those assets. For example, good interpretation, coupled with creating an appropriate “setting” for features, can add to the recreational interest of woodland. This can help to develop a “sense of place”, with economic spin-offs for tourism and rural development. Likewise, the sensitive restoration of some buildings and sites, using traditional materials, could help stimulate local crafts, as well as increase the demand for quality wood that is both stable and durable.

1.4.50 There is also scope to broaden the perception of the historic environment and cultural heritage. Veteran or “heritage trees”, for example, attract considerable interest and can help to establish a link between people, places and woodlands. Some of our finest views are founded on historic land uses, gardens and designed landscapes. Our heritage woodlands, including “pasture woodlands”, can tell us a great deal about the past – and perhaps also the future. However, our concept of cultural heritage need not be constrained by age - “living culture”, be it the performing arts or woodland sculpture, has enhanced many a visit, as well as creating a link between communities and their local woodlands. This can help to develop a new-found forestry culture – a source of pride and income for local communities

Landscape

Rural

1.4.51 Scotland’s scenery is internationally recognised, and for 95% of tourists it is one of the top attractions. But our landscape is dynamic and has been shaped by human activities over thousands of years – a process that will continue. Given forestry’s visibility in the landscape, care is needed to manage the pace and direction of change, and the communication of those changes.

1.4.52 Forests will be around for a long time. For that reason, good design is critical. Forestry must, therefore, reflect the essential principles of good landscape design by:

- reflecting the diverse character, distinct identity and special qualities of the Scottish landscape;
- enhancing the quality of the Scottish forest landscape (including careful attention to the design of buildings, tracks and other forest artefacts) ; and
- protecting and enhancing the cultural value of Scottish landscapes.

1.4.53 For existing woodlands, particularly where timber production is an important aim, managing change is critical throughout the forest cycle. “Clear-felling”, for example, can result in profound and rapid changes to landscapes. The challenge is to design the felling phases and the regeneration proposals so that this “restructuring” reflects the underlying characteristics of the landscape. This process is well under way in Scotland’s older forests, and gives an opportunity to diversify them by careful attention to the scale, shape, boundaries and sequence of felling. This, in turn, gives opportunities to: replant or regenerate with different tree species; improve watercourses; create more open space or perhaps restore wetlands; enhance historic features; and improve access. It also offers opportunities for ambitious, landscape-scale woodland restoration and the enhancement of forest habitat networks.

1.4.54 There will be some landscapes where the reactions to any change, such as the visual impact of clear-felling, will be so strong that lower-impact forest management systems may be more appropriate.

These retain a permanent woodland appearance, with felling done at a more intimate scale and with a preference for natural regeneration rather than planting. The scope for such systems is more limited in windy and wet conditions, but there is scope for expansion of this type of woodland management.

1.4.55 The process of managing landscape change is delivered primarily through long-term Forest Plans. With a strong commitment to consultation and community engagement, these are helping to unlock the full potential of forestry to deliver a wide range of benefits, including good landscape design.

Urban

1.4.56 The majority of the Scottish population live in towns and cities. Here, trees and woodland can help to transform degraded local environments, provide areas for stress-free walking and relaxation, and develop pride and a “sense of place”. Woodlands can transform derelict or former industrial land, often leading to renewed interest for business re-location or new housing. Far from constraining future uses, woodlands can provide a low-cost, and adaptable, green framework for sustainable development. Proposed new planning legislation and minimum standards for open space enhance the opportunities for woodlands to contribute to quality of life, physical and mental health, and a greater sense of community spirit.

1.4.57 The design and location of woodlands close to communities, in rural and urban areas, will depend on many organisations and people working closely together to maximise the benefits of “greenspace” networks. Local people need to be at the heart of this process, because it is they who have the greatest stake in their neighbourhoods. There are also additional spin-offs – less vandalism, less fear of crime, greater use by all sectors of society, and the development of transferable skills and potential job opportunities.

Health, enjoyment and learning

1.4.58 Woodlands are nature’s own health service. They are restorative environments, where even individual trees can be of meaning and value to local people. Woodlands, and the access opportunities they present, have a significant role to play in health improvement. Half of all adults in Scotland have visited woodlands for walks, picnics or other recreation, and one in five of all outdoor visits is to such sites. They are robust environments for outdoor activities, with the capacity to absorb large numbers of people, while still maintaining a sense of tranquillity and freedom from crowds. The range of opportunities is constrained only by people’s imagination, as demonstrated by the phenomenal growth in mountain-biking, which gained Scotland “global superstar” status from the International Mountain Bicycling Association.

1.4.59 Statutory access rights and the Scottish Outdoor Access Code are now in effect. These rights come with responsibilities for users and land managers, and forestry needs to meet the challenges and opportunities this brings. Just as this legislation seeks to develop a seamless outdoor experience, the integration of the Scottish Forestry Grants Scheme with Land Management Contracts will present a joined-up incentives scheme, improving opportunities for recreation and access provision across land-ownership boundaries.

1.4.60 The challenge for the future is not only the maintenance of appropriate facilities, but also to ensure the requirements and aspirations of the Disability Discrimination Act are met for physical and intellectual access to forests. There is a need to make woodland visits relevant to a wider audience by extending the breadth of opportunities. There is also a need to develop a better understanding of forestry’s current contribution to all-ability access and the “barriers” that prevent many sectors of society accessing woodland. This will require new skills development among those involved in forestry, providing new woodlands closer to where people live, and simply using existing woodlands to better advantage. In turn, this will require a more business-like approach to measuring the economic and social gains for the local, as well as the national, economy.

Context – continued

1.4.61 Enjoyment is not just about providing facilities and opportunities. It is also about nurturing and developing life-long interest and knowledge; it is about re-connecting people with their forests (creating a forest culture of understanding and respect); and it is about using forestry as a natural “classroom” for people to explore new sights, sounds and experiences, in a naturally therapeutic environment. Good interpretation can be the key to unlocking this potential and there is now a wide range of cost-effective technological solutions to excite and challenge people’s perceptions.

1.4.62 Woodland enjoyment also embraces education as a route to improving the life chances of young people. Woodlands encourage children’s innate desire to learn and provide a safe, sheltered environment for healthy exercise, with clear linkage to the Executive’s ambitions through *Active Schools*. Children with learning or behavioural difficulties respond well to the therapeutic atmosphere of woodlands, and education providers can use this to help combat social exclusion. The Scottish Forestry Strategy seeks to bring together those who own or manage woodland and those with the skills to unlock its educational potential.

1.4.63 *Smart Successful Scotland* and *Smart Successful Highlands and Islands* confirmed that skills enhancement in the Scottish workforce has too often remained the poor relation and that lifelong learning should now lie at the heart of our international and national competitiveness.

Principles

2.1.1 The overarching principles for this Strategy are sustainability and social inclusion. Scottish forestry must contribute positively to sustainable development, and meet internationally recognised standards of sustainable forest management. Those standards are set out in the UK Forestry Standard (www.forestry.gov.uk/theukforestrystandard). Scottish forestry must also help to combat social exclusion by promoting opportunities for people to participate in forestry, helping to tackle the barriers to inclusion, helping children and young people get the best possible start in life, and helping to strengthen communities and regenerate excluded communities.

2.1.2 These overarching principles will be achieved through “forestry for and with people”, this embracing the mutually compatible social, economic and environmental functions of forestry.

Structure

2.2.1 Part Two is structured to show the progression from our Vision through to the Key Themes that will drive local actions.

Vision	Where we would like forestry to be in 2025 and beyond.
Outcomes	What we want to achieve.
Objectives	Our goals for achieving the outcomes.
Key Themes	The broad areas of work through which the objectives, outcomes and vision will be achieved. These include our priorities for action, and incorporate existing as well as proposed new work.
The Vision, Outcomes, Objectives and Key Themes are relevant in urban as well as rural areas; apply to large-scale and small-scale woodlands; and apply in local and national contexts.	

A Vision for Scottish Forestry – continued

Our Vision for 2025 and beyond: "Scotland's trees, woodlands and forests are a central part of our culture, environment and economy. People are benefiting widely from them, actively engaging with and looking after the resource for the use and enjoyment of generations to come."	
Now	2025
<ul style="list-style-type: none"> Woodlands comprise 17.1% of Scotland. 	<ul style="list-style-type: none"> Woodlands comprise about 20% of Scotland with potential to expand further to about 25% by 2050 (see Appendix 2).
<ul style="list-style-type: none"> Forestry businesses are characterised by large-scale timber processing based on just under 7 million m³ of timber production each year. 	<ul style="list-style-type: none"> Competitive timber processing of a sustained timber production of 8 –8.5 million m³ each year, making a growing contribution to Scotland's economy. A far broader range of woodland-related businesses has also developed, including local timber processing based on high-quality hardwood and softwood timber, bio-energy, non-timber forest products and direct involvement in the tourism industry.
<ul style="list-style-type: none"> Forestry for people is seen mainly as a social function and relevant primarily to the public and charitable/voluntary sector. Community engagement with woodlands is gaining momentum. 	<ul style="list-style-type: none"> Forestry for people is an integral part of the social, environmental and economic functions of all forestry sectors. Community engagement with, and ownership of, woodlands is widespread, and a forestry culture is becoming more evident.
<ul style="list-style-type: none"> Scottish forestry's role in tackling climate change is only just being recognised. 	<ul style="list-style-type: none"> Forestry is playing a major role in helping Scotland to adapt to climate change. It is also providing a substantial woodfuel resource, and timber is a favoured sustainable construction material.
<ul style="list-style-type: none"> Forestry's role in the wider social agenda is beginning to be more widely recognised. 	<ul style="list-style-type: none"> Forestry is having a significant role in the health and social agendas in disadvantaged urban and rural areas.
<ul style="list-style-type: none"> Native woodland comprises 29% (45% of which is classed as semi-natural) of woodlands. Information on the extent and condition of native woodlands is limited although restoration projects are well under way, and about 50% of designated sites have favourable or "recovering" status. 	<ul style="list-style-type: none"> Native woodland comprises about 35% of woodland. Most ancient and semi-natural woodlands, and priority habitats, are in or nearing favourable condition. Restoration (to native woodland) of Plantations on Ancient Woodland Sites is well under way towards an indicative target of 70% by 2050.
<ul style="list-style-type: none"> Archaeological sites in forests are generally being protected. 	<ul style="list-style-type: none"> The historic environment and cultural landscapes are being recognised, protected and enhanced.
<ul style="list-style-type: none"> The national forest estate comprises just over one third of all woodland, predominantly of spruce and other non-native conifers. Management is primarily on a clear-felling basis, producing just under half of the timber harvested in Scotland. It is the largest provider of outdoor recreation in Scotland and has made good progress in large-scale native woodland restoration projects. 	<ul style="list-style-type: none"> The national forest estate is still about the same size, and is on course for some 40% to be native woodland by 2050. It is focused on its environmental and historic "jewels", areas of greatest public benefit and areas of market failure. A flexible approach to buying and selling land is evident. Staff work in partnership projects on and off the public estate. About one third of Scotland's timber comes from national forest land and significantly more woodlands are being managed by lower-impact systems. It is a national tourism asset.
<ul style="list-style-type: none"> 28% of non-state woodlands are covered by approved, long-term forest plans. 	<ul style="list-style-type: none"> Non-state woodlands comprise about 70% of the total forest area, and over 50% are covered by approved, long-term forest plans.

<h2>Outcome 1 Improved health and well-being of people and their communities.</h2>	
<h3>Objectives</h3>	
<p>Support community development by:</p> <ul style="list-style-type: none"> maintaining constructive involvement with independent bodies representing community groups, small forest-related businesses and wider social interests; supporting urban and rural regeneration through working with others to help make local environments clean, safe and attractive; encouraging the wide-ranging engagement of communities with their local woodlands (including the management and ownership of woodlands); and contributing to the provision of affordable housing. 	<p>Enhance opportunities for health and enjoyment, through access and recreation, by:</p> <ul style="list-style-type: none"> providing opportunities for the primary health sectors (physical and mental) to improve health through woodland access, sport and other activities; helping to remove the “barriers” to access and enjoyment of woodlands by all sectors of society; encouraging better interpretation of woodlands and their context; contributing to the effective expansion of responsible access (in line with the Scottish Outdoor Access Code), including the development of Core Path Networks; working with partners to maximise the potential of urban and peri-urban green networks; and encouraging younger audiences by providing opportunities for woodland-based natural play.
<p>Contribute to growth in learning and skills by:</p> <ul style="list-style-type: none"> assisting the education sector with the delivery of broader lifelong learning and inclusive education opportunities through forestry; developing a multi-skilled workforce (to improve retention, enhance productivity, increase competitiveness, deliver multifunctional forestry and offer transferable skills to generate new job opportunities); using forestry as a vehicle for developing transferable skills in communities and to aid rural diversification; and developing a forestry culture by building awareness, understanding and respect for trees, woodlands and forests (particularly among young people) through outdoor activities and interpretation. 	<p>Protect and promote cultural heritage by:</p> <ul style="list-style-type: none"> improving the identification, understanding, and sympathetic management of the cultural and historic environment in forestry to help develop a forest culture and to enhance “sense of place”, local distinctiveness and the relationship with the surrounding landscape; sympathetically developing the tourism and enjoyment potential of the historic environment; encouraging the development of living heritage and the arts in woodlands; encouraging the growth and supply of Scottish timber for traditional construction techniques in the historic, built environment; and promoting woodland heritage and heritage trees as part of the fabric of Scottish heritage.

A Vision for Scottish Forestry – continued

<p>Outcome 2 Competitive and innovative businesses contributing to the growth of the Scottish economy.</p>	
<p>Objectives</p>	
<p>Develop a more efficient and competitive timber supply chain by:</p> <ul style="list-style-type: none"> • facilitating a reliable and sustained level of timber production in Scotland; • facilitating the reduction of harvesting and transport costs through improved logistics and transaction systems, e-business, reduction in wood miles, local wood processing and by the targeted improvement of the transport infrastructure; • encouraging improvements to timber quality and yield through improved forest management (including thinning) and tree improvement; and • encouraging opportunities for adding local value through the development of local and community-based supply chains, including support for the production and marketing of quality hardwood and softwood timber. 	<p>Increase the contribution of forestry to tourism by:</p> <ul style="list-style-type: none"> • working with and encouraging local businesses to increase the economic benefits of forest tourism to communities; • helping to promote and develop innovative forest tourism as part of sustainable rural development, by working with the tourism marketing and development organisations and the private sector; • increasing the number and variety of visitors to Scotland's forests by helping to provide "quality destinations", high-quality facilities and contributing to sense of place; and • improving the understanding and delivery of visitors' needs through research, training and enhanced customer focus.
<p>Support the development of markets for forest products by:</p> <ul style="list-style-type: none"> • encouraging market-led, research-based product innovation to increase the market share (particularly in the construction sector) and value of home-grown timber; • encouraging co-operation and market development through the maintenance of the forest industries cluster concept; • supporting the development of markets for woodfuel and bioenergy; • encouraging the development of the "culture", quality, management and marketing of non-timber forest products; and • supporting continued research and development into sustainable construction techniques involving wood products. 	<p>Facilitate rural business diversification and development by:</p> <ul style="list-style-type: none"> • encouraging farm business diversification through woodland development (including growing broadleaves for quality timber) and associated businesses; • working closely with other sectors to secure better integration of land uses, including the development of cross-sectoral, transferable skills to provide year-round, local job opportunities; • helping to develop and market the opportunities for forest-related (or located) business opportunities (including timber processing, forest crafts and quality food supply chains); and • supporting woodland expansion where it delivers social, economic and environmental benefits.

Outcome 3 High-quality, robust and adaptable environment.

Objectives

<p>Help to tackle climate change by:</p> <ul style="list-style-type: none"> • supporting the Scottish Climate Change Programme; • preparing and implementing an adaptation strategy for forestry in Scotland based on a climate change risk assessment; • continuing to give priority to Research into the potential impacts of climate change on forestry in Scotland; • increasing the rapid net sequestration of carbon in Scottish forests, including appropriate levels of woodland expansion on low-carbon soils; • increasing the long-term net sequestration of carbon in Scottish forests by increasing the production of high-quality timber, in complex ecosystems on longer rotations, including broadleaved and native woodland; • helping to develop a thriving wood-fuel sector to reduce reliance on fossil fuels; and • encouraging the further substitution of wood for high embedded-energy materials. 	<p>Help to protect and enhance biodiversity by:</p> <ul style="list-style-type: none"> • helping to halt the loss of biodiversity and by continuing to reverse previous losses through targeted action in support of the Scottish Biodiversity Strategy; • developing an effective management framework that ensures biodiversity is taken into account in all decision making; • ensuring that the best new and existing knowledge is available to all policy makers and practitioners; • restoring and enhancing biodiversity in all environments through better planning, design and guidance; • increasing awareness, understanding, enjoyment and active involvement of all sectors of society in biodiversity; and • facilitating ecological adaptability and connectivity through landscape-scale changes and the creation of forest habitat networks.
<p>Contribute positively to soil, water and air quality by:</p> <ul style="list-style-type: none"> • endorsing sustainable soil management through the implementation of best practice; • helping to achieve Scottish commitments to good ecological quality in surface and ground-water bodies; • integrating forestry planning and practice within River Basin Management Plans; • reducing air pollution by increasing the use of green technology in forestry, reducing “wood miles”, and encouraging improved emission standards in the processing sector; • encouraging the use of woodlands in urban environments to help improve air quality and reduce noise pollution; • supporting woodland expansion for the restoration of degraded landscapes; and • encouraging and supporting effective waste management in forestry. 	<p>Contribute to landscape quality by:</p> <ul style="list-style-type: none"> • safeguarding and enhancing the distinct identity, diverse character and special qualities of Scotland’s landscape in the design, planning and management of woodlands and their associated infrastructure; • increasing the use of lower-impact systems of forest management; • increasing the diversity of farmed landscapes through well designed woodland expansion; • improving the landscape context of urban and peri-urban areas by appropriate woodland management and expansion; • supporting the “views from the road” concept; and • landscape-scale restoration of forest landscapes.

A Vision for Scottish Forestry – continued

Key Themes

2.3.1 To achieve the vision, outcomes and objectives a number of key themes will be progressed. These include priorities for action for existing as well as new work.

2.3.2 The Key Themes are:

- Climate Change;
- Business Development;
- Community Development;
- Learning and Skills;
- Access and Inclusion;
- Environmental Protection;
- Biodiversity; and
- Timber.

2.3.3 Each Key Theme will contribute to a range of objectives and outcomes (see Figure 3).

Figure 3: Contribution to Objectives

*** = High contribution ** = Moderate contribution * = Low contribution

Outcome	Objective	Climate Change	Business Development	Community Development	Learning and Skills	Access and Inclusions	Environmental Protection	Biodiversity	Timber
Improved health and well-being of people and their communities	Support community development	***	***	***	***	***	***	***	***
	Contribute to growth in learning and skills	**	**	*	***	**	*	**	**
	Enhance opportunities for health and enjoyment, through access and recreation	*	***	***	**	***	*	***	*
	Protect and promote cultural heritage	*	*	**	*	***	***	***	*
Competitive and innovative businesses contributing to the growth of the Scottish economy	Develop a more efficient and competitive timber supply chain	***	**	**	***	*	*	*	***
	Support the development of markets for forest products	***	***	**	**	*	*	*	***
	Increase the contribution of forestry to tourism	**	**	**	**	***	**	***	*
	Facilitate rural business diversification and development	***	***	***	***	***	*	**	***
High-quality, robust and adaptable environment.	Help tackle climate change	***	*	*	*	*	***	***	**
	Contribute to landscape quality	**	*	***	**	***	***	***	*
	Help to protect and enhance biodiversity	***	*	**	**	**	***	***	**
	Contribute positively to soil, water and air quality.	***	*	**	**	*	***	***	*

A Vision for Scottish Forestry – continued

Key Theme 1: Climate Change

2.4.1 Purpose

- Help to tackle the threats of climate change by supporting the Executive's *Scottish Climate Change Programme*.
- Ensure that Scotland's woodlands and the forestry sector adapt to climate change at an appropriate pace.

2.4.2 Why do this?

- Climate change presents a severe threat to the future well-being of life on Earth. Forestry can make a substantial contribution to tackling it.
- Climate change creates uncertainty, and future generations will, therefore, need flexibility in terms of the type and extent of woodlands. We need to facilitate ecological and management adaptation to secure this.
- The growth of the biomass energy sector can provide local energy and local employment (*green jobs*). To create confidence in the sector, forecasts of woodfuel availability and production need to be reliable and consistent.
- The use of local, biomass energy production (particularly for heat) can “connect” people to their local woodlands and reduce timber haulage.
- There are opportunities to promote sustainable construction through affordable housing initiatives, government procurement guidelines and the Planning system.
- The development of energy crops (such as short-rotation coppice or short-rotation forestry) is an opportunity for rural diversification.
- Carbon sequestration and storage can be affected by choice of tree species, ground disturbance and forest road building.
- There is a need to develop the scientific evidence-base for forestry actions.

What needs to be done?

General

2.4.3 Prepare a forestry sector Climate Change Action Plan.

2.4.4 Adaptation

- Develop an adaptation strategy, based on research advice, for Scottish forestry, with the following focus:
 - ecological adaptation;
 - pests, diseases and abiotic (e.g. fire) threats ;
 - silviculture and forest operations; and
 - environmental protection.

2.4.5 Mitigation

- Ensure mitigation measures contribute fully towards meeting the commitments in the forthcoming *Scottish Climate Change Programme*.
- Develop, with other Scottish Executive staff, a Biomass Action Plan for Scotland and assist the Executive's Enterprise, Transport & Lifelong Learning Department, and others, in the development and delivery of biomass grants and initiatives.
- With the Scottish Executive, help to develop a Renewable Heat Strategy and support Scottish Executive policy on bio-fuels.

- Maximise wood use for renewable energy, particularly in areas of fuel poverty.
- Promote and facilitate the development of an efficient supply chain for woodfuel and establish a cost-effective basis for monitoring woodfuel use and carbon saving.
- Support the development of timber-product specifications and standardised construction systems, and promote more use of timber in construction through mechanisms such as “Wood for Good”, building regulations and government procurement guidelines.
- Promote the growth of quality timber, including hardwoods, for use as products with long-term carbon-storage potential.
- Establish a basis for monitoring “timber miles”, and facilitate projects that reduce them (such as local uses for timber).

2.4.6 Sequestration and carbon retention

- Ensure sequestration, through woodland creation, contributes fully towards meeting the commitments in the forthcoming *Scottish Climate Change Programme*.
- Increase carbon retention in woodlands by increasing the area managed under lower-impact silvicultural systems, and by providing guidance, based on research advice, to minimise carbon losses during forest operations.
- Encourage the development and monitoring of short-rotation coppicing and short-rotation forestry on appropriate sites.
- Work with the Scottish Executive Climate Change team, the Department of Environment, Food & Rural Affairs and Forest Research to refine carbon sequestration modelling to reflect the Scottish situation.

2.4.7 Education/Engagement

- Help to make people more aware of the potential impacts of climate change and what actions they can take, as individuals, to assist (See Learning and Skills theme).

2.4.8 Where?

- In those areas where protection forestry and the creation of habitat networks would be of greatest benefit.
- Guidance on minimising carbon losses during forest operations can be applied everywhere.
- There should be a strong focus on supplying biomass near to local and regional heat/energy production sites.
- Lower-impact silvicultural systems should be expanded where they have greatest benefit for long-term carbon storage, and particularly where they also meet other management objectives.
- Forest expansion for rapid carbon sequestration has the greatest impact on agricultural soils with low carbon content.

2.4.9 What type of woodland?

- Given the uncertainties of climate change, a more diverse range of woodland and forest types is required.
- The area of forests managed under lower-impact silvicultural systems should be expanded.
- Species selection should reflect research guidance.
- Forest expansion for medium-term carbon sequestration should favour the faster-growing species, but subject to the principles of the UK Forestry Standard.
- Short-rotation coppice and short-rotation forestry systems should be encouraged on suitable sites, primarily on more-productive agricultural land.

A Vision for Scottish Forestry – continued

2.4.10 Key Targets

The *Scottish Climate Change Programme* will contain commitments for forestry. These will be confirmed and included in the final, revised Scottish Forestry Strategy.

2.4.11 Key Indicators

- Annual carbon savings.
- Oven-dried tonnage of wood used for heating and electricity generation.

2.4.12 Other Indicators

- Number of non-domestic, woodfuel energy systems installed.
- Area of short-rotation coppice.

Key Theme 2: Business Development

2.5.1 Purpose

- Help to develop the sustainable economic potential of Scotland and its regions.
- Aid rural diversification and help sustain fragile rural communities.
- Help to support and develop the Scottish tourism industry.

2.5.2 Why do this?

- In a rapidly changing world there is a need to “insure” against future uncertainties. For forestry, this means broadening the range and scale of business opportunities.
- The economic viability of woodland management has been declining, but owners are, increasingly, expected to meet higher management standards and to produce a wider range of social and environmental services. Increasing the direct financial returns to owners would encourage and support the better management of their woodland resources.
- Many woodlands in Scotland are neglected and, if this is not addressed, will fail to achieve their full potential to deliver public benefits. Enhancing their economic value is one of the ways to bring them into sustainable forest management and to help to secure their future.
- Local, added-value wood processing and marketing, particularly when based on quality timber, can generate higher returns for growers, create or sustain local employment, reduce haulage costs and help rural development.
- Woodland owners help to manage the essential backdrop to the tourism industry. To increase the economic benefits to them, and to local communities, there is scope to take a more active role in encouraging local businesses in growth areas such as wildlife watching, adventure sports or cultural heritage. This would also help to increase the variety and number of visitors to Scotland.
- There is a need to improve the understanding and delivery of visitors’ needs through research and training. More-accurate assessments of the value of forestry to tourism will help to quantify the case for forestry as a tourism asset.
- Woodlands could support a range of local enterprises based on non-timber forest products, all of which have the potential for adding value locally.
- Woodlands can accommodate new business premises, affordable housing or attractive locations for people to relocate. This is of indirect value for local community development, and of direct value to woodland owners.

- Diversifying rural land use and businesses is a key thrust of the *Agriculture Strategy*, and one to which forestry can make a significant contribution.
- Although employment levels have generally risen in rural Scotland, there are areas where it has fallen. Some remote rural areas have also continued to see populations reduce. Business diversification, through, forestry (which has had the fastest growth rate in employment among the primary land use industries) could help to reverse this, as could rural development through the sale or use of national forest land by communities. The Forestry for People Advisory Panel's pilot *Woods Work* project is helping to guide this process.
- The need for a thriving woodfuel sector is covered in the Climate Change theme.

2.5.3 What needs to be done?

- The need for a sustained supply of timber is a key issue for the business sector, and is dealt with in the Timber theme.
- Target and promote access to business development support and advice for woodland owners and to small, forestry-related businesses (through mechanisms such as the Scottish Enterprise Small Business Gateway).
- Facilitate continued forestry sector development by continuing to encourage the Scottish Forest Industries Cluster concept.
- Support sustainable development and green jobs by promoting more use of timber through *Wood for Good*, standards for sustainable construction and government procurement.
- Enhance the economic viability of woodland management by continuing to encourage and enhance innovation and competitiveness in the timber supply chain, as well as accessing new markets through the Enterprise networks, the Scottish Forest Industries Cluster, the Confederation of Forest Industries (UK) Ltd (ConFor), and appropriate research facilities such as the Centre for Timber Engineering.
- Enhance the contribution of woodlands to local, sustainable development by encouraging the development of local timber-processing and the use of local timber (for example, in public buildings, affordable housing or historic buildings).
- Help to improve returns to woodland owners by promoting opportunities for adding value locally to primary forest products.
- Work with the tourism marketing and development organisations to develop the awareness of, and potential for, innovative forest tourism, and to evaluate how best it can help Scottish tourism to compete on the world stage.
- Support research and training aimed at improving the understanding and delivery of visitors' needs, and increase forestry's contribution to tourism by modernising the recreation and tourism infrastructure where this will make the most significant economic gains for the local, and national, economy.
- Explore ways in which woodland owners can capture a proportion of tourism revenues.
- Encourage the development and marketing of woodland-related businesses based on non-timber forest products and other opportunities identified through the *Woods Work* project.
- Promote local co-operation and clusters to secure new markets and to increase the business potential of woodland-related activity.
- Promote a holistic, landscape-scale approach to integrated land management.
- Encourage and support appropriate woodland expansion as a means of diversifying or supporting local businesses, particularly in fragile rural areas.
- Encourage and support farm diversification through woodland expansion and management (particularly of neglected farm woodlands), the production of quality timber and biomass, and the piloted development of agroforestry and woodland crofts.

A Vision for Scottish Forestry – continued

- Support the targeted role of forestry in rural development through the strategic planning and development control systems.
- Support community business development through the sale or use of national forest land where this is in the public interest.

Where?

2.5.4 Everywhere, but particularly in areas of low income and/or high unemployment in fragile rural areas, and in areas of low woodland cover but high woodland suitability.

What type of woodland?

2.5.5 All types, but with an emphasis on diversity.

Targets

2.5.6 Woodland expansion of about 9,000 -10,000 hectares each year.

2.5.7 Key Indicators

- Contribution to Scottish Gross Domestic Product (value added).
- Employment
- Number of farm holdings/businesses involved in woodland creation or management.

Key Theme 3: Community Development

2.6.1 Purpose

- Help to improve the quality of life and personal well-being of people in rural, as well as urban, communities by providing opportunities for everyone to benefit from the creation or management of local woodlands.
- Build on the successful Woods In and Around Towns (WIAT) initiative.
- Shift forestry's culture from doing things **for** communities, to doing things **with** them.

2.6.2 Why do this?

- Woodlands can help to improve 13 out of the 15 UK headline quality-of-life indicators.
- Woodlands close to people bring significant public benefits. Such benefits are worth, conservatively, about £100 million each year to Scotland.
- More than two thirds of residents in Scotland live and work in towns and cities, with fewer than one in five having easy access to woodland close to them.
- Woodlands create natural “green gyms” and outdoor classrooms, which everyone can use without having to travel large distances. They also attract wildlife and can help to promote environmental awareness, particularly the role of woodlands as a model of sustainable development. Well designed, well managed woodlands can also, at modest cost, transform degraded surroundings by making areas feel safer, attracting inward investment, improving environmental quality, and providing sites for affordable housing.
- Woodlands can provide a focus for public participation in the decisions that shape their lives by providing an easy “entry point” for building community cohesion and capacity.
- In areas of high unemployment, woodlands can be used as a resource to engage, train and employ local people, perhaps through mechanisms such as Intermediate Labour Markets.

- In 2002, about half of all urban woodlands were blighted by rubbish or anti-social behaviour. Although woodlands closer to people may often be more expensive to manage than remote woodlands, the benefits are likely to far outweigh those extra costs.

2.6.3 What needs to be done?

- Maintain constructive involvement with independent community bodies such as the Community Woodlands Association, Reforesting Scotland and those representing small, woodland-related businesses.
- Increase opportunities for community participation in forest ownership and management through mechanisms such as the National Forest Land Scheme, Community Right to Buy and grant support.
- Support local authorities and Community Planning Partnerships in making the most of the quality of life benefits of woodland through Local Forestry Frameworks, Structure Plan *green networks* and woodland/*greenspace* partnerships. In addition, ensure that the social and environmental value of trees and woodland is fully recognised in the development control process.
- Promote the creation and active management of high-quality woods in and around communities to maximise their contribution to quality of life, and facilitate the use of those woods for physical activity, learning, relaxation and enjoyment.
- Mainstream community engagement good practice through agency training programmes, continuing professional development and the requirements of grant support.
- Improve the evidence base on ways to secure maximum benefit from woods in and around communities.
- Help people to live and work in their local communities by participating in “back-to-work” and volunteering schemes, facilitating the provision of sites for affordable housing and, where appropriate, the development of woodland crofts.

Where?

2.6.4 Particularly in those areas close to communities, and those with greatest regional need. (The Scottish Executive’s Indicators of Multiple Deprivation provide a good entry point for local decision-making).

What type of woodland?

2.6.5 Woodlands must be fit for local purpose and:

- have the capacity, flexibility and robustness to cope with current and future demands; and
- should be made welcoming through careful design, active management and with facilities appropriate to a wide range of local users.

Key National Indicators

2.6.6 Number of community-group partnerships involved in owning or managing woodland.

Other Indicators

2.6.7 Number and area of land parcels sold or leased under the National Forest Land Scheme.

A Vision for Scottish Forestry – continued

Key Theme 4: Learning and Skills

2.7.1 Purpose

- Give all sectors of society the opportunity to benefit from woodlands.
- Enable people to become more involved in society (active citizenship).
- Provide opportunities for acquiring new skills and experience.
- Improve the skills base of the forestry sector.
- Promote forestry's role as an exemplar of sustainable development.

Why do this?

2.7.2 Benefits for society

- Investment in education, learning and skills is part of sustainable development and can lead to better health, less crime and increased social cohesion.
- Woodlands are great places to learn about biodiversity, our environment and how our actions affect our future.
- Woodlands can help to develop positive attitudes to learning among those who feel excluded from traditional forms of education. Learning builds self-confidence, and can also be a route into work.

2.7.3 Benefits for the forestry sector

- Workforce skills and motivation drive innovation in the forestry sector and workforce development also aids business competitiveness.
- There is a gap in learning provision. In 2002, 86% of non-manual workers undertook a learning opportunity compared to only 53% of unskilled workers.
- High staff turnover rates in forestry contracting hinder investment in training.
- The cost of training for micro-businesses is a barrier to progress, and it is harder to secure funding for training existing employees than it is for unemployed people.
- There is a lack of qualified recruits to the forestry sector, and the new labour pool of career changers, volunteers and migrant workers will require support and development to reach the levels of competence required by the sector.
- There is a developing skills gap in the delivery of multifunctional forestry, and health & safety and environmental guidelines are becoming increasingly demanding. Demonstrating competence is a growing need.
- People who know more about forestry and its cultural setting are more likely to support it and take better care of Scotland's woodlands.

What needs to be done?

2.7.4 Education

- Encourage the education sector to use woodlands for education through programmes such as the Forest Education Initiative, Local Woods for Learning and Forest School, linking these with the curriculum and other initiatives such as Eco Schools, Citizenship and Active Schools.
- Continue working with primary schools and extend the role of forestry in secondary schools by promoting vocational opportunities and woodland's ability to help those with special learning needs.

- Work with industry to develop vocational options for the 13-18 years age group and increase opportunities for high-quality, work-related experience and training in the industry at an earlier age.
- Promote forestry as an attractive career option.

2.7.5 Lifelong Learning & Skills

- Develop opportunities for lifelong learning through forestry.
- Use woodlands to demonstrate forestry's exemplar role in sustainable development, adapting to or mitigating climate change, and biodiversity.
- Reduce the barriers to lifelong learning by participating in mechanisms such as the Lifelong Learning Forum and Community Learning & Development Partnerships.
- Working with Lantra, the Enterprise network, the Scottish Forest Industries Cluster and others in forestry and rural industries, develop and implement a skills development and promotion strategy, seeking to increase the demand for, and uptake of, appropriate training and work-based learning in all aspects of forestry.
- Support the development of Lantra's Sector Skills Agreement for the Trees and Timber Industry.
- Promote the role of forestry as a vehicle for local and transferable skills development in both rural and urban areas through mechanisms such as Rural Skills, Skills for Work, the Skills for Business Network and the volunteering networks.
- Support recruitment into the forestry sector through practical apprenticeship programmes such as Scottish Progression Awards and Trees & Timber Modern Apprenticeship, and through the promotion of other forestry-related further and higher-education opportunities.
- Support retention of the workforce through Continuing Professional Development and work-based learning.

Where?

2.7.6 Targeted at those areas of current economic, health and education deprivation and exclusion (see Scottish Indicators of Multiple Deprivation), and those areas where the skills deficit is greatest.

What type of woodland?

2.7.7 All types - in urban and rural areas. Where woodlands are used for education and lifelong learning the setting, accessibility and safety of the woodland is of particular importance.

2.7.8 Key National Indicators

- Number of schools involved in woodland-based learning activities.
- Quantification of accredited learning/Scottish Credit & Qualifications Framework (SCQF) for forestry-related work (to be developed with Lantra and others).

2.7.9 Other Indicators

- Percentage of adults (16 years +) who attended an organised learning activity or event to do with Scottish woodlands in the past 12 months.
- Percentage of adults (16 years +) who have heard or read about Scottish woodlands in the past 12 months (TV, radio or newspapers).

A Vision for Scottish Forestry – continued

Key Theme 5: Access and Inclusion

2.8.1 Purpose

- Help improve physical and mental health in Scotland.
- Help reduce the barriers to access and use of woodlands by all sectors of society.
- Support the development and implementation of the Scottish Outdoor Access Code.

2.8.2 Why do this?

- Woodlands can provide a sense of wonder and enjoyment to all!
- The physical and mental health of 70% of the Scottish adult population is at serious risk from physical inactivity. The greatest public benefit comes from encouraging moderate activity by those previously inactive. Children who visit, or use, woodlands grow into adults who do likewise.
- Woodlands are a naturally therapeutic environment, and have a positive effect on anxiety and depression by reducing stress and mental fatigue. They are an excellent setting to help people with behavioural and mental health problems.
- Many people in Scotland are unable to take part in enjoyable woodland activity due to factors such as disability, distance, low income, and fear of crime. By using or creating woodland nearer to people, and by creating opportunities for group activity (such as *green gyms*), these forms of social exclusion can be overcome.
- Enhancing access provides opportunities for countryside sports, education, lifelong learning, job opportunities and income generation. It has a key role in supporting the tourism sector.
- The forestry sector can help to embed statutory access rights, the Scottish Outdoor Access Code and the Disability Discrimination Act.
- The historical context of woodlands helps to create a link between people and the past. To date, effort has concentrated mainly on the protection of the historic environment but the emphasis should also now focus on enhancing the setting of such sites and the historic landscape.
- Interpretation of biodiversity adds to visitor enjoyment and stimulates people's interest in environmental matters. Woodland heritage also captures public imagination, and our old trees and ancient woodlands are worthy of celebration.

2.8.3 What needs to be done?

- Help to meet the health objectives set out in strategies such as: *Improving Health in Scotland - the Challenge*; *Let's Make Scotland More Active*; and *the National Programme for Improving Mental Health and Well-Being*.
- Build on the Forestry Commission's *Active Woods* campaign and achieve greater recognition for the role of forestry in providing cost-effective health benefits.
- Work with the relevant health professionals to develop, implement and monitor a "forests for health" partnership programme.
- Work with *sportscotland* and others to further develop the potential of woodlands for appropriate countryside sports.
- Develop a rationale for access and recreation investment that improves public benefit targeting, and review investment in recreation based on that analysis.
- Improve the evidence base on the ways in which forestry can best contribute to inclusive access.
- Encourage younger audiences by providing opportunities for natural play.

- Contribute to the effective implementation of land reform and responsible access (Scottish Outdoor Access Code), including the development of Core Path Networks and by working closely with National and Local Access Forums.
- Working with Historic Scotland and others, improve the setting, management and interpretation of the historic environment and historic landscapes.
- Encourage the use of woodlands for living heritage, including the performing arts, and encourage better interpretation of woodlands as a route to wider environmental awareness.

2.8.4 Where?

- Particularly in those areas suffering the most acute health deprivation.
- Help to maintain the health of those who are currently active by maintaining and, where resources permit, developing good-quality recreation facilities in areas that are accessible from major cities by public transport or cycle routes.
- In key areas that would best support Scotland's tourism industry. Appropriate facilities, in areas of low provision, can also help to maintain or enhance the quality of life for rural communities.

What type of woodland?

2.8.5 Surveys indicate a public preference for diverse woodlands close to home. The way the woodland is managed is also important, with well managed woodland conveying a sense of welcome and safety, both of which are essential if a wider audience is to be attracted.

Targets

2.8.6 By 2015:

- About one quarter of the population should have access to at least one area of woodland greater than 2 hectares within 500 metres of their homes.
- About two thirds of the population should have access to at least one area of woodland, greater than 20 hectares within 4 kilometres of their homes.

2.8.7 In the longer term, we would hope to see about three-quarters of the population living close to (within about 500 metres) an accessible woodland and most of the population having a larger, accessible woodland within 4 kilometres.

2.8.8 Key Indicators

- Proportion of the population with accessible woodland greater than 2ha within 500 metres, and (separately) greater than 20ha within 4 kilometres.
- Proportion of adults (16 years +) who visited woodland in past 12 months.
- Condition of Scheduled Ancient Monuments (to be developed with Historic Scotland).

2.8.9 Other Indicators

- Number of visits to national forests.
- Health indicator required (under further consideration).
- Number of known archaeological sites included within approved Forest Design Plans and Forest Plans (to be developed with Historic Scotland).

A Vision for Scottish Forestry – continued

Key Theme 6: Environmental Protection

2.9.1 Purpose

- Protect or enhance the natural, physical environment on which Scotland depends.
- Help to keep Scotland a diverse, beautiful country.

Why do we need to do this?

2.9.2 Protecting or enhancing soil, water and air is a fundamental requirement of sustainable forest management.

2.9.3 Water

- Scotland's water resources are a vital economic (e.g. sport fishing) and social asset.
- Well planned, well managed woodlands protect and enhance water quality by reducing soil erosion, stabilising riverbanks and reducing pollution in run-off. Woodlands, appropriately managed, can also have a positive role in Nitrate-Vulnerable Zones.
- The *Water Environment and Water Services (Scotland) Act 2003* sets a legal framework for the protection, improvement and sustainable use of water resources.

2.9.4 Soil

- Soils are an irreplaceable natural resource; producing biomass, filtering pollutants and adding to biodiversity. They also influence the uptake and release of greenhouse gases and represent an important historical archive.
- A European Thematic Soil Strategy for Soil Protection will soon provide a platform for the protection and monitoring of soil resources and will, once it is enshrined in legislation, have a major impact on UK activities.

2.9.5 Air

- Good air quality is essential to human health. Woodlands contribute to this by trapping harmful dust particles and absorbing gases such as sulphur dioxide and ozone.
- Pollution from the industrial processing of wood is covered by regulations that apply to all industries.
- Air pollution from the transport of timber is covered by regulations applying to all vehicles and road haulage. Reducing "timber miles" would have additional social, environmental and economic benefits.

2.9.6 Landscape

- Tourism depends on our world-class scenery and rich cultural heritage. "Views from the road" are of particular importance.
- The restructuring of poorly designed plantations critically depends on the private sector's willingness to harvest its timber resource (See Timber theme).
- The management and communication of the pace, scale and appearance of landscape change is important to a land use with such a long time-scale as forestry. However, there are landscapes where the benefits of retaining a sense of woodland permanence are so high that alternative, lower-impact systems of forest management would be highly desirable.
- Degraded local environments reduce inward investment and impact on the quality of people's lives.

2.9.7 Waste

- Each year Scotland squanders millions of pounds of its valuable resources by generating unnecessary waste. The Executive's *National Waste Plan (2003)* set out measures to move from 91% reliance on landfill down to 31% by 2020. Although it already produces little waste, the forestry sector can contribute to the Executive's plan by enhancing the culture of waste management at all levels – from individuals, to large businesses and national organisations.
- The *Waste & Resources Action Programme* estimates that almost 2 million tonnes of post-consumer wood waste (e.g. on construction sites) is generated each year in the UK, of which only about 40% is recycled.

2.9.8 What needs to be done?

- Implement, rigorously, the revised suite of Forest Guidelines to ensure compliance with all relevant legislation and the UK Forestry Standard.
- Participate actively with SEPA and other partners in the development and implementation of River Basin Management Plans, including examination of the potential for forestry in sustainable flood management.
- Continue to work with SEPA to aid the recovery of acidified rivers and lochs.
- Minimise the negative impact of plantation forestry, and increase the positive impact of woodlands on slope stability in sensitive locations.
- Develop the evidence base for, and guidance on, “protection forestry” in Scottish conditions.
- Promote the role of forestry in ameliorating air pollution in priority urban areas.
- Increase the use of green technology in forestry and continue to encourage improved emission standards in the processing sector.
- Continue with forest landscape restorations.
- Encourage implementation of the “views from the road” concept.
- See the Community Development theme for action on degraded local environments.
- Based on best available research guidance, monitor and expand the area of woodland managed under lower-impact management systems.
- Contribute to the implementation of the Executive's National Waste Plan.
- Reduce “timber miles”.

2.9.9 Where?

- Water and soil needs to be protected everywhere, but particularly in those areas most at risk from erosion, flooding, acidification and nitrate pollution.
- Further research is required on the role and required structure of “protection forestry” to determine where and how it could provide the greatest number of benefits.
- Woodlands managed by lower-impact forms of silviculture (ranging from continuous-cover systems to small-scale felling and regeneration) will be particularly appropriate in areas of soil fragility.

2.9.10 What type of woodland?

- All types.

A Vision for Scottish Forestry – continued

2.9.11 Key Indicators

- Percentage (length) of rivers in forested catchments for which ecological quality is not downgraded as a result of forestry-specific activities.
- Percentage of woodland managed by systems other than clear-felling.

2.9.12 Other Indicators

- Length of rivers affected by acidification where forestry is a factor.
- Number of forestry operations or activities leading to pollution of the water environment.
- Percentage of woodlands within designated areas (National Parks; National Scenic Areas; and Areas of Great Landscape Value) covered by Forest Design Plans or Forest Plans:

Key Theme 7: Biodiversity

2.10.1 Purpose

- Help to halt the loss of biodiversity, and continue to reverse previous losses, in woodlands and woodland-related habitats by supporting the Executive's *Scottish Biodiversity Strategy*.
- To create new habitats for wildlife, and enhance public enjoyment of it, close to where people live.

2.10.2 Why do this?

- Scotland's biodiversity is special, having 65 out of 159 conservation priority habitats listed in the *European Habitats Directive*.
- International commitments, including the *Convention on Biological Diversity* and the *6th European Environmental Action Programme* (Gothenburg) committed the UK to the conservation of biological diversity. The *Nature Conservation (Scotland) Act 2004* also introduced a general duty on public bodies to further the conservation of biodiversity and to have regard to the *Scottish Biodiversity Strategy*, the *Convention on Biological Diversity* and a list of species and habitats of importance to Scotland.
- Maintaining or enhancing biodiversity is an integral part of achieving sustainable development. It has high social and economic benefits, particularly in relation to tourism, and can also help to achieve ecological objectives for our water resources.
- Native woodlands, especially ancient ones, have high biodiversity and cultural heritage value. However, fragmentation now poses a serious threat to their survival and hinders the ecological mobility and dispersal of other plants and animals. The size and connectivity of the remaining fragments needs to be increased so that natural systems can, again, function on a landscape scale. A further threat to native woodlands comes from inappropriate deer densities and invasive species such as *Rhododendron ponticum*.
- Expanding and managing native woodland aids biodiversity and also creates jobs. This benefits fragile rural economies and areas with high unemployment, or low average incomes. Conversely, the biodiversity value of some open-ground habitats has been compromised by woodland expansion or encroachment.
- There is a need to better understand the role of genetic conservation in woodlands.
- Most Scottish woodlands are of plantation origin. The biodiversity gains from diversifying such woodlands are highly significant.
- Land Management Contracts create scope to establish better linkages between open-ground habitats and woodland.

- Biodiversity is as important to people in urban areas as it is to rural communities. With 10 - 40% of our towns and cities made up of *greenspace*, there is great potential to use that resource for its health, wealth and education benefits.

What needs to be done?

2.10.3 Support the implementation of the *Scottish Biodiversity Strategy*:

- Species and habitats:
 - secure and maintain favourable conservation status for existing woodland and related open-ground habitats in Sites of Special Scientific Interest (SSSIs) and Special Areas of Conservation (SACs);
 - create, restore and improve the condition of native woodlands in line with revised Habitat Action Plan targets;
 - maintain or enhance ancient woodland features in Plantations on Ancient Woodland Sites (PAWS), and convert such sites to native woodland at a pace and scale appropriate to their ecological value and site characteristics;
 - focus species protection and conservation on those species listed in Species Action Plans (SAPs); and
 - develop and implement a policy on genetic conservation in woodlands.
- People:
 - increase awareness, understanding and enjoyment of biodiversity and engage more people in woodland conservation, particularly through communities and community forest groups (see also Learning and Skills/Access and Inclusion themes).
- Landscape and Ecosystems:
 - expand the area of native woodlands, in line with Habitat Action Plan targets and focusing on Forest Habitat Networks;
 - restore and expand priority open-ground habitats associated with woodlands;
 - continue to diversify planted woodlands through restructuring and the use of lower-impact silvicultural systems;
 - develop the role and management of domestic grazing regimes (mainly cattle) for enhancing woodland biodiversity; and
 - encourage exemplary and collaborative deer management, through Local Deer Management Plans, to secure the development of desired habitats.
- Integration and co-ordination:
 - ensure biodiversity is an integral consideration in the application of Land Management Contract forestry options; and
 - integrate biodiversity considerations into all forest management decisions.
- Knowledge:
 - implement the Scottish Native Woodland Survey and the National Inventory of Woodlands & Trees to establish a clear base-line on the extent and composition of woodlands in Scotland;
 - work with the Native Woodland Partnership for Scotland to develop guidance on the recording and monitoring requirements for native woodlands, restoration of PAWS and the range of options for native woodland management;
 - work with Scottish Natural Heritage (SNH) and others to develop guidance on the recording and monitoring requirements for general biodiversity; and
 - improve the evidence base on ways to secure maximum biodiversity benefit from woodlands, consistent with the achievement of other management objectives.

A Vision for Scottish Forestry – continued

- With planning authorities, strengthen the protection given to woodlands of high biodiversity value (such as ancient, semi-natural woodland) against losses due to development.

2.10.4 What type of Woodland?

- Aim to increase the area of native woodland types currently under-represented, for example, wet woodlands, upland ashwoods and lowland mixed broadleaves.
- Targets under the UK Biodiversity Action Plan provide guidance on priorities for restoring woodlands and improving their condition.
- Guidance within SNH's Natural Heritage Futures and Landscape Character Assessments provides a useful basis for assessing regional needs.
- For genetic conservation, favour natural regeneration for native woodlands but, where planting is required, follow best practice in relation to the selection of appropriate species provenance and genetic diversity.

Where?

2.10.5 Focus on the following priorities:

- *woodland condition*: SSSIs and SACs; ancient semi-natural woodlands; and PAWS with high native-species components;
- *woodland restoration*: non-native PAWS with a high overall site rating (see Forestry Commission Practice Guide);
- *expansion*: Forest Habitat Networks, prioritised with the help of evaluation tools; areas with the lowest native woodland cover; and areas that contribute most to urban greenspace networks;
- *open-ground habitat restoration and expansion*: in or adjacent to SSSIs and SACs, Habitat Action Plan (HAP) sites, and sites that contribute to the development of Forest Habitat Networks; and
- *woodland species*: species in SAPs that are: dependent on woodland management; regarded to be most at risk; and are not responding sufficiently to wider habitat management to deliver the targets for that species.

2.10.6 Key Targets

By 2015:

- we should have expanded the area of native woodlands by at least 40,000 hectares;
- we should have brought at least an additional 50,000 hectares of native woodland in to management to improve its condition, including a focus on SSSIs to contribute towards the Executive's target of bringing 80% of SSSI features in to favourable condition by 2008 and 95% by 2010; and
- we should have begun the restoration of a further 9,000 hectares of PAWS to native woodland.

By 2030:

- about 80% of semi-natural woodlands and 60% of planted native woodlands to be in favourable ecological condition.

2.10.7 In the longer term, we expect about 35% of the total woodland area to be native and about 70% of all non-native PAWS converted to native woodland (with remnant native woodland communities maintained or enhanced on the remainder).

2.10.8 Key Indicators

- Area of native woodland (with sub-set for woodlands of native origin).
- Percentage of woodland SSSIs in favourable condition.

- Number of woodland-related UK Biodiversity Action Plan species and habitats identified as stable or increasing/recovering or in favourable condition.
- Area of PAWS with a commitment to restoration under long-term plans.
- Woodland deer cull.

2.10.9 Other Indicators

- Loss of Ancient Semi-Natural Woodland to development.
- Woodland Bird Index.
- Woodland structure and composition: deadwood; woodland structural diversity; and tree and shrub species diversity.

Key Theme 8: Timber

2.11.1 Purpose

- Increase the contribution of woodlands to local and national sustainable economic development in Scotland through the supply of timber.

The best way to grow our forests is to use them.

Wood. for good.

2.11.2 Why do this?

- Timber is the most environmentally-friendly, commercial building material. It is renewable, effectively carbon-neutral, and a cheap way of harnessing solar energy.
- Timber is the primary source of direct revenue for many woodland owners and a significant incentive for multi-purpose woodland management. However, the economic viability of woodland management has been declining due to global competition and lower prices for wood.
- Improving the competitiveness of the wood-processing sector requires significant, continuing investment in people and technology. This, in turn, requires reliable forecasts of timber availability and timber properties, coupled with a sustained and consistent supply of timber.
- There is further potential to squeeze costs out of the timber supply chain by innovation and co-operation.
- Current timber prices mean that in some areas (for example, those with poor access, long distances to markets and/or poor timber quality) timber harvesting, to deliver broader management objectives, can only be undertaken at a financial loss. In such areas, and on sites of low fertility, conventional replanting for timber production is likely to be uneconomic.
- Those managing woodlands for timber need to have the knowledge and skills to produce what the market requires, at the lowest cost, but without compromising the environmental and social requirements of sustainable forest management.
- Reducing “roundwood road miles” would help to reduce social, environmental and economic costs in the supply chain. Developing the transport infrastructure also remains an important requirement for the forest industries and local communities.
- The current timber industry in Scotland is based, overwhelmingly, on softwoods. There is a good case for supporting the development of a hardwood sector by growing broadleaves for quality timber as well as for their landscape, recreation and biodiversity values (see also the Business Development theme).

A Vision for Scottish Forestry – continued

2.11.3 What needs to be done?

- Enhance the economic viability of woodland management, develop green jobs and facilitate the continued restructuring of plantations by securing continuing investment in wood processing (by facilitating a sustained level of timber production, coupled with reliable forecasts of timber quality). Private woodland owners need to be encouraged to bring greater, and consistent, wood volumes to the market place.
- Continue to develop an efficient and socially and environmentally responsible timber transport infrastructure, through mechanisms such as the Timber Transport Scheme and through working in partnership with the Timber Transport Forum and Timber Transport Groups. Further reductions in roundwood road miles can be achieved through the development of local markets (see Business Development theme).
- Improve the economic viability of woodland management and widen options for future generations by enhancing timber quality through good silvicultural practice (such as appropriate tree spacing, thinning and tree improvement).
- Through long-term forest plans, identify places where conventional softwood timber production is financially or silviculturally marginal and use those plans to provide an explicit framework for radical reappraisal of objectives for those areas.
- Help to diversify woodlands and create opportunities for adding value in the future by encouraging the growth and utilisation of broadleaves and conifers for the production of quality timber.

2.11.4 Where?

Particularly in areas that will most benefit from sustainable community development, employment, and rural diversification.

2.11.5 What type of woodland?

Woodlands that are able to meet the needs of wood processors, but which also meet the social and environmental requirements of the UK Forestry Standard. Future climatic and economic uncertainty points to the merit of a broader range of timber production, based on a spectrum of wood-processing – from small-scale to large-scale, and with softwoods and hardwoods.

Targets

2.11.6 By 2015 the private and state sectors will be forecasting a national, sustained level of timber availability, and accurate forecasts of timber properties (quality) will be available.

2.11.7 By 2025 and beyond there will be a sustained level of timber production at about 8 –8.5 million m³ each year (to be refined following further discussion with the forestry sector).

2.11.8 Key Indicators

- Actual wood production and forecasts of wood availability, split between the national forest estate and other.

2.11.9 Other Indicators

- Sawmill log consumption and sawnwood output.
- An index of round-timber “tonne miles”.
- Scottish wood’s share of UK Market (by value).

Introduction

3.1.1 The aim of this Strategy is to provide a national framework for the long-term development of forestry in Scotland, integrated with wider land use policy within the context of the broader aims of the Scottish Executive.

3.1.2 Some of the actions suggested in this Strategy will require detailed work programmes. Other action will be taken forward through:

- partnership working;
- the evolution of grant schemes and appropriate regulation; and
- the management of national forest land.

3.1.3 Effective delivery will require the support of an extremely wide range of partner organisations, groups and individuals.

Integrated land use

3.2.1 Achieving genuine land use integration, particularly between agriculture and forestry, has been a long-term aspiration. The past five years have seen substantial changes, all geared to maintaining strong, prosperous and growing communities in rural Scotland. Farming and forestry, although important, are no longer seen as dominant in their own right, and are, increasingly, expected to contribute to rural and wider policy goals. This is reflected in the support provided to these sectors to provide wider public benefits.

Regional and local priorities

3.3.1 The Scottish Forestry Strategy must contribute to the Executive's wider priorities for Scotland. To assist with that, the *Scottish Forestry Forum* was created in 2001 to: promote discussion on maximising the benefits of forestry in Scotland; consider how Scottish forestry can best contribute to the wider rural development agenda; and to ensure that progress is made in delivering the Scottish Forestry Strategy. In 2004, Forestry Commission Scotland established five Regional Forestry Forums to advise on forestry policy and practice in: Central Scotland; Grampian; Highland; Perth and Argyll; and South Scotland.

3.3.2 "Forestry for and with people" requires clear national direction, but underpinned by a focus on regional issues and priorities. The five Regional Forestry Forums, together with Forestry Commission Scotland staff, have an important role in identifying and monitoring the regions' individual issues and priorities. The current functions of the Forums are to:

- advise on regional implementation of the Scottish Forestry Strategy, and provide a regional perspective on the Strategy's future development;
- develop close relationships with the forest industries regional cluster groups;
- promote the principle of Local Forestry Frameworks, Indicative Forestry Strategies, and other woodland strategies; their development and implementation;
- advise Forestry Commission Scotland on the suitability of frameworks and strategies that are in preparation;
- advise on how the Scottish Forestry Grants Scheme and Forestry Development Programme can be locally focused to meet local needs better;
- advise Forestry Commission Scotland on Forest District Strategic Plans; and
- where possible, provide linkages with Community Planning Partnerships.

Delivery – continued

3.3.3 The role of the Regional Forestry Forums could evolve still further, and this will be discussed with them during the consultation period.

The role of partnership

3.4.1 Partnerships are a source of new ideas, expertise and funding (see paragraph 3.6.12). As the forestry sector continues to demonstrate its ability to deliver a wide range of benefits, to find new ways to remain competitive, and to broaden its economic base, it will need to establish effective partnerships to help with the successful delivery of the Scottish Forestry Strategy. Such partnerships should embrace the spectrum of those in the private, commercial and community sectors.

The national forest estate

3.5.1 The role of national forests continues to be the subject of much debate, although nearly all European countries have concluded that a mix of public-sector and private-sector ownership best meets their needs. However, the relative balance between the level of state and non-state ownership depends on a country's circumstances, and is rarely static.

3.5.2 One of the primary roles of Scotland's national forest estate will be to address market failure by securing quicker and/or more cost-effective delivery of objectives than regulation and/or incentives for the non-state sector. In general, the arguments in favour of state ownership or management are strongest where a high level of social and environmental outcomes are being sought, and weakest where timber production is the primary objective (within a framework that delivers the basic UK Forestry Standard level of management).

3.5.3 Scotland's national forest estate includes 35% of Scotland's woodland area, and is funded on a net cash basis by the Scottish Executive. Current net expenditure (05/06) is £24 million.

3.5.4 In 2003, Ministers announced a review of the long-term role of the national forest estate managed by Forestry Commission Scotland. The subsequent report recommended:

- greater freedom for Forestry Commission Scotland to buy and sell land and forests for public benefits;
- increasing the scope for community purchase of national forest land (the National Forest Land Scheme) or lease (subject to overcoming the current restrictions imposed by the Forestry Act);
- greater community involvement, including the development of community forests;
- closer working between the forestry and tourism sectors to make the most from the national forests;
- agreement that the estate should play a greater part in delivering the Woods In and Around Towns initiative;
- more information about woodland recreation facilities near major cities and accessible by public transport;
- more large-scale landscape and native woodland restoration;
- timber production focused on more-productive sites, with good access, close to markets and with an emphasis on quality; and
- Forestry Commission Scotland staff with diverse skills and experience, responsive to local needs and working comfortably with a wide range of partners.

3.5.5 In 2005, an Environment Review Group was formed to make recommendations on what additional, or more ambitious, steps could be taken to develop the environmental agenda in national forests.

Grants and regulation

Regulation

3.6.1 The regulatory mechanisms for forestry in Scotland are operated primarily by Forestry Commission Scotland and mainly under the *Forestry Act 1967* (as amended) and the *Plant Health Act 1967*. These govern tree felling and replanting, plant health (preventing the entry of non-endemic pests and diseases of trees), and the use of forest reproductive material (through the *Forest Reproductive Material Regulations*). The Commission is also responsible for administering the Environmental Impact Assessment (Forestry) (Scotland) Regulations 1999. More recently, forestry came under the scope of *The Environmental Assessment of Plans and Programmes (Scotland) Regulations 2004* and *The Environmental Assessment (Scotland) Act 2005*. Their purpose is to provide a systematic method of considering the likely environmental effects of public-sector strategies, plans and programmes.

3.6.2 Regulation of some tree felling also comes under the scope of the *Town & Country Planning (Scotland) Act 1997* through Tree Preservation Orders (TPOs), Conservation Areas and aftercare conditions for mineral workings. National Planning Policy Guideline 14 (Natural Heritage) also states that “planning authorities should seek to protect trees, groups of trees and areas of woodland where they have natural-heritage value or contribute to the character or amenity of a particular locality. Ancient and semi-natural woodlands have the greatest value for nature conservation.” Additionally, following a review of TPOs, the Executive confirmed its intention to make Forestry Commission Scotland a statutory consultee for planning applications involving the felling of more than 0.25 hectares of trees. This will increase the protection afforded to important trees and woodlands, particularly ancient ones.

3.6.3 Through an amendment to the *Forestry Act 1967* by the *Wildlife and Countryside (Amendment) Act 1985*, Forestry Commission Scotland has a duty to achieve a reasonable balance between “the development of afforestation, forest management and the production of timber, and the conservation and enhancement of natural beauty and the conservation of flora, fauna and geological or physiographical features of special interests.” The *Nature Conservation (Scotland) Act 2004* placed a further duty on all public bodies, including the Commission, to further the conservation of biodiversity as far as is consistent with the exercise of their functions.

Grants and external funding

3.6.4 Funding for agriculture and forestry is governed by the EU’s Rural Development Regulations (part of the Common Agricultural Policy). Currently, the principal incentives for non-state woodland expansion and management come through the *Scottish Forestry Grants Scheme (SFGS)*, administered by Forestry Commission Scotland, and the *Farmland Premium*, administered by the Scottish Executive Environment and Rural Affairs Department (SEERAD).

3.6.5 As part of the 2003 reform of the Common Agricultural Policy, support is now “de-coupled” from food production, allowing farmers to make business decisions in response to the needs of the customer rather than support regimes. Farmers now receive a *Single Farm Payment* to keep the land in good agricultural and environmental condition as well as meeting certain other cross-compliance conditions for public and animal health, and welfare. Additional payments can also be made for work delivering other benefits, such as environmental enhancement or recreational access. These payments will be delivered through the three tiers of *Land Management Contracts (LMCs)*:

- Tier 1 is the Single Farm Payment and is not relevant to forestry;
- Tier 2 will include support for creating small-scale woodlands on non-sensitive sites; and
- Tier 3 will provide support for the creation of larger woodlands and the management and improvement of existing woodlands. This tier provides for the targeting of regional and national priorities.

Delivery – continued

In addition, the LEADER approach will be supported through LMCs. (LEADER is an EU initiative to help rural communities to improve their quality of life and economic prosperity.)

3.6.6 The above measures will be developed through a new *Scottish Rural Development Plan* from 1 January 2007. A key feature is the drive towards integration, using LMCs as a single gateway to land-management funding. Accordingly, the SFGS is being revised so that the bulk of forestry support can now be delivered through LMCs. This will include support for:

- small-scale woodland creation;
- larger woodland creation, including short-rotation coppice, and with potential for Regional Challenge top-up support;
- forest plan preparation;
- forest environment work;
- woodland improvement;
- woodland recreation and community involvement (covered by generic LMC measures in Tier 2 and specific measures in Tier 3); and
- energy from woodlands (via the LMC business development measures).

3.6.7 In addition, the Commission will administer stand-alone measures such as a Forestry for People Challenge (designed to be available to non-landowners and hence complementary to LMC measures) and the Timber Transport Scheme (State Aids exemption permitting).

3.6.8 However, because forestry has become increasingly multifunctional, so too has the source of additional funding packages to support its wider social, environmental and economic objectives. Two primary sources of money are EU funding and the National Lottery (“Good Causes”).

EU funding

3.6.9 This is under negotiation, but the broad expectation is that less money will be available to the UK and Scotland following EU expansion. The principal funding mechanisms are: the *European Agricultural Fund for Rural Development (EAFRD)* (the single funding mechanism for rural development measures in the period 2007-2013); *EU Structural Funding*; *LEADER*; *INTERREG*; and *LIFE*.

The National Lottery

3.6.10 National Lottery funding is mainly through: the Heritage Lottery Fund (HLF); The Big Lottery; *sportscotland*; The Scottish Arts Council; Scottish Screen; and Awards for All.

3.6.11 There is also a wide range of other sources of funding available, such as:

- the Scottish Executive (for example Scottish Natural Heritage), local authorities, the Enterprise network and other public organisations awarding grants;
- trust funding, such as the Esmée Fairbairn Foundation, Unemployed Voluntary Action Fund and the Loyds TSB Foundation for Scotland; and
- companies, which give, annually, about £500 million to community organisations.

3.6.12 Accessing external funding is very often dependent on partnership working, backed up with strong community support, and with a need for competent administration and control. Most local authorities offer some form of “funder search” facility, backed up with support and advice. Community Planning Partnerships also offer advice and support, as do the many external consultants operating in this field. In addition, the Internet now provides a quick source of information about external funding.

Required action

3.7.1 The following action will be taken to facilitate delivery of the Scottish Forestry Strategy:

- Regional Forestry Forums will have the lead role in advising Forestry Commission Scotland on the regional implementation of the Strategy;
- Forestry Commission Scotland will help to develop the role of Community Planning Partnerships for increasing forestry's delivery against wider local priorities;
- the role of long-term forest plans will be consolidated as a basis for local consultation on woodland creation and management;
- Forestry Commission Scotland will continue to implement the recommendations of the 2004 Review, and will respond publicly to the more recent Environment Review;
- Forestry Commission Scotland will develop a more detailed vision for the national forest estate so that staff and stakeholders can see the direction of travel; and
- The Commission's Forest District Strategic Plans will be revised in the light of national guidance and following local consultation, to show how the national forest estate vision will be taken forward in each Forest District.

Monitoring and reporting

3.8.1 The Scottish Executive will monitor progress in implementing this Strategy. To assist, a suite of *Indicators of Progress* is proposed (see Appendix 5). On approval of the Strategy, baseline data, as at 2006, will be confirmed with the relevant stakeholders.

3.8.2 Forestry Commission Scotland will take the lead role in "championing" the Strategy, and will nominate named individuals to take forward the actions (including monitoring) outlined in each Key Theme. They will report directly to the Head of Forestry Commission Scotland's Policy Group, who will have overall responsibility for monitoring and reporting on progress to the Commission's Director Scotland and the Scottish Executive.

3.8.3 The Strategy is expected to have a shelf life of about ten years. However, the actions relating to Key Themes will need to be refreshed after about five years. The Indicators of Progress will, therefore, be reported on, by the Commission, mid-way through the five years and before the refreshment exercise. The reports will be made public.

Appendices

Appendix 1: Glossary

Acidification: acidification of surface water occurs where there are large inputs of acidic pollutants and where catchments have susceptible acid soils and underlying rocks. The primary source of the pollutants comes from the burning of fossil fuels. Forest canopies can significantly enhance the capture of some of these pollutants, leading to increased acidity in stream water in susceptible catchments.

Agroforestry: the growing of both trees and agricultural or horticultural crops on the same piece of land.

Ancient woodland: woodland that has been in continuous existence since before 1750 in Scotland (1600 in England, Wales and Northern Ireland). **Ancient and semi-natural woodland** is ancient woodland comprising mainly locally native trees and shrubs that derive from natural seedfall or coppice rather than from planting.

Biomass: the total weight of living organisms in an area. In the context of this Strategy the term is applied to fuel sources from crops (such as trees) or by-products of crops (such as straw).

Carbon sequestration: the provision of long-term storage of carbon (in this case in trees, vegetation and soils).

Clear-felling: the cutting down of all (or most) trees in an area. Usually employed due to the constraints of wet soils, in windy climates, where any disturbance to tree canopies can lead to the remaining trees being blown down.

Cluster: a term used in relation to economic and industrial development, relating to a grouping of industries linked through customer, supplier and other relationships that enhance competitive advantage.

Coppicing: woodland management based on regenerating the trees by regrowth from the cut stumps (called coppice stools) rather than by replanting or from seed fall. The same stools are used through several cycles of cutting and regrowth.

Critical load: the term used to describe the maximum load of a pollutant that a given ecosystem can tolerate without suffering adverse effects.

Forest: the term usually applied to a large area of woodland of varied ages and tree species. In this Strategy the terms “forest” and “woodland” are interchangeable.

Forest Habitat Networks: alleviate the adverse effects of habitat fragmentation and reduced habitat size but without the need for large-scale expansion of woodland throughout an area.

Forestry: the management of woods, woodlands and forests.

Fuel poverty: when a household needs to spend more than 10% of its income on fuel to maintain a satisfactory heating regime. The main causes of fuel poverty in the UK are a combination of low incomes and poor energy efficiency.

Gross Domestic Product (GDP): an integral part of the UK national accounts that provides a measure of the total economic activity.

Hardwood: the timber obtained from broadleaved trees such as oak, ash, birch, beech, sycamore etc.

Hectare: a unit of land area equal to 100m x 100m (or 2.47 acres in the Imperial system). There are 100 hectares in a square kilometre.

Historic environment: the imprint of past generations – monuments, buildings and sites in towns, cities and the countryside. It is all around us and has a wider meaning than “cultural heritage”.

Indicative Forestry Strategy (IFS): Local authority-led policy plans for forestry in their area. They are included in Development Plans and have a prominent role in the Planning system. *Forestry Frameworks* (including Woodland Strategies and Local Woodland & Forestry Frameworks) are also produced by Local Authorities and National Park Authorities. These provide a level of guidance between policy (IFS) and delivery mechanisms at local level.

Lower-impact forest management: often referred to as lower-impact silvicultural systems. They maintain forest cover and lessen the impacts of larger-scale harvesting. Typically they use smaller areas of felling and use natural regeneration, rather than planting, as the means of regenerating the woodland.

Native woodland: woodland that wholly or mainly comprises species that colonised Scotland after the last Ice Age and before human influence on natural processes became significant.

Natura 2000 sites: Protected areas established for the protection of habitats or species under the EU’s Birds Directive (*Special Protection Areas* or SPAs) and the Habitats Directive (*Special Areas of Conservation* or SACs).

Nitrate-Vulnerable Zones: an EU Nitrates Directive designation. It applies to areas that drain into waters that have been identified as being polluted, or which could be polluted, by excessive nitrate contamination. Usually associated with areas of intensive agriculture.

Non market benefits: benefits that cannot be sold in conventional markets. For example, a woodland owner cannot sell (directly) the benefit of providing a habitat for red squirrels and so this is a non-market benefit, unlike, say, the sale of timber.

Non-timber forest products: forest-derived edible goods, herbal medicines, decorative goods, pharmaceuticals and cosmetics/aromatics.

Pasture woodland: usually ancient woodland, typically comprised of scattered trees, where seasonal grazing restricted woodland regeneration to a few individual trees, clumps or patches of scrub.

Peri-urban: the area between urban and rural areas (i.e. the outskirts of cities and large towns).

Plantation: woodland where the current trees have been planted. Often includes naturally regenerating trees as well. Includes former semi-natural woodlands that have been replanted.

Ramsar sites: nature conservation sites designated as wetland of international significance under the Ramsar Convention, especially as a waterfowl habitat.

Restructuring: the phased re-design of the age and species composition of plantations so that they become, increasingly, diverse forests or woodlands.

Rotation: the life cycle of a plantation from planting to felling, followed by replanting. Typical conifer plantations have a rotation of between 35 and 60 years (i.e. the trees are grown for 35-60 years and then felled and replanted).

Short-rotation coppice (SRC): an energy crop that usually consists of densely planted, high-yielding varieties of poplar or willow. Stems are usually harvested from SRC plantations every three to five years and the coppice stools (stumps) remain productive for up to 30 years.

Short-rotation forestry (SRF): trees grown on a rotation of between eight and twenty years.

Appendices – continued

Silviculture: the techniques of tending, regenerating and harvesting woodlands.

Site of Special Scientific Interest (SSSI): these sites represent the best of Scotland's natural heritage and form a network of the best examples of natural features throughout Scotland, Great Britain and the European Union. This formal designation gives legal protection to the site. SSSIs cover about 12.5% of Scotland.

Social exclusion: a shorthand label for what can happen when individuals or areas suffer from a combination of linked problems such as unemployment, poor skills, low incomes, poor housing, high levels of crime, bad health and family breakdown. **Social inclusion** aims to reverse this.

Social justice: is fairness, equality and opportunity at both the individual and the area-based community level. No-one should be disadvantaged by who they are or where they live.

Softwood: the timber obtained from conifer tree species such as Sitka spruce, Douglas fir, Scots pine, larch etc.

Urban/rural Regeneration: the social, economic and environmental improvement of areas facing problems of deprivation and social disadvantage.

Wood or woodland: often describes a smaller area of trees. In this Strategy the terms “forest” and “woodland” are interchangeable.

Appendix 2: Progress since 2000

1. The first Scottish Forestry Strategy was published in 2000. It set out five *Strategic Directions*, of equal importance, to:

- maximise the value to the Scottish economy of the wood resource becoming available over the next 20 years;
- create a diverse forest resource of high quality that will contribute to the economic needs of Scotland throughout the twenty-first century and beyond;
- ensure that Scotland's trees, woods and forests make a positive contribution to the environment;
- create opportunities for more people to enjoy trees, woods and forests in Scotland; and
- help communities benefit from woods and forests.

2. A suite of 24 **"Indicators of Progress"** was subsequently developed and a report of these and broader progress was compiled in 2002 (*"Delivering the Scottish Forestry Strategy"*). An update, as at 31 December 2005, is shown below.

Appendices – continued

Maximising the value of Scotland's wood resource			
Indicator	Baseline	2005	Comment
Contribution to Scottish GDP (value added)	<ul style="list-style-type: none"> Forestry (1998) £122 million/year (yr) Wood processing (1998): £476 million/yr 	<ul style="list-style-type: none"> Forestry (2001) £92 million/yr Wood processing (2001): £607 million/yr 	The forestry reduction shows the impact of low prices for the raw material (wood).
Forecast wood production	<ul style="list-style-type: none"> Actual (2000) 5.5 million m³ Forecast (2009) 7.9 million m³/yr 	<ul style="list-style-type: none"> Actual (2004) 6.9 million m³ Forecast (2009) 7.9 million m³/yr 	Actual 2000 was revised to 5.2 million m ³
Investment in processing capacity	£60 million /yr (2000)	£60 million/yr (2005)	2000 data taken from <i>Roots for Growth</i> . 2005 figure based on best available knowledge. Both figures are 15-year averages.
Total value of UK market for wood products	£8.45 billion (2000)	£8.63 billion (2004)	(The 2000 figure should be adjusted to £8.34 billion)
Scottish wood's share of UK market (by value)	4.0% (2000)	4.1% (2004)	Reflects increase in Scottish timber production.
% timber transported by rail and sea	11.1% (2000)	No additional data	2000 data based on Scottish Forest Products Mapping Project, Spaven McCrossan (2000), and related to forecasts rather than actuals. Current best estimates are for 2-3% transport by rail and 2-3% by sea.

Creating a diverse forest resource for the future			
Indicator	Baseline	2005	Comment
Total forest and woodland area	1,317,000 hectares (ha) (2000/2001) 16.9% by land area	1,334,000 ha (2004/2005) 17.1%	National forest was 36% of the total in 2000 and 35% in 2005.
% area of forest covered by agreed long-term management plan	31% (2000)	53% (2005)	
Area of new planting	11,719 ha (2000/01)	5,682 ha (2004/05)	Major downturn in planting during the uncertainties of CAP reform.
% of forest being thinned	50% (1995)	No new information	Requires completion of National Inventory of Woodlands & Trees before new data will be available.
Diversity indicator	59% of random one-hectare plots with varied species or age structure (1995).	As above	As above
Area of forest older than 65 years	102,441 ha (9.4% of high forest) (1995)	As above	As above
Woodland deer cull	52,096 (2001/02)	51,014 (2004/05)	

Helping communities benefit from forestry			
Indicator	Baseline	2005	Comment
Employment	10,694 (1998/1999)	No further data	The Forest Employment Survey has been discontinued (last survey undertaken in 98/99). The Annual Business Inquiry (see "Scottish Business Statistics") can be used for future reference. However, the data is collected on a different basis.
Employment within 20 miles of home	68% (1998/1999)	No further data	Derived from Forest Employment Survey (discontinued in 2004).
Number of community groups owning or managing woods	51 (2002)	No further data	In 2005 there were 110 community partnerships on the national forest estate alone. (See <i>Community Partnerships on the national forest estate</i>). Seven private-sector case studies were also documented. (See <i>Community Involvement in Private Woodlands</i>).
Area of woodland owned or managed by community groups	21,995 ha (2002)	No further data	The 2002 data was derived from a survey undertaken by Reforesting Scotland.

Appendices – continued

3. In June 2005 a Consultation Paper was issued for the formal review of the Strategy (see www.forestry.gov.uk/sfs). This set out the key examples of implementation since 2000. An analysis of responses to the consultation paper was posted on the Forestry Commission Scotland website in December 2005, together with the Commissions' response (see the link above). Stakeholders identified the following:

4. The main **successes** since 2000 have been:

- better public awareness of and involvement in forestry;
- improved recreation and access opportunities (but see also “further progress required”);
- better community engagement, including the formation of the National and Regional Forestry Forums and the work of the Forestry for People Advisory Panel;
- the work of the Scottish Forest Industries Cluster (a partnership between Scottish Enterprise and the Forest Industries Development Council {now ConFor} to reinforce and enhance the competitive advantage of the forest industries);
- the Scottish Forestry Grants Scheme as a mechanism to target incentives towards public benefits;
- the Woods In and Around Towns initiative (designed to bring the benefits of woodlands closer to where people live and work);
- greater attention given to broadleaved and native woodlands;
- greatly enhanced provision for mountain biking (health and tourism benefits);
- the National Forest Land Scheme. (Subject to certain criteria, this gives communities the opportunity to buy national forest land, makes national forest land available for affordable housing, and gives communities “first refusal” to buy surplus national forest land); and
- the work of the Timber Transport Forum and its Regional Groups in starting to address the challenges of timber transport in terms of its efficiency, cost and social impacts.

5. The main issues requiring significant **further progress** are :

- forestry's role in tackling climate change;
- the need for more effective land use integration;
- increasing the benefits flowing through to communities from forestry;
- extending access opportunities in urban areas;
- a greater rate of forest expansion, particularly in relation to the main commercial species;
- resolution of the forecast “peak followed by trough” in forecast timber availability;
- better utilisation of non-timber outputs, and rewarding owners for the provision of non-market benefits (such as landscape and biodiversity);
- more consideration required for the historic environment;
- faster development of forestry's biomass potential and its wider relevance to the challenges of climate change;
- in many areas woodland deer numbers are now coming into balance with the desired habitats, but there is a need for more collaborative action in terms of integrating deer management with other land-use interests;
- a need to expand riparian woodlands; and
- a need to identify measurable targets in the Scottish Forestry Strategy.

6. The first Scottish Forestry Strategy (2000) contained an aspiration to increase Scotland's woodlands towards one quarter of our land area by the middle of this century. However, there is an increasing emphasis on having the right kind of woodland, in the right places. This, coupled with a recent study of the scope for woodland expansion in Scotland (undertaken for Forestry Commission Scotland by the Macaulay Institute - see www.forestry.gov.uk/sfstopicpapers), suggests that the **aspiration** for 25% woodland cover by the middle of this century remains feasible, but that it would be inappropriate to regard it as a **target**.

Appendix 3: Forestry Context

1. Part One of this Strategy gave an overview of the context within which forestry in Scotland now operates.
2. A comprehensive review of the many policies and strategies influencing forestry has also been undertaken. The resulting Context document contains more than 170 references, each with a weblink and a brief explanation of the document.
3. The Context document is structured as follows:

Forestry Context
Global
Europe
European Union
UK
Scotland
Scottish Sectoral:
• Climate change
• Planning
• Tourism and Access
• Health
• Transport
• Water/Air/Soil
• Natural Heritage
• Deer Management
• Cultural Heritage
• Culture
• Agriculture
• Rural
• Forestry

4. A copy of the full Forestry Context can be found at: (www.forestry.gov.uk/sfstopicpapers).
5. Forestry Commission Scotland would be pleased to hear of any omissions in, or up-dates to, the references. These can be sent by e-mail to: fcscotland@forestry.gsi.gov.uk or by post to The Scottish Forestry Strategy, Forestry Commission Scotland, Silvan House, 231 Corstorphine Road, Edinburgh, EH12 7AT.

Appendices – continued

Appendix 4: Linkages with the Scottish Forestry Strategy 2000

1. The first Scottish Forestry Strategy was published in 2000. It set out five Strategic Directions. For each of the Strategic Directions there were a number of Priorities for Action, each of which was given an identification code.

Scottish Forestry Strategy 2000		
Strategic Direction	Priority for Action	Code
Maximise the value to the Scottish economy of the wood resource becoming available over the next 20 years.	Improve competitiveness by developing a strong forest industries network.	MV ₁
	Ensure continuing investment in wood processing.	MV ₂
	Develop the timber transport infrastructure.	MV ₃
	Promote more use of timber.	MV ₄
	Develop products that meet market needs.	MV ₅
Create a diverse forest resource of high-quality that will contribute to the economic needs of Scotland throughout the twenty-first century and beyond.	Expand the area of well designed productive forest.	FFR ₁
	Improve timber quality through following good forest practice.	FFR ₂
	Develop more mixed forests.	FFR ₃
	Exploit non-timber outputs and benefits of woods and forests.	FFR ₄
	Tackle deer problems.	FFR ₅
Ensure that Scotland's trees, woods and forests make a positive contribution to the environment.	Improve the management of semi-natural woodlands.	PCE ₁
	Extend and enhance native woodlands by developing Forest Habitat Networks.	PCE ₂
	Increase the diversity of the farmed landscape.	PCE ₃
	Aid the recovery of acidified rivers and lochs and improve riparian habitats.	PCE ₄
	Encourage alternatives to clear-felling.	PCE ₅
Contribute to a radical improvement in the quality and setting of urban areas.		PCE ₆
	Create opportunities for more people to enjoy trees, woods and forests in Scotland.	
	Provide woodland recreation opportunities near towns.	ETWF ₁
Improve the availability of information about opportunities.	Improve the availability of information about opportunities.	ETWF ₂
	Increase forestry's contribution to tourism.	ETWF ₃
	Help communities benefit from woods and forests.	Create wider employment opportunities.
Increase opportunities for community consultation.		CB ₂
Provide opportunities for greater involvement in forestry.		CB ₃
Support community ownership where this will bring local benefits.		CB ₄

2. In the draft, revised Scottish Forestry Strategy, Key Themes have been used to focus action. The table below shows how the new Key Themes relate to the previous Strategy's Priorities for Action:

	SFS 2000 Strategic Directions				
	Economic	Diversity	Environment	Enjoyment	Communities
SFS 2006 Key Themes	Priorities for Action	Priorities for Action	Priorities for Action	Priorities for Action	Priorities for Action
Climate Change	MV1 MV3 MV4 MV5	FFR1 FFR3	PCE2 PCE3 PCE5		CB1 CB3
Business Development	MV1 MV2 MV3 MV4 MV5	FFR1 FFR2 FFR3 FFR4	PCE3 PCE6	ETWF1 ETWF3	CB1 CB3 CB4
Community Development	MV3 MV4	FFR1 FFR3 FFR4	PCE3 PCE5 PCE6	ETWF1 ETWF2 ETWF3	CB1 CB2 CB3 CB4
Learning & Skills	MV1	FFR2 FFR4 FFR5	PCE1 PCE3 PCE5 PCE6	ETWF1 ETWF3	CB1 CB3 CB4
Access and Inclusion	FFR1 FFR3		PCE1 PCE3 PCE5 PCE6	ETWF1 ETWF2 ETWF3	CB1 CB2 CB3 CB4
Environmental Protection	MV3	FFR1 FFR3 FFR4	PCE1 PCE2 PCE3 PCE4 PCE5 PCE6	ETWF1 ETWF2 ETWF3	CB4
Biodiversity		FFR1 FFR3 FFR5	PCE1 PCE2 PCE3 PCE4 PCE5 PCE6	ETWF1 ETWF2 ETWF3	CB1
Timber	MV1 MV2 MV3 MV4 MV5	FFR1 FFR3 FFR5	PCE3		CB1 CB3

Appendices – continued

Appendix 5: Indicators of Progress

1. The Scottish Executive will monitor progress in implementing this Strategy. To assist with that process a revised suite of *Indicators of Progress* is proposed. On approval of the Strategy, baseline data, as at 2006, will be confirmed with the relevant stakeholders.
2. Named individuals in Forestry Commission Scotland will be nominated to develop and then monitor each Indicator. Those individuals will report directly to the Head of the Forestry Commission Scotland's Policy Group, who will have overall responsibility for monitoring and reporting on progress to the Commission's Director Scotland and the Scottish Executive.
3. The Scottish Forestry Strategy's Key Themes will need to be refreshed after about five years. With that in mind, the Indicators of Progress will be reported on, by Forestry Commission Scotland, mid-way through the five years and before the refreshment exercise. The reports will be made public.
4. The Indicators have been **highlighted** to show those that would function as "Headline" Indicators.

Theme	Indicator	Data Source	Frequency	Comment
Climate Change	1. Annual carbon savings.	To be developed	Annual	To be developed.
	2. Oven dried tonnage of wood used for heating and electricity generation.	FCS	Annual	
	3. Area of short-rotation coppice.	FCS/ERAD	Annual	Contract work.
	4. Number of non-domestic wood-fuelled energy systems installed. (See also No 4 - Area of new planting)	FCS	Annual	Contract work.
Business Development	5. Contribution to Scottish Gross Domestic Product (value added)	Scottish Executive Input/Output Tables	Annual (but publication of data lags by about 2-3 years).	Split: Wood processing Paper products* Forestry (*NB need to re-set 1998 baseline).
	6. Employment	Annual Business Inquiry (ABI)		The Forest Employment Survey has been discontinued. The ABI uses different definitions to the latter but now includes forestry.
	7. Number of farm holdings/businesses involved in woodland creation or management.	FCS/ERAD	Annual	

Theme	Indicator	Data Source	Frequency	Comment
Community development	8. Number of community group partnerships involved in owning or managing woodland.	FCS & Community Woodlands Association	3-5 years	
	9. Number and area of land parcels sold or leased under the National Forest Land Scheme.	FCS	Annual	
Learning and Skills	10. Number of schools involved in woodland-based learning activities.	FCS	Annual	(e.g. Curriculum for Excellence using trees and timber industry in the land-based curriculum, Forest Education Initiative, Active Schools, Forest Schools, national forest land data etc). Ideally split nursery, primary and secondary
	11. Accredited learning/ Scottish Credit & Qualifications Framework (SCQF) for forestry-related work.	To be discussed with Lantra (and other Sector Skills Councils)	Annual	To be developed and included in the finalised Scottish Forestry Strategy.
	12. Proportion of adults (16 years +) who attended an organised learning activity or event to do with Scottish woodlands in the past 12 months.	Public Opinion Survey – Scotland	2 years	
	13. Proportion of adults (16 years +) who have heard or read about Scottish woodlands in the past 12 months.	Public Opinion Survey – Scotland	2 years	

Appendices – continued

Theme	Indicator	Data Source	Frequency	Comment
Access & Inclusion	14. Proportion of population with: i) accessible woodland > 2ha within 500m. ii) >20ha within 4km.	FCS/Woodland Trust Scotland (WTS)	5 years	
	15. Proportion of adults (16 years +) who visited woodland in past 12 months.	Scottish Recreation Survey	Annual	
	16. Scheduled Ancient Monuments	FCS/Historic Scotland	To be decided	To be developed and included in the finalised Scottish Forestry Strategy.
	17. Number of visits to national forest land.	FCS	5 year	Baseline data will be available from the All-Forest Survey on the national forest estate. This will be completed in 2008/09 and will assess number of visits, the profile of visitors and the economic value of visits. Trends will be identified from future surveys.
	18. Health (under further consideration)	FCS & health-sector partners	To be decided.	With the health sector, consider whether any reliable, “proxy” indicators could help to evaluate forestry’s contribution to health improvement.
	19. Number of known archaeological sites included within approved forest plans.	FCS/Historic Scotland	To be decided	To be developed and included in the finalised Scottish Forestry Strategy.

Theme	Indicator	Data Source	Frequency	Comment
Environmental Protection	20. Proportion (length) of rivers in forested catchments for which ecological quality is not downgraded as a result of forestry-specific activities.	SEPA	6 years	Links with River Basin Management Planning
	21. Proportion of woodland managed by systems other than clear-felling.	FCS	5 years	As above
	22. Length of rivers affected by acidification where forestry is a factor.	SEPA	6 years	
	23. Number of cases of forestry operations or activities leading to pollution of the water environment.	SEPA	Annual	Number of water pollution incidents investigated and confirmed by SEPA as attributable to forestry activities.
	24. Proportion of woodlands within designated areas covered by Forest Design Plans or Forest Plans: a) National Parks b) National Scenic Area c) Areas of Great Landscape Value	FCS	5 years	

Appendices – continued

Theme	Indicator	Data Source	Frequency	Comment
Biodiversity	25. Area of native woodland (with sub-set for woodland of native origin)	Scottish Native Woodlands Survey (SNWS)	Baseline survey (no repeat survey planned).	SNWS starts 2006, ends 2012. Recorded by Habitat Action Plan (HAP) type and National Vegetation Classification. Updates via grant scheme data, NIWT and national forest estate.
	26. Proportion of woodland SSSIs (including Natura and Ramsar sites) in favourable condition.	SNH	6 years	
	27. Area of PAWS with a commitment to restoration under long-term plans.	FCS	5 years	
	28. Number of woodland-related UK BAP species and habitats identified as stable or increasing/recovering or in favourable condition.	Joint Nature Conservation Committee/ SNH	5 years	
	29. Woodland deer cull	DCS	Annual	
	30. Loss of Ancient Semi-Natural Woodland (ASNW) to development.	(base-line could be based on current ASNW maps, updated by the SNWS)	Under consideration	Under consideration.
	31. Woodland Bird Index	Under development as part of Scottish Biodiversity Strategy indicators		(Plus a sub-set for key species – to be developed)
	32. Woodland structure and composition: (deadwood, structural diversity, tree/shrub diversity)	Under development as part of Scottish Biodiversity Strategy indicators		Under development. Likely to use NIWT data.

Theme	Indicator	Data Source	Frequency	Comment
Timber	33. Actual wood production and forecast wood availability, split national forest land and other.	FCS / Forest Research & FC E&S	Annual for actuals; 5 yearly for forecasts.	Actual wood production and 20-year forecast in 5-year periods (NB further work required to forecast timber quality as well as volume).
	34. Sawmill log consumption and sawnwood output.	FCS/ConFor	Annual	
	35. Index of round timber "tonne miles"	FCS/SFIC	Annual	Requires further development to ensure consistency of data.
	36. Scottish wood's share of UK Market (by value)	Import/export statistics; UK supply data; ONS Input-Output Tables; UK Timber Statistics	Annual	
Sustainable Forest Management	37. Area of woodland (broken down by type).	National Inventory of Woodland & Trees (NIWT)	10 - 15 years	Records: conifer; broadleaved; mixed; coppice; coppice-with- standards; windblow; felled; and open space. Native woodland will be recorded via the Native Woodland Survey.
	38. Area of woodland managed in accordance with approved, long-term plans.	FCS	Annual	Includes: national forest land; current FCS grant schemes; felling licence; or covered by Environmental Assessment or Forest Plans.
	39. Area of new woodland created.	FCS/ERAD	Annual	Split conifer; broadleaved; Caledonian Scots pine and native broadleaves.
	40. Area of independently certified woodland.	FSC/PEFC	Annual	Compiled by FC E&S.

Appendices – continued

Key			
FCS	Forestry Commission Scotland	FSC	Forest Stewardship Council
FC E&S	FC Economics & Statistics	PEFC	Programme for the Endorsement of Forest Certification schemes
ERAD	Environment & Rural Affairs Department	SFIC	Scottish Forest Industries Cluster
DCS	Deer Commission Scotland	ConFor	Confederation of Forest Industries
SNH	Scottish Natural Heritage		
SEPA	Scottish Environment Protection Agency		

Forestry Commission Scotland serves as the forestry department of the Scottish Executive, and is responsible to Scottish Ministers. It led the Strategy review and was supported by a Steering Group of representatives from: the Scottish Executive; Scottish Natural Heritage; Scottish Environment LINK; The Confederation of Forest Industries (UK) Ltd; the Forestry for People Advisory Panel and the Scottish Forest Industries Cluster.

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