

**National Report to the Fourth Session of the
United Nations Forum on Forests**

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1. INTRODUCTION

General

The national forest authority in Ireland is the Forest Service of the Department of Agriculture and Food. Its remit is to develop forestry in Ireland in a manner and a scale that maximise its social, economic and environmental contribution to national well-being on a sustainable basis.

The objectives of the Forest Service and of the Irish government in relation to forestry are set out in the Irish National Forest Strategy *Growing for the Future – A Strategic Plan for the Development of the Forestry Sector in Ireland - 1996*. The Forest Service will be undertaking a review of the Strategy in 2004. The review will cover *inter alia* afforestation and funding levels while also ensuring that the three pillars of sustainable forest management (social, environmental and economic) are fully and equitably addressed. All relevant stakeholders will be consulted during the course of the review.

Former state forests in Ireland are under the operational control of Coillte (the Irish Forestry Board), a private limited company under the full ownership of the state. It was established in 1989 (see body of report for a fuller description of Coillte's status and operations).

TABLE 1. Forest Statistics – Ireland

Forest area of the Republic of Ireland (end 2002)	680,330 hectares (ha), 10% of total land area of the country
Forest area per capita	0.17 ha
Standing volume – 2002	50,859,000 m ³ overbark
Average Annual Increment - 2002	3,353,000 m ³ overbark
Annual Felling – 2002	2,738,000 m ³ overbark
Composition of the forest estate	79% conifer, 21% broadleaf
Ownership	58% state (Coillte), 42% private,

Forest cover in Ireland

Ireland was once covered by primeval forest that developed after the Ice Age, around 10,000 years ago. Deforestation began with farming by Neolithic man, assisted by a change to a colder, wetter climate that resulted in the development of peatland. By the year 1600, only about 12% (*c.* 1 million ha) remained of the original forest cover, mainly along river valleys. This area had further shrunk to 170,000 ha or just 2% of the land area by 1800. It was further reduced in the 19th century, resulting in a forest cover of just 100,000 ha by the beginning of the 20th century.

Following a long period of afforestation, which commenced in 1904, forest cover has been restored to 680,330 ha or 10% of the total land area of the country at the end of 2002. However Ireland's forest cover is still well below the European average. Up to the late 1980s afforestation was largely undertaken by the State. Since then, and as a result of the introduction of grant aid and annual premiums, jointly funded by the State and the European Union, afforestation by farmers and other private owners has greatly increased. Today almost all afforestation is undertaken by the private sector. Coillte carries out a significant annual reforestation programme of 8,000 ha.

Much of Ireland's remaining indigenous forest is protected in National Parks, Nature Reserves and cSACs (under the Habitats Directive).

Regulatory, control and development mechanisms

Forestry is a regulated and controlled activity in Ireland. The body of national legislation and EC Directives relevant to forestry has greatly increased in recent years. As well as the Forestry Acts, other national legislation covering environmental protection, wildlife (including fisheries), planning and development, health and safety, water pollution, roads, etc. govern forestry development in Ireland.

Current forest legislation comprises the Forestry Acts of 1946, 1956 and 1988. The Forest Service is currently in the process of revising, extending and consolidating the forestry acts in order to provide a workable legislative framework to safeguard and assist in the expansion of the forest sector in Ireland within the context of sustainable forest management.

The new forestry act will consolidate all previous forest legislation into one provision. While many of the existing provisions remain unchanged, it is proposed that the new act will contain a number of significant changes and initiatives, which will:

- incorporate the principles of sustainable forest management,
- address the Minister's powers in relation to the framing of regulations controlling the management of forests and forestry-related activities,
- regulate the annual harvest;
- address deforestation and illegal felling;
- consolidate, on a statutory basis, a forestry consent system, environmental impact assessment (EIA) and an appeals procedure;
- facilitate the provision of information on the Irish forestry sector; and
- consolidate Coillte corporate governance.

Forest legislation

Current forest legislation in Ireland:

- **The Forestry Act 1946** contains provisions *inter alia* for the promotion of forestry, the development of afforestation, and the production and supply of timber. Its provisions also cover the compulsory acquisition of land, the creation of rights-of-way and the introduction of restrictions on cutting down and injuring trees. The Act also covers the licensing of tree felling and reforestation obligations.
- **The Forestry Act 1956** facilitates the acquisition of land for the purposes of the Forestry Act 1946.
- **The Forestry Act 1988** makes further provision for the development of forestry, to provide for the establishment of a private limited company (Coillte Teoranta) for that purpose, and for the assignment to the company of functions heretofore exercised by the Minister. Coillte's shareholders are the Minister for Finance and the Minister for Communications, Marine and Natural Resources.

Its principal objectives are:

- to operate in forestry and related activities on a commercial basis and in accordance with efficient silvicultural practices;
 - to establish and carry on woodland industries;
 - to participate with others in forestry and related activities; and
 - to utilise and manage the company's resources in a manner consistent with the above objectives.
- **Statutory Instrument No. 538 of 2001** introduced a statutory consent system with regard to initial afforestation. As part of the standard grant application process, appropriate proposed afforestation sites are assessed *vis-à-vis* water quality, designated habitats, archaeology, landscape and other environmental conditions, and are referred to the relevant prescribed body according to an agreed protocol. These bodies include Regional Fisheries Boards, Local Authorities, National Parks and

Wildlife Service, National Monuments and An Taisce¹. The regulations also provide for a public consultation process in certain circumstances, with public notice of the proposed afforestation printed in local press and submissions or observations invited. Felling licence applications are also referred to relevant statutory bodies, as appropriate.

Forestry and the environment

To ensure compatibility between forestry development and the protection of the environment, the Forest Service is implementing sustainable forest management to ensure that all timber produced in Ireland is derived from sustainably managed forests. This is in accordance with Ireland's commitment to the six pan-European criteria for sustainable forest management adopted at the Third Ministerial Conference on the Protection of Forests in Europe, Lisbon, 1998. The implementation of sustainable forest management within Ireland is supported by the *Irish National Forest Standard* (2000), the *Code of Best Forest Practice – Ireland* (2000) and a suite of environmental and forestry practice guidelines (relating to water quality, landscape, archaeology, biodiversity, harvesting, aerial fertilisation and forest protection), as well as by the work of the Forest Service Inspectorate and the ongoing review of Irish forest legislation (see page 5). The *Irish National Forest Standard* provides a framework for the development and evaluation of sustainable forest management within Ireland. The *Code of Best Forest Practice - Ireland* sets out best practice for all stages of the forest management cycle.

During the development of the *Irish National Forest Standard*, *Code of Best Forest Practice – Ireland* and the environmental and forestry practice guidelines, wide consultation with the forest industry, other government departments, state agencies and non-governmental organisations (NGOs) was undertaken. The *Irish National Forest Standard*, the *Code of Best Forest Practice - Ireland* and the environmental and forestry practice guidelines are an integrated package for forest practitioners to ensure that the concept of sustainable forest management is applied to all aspects of Irish forestry. These publications can be accessed on the Forest Service publications web page <http://www.dcmnr.gov.ie/display.asp/pg=306>.

An overview of the *Irish National Forest Standard*, *Code of Best Forest Practice - Ireland* and environmental and forestry practice guidelines follows.

Irish National Forest Standard (2000)

The *Irish National Forest Standard* outlines the basic criteria and indicators relating to the national implementation of sustainable forest management. It lists a series of qualitative and quantitative measures by which progress towards the practice of sustainable forest management can be monitored under Irish forest conditions.

The Standard outlines the principles and policies in relation to the implementation of sustainable forest management in Ireland, setting out criteria, indicators and measures to achieve this objective. It is a compilation of methods whereby Ireland can achieve the six criteria as set out by the Third Ministerial Conference on the Protection of Forests in Europe, Lisbon, 1998.

The six criteria are:

- Maintenance and appropriate enhancement of forest resources and their contribution to global carbon cycles.
- Maintenance of forest ecosystem health and vitality.
- Maintenance and enhancement of productive functions of forests (wood and non-wood).
- Maintenance, conservation and appropriate enhancement of biological diversity in forest ecosystems.

¹ An Taisce is The National Trust for Ireland.

- Maintenance and appropriate enhancement of protective functions in forest management (notably soil and water).
- Maintenance of other socio-economic functions and conditions.

Code of Best Forest Practice – Ireland (2000)

The *Code of Best Forest Practice – Ireland* is a listing of all forestry operations and the manner in which they should be carried out to ensure the implementation of sustainable forest management in Ireland, as agreed at the Third Ministerial Conference on the Protection of Forests in Europe, Lisbon 1998.

The Code identifies the three basic values of sustainable forest management – environmental, economic and social – and relates them to the performance of forest operations. Each section of the Code describes a particular forest operation, and is divided into objectives, key factors, operation description, potential adverse impacts, best practice and relevant references.

The Code lists the objectives of each forest operation, e.g. the production of suitable planting stock, improving tree quality, efficient and environmentally friendly harvesting. Key factors identify those elements of the operation likely to impact on the three values of sustainable forest management. Operational descriptions outline the components of each operation and the best practice methods to ensure compliance with sustainable forest management. Potential adverse impacts are listed in order to emphasise the need for best management practice. The most likely adverse impacts arising from careless or incorrect operations are highlighted. Also listed are best practices. These are measures needed to avoid potential adverse impacts, and include care for the physical environment, safety, efficiency and proper planning and consultation with local interests. Each section is accompanied with a list of suitable references which provide greater technical detail and background material for each operation.

Environmental and forestry practice guidelines

Forestry and Archaeology Guidelines (2000)

It is the policy of the Forest Service that forest development should not disturb sites of archaeological importance. Forest development should ensure their preservation and protection and enable access for further study. The *Forestry and Archaeology Guidelines* have been compiled to assist non-archaeologists involved in forest development to identify archaeological sites and set out the procedures that should be followed to avoid site disturbance.

Forest Biodiversity Guidelines (2000)

Biodiversity describes the variability among living organisms and the ecosystems of which they are part. Three conceptual levels of biodiversity are recognised – ecosystems, species and genetic. Forests are among the most diverse and complex ecosystems in the world, providing a habitat for a multitude of flora and fauna. Ireland's forests create an opportunity to conserve and enhance biodiversity at both local and national level. The *Forest Biodiversity Guidelines* focus on how best to conserve and enhance biodiversity in Irish forests, through appropriate planning, conservation and management.

Forest Harvesting and the Environment Guidelines (2000)

As Ireland's forest estate continues to expand and mature, the amount of timber harvesting is increasing. Forest harvesting and associated road construction and usage have the potential to impact adversely upon the environment. The adoption of sound planning procedures, operating techniques and control measures will avoid and minimise negative effects. The *Forest Harvesting and the Environment Guidelines* address soil conservation, the protection of water quality, archaeological sites, biodiversity and the visual landscape, and the maintenance of forest health and productivity. They also recognise the commercial nature of forestry in Ireland and the need for cost-effectiveness in harvesting operations. Guidance is provided for harvest planning, harvest operation, harvest site restoration, road planning, road construction and machine servicing.

Forestry and the Landscape Guidelines (2000)

Forests should be planned and managed in a way that enhances the landscape. Given the impact of forestry on the landscape, in terms of aesthetics, environment and culture, measures are required that ensure overall positive results and avoidance of damage. Ireland's landscape character varies considerably in regard to both landform and land cover. Any approach to forest landscape planning and design should therefore deal with the forest in the context of the surrounding landscape, and aim at achieving a sympathetic response to the distinctive landscape character of that given location. The *Forestry and the Landscape Guidelines* provide recommendations for various forest development scenarios and for four distinct landscape character types commonly found in Ireland, namely rolling moorland, rolling fertile farmland, drumlins, and mountain and farmland complex.

Forestry and Water Quality Guidelines (2000)

Maintenance and enhancement of water quality is of the utmost importance in Ireland today. Forestry has taken a proactive role in addressing how it interacts with aquatic resources. Forest activities have the potential to react both positively and negatively with aquatic resources. Planning of operations is essential to militate against potential negative impacts, which can cause erosion, siltation, acidification and nutrient enhancement and to maximise the positive aspects of forestry, such as biodiversity enhancement. The *Forestry and Water Quality Guidelines* apply to all forest and woodland activities and rely on close co-operation between forest owners, contractors, government departments and agencies.

Forestry and Aerial Fertilisation Guidelines (2001)

Fertiliser application to forest plantations is a feature of Irish forestry. Good practice involves the adherence to correct application rates, methods and procedures. It ensures that, in conjunction with other operations, optimum yield is achieved while protecting the environment. The purpose of the *Forestry and Aerial Fertilisation Guidelines* is to set out procedures for aerial fertilisation in Irish forests, based on current best practice and knowledge. It details the consultation and approval procedures, operational requirements and water quality monitoring protocols.

Forest Protection Guidelines (2002)

Healthy, vigorous forests growing under conditions suited to their needs are highly resilient. However, young forests are vulnerable to competition from vegetation as well as to grazing and bark stripping by animals, both domestic and wild. Forests may be at risk from fire during all stages of growth. Forest owners should ensure that the forest is protected and that measures are in place to prevent and control damage. In doing so, they should take cognisance of economic and environmental issues and the health and safety of both operators and the wider public. The *Forest Protection Guidelines inter alia* describe the appropriate use of herbicides in controlling competing vegetation and the use of pesticides.

Preparation of the National Report

The Forest Service established an expert group consisting of staff from the Forest Service and from the National Council for Forest Research and Development (COFORD) to prepare Ireland's national report for UNFF4. The expert group prepared a draft report incorporating material previously provided to other processes while also including current updated information. As part of the consultation process the draft report was posted on the Forest Service website and circulated to all relevant stakeholders, including timber groups, timber users, government departments and statutory bodies, farming organisations and non-governmental organisations (NGOs). Relevant observations and comments from stakeholders were taken into account in compiling the National Report to UNFF4.

2. SOCIAL AND CULTURAL ASPECTS OF FORESTS

Local communities

A wide range of consultation processes is undertaken within Irish forestry with a view to integrating local communities in sustainable forest management programmes.

- An extensive stakeholder consultation process took place during the development of the *Irish National Forest Standard* and *Code of Best Forest Practice – Ireland* and the various environmental and forestry practice guidelines. Existing legislation is currently being reviewed to incorporate the principles of sustainable forest management, and this process is also based on stakeholder consultation (page 5).
- Various Forest Service initiatives are based on detailed consultation with relevant stakeholders, usually through focus groups comprising relevant bodies. For example, the development of the Native Woodland Scheme involved detailed consultation with the environmental NGO sector and various statutory agencies involved in conservation and fisheries protection. Similarly, the forthcoming *Forest Recreation Guidelines* are based on a 2-phase consultation process involving experts and bodies relevant to the area.
- The standard afforestation grant application process contains a provision for public consultation, as outlined in page 5.
- The Forest Service is also working in partnership with various local authorities in Ireland in the development of Indicative Forest Strategies (IFS) to identify the suitability of areas within each county for forestry. Each IFS is subject to intensive consultation procedures within each county, before being finalised and incorporated into the local authority's county development plan. Work has commenced on 17 IFSs. The ultimate aim is to have IFSs for all 26 counties.
- The Coillte forest estate is divided into 36 Forest Management Units (FMUs). The management of each FMU follows a 5-year plan that is based on a public consultation process. Specific consultation is carried out in the case of proposed high-impact operations. In addition, Coillte works with an independently appointed Social and Environmental Panel within each of its Districts, which inputs into wider policy issues. Currently all of Coillte's forests are certified by the Forest Stewardship Council (FSC). Coillte's involvement in the FSC certification process provides a framework for dialogue between Coillte and its stakeholders.

Social and cultural aspects of forests

In addition to the above, further social and cultural issues are relevant to forestry in Ireland. Criterion 6 of the *Irish National Forest Standard* (Maintenance of other social-economic and cultural functions and conditions) is an integral part of the implementation of sustainable forest management in Ireland, reflecting the commitment of the Forest Service to promoting this important aspect of forestry. A number of initiatives in this area are outlined below.

Forest recreation

Ireland's forests represent a significant recreational resource, particularly for Ireland's growing urban population. The number of visits per year has been estimated at 8.5 million. Coillte operates a general 'open forest' policy in its forest estate, which accounts for over 445,999 ha or 6.5% of the national land area. Considerable areas of woodland are also contained within Ireland's network of designated National Parks, managed by the National Parks and Wildlife Service. Several significant initiatives are currently ongoing, aimed at promoting the recreational function of Irish forests:

- The Forest Service NeighbourWood Scheme supports the development of partnership projects involving local authorities and communities in the development of woodland amenities in and around Ireland's town and cities. Under the scheme, funding is available for establishing new 'neighbourwoods', improving existing areas of woodland, and introducing appropriate recreational facilities, e.g. pathways, signage, seating, etc. The NeighbourWood Scheme is an innovative package that encourages a

partnership approach to the development of local woodland amenities. It also creates an opportunity for local authorities and communities to develop a more strategic and inclusive approach to urban forestry and urban greening. Projects funded to date include small-scale woodland establishment beside residential areas, large-scale urban greening projects within greenbelts, and improvement and development work within existing woodlands used by local communities for recreation.

- As part of its suite of environmental and forestry practice guidelines, the Forest Service is developing *Forest Recreation Guidelines*, which will offer practical advice to forest owners on the provision of recreation. These guidelines are being developed with input from various experts and recreational interest groups from within Ireland.
- Coillte, which owns 80% of the national forest estate, operates an open forest policy and is currently, undertaking a major review of its recreational policy and services, based on wide-ranging consultation with stakeholders.

Forestry and archaeology

Ireland has a rich archaeological heritage. Sites and monuments are widespread throughout the country and occur in many forest areas, frequently on sites where planting is being considered. National forest policy is to conserve this rich heritage within existing and potential forest areas. The Forest Service *Forestry and Archaeology Guidelines* apply to all grant-aided projects and to all activities associated with a Felling Licence. These guidelines set out mandatory procedures regarding the treatment of (i) known sites of archaeological interest, and (ii) previously unrecorded sites that are discovered at either the pre-approval grant-aid stage or during forest establishment operations. A consultation process is also in place whereby sites containing archaeological features are referred to the relevant statutory body for recommendations as to how best forestry development should proceed. The Forest Service recently appointed a professional archaeologist to advise on all aspects of archaeology in the forest.

Forestry and the landscape

Ireland's landscape is the product of centuries of human activity and land use, and is an important aspect of the country's national heritage. Forest and woodland cover is an important component of the landscape mix. The policy of the Forest Service is to ensure that all forests are planned and managed in a way that is compatible with the landscape. The *Forestry and the Landscape Guidelines* apply to all grant-aided projects and to all activities associated with a Felling Licence. The Forest Service is also working with local authorities to develop landscape character assessments, to identify areas suitable for forestry within each county. In sensitive areas, the Forest Service insists on, and monitors the implementation of, landscape design plans for forest development. Furthermore, landscape consideration is a 'layer' in the ongoing development of Indicative Forest Strategies by local authorities and the Forest Service, aimed at identifying the best opportunities for forest development. The Forest Service has recently expanded its expertise in the area of landscape design.

Native Woodland Scheme

In addition to their prime conservation and biodiversity value, Ireland's remaining native woodlands (c. 1% of the land area) also provide a glimpse into the prehistory of the island before human settlement. Down through the centuries, many historical and cultural values and associations have been linked to native woodlands (e.g. the Ogham alphabet, the origin of many Irish place names, folklore, medicinal remedies, old woodland practices and produce). The wider promotion of these heritage values is an important aim of the Native Woodland Scheme, an innovative grant package aimed at protecting and expanding Ireland's native woodlands. The scheme has been developed over a number of years under a partnership involving the Forest Service, Woodlands of Ireland, National Parks and Wildlife Service, Regional Fisheries Boards, COFORD and others. Under the scheme, funding is available for native woodland conservation and establishment. An important element of the application process is a study of old maps, estate records and other sources of historical information, with a view to reinstating or reinforcing heritage values associated with the site.

Support for Organisations

Further to the initiatives outlined above, the Forest Service has supported a wide range of relevant organisations and initiatives aimed at promoting various cultural aspects of Irish forestry.

- The **Tree Council of Ireland (TCI)** is an umbrella body comprising almost 50 organisations – from statutory to voluntary – with an interest in trees and forests in Ireland. TCI is involved in a range of activities and initiatives aimed at promoting a greater tree and woodland culture in Ireland. Major annual events include National Tree Week and Tree Day, the latter comprising an educational pack for primary schools complemented by woodland walks throughout the country. The Tree Council of Ireland has produced Project Forest in collaboration with the Forest Service, a multimedia educational package on forestry aimed at transition year students. It is managing the development of Balrath Woodland, Co Meath in partnership with Meath County Council, Coillte and the local community. The woodland is designed as an outdoor classroom for young people to learn about forests. Under the Tree Council of Ireland's Urban Forestry Programme, an Urban Forester has assisted local authorities and community groups developing projects under the Forest Service NeighbourWood Scheme.
- The **People's Millennium Forests Project** is a project aimed at restoring 16 native woodland sites throughout the island of Ireland. The project had a major public awareness element, comprising a media campaign, an integrated educational programme and the 'Millennium Tree for Every Household' scheme. A successful high-quality hardback book *Native Trees & Forests of Ireland* celebrated the project. The People's Millennium Forests Project has greatly enhanced the awareness of the Irish public of the heritage of Ireland's native woodlands. The project was funded by the National Millennium Commission, a major Irish bank (Allied Irish Banks) and the Forest Service.
- **Woodlands of Ireland** is a partnership involving those with an interest in native woodland conservation, from statutory bodies to environmental NGOs and individuals. Its aim is to promote the enhancement and expansion of Ireland's native woodlands and to increase public awareness of their value. Woodlands of Ireland inputs into a range of related initiatives, including the Forest Service Native Woodland Scheme, the People's Millennium Forests Project, the Irish Forestry Certification Initiative (IFCI), and the development by the National Roads Authority of guidelines on roadside planting. Woodlands of Ireland is funded by the Forest Service, National Parks and Wildlife Service, and the Heritage Council.
- **Sculpture in Woodland** was founded in 1994 to promote a wood culture in Ireland by creating a greater awareness of wood as an artistic and functional medium. A major focus of its work is the development of a sculpture collection within the mixed woodland of the Devil's Glen, Ashford, Co Wicklow, owned by Coillte. The collection, open to the public, includes contemporary pieces by leading artists from Ireland and throughout the world. Sculpture in Woodland is supported by the Forest Service, The Arts Council of Ireland, Coillte and Wicklow County Council.
- The **Tree Register of Ireland (TROI)** is a project set up in 1999 to identify and collect information on remarkable trees in Ireland by virtue of their age, rarity, height, girth, historical or cultural associations, etc. The project involves the creation of a computerised database containing the location (descriptive and grid referenced), description and digital photographs of each tree, for public use. The database now contains over 5,000 trees, many of which are national or county champions. TROI is funded by the Forest Service and is a partnership project involving the Tree Council of Ireland and the Tree Society of Ireland.
- **Networks for Nature** is an organisation aimed at raising awareness among landowners, practitioners and the general public about the natural and cultural value of Ireland's hedgerows, and of the need for appropriate management. A major part of the organisation's work is the development of training courses and guidelines for

contractors involved in hedgerow maintenance, to promote better practice. The project, associated with the Irish Wildlife Trust, is jointly funded by the Forest Service, the Department of Agriculture and Food, the Heritage Council and the National Parks and Wildlife Service. In an Irish context, the landscape features an extensive network of hedgerows containing a wide variety and mass of diverse, largely indigenous trees.

- **Conservation Volunteers Ireland (CVI)** is an organisation aimed at providing practical opportunities for groups and individuals to protect and enhance Ireland's natural and cultural heritage, through practical projects, training courses and educational programmes. CVI's Seed Collection Project is aimed at involving young people and community groups in the collection and growing of native seed for eventual planting within their local area (e.g. school grounds, local community spaces). The project involves seed collection events, seed collection guidelines, and a series of public talks on related issues.
- **Muintir na Coille – The Coppice Association of Ireland** was initiated in 1995 with a view to maintaining or enhancing species and structural diversity through small dimension timber production. The association's members provide demonstrations and workshops on crafts, carry out rustic projects, supply raw material and provide advice on traditional forms of woodland management. The Forest Service recently funded the creation of a dramatic display piece demonstrating traditional woodcraft and designed for use by the organisation at country fairs, agricultural shows, etc.

3. TRADITIONAL FOREST-RELATED KNOWLEDGE

Due to the loss of forest cover in Ireland down through the centuries, many of the Intergovernmental Panel on Forests and the Intergovernmental Forum on Forests Proposals for Action relating to traditional forest related knowledge are largely not applicable. However the Forest Service is conscious of the need to foster and restore valuable traditional forest knowledge and, over recent years has provided funding under its pilot projects and downstream development measures with this aim in mind.

Examples of traditional knowledge based projects funded over recent years include:

- The promotion and restoration of traditional furniture making practices through educational programmes and classes utilising native timber species. The Forest Service also supports Sculpture in Woodland in its promotion of the use of native timber as an artistic medium, demonstrated by a collection of contemporary large-scale sculptures by Irish and international artists in a woodland setting south of Dublin.
- The Native Woodland Scheme supports the application of traditional silvicultural techniques and woodcrafts historically associated with Ireland's semi-natural woodland, particularly in the area of coppice management, small diameter and non-wood produce. Continuous cover systems using natural regeneration are also promoted. Under the scheme, all those involved in individual projects (foresters, ecologists, statutory bodies, etc.) are gaining practical experience and knowledge of these techniques, creating the potential for wider application in other areas of Irish forestry. A major training programme has been undertaken in support of the Native Woodland Scheme. The course programme includes sessions on traditional silvicultural systems appropriate for native woodland establishment and management, representing the transfer of traditional forest-related knowledge to a significant proportion of the Irish forest and conservation sector.
- As previously mentioned (pages 11 and 12), the Forest Service supports Networks for Nature and Muintir na Coille. Coppice and hedgerows both represent an important element of Ireland's historical landscape. Through their work, both organisations contribute to the country's store of traditional forest-related knowledge. The Forest Service also supports Woodlands of Ireland, an umbrella organisation representing groups with an interest in promoting Ireland's native woodlands, in terms of both their ecological value and use.
- Through COFORD, research is being carried out in the Department of Crop Science, Horticulture and Forestry, University College Dublin, into the potential of continuous cover forestry (CCF) in Ireland. The Forest Service supports the Irish branch of ProSilva in its efforts to promote the application of CCF principles in Ireland.
- Various initiatives relevant to traditional forest-related knowledge were undertaken under the People's Millennium Forest Project. These included the restoration of 16 native woodland sites throughout Ireland (each yielding a wealth of information on the practicalities involved in converting non-native and mixed forest to native woodland), and a series of open training days on native seed collection.
- Two demonstration forests have been developed to illustrate to forest practitioners and others various silvicultural approaches used in Irish forestry, including traditional systems. The first, Brackloon Wood in Co Mayo, illustrates methods used to restore a native Atlantic oakwood. The second, the Tree Council of Ireland's Balrath Woodland in Co Meath, is aimed specifically at the general public and as an educational resource for young people.
- A series of 18 fact sheets on the most popular trees grown in Ireland was published with assistance from the Forest Service in 2001. A further series of 12 fact sheets on various aspects of the Irish forest sector will be published in 2004.

4. SCIENTIFIC FOREST-RELATED KNOWLEDGE

Scientific knowledge is a key element in the development and application of forest policy and practice in Ireland. Industrial competitiveness is also dependent on scientific knowledge, in addressing issues such as standards development and implementation, and in generating new products and services. Generating and collating such knowledge is the role of a number of bodies including COFORD², Coillte, Enterprise Ireland³ and Teagasc⁴. In addition the universities and institutes of technology carry out forest and forest product related research.

COFORD's research and development programme is national in scope. Its duration extends over the period of the current Operational Programme for the Productive Sector of the National Development Plan 2000-2006. Stakeholders were involved in setting programme priorities and are currently involved in a mid-term review of the programme. The COFORD council, which is appointed by the Minister responsible for forestry, is the body that agrees the programme. Programme monitoring is also carried out by the Monitoring Committee of the Operational Programme. This is facilitated through a number of performance indicators that address expenditure and output measures, as well as horizontal issues such as rural development and gender balance.

The COFORD programme is funded in the main by government, but public/private partnerships are encouraged where the results of the research will directly benefit a particular sector of the industry. Different funding protocols apply depending on whether the research is for public good or will directly benefit the industry. COFORD also encourages participation in relevant EC RTDI Framework projects and in COST⁵ Actions (under the Forests and Forestry Products Technical Committee). The current annual expenditure (by state, EC (Framework Programme) and private institutions) on forest and forest product R&D (excluding furniture) is running at close on € million, about 1 % of the annual gross product value of the forest industry.

Knowledge dissemination is a key part of the national R&D programme. This is approached in a number of ways depending on the intended audience. A key issue here is the growth in farmer forestry in Ireland over the past decade and a half, to the stage where there are more than 12,000 private forest owners in the country. Research addresses their needs in a number of ways. First the *COFORD Connects* series is issued on a regular hard copy basis. These are easy-to-understand and fully illustrated leaflets that deal in the main with forest practice and issues of concern to forest owners, based on the latest R&D findings. They are circulated to almost 4,000 forest owners in Ireland and are available to all growers on the website www.coford.ie. In addition field meetings and indoor technology transfer events targeted at owners are also available. These are usually held in cooperation with the Forest Service or Teagasc, which also has a strong technology transfer role.

Scientific forestry-related knowledge is also disseminated to the farming community, which currently accounts for around 90% of all new planting, by the Teagasc forestry advisory service through forestry extension work, training and through the mainstreaming of forestry advisory and training activities within most programmes delivered by the Teagasc agricultural advisory service. Almost 70% of farmers with forests have attended a Teagasc/Forest Service demonstration, field day or information seminar.

² COFORD the National Council for Forest Research and Development is the body responsible for the coordination and funding of forest research in Ireland.

³ Enterprise Ireland is the state development body for indigenous industry and runs research and support programmes for state bodies.

⁴ Teagasc is the national farm advisory and research body. It operates a forest research division which works in close collaboration with bodies such as COFORD.

⁵ Founded in 1971, COST is an inter-governmental framework for European Co-operation on the field of Scientific and Technical research, allowing the co-ordination of nationally funded research on a European level.

Another important vehicle in the dissemination of scientific forest-related knowledge is the Society of Irish Foresters. Founded in 1942 the society is the representative body for the forestry profession in Ireland. It publishes a scientific journal Irish Forestry and organises field days and seminars where scientific findings are presented and discussed.

The growth in the use of email also facilitates the technology transfer programme through a monthly email newsletter targeted at forestry practitioners, those involved in wood processing, environmentalists and policy makers. It is built around notices of events of interest and announcement of publications. Issues also carry information related to R&D projects and findings from relevant international research. As a small country with limited R&D resources, Ireland endeavours to utilise relevant findings from other countries. Other cost-effective media, such as mobile phone text messaging, are also used to disseminate news of events. COFORD has a regular stream of technical publications, in both hard copy and electronic versions on the COFORD website (www.coford.ie). All publications on the website can be downloaded free-of-charge. Some of the larger COFORD publications are not available on the web but are sold as hard copy.

Research competence and capacity are key resource issues in addressing forest knowledge gaps. Ireland operates a short-term research mission programme primarily aimed at improving research competence among young forest researchers. Research capacity is mainly addressed through nationally funded projects, through other national programmes and through the third-level postgraduate programmes. A substantial proportion of those involved are researchers taking a higher degree such as masters or doctorate as part of the project. Many of these become full-time researchers in their own right or take up technical posts in the forestry sector. Such postings help to increase the awareness and need for scientific forest knowledge. Continuity in research funding and programmes is necessary to maximise the value of national investment in forest R&D. This is particularly the case in areas such as forest genetics and silviculture, where the research timeframe is often over several decades.

Membership of international networks such as the International Union of Forest Research Organisations (IUFRO) and the European Forest Institute (EFI), other R&D organisations and, critically, the involvement of individual researchers, are essential to building research competence and exposing researchers' work to peer review and comment. Such networks lead to the development of international collaboration across the full field of forest research in programmes such as COST and the EC Framework programme.

Finally it is important to engage, as far as possible, the interest of civil society in scientific forest knowledge. This is achieved in a number of ways, notably through an annual report disseminated to policy makers and public bodies, sponsorship of a forest science category at the annual national Young Scientists exhibition, and through popular articles in the general media. Such engagements build an interest in, and support for, scientific forest knowledge, answering questions about how forests grow and develop, their contribution to, and impact on water quality and climate change, as well as a host of other issues.

5. MONITORING, ASSESSMENT AND REPORTING, CONCEPTS, TERMINOLOGY AND DEFINITIONS

As previously described, a suite of instruments are in place to provide a framework for the implementation of sustainable forest management in Ireland, i.e. *Irish National Forest Standard, Code of Best Forest Practice - Ireland*, environmental and forest practice guidelines, legislative review. The *Irish National Forest Standard* is a core component, setting out measures relevant within the Irish context to the various criteria and indicators agreed in Lisbon. A review of progress under these measures will indicate the extent to which sustainable forest management is being implemented in Ireland. The first review of the *Irish National Forest Standard*, covering the year 2002, is due for completion by end 2003, and this will set an important baseline for future reviews whereby progress can be measured.

Various other initiatives and procedures of particular relevance in the area of (i) improving information on national forest resources, and (ii) making the information widely available, as outlined below.

- The Forest Service makes available National Forest Statistics on a year-to-year basis. Statistics for 2002 were released in March 2003, and include information on overall forest cover, public and private afforestation, ownership breakdown, conifer/broadleaf breakdown, and planting size breakdown.
- In 1978, the then-Forest and Wildlife Service completed a detailed inventory of private woodlands in Ireland. During the 1990's a computerised classification of Ireland's forest estate was carried out. This identified the location, extent and broad stand details of all forest parcels. The Forest Service is currently developing a national forest inventory using systematic sampling based on a 2 km x 2 km grid covering the entire country. The inventory will produce forest resource information for industry, national policy and international reporting purposes. Methodology has been field-tested and the Forest Service is currently in the planning stage to commence implementation on a national basis. Coillte also has a detailed stand-level inventory of its forest estate.
- Other initiatives and procedures that improve information of national forest resources and make information widely available include the Forest Consent System involved in all new afforestation, and the development of Indicative Forest Strategies. These are outlined in pages 5 and 9 respectively.
- Forest health has been monitored in Ireland since 1987 under EU Council Regulation 3528/86 in collaboration with the International Co-operative Programme Forests (ICP Forests). This work has been implemented by the Forest Service and facilitated through Coillte and the Forest Ecosystem Research Group in University College Dublin. Work under Regulation 3528/86 yielded a wealth of information on crown and foliar condition, as well as soil chemistry, tree growth parameters, ground vegetation, atmospheric deposition, etc., enabling researchers to construct a picture of the entire forest ecosystem, with inputs, internal processes and outflows. Regulation 3528/86 ceased on 31 December 2003, and Ireland is currently formulating a national programme for the continuation of forest monitoring under the incoming Forest Focus Regulation, with a greater emphasis on biodiversity, carbon sequestration and other issues central to sustainable forest management.
- The National Parks and Wildlife Service of the Department of Environment, Heritage and Local Government, is currently undertaking a Survey of Native Woodlands, with joint funding from the Forest Service. The survey is aimed at creating a comprehensive database of Irish native woodlands, to provide an appraisal of the applicability of current woodland classification systems, and to facilitate a systematic evaluation of the conservation value and the regeneration status of Irish native woodlands. Methodology includes a desk study and intensive field surveys of a subset of native woodland sites, using a mixture of Forest Service FIPS data, aerial

photographs and local knowledge to identify potential sites. Initial work is progressing on five counties in the southeast of the country.

- The Tree Register of Ireland (TROI) is a computerised database on trees in the Irish landscape deemed remarkable due to various factors such as size (height, girth), rarity, historical/cultural association, etc. Candidate trees, identified through existing records and the nationwide invitation of submissions from the public, were measured and recorded using a standardised methodology, with GPS information and digital photographs included. This information was subsequently entered into a computerised database designed for public use, with various search options (e.g. county-by-county, species-based). The register, jointly overseen by the Tree Council of Ireland and the Irish Tree Society and funded by the Forest Service, represents a valuable inventory on noteworthy single trees in the Irish landscape.

6. CRITERIA AND INDICATORS OF SUSTAINABLE FOREST MANAGEMENT

Ireland is committed to the sustainable management of all its forests. Sustainable forest management is implemented through regulation, the Irish National Forest Standard and the Code of Best Forest Practice-Ireland. At the operational level a suite of environmental and forestry practice guidelines issued by the Forest Service guides forest operations. In addition, the regulatory procedures carried out by the Forestry Inspectorate ensures that sustainable forest management principles are applied in forestry practice.

The Irish National Forest Standard sets out the criteria and indicators aimed at achieving sustainable forest management. The C&I are based on the six criteria and accompanying indicators agreed at the Ministerial Conference on the Protection of Forests (MCPFE) in Europe, held in Lisbon in 1998. Each indicator is supported by a set of measures at a national and local level. Ireland continues to be fully involved in the MCPFE Pan-European process and the further elaboration of criteria and indicators of sustainable forest management.

Development of the standard was facilitated through four working groups dealing with social, economic, environment and legal aspects. Stakeholder involvement was a key part of the development of the standard. A plenary group comprised of a wide range of forestry stakeholders guided the standard's development. In addition, a wide-ranging public consultation phase, facilitated through submissions and public meetings, took place. Meetings were held at regional venues where the purpose, objectives and structure of the standard were discussed through feedback and dialogue.

The Irish National Forest Standard is not a stand-alone document nor is it a set of operational prescriptions. It brings together the systems used in support of sustainable forest management and expresses these in terms of criteria and indicators applicable in the Irish context. The dynamic character of sustainable forest management is reflected in the standard. Society's understanding of the concept of sustainable forest management is as yet incomplete. As it develops the most appropriate measures by which it will be evaluated will also become clearer. Research will be required to refine these measures.

A review process plays an essential role in the implementation of the measures set out in the National Forest Standard. An expert group set up by the Forest Service is currently monitoring the development of the measures in the standard in the light of best available information. As part of this process a review of the operation of the standard in 2002 will be completed by end 2003. Essentially the process is one of continuous improvement and development - the standard is not set in stone. It is an evolving process as new guidelines are developed and implemented and new insights are gained from research.

While the standard is not a forest certification scheme, it is designed to encourage an environment in which the appropriate certification of Irish forests can take place. Currently all of Coillte's forests are certified by the Forest Stewardship Council (FSC). In addition a private forestry company has achieved FSC certification and other private forestry companies are also going through the process of achieving certification. Currently 95% of the timber produced in Ireland is certified to FSC Forest Management Standards. All the major sawmills and panel board mills have chains-of-custody certified to FSC standards. The Forest Service recognises that the demand for certified timber is increasing due to market forces. In parallel with other national initiatives, the Forest Service has recently begun a process to enable voluntary certification to the Irish National Forest Standard. The aim is to streamline systems and schemes to facilitate certification in a cost effective manner. This is a partnership process involving stakeholders and certification processes.

At an international level, Ireland fully endorses the seven criteria and associated indicators for sustainable management of natural tropical forests developed by the International Timber Trade Organisation (ITTO). Ireland recognises that tropical forests are under threat and that

their conservation and sustainable management, including the needs of indigenous forest dwelling peoples, are a priority issue at the global level.

Ireland is also a signatory to the Convention on Biodiversity and is implementing the proposals for action as they apply to, and interact with, forests and forest management. Conservation and management of indigenous woodland genetic resources is encouraged and facilitated in all afforestation schemes and through targeted instruments such as the Native Woodland Scheme.