



Irish Forest Certification Initiative

Associated with FSC

Draft National Forest Standard No. 3

October, 2006

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FSC FOREST CERTIFICATION

The aim of the Forest Stewardship Council (FSC) is to promote environmentally responsible, socially beneficial and economically viable management of the world's forests, and this standard consents to, and fully supports, that aim.

IFCI Ltd. was formally accredited by FSC International on February 9th, 2006 and is the FSC Working Group in the Republic of Ireland. It is the duty of IFCI Ltd. to advance FSC forest certification as laid out in the IFCI Ltd. Memorandum and Articles of Association.

We are now at a point in time where the international forest products market is demanding assurance regarding the quality and environmental impacts of current forest management practice. One way to provide this assurance is through independent verification against a published standard which defines appropriate and effective management. In forestry, this process is widely known as Forest Certification. The forest certification standard herein sets out the requirements by which forest owners and managers can seek certification in the Republic of Ireland.

The standard recognises the uniqueness of Irish forestry in that it is plantation forestry, in the main, coniferous, and is dispersed in discrete blocks, ranging in size from a couple of hectares to several hundred hectares throughout the Irish landscape. It presents broad scope for forest owners and managers to decide on appropriate objectives for each forest. The standard generally prescribes what must, in the overall, be achieved, but leaves it to the forest owner/manager to decide how this is best done in each particular location.

Forest certification is a voluntary process. The development of the draft standard takes account of forest policy but does not define it. It is not an audit protocol for assessing compliance, yet it is a technical document that interprets the FSC P&Cs.

The process of FSC certification process takes the following course:

- (1) The establishment of an FSC certification organisation, *i.e.* IFCI Ltd.
- (2) The development of a national forest standard based on FSC P&Cs.
- (3) Certification assessment by FSC Accredited Certification body/auditors.

COMPLIANCE WITH THE STANDARDS

Forests are expected to be managed in compliance with every part of the standard, throughout the period of the certificate. However, the introduction to the FSCs International Principles and Criteria (P&C) includes the following comments:

“FSC and FSC-accredited certification organisations will not insist on perfection in satisfying the P&C. However, major failures in any individual Principle will normally disqualify a candidate from certification, Some flexibility will be allowed to cope with local circumstances.”

However, a commitment to reach the required level within a specified period may be acceptable for a small number of minor requirements. In such cases the applicant must demonstrate an intention and ability to reach the required level, within a period agreed with the certifier. This progression towards full compliance is more likely to be acceptable when it concerns enhancement rather than protection of the forest. Conversely, it is unlikely to be acceptable if major irreversible changes in the forest will be made before full compliance is achieved. That is, the precautionary Principle will be applied when considering the acceptability of any non-compliance.

It is also recognised that some applicants may feel that certain requirements are not appropriate to their particular situation. Some deviation to allow local adaptation may therefore be acceptable, but this will only be acceptable in the following situations:

- **It is physically not possible to achieve the requirement in a particular forest;**
- **The approach taken is a more effective means of achieving the end result intended by the Principle and Criteria;**
- **The rationale for the deviation is greater social or environmental benefits rather than economic gain;**
- **The impacts of the action – both positive and negative – are more carefully monitored and appraised than would otherwise be the case.**

The certifier will take a professional judgement as to the acceptability of the deviation and may consult appropriate specialists. The FSC Steering Group will be fully informed of all significant deviations.

Timeframe:

A specific feature of forestry is the long-term nature of particular forest management policies and practices. Therefore, when assessing conformance with the standard, auditors will not judge forests simply on the basis of their present structure and layout, rather they will take into account forest management plans for the short, medium and long term.

Where the present structure and layout of a particular forest fails to meet the requirements of the standard, the forest owner/manager must be in the position to indicate, through management planning documentation, design plans and on-going forest activity that active measures are being taken to achieve compliance. It will need to be demonstrated that within a specific timeframe, compliance can be achieved, based on sound forest management principles.

Forest Area/Size*:

The level and complexity of management needed to meet the requirement of the standard will depend on the size and type of forest being audited. In particular, small forests will usually not be expected to have the same level of documentation, management information systems or operational procedures as larger forests or forest management companies.

The impact of the forest and management practice therein on the local community, water quality, landscape and cultural heritage are indicators in coming to a decision on level of documentation, management information and operating procedures required to satisfy compliance with the standard. In the Irish context, we are informed of the fact that the average size of holding planted in the private sector over the last decade is c. 9 hectares.

The following might be used as a guide with the proviso that sizes/areas will be reviewed in, say 12 months after the launch of the standard, in light of the feedback from forest owners, managers and the certification companies.

*Note: The FSC SLIMF guidelines will be incorporated into the standard (section 10.8).

Category 1:

Usually a privately owned forest managed by an owner and/or advised by a forestry management company or forestry consultant, and usually less than 50 hectares in extent.

Category 2:

All forests in excess of 50 hectares.

THE DEVELOPMENT OF AN FSC DRAFT FOREST MANAGEMENT STANDARD FOR THE REPUBLIC OF IRELAND

The process of developing an FSC-approved forest certification standard for Ireland began in early 1999. A meeting of interested stakeholders in the forestry sector was held, at which it was agreed to establish a national initiative to progress FSC forest certification in Ireland. A Steering Committee (SC) was elected comprising economic, social, environmental, and woodland owners interests in four separate voting chambers.

The development of a draft national forest standard, based upon the FSC principles and criteria, was approached by first formulating an initial draft template based on the UK FSC Standard, where the forest industry in the UK is similar to that which pertains in Ireland. This was called 'Draft 1'. A Technical Working Group (TWG), comprised of a member of the SC from each chamber, worked on Draft 1, and the draft forest standard then agreed by the SC - known as 'Draft 2' - went to a public consultation process.

In early 2000 the public consultation process was held, which involved public meetings at five locations nationwide, advertised in national and local media. Copies of the draft forest standard were distributed at these meetings, and written submissions on the draft forest management standard were invited from stakeholders.

Revision of the Draft 2 – Procedures and Process

A TWG - subsequently reduced to three chambers in 2005, *i.e.* Economic, Social and Environmental - addressed the revision of the draft forest management standard on the basis of submissions received, and met regularly to revise the standard principle by principle. This was a difficult process which took considerable time. Most P&Cs were interpreted by IFCI; those that were not are highlighted in **pink text** (*i.e.* FSC P&C 10.6, 10.8 & 10.9 pgs 49 & 50) and these will be informed by the public consultation process. The revised draft forest management standard as amended by the TWG, known as 'Draft 3', was referred back to the SC for discussion. (Note: The **text in blue** in Draft 3 are the changes made as a result of the TWG deliberations on the submissions received).

Not all chambers are satisfied with every element of the draft standard, however, the SC agreed to allow the document to go to public consultation at an SC meeting on July 21st, 2006. To read more about individual chamber member views (and those of their respective organisations) please see the "Structures page" of the IFCI website. In particular, there was no agreement on Principle 10. B (FSC P&C 10.4 and 10.8), *i.e.* Species selection for plantations (pgs 48 & 49 - the **text in red**). The issues involved will be debated during and subsequent to the public consultation process when submissions from stakeholders will be considered. The text in Draft 3 referring to 10.4 and 10.8 is therefore only a guide to stakeholders. It provides insight as to what was discussed by the TWG.

Informed debate on the outstanding issues will be supplemented with case studies initiated by IFCI Ltd. and its membership organisations.

PUBLIC CONSULTATION ON DRAFT 3 – PROCEDURES AND FORMAT OF SUBMISSIONS

Submissions against the Draft 3 are now being invited. All submissions received will be considered by the TWG. Stakeholders will subsequently be informed how their submissions fared and the rationale for adopting or rejecting submissions will be provided. Subsequently, a final, agreed standard should be ratified. Once ratified by the IFCI Ltd. Steering Committee it will be sent to FSC for approval. It will be revised subsequently every five years.

We would ask stakeholders to examine Draft 3 carefully and to make written submissions against the text in the draft. The following format provides a guide to stakeholders on the format for making submissions:

Example: The text of Principle 6 E: 4. (pg 27) in Draft 3 reads:

The rate of clear felling is subject to the following conditions:

- Where site factors favour coupe sizes over **5 ha** in lowland plantations and over **20 ha** in upland and exposed plantations, all felling and restocking is in accordance with an adequate felling design plan outlining the reasons why these thresholds are exceeded (i.e. through a combination of windthrow risk, plant health, specific economic factors, landscape features and restructuring of current plantation design).

A stakeholder might suggest the following changes in the following format:

The rate of clear felling is subject to the following conditions:

- Where site factors favour coupe sizes over **10 ha** in lowland plantations and over **25 ha** in upland and exposed plantations, all felling and restocking is in accordance with an adequate felling design plan outlining the reasons why these thresholds are exceeded (i.e. through a combination of windthrow risk, plant health, specific economic factors, landscape features and restructuring of current plantation design).

Draft Forest Management Standards for the Republic of Ireland
– 3rd Draft

FSC PRINCIPLE # 1: COMPLIANCE WITH LAWS AND FSC PRINCIPLES

Forest management shall respect all applicable laws of the country in which they occur, and international treaties and agreements to which the country is a signatory, and comply with all FSC Principles and Criteria.

FSC Criterion 1.1

Forest management shall respect all national and local laws and administrative requirements.

FSC Criterion 1.2

All applicable and legally prescribed fees, royalties, taxes and other charges shall be paid.

FSC Criterion 1.3

In signatory countries, the provisions of all binding international agreements such as CITES, ILO Conventions, ITTA, and Convention on Biological Diversity, shall be respected.

FSC Criterion 1.4

Conflicts between laws, regulations and the FSC Principles and Criteria shall be evaluated for the purposes of certification, on a case by case basis, by the certifiers and the involved or affected parties.

FSC Criterion 1.5

Forest management areas should be protected from illegal harvesting, settlement and other unauthorised activities.

IFCI Interpretation	Means Of Verification And Guidance Notes
<p>1.A: Compliance with National Legislation</p> <p>1. All regulations and the relevant elements of the current versions of Guidelines issued by the Forest Service (FS) and other Government agencies are complied with in documentation and in practice. These include:</p> <ul style="list-style-type: none"> • Environmental Impact assessment regulations; • Forest management plans (10 ha and over); • Forest Service felling Licences and conditions; • Forest Service – Grants and Premiums – Operational Procedures and Standards; • Forest Service – Irish National Forest Standard • Forest Service – Code of Best Forest Practice; • Forestry Strategic Management and Environmental Procedures; • Forest and Environmental Guidelines: Forest Biodiversity Guidelines; Forestry and Archaeology Guidelines; Forestry and Water Quality Guidelines; Forestry and Aerial Fertilisation Guidelines; Forestry Harvesting and the Environment Guidelines; Amenity and Recreation Guidelines; Pesticide Guidelines; • Native woodland Manual. 	<p>Field inspection. Compatibility with, and reference to, relevant legislation and guidance in:</p> <ul style="list-style-type: none"> • Management plans; • Standard Operating Procedures (SOPs); • Internal management procedures and control systems; • Contracts and other documentation. <p>National Guidance to include guidance publications from the following agencies regarding forestry, timber haulage, health and safety in forestry, arboriculture, hunting, access to the countryside, fish stocks, etc.:</p> <ul style="list-style-type: none"> • Forest Service (FS); • Dept. of Agriculture and Food; • Dept. of the Environment, Heritage and Local Government; • Health and Safety Authority; • National Parks and Wildlife Service – Regulations and Guidelines; • Regional and local guidance to include current County Development Plan.
<p>2. Forest management complies with any relevant Principles, Criteria, Standards, Codes of Practice, Guidelines, Strategies, Recommendations or Protocols – whether National, Regional or Local which have been agreed by the relevant authorities.</p>	<p>See Annex – Legislation and Guidelines Other relevant Guidelines includes:</p> <ul style="list-style-type: none"> • FS Code of Best Forest Practice; • Forestry and Arboriculture Safety and Training Council (FASTco) Safety Guides; • Handbooks and Practice Guides; • County Development Plan; • Local Area Plan; • Landscape strategy; • Spatial Planning; • River catchment; • Guidelines for SACs, NHAs and local designations; • County Heritage Plan; • Indicative Forest Strategies of each local authority; • Local biodiversity action plans, if any.

<p>3. There is no evidence or substantiated claims of non-compliance with legislation that relates to forest management by the owner, manager or lessee.</p>	<p>Forest Manager's knowledge of, and compliance with, relevant legislation including Acts, Orders or Statutory Instruments related to the following topics:</p> <ul style="list-style-type: none"> • Environmental Protection and Pollution Agriculture and land use Wildlife, habitats, landscape and Countryside; • Health and Safety; • Employment; • Planning System; • Tree Preservation and Hedgerow Protection; • Historic Monuments and Built Heritage; • Public access Rights; • Property and land Tenure; • Financial and Fiscal; • Trading Practice and Contracts; • EU Directives relating to plant health; Forest Reproductive Material (FRM); • Pesticide Directive. <p>If concerns are raised over compliance, then further field inspections are carried out and contact is made with the relevant authorities and/or local people.</p>
<p>4 Managers have taken all reasonable measures to stop illegal or unauthorised uses of the forest, which could endanger fulfilment of the management plan.</p>	<p>Boundary integrity, <i>e.g.</i> strong fencing. Written and/or verbal evidence from forest managers.</p> <p>Field Inspection.</p>
<p>FSC Criterion 1.6 Forest managers shall demonstrate a long-term commitment to adhere to the FSC Principles and Criteria.</p>	
<p>IFCI Interpretation</p>	<p>Means Of Verification And Guidance Notes</p>
<p>1.B: Commitment to FSC Principles and Criteria</p> <p>1 The owner, manager or lessee have signed a commitment to comply with FSC Principles and Criteria, and FSC ROI Standards for 5 years and declared their intention to protect and maintain the integrity of the forest in the long term.</p>	<p>Signed statement of commitment.</p>

<p>2 Where substantial failure has resulted in de-certification, re-application for certification can be made subject to appropriate changes in management practices and a 2-year track record of compliance established. Where a change of ownership occurs, a 2-year track record of compliance is not required. A new owner may apply for certification subject to adherence with the National ROI FSC certification standard.</p>	<p>New owner, manager or control procedures.</p>
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FSC PRINCIPLE # 2: TENURE AND USE RIGHTS AND RESPONSIBILITIES

Long-term tenure and use rights to the land and forest resources shall be clearly defined, documented and legally established.

FSC Criterion 2.1

Clear evidence of long-term forest use rights to the land (e.g. land title, customary rights, or lease agreements) shall be demonstrated.

IFCI Interpretation	Means Of Verification and Guidance Notes
<p>1 A signed statement of ownership or lease is available, with a map clearly showing legal boundaries. This must be substantiated by legal documents if required for legal purposes and is not subject to dispute.</p>	<p>Forms 1 or 2 (FS Grant/Premium Scheme) Land registry records or other specific signed statement of ownership.</p> <p>Legal challenge arising from local contact or other publicity.</p> <p>Title deeds, lease documents, covenants or solicitors' letter where there is a dispute over ownership.</p>

FSC Criterion 2.2

Local communities with legal or customary tenure or use rights shall maintain control, to the extent necessary to protect their rights or resources, over forest operations unless they delegate control with free and informed consent to other agencies.

FSC Criterion 2.3

Appropriate mechanisms shall be employed to resolve disputes over tenure claims and use rights. The circumstances and status of any outstanding disputes will be explicitly considered in the certification evaluation. Disputes of substantial magnitude involving a significant number of interests will normally disqualify an operation from being certified.

IFCI Interpretation	Means Of Verification And Guidance Notes
<p>2.B: Local Use Rights</p> <p>1. All rights and interests in the land held by others established by law or through custom and practice are honoured through compliance with the relevant legislation, legal decisions and disputes procedures. Before any changes in management are implemented, the views of anyone whose legal or customary rights are likely to be affected are ascertained and their views taken into account.</p>	<p>Compliance with property legislation including:</p> <ul style="list-style-type: none"> • Joint Ownership/Commonage consents; • Grazing/Turbary Rights releases; • Access agreements with Local Authorities/Local Communities; • Leasing arrangements; • Public access rights; • Water supply; • Easements, servitudes and wayleaves; • Mineral rights; • Sporting rights; • Legal documents or correspondence; with or from, solicitors over any outstanding disputes; • Maps, including Rights of Way Maps; • Field inspection; • Feedback from affected parties, solicited where concerns have been expressed.

FSC PRINCIPLE # 3: INDIGENOUS PEOPLES' RIGHTS

The legal and customary rights of indigenous peoples to own, use and manage their lands, territories, and resources shall be recognised and respected.

FSC Criterion 3.1

Indigenous peoples shall control forest management on their lands and territories unless they delegate control with free and informed consent to other agencies.

FSC Criterion 3.2

Forest management shall not threaten or diminish, either directly or indirectly, the resources or tenure rights of indigenous peoples.

FSC Criterion 3.4

Indigenous peoples shall be compensated for the application of their traditional knowledge regarding the use of forest species or management systems in forest operations. This compensation shall be formally agreed upon with their free and informed consent before forest operations commence.

IFCI Interpretation	Means of verification and guidance notes
<p>3.A: Permissive and Customary Uses</p> <p>1. Any existing permissive or customary uses of the forest are sustained, including:</p> <ul style="list-style-type: none"> • Permissive footpaths and Rights of Way; • Other access, including access to all forests managed by or on behalf of the state; • <i>De Facto</i> access to well-known landmarks, features, or archaeological sites; • Traditional 'Common rights', <i>e.g.</i> wells, Mass paths, <i>etc.</i>; • Gathering of fruit and fungi by the public for their own consumption; • Access for study, research and education, subject to permission from the forest owner/manager <p><i>Such uses may be constrained by the owner if they verifiably threaten the integrity of the forest</i></p> <p>Public access may be provided to the forest via one or more of following measures:</p> <ul style="list-style-type: none"> • A permissive freedom to roam; • Public Rights of Way through or beside the wood; • Publicised open days or guided walks each year; • Permissive access on specified routes; • Access Management Agreements with Local Authorities; • Where customary public access is being restricted consultation with affected parties and/or signage is required. 	<p>Consultation with local people. All are listed in the management plan and included in the site map.</p> <p>Field inspection of signs, paths and gates.</p> <p>Field inspection of signs, paths and gates.</p>

However, in the following situations, public access may not be appropriate and may have been withheld:

- Small woods <10 ha with a high private amenity value;
- Areas that adjoin dwellings or private gardens;
- Isolated forests to which there is no ready access route for the public across adjoining land;
- Forests where there is current evidence of serious and sustained abuse or damage;
- Areas of the forest that contain verified sites, species or features that would be particularly vulnerable to disturbance;
- Constraints imposed by the Occupiers Liability Act (1995);
- Temporary closures in order to ensure public safety, e.g. harvesting sites, storm damage sites;
- **There is no obligation on a woodland owner to provide public access where there was none in the past.**

Where there is strong demand for further public access, the manager has made efforts to try to meet this demand.

FSC Criterion 3.3 Sites of special cultural, ecological, economic or religious significance to indigenous peoples shall be clearly identified in co-operation with such peoples, and recognised and protected by forest managers.	
IFCI Interpretation	Means of Verification and Guidance Notes
<p>3.B: Protection of Cultural Features</p> <p>1. All sites and features of special cultural significance have been identified and discussed with interested local people and the relevant authorities, and measures are taken to protect the sites and cultural features.</p>	<p>Maps showing cultural and recreational features. Typical examples include:</p> <ul style="list-style-type: none"> • Prominent viewing points; • Landscape features, including specific features; • Specimen and other notable trees; • Historical features and archaeological sites; • Forests which feature in literature, or which are of artistic significance; • Historical landscapes and woods, which are still managed under traditional systems. <p>Management plan. Consultation with local people and/or their representatives, and Statutory Authorities. Field inspection. Adherence to FS Guidelines on Archaeology and Heritage.</p>

FSC PRINCIPLE # 4: COMMUNITY RELATIONS AND WORKER'S RIGHTS Forest management operations shall maintain or enhance the long-term social and economic well-being of forest workers and local communities.	
FSC Criterion 4.1 The communities within, or adjacent to, the forest management area should be given opportunities for employment, training, and other services.	
IFCI Interpretation	Means of Verification and Guidance Notes
4.A: Local Employment and Services 1. Forests are integrated into the rural economy, with local contractors and suppliers encouraged to provide services and supplies.	Details of contractors and service providers from Forest Manager. Information from the Forest Manager on how local firms are given opportunities, and if necessary, justification for firms used. Communication with local contractors.
4.B: Education and Outreach 1. The ROI FSC initiative will endeavour to engage and inform the general public and forestry personnel on forestry and related-environmental matters through educational initiatives on their own and/or under the auspices of relevant forestry and environmental organisations.	Relevant organisations include: Forest Service, National Parks and Wildlife Service, Society of Irish Foresters, VOICE, Crann, Irish Wildlife Trust, Birdwatch Ireland, Tree Council of Ireland, Irish Timber Growers Association, Irish Peatland Conservation Council, Woodlands of Ireland, Earthwatch, Batline, Conservation Volunteers of Ireland, etc.
FSC Criterion 4.2 Forest management should meet or exceed all applicable laws and/or regulations covering health and safety of employees and their families.	
IFCI Interpretation	Means of Verification and Guidance Notes
4.C: Health and Safety 1. All work is carried out in accordance with existing Health and Safety Legislation and associated Codes of Practice.	Forest Manager's familiarity with legislation and Codes of Practice. Compliance with the Safety, Health and Welfare at Work Act (1989).
2. Managers promote continuous improvement in standards of health and safety, and ensure that all workers have had relevant safety training and hold appropriate Certificates of Competence.	Risk Assessments, identification of hazardous sites and activities involving hazardous materials. Accident Book, training records and other monitoring documentation. Feedback from employees and contractors. Field inspection of work in progress, machinery and chemical stores.

<p>4.D: Training</p> <p>1. Forest managers, supervisors, contractors, operators and workers are all appropriately trained to ensure that they have relevant competencies to prepare or implement the Management plan.</p>	<p>Training records, continuing professional development schedules, competencies and certificates.</p>
<p>FSC Criterion 4.3 The rights of workers to organise and voluntarily negotiate with their employers shall be guaranteed as outlined in Conventions 87 and 98 of the International Labour Organisation (ILO).</p>	
<p>IFCI Interpretation</p>	<p>Means of Verification and Guidance Notes</p>
<p>4.E: Workers' Rights</p> <p>1. Employees, contract workers and other workers are not deterred from joining a union or association or from negotiating, collectively if desired, with their employers.</p>	<p>Contracts with employees, contract workers, consultants and others.</p> <p>Feedback from employees and other workers, unions and associations.</p>
<p>4.F: Consultation on Social Impacts (also relevant to FSC Criterion 7.4)</p> <p>1. Managers ensure that there is adequate consultation with local people and relevant organisations. At the very least, local people and relevant organisations are made aware that:</p> <ul style="list-style-type: none"> • The Forest Management Unit (FMU) plan and associated documents are available for inspection to stakeholders; • Where group certification applies in the private sector, management plans would be made available for inspection according to group certification criteria; • An unusual or high impact operation is proposed; • The Forest Management Unit is being assessed for certification. 	

FSC Criterion 4.5 Appropriate mechanisms shall be employed for resolving grievances and for providing fair compensation in the case of loss or damage affecting the legal or customary rights, property, resources, or livelihoods of local peoples. Measures shall be taken to avoid such loss or damage.	
IFCI Interpretation	Means of Verification and Guidance Notes
<p>4.G: Grievance Resolution works.</p> <p>1. Managers have mitigated the wider negative impacts of forest operations on local people, such as noise, smoke and timber traffic, reduction in light due to planting, damage to water supplies, private property and/or roads, etc. Managers have responded constructively to any complaints they have received. Managers ensure that trees standing alongside the route used by the public through or beside the forest are reasonably safe through regular inspection and remedial operations. Risk of accident from other hazards is reduced through appropriate action including warning signs, fencing and remedial works.</p>	<p>Conditions in harvesting contracts in relation to disturbance, timber haulage routes, <i>etc.</i></p> <p>Communication with local people.</p> <p>Hazards, e.g. pesticides, felling, deer stalking.</p> <p>Records of tree safety inspections and tree surgery operations.</p> <p>Field inspection of roadsides and forest paths.</p>
<p>2. Existing legislative procedures for remedying losses or damage to local people are followed.</p>	<p>Contact with disputing parties.</p>
<p>3. Forest owners, employers and contractors hold adequate public liability and employer's liability insurance.</p>	<p>Insurance policies and clauses re insurance in contracts.</p>

<p>FSC PRINCIPLE # 5: BENEFITS FROM THE FOREST Forest management operations shall encourage the efficient use of the forest's multiple products and services to ensure economic viability and a wide range of environmental and social benefits.</p>	
<p>FSC Criterion 5.1 Forest management should strive toward economic viability, while taking into account the full environmental, social, and operational costs of production, and ensuring the investments necessary to maintain the ecological productivity of the forest.</p>	
<p>IFCI Interpretation</p>	<p>Means of Verification and Guidance Notes</p>
<p>5.A: Long-Term Viability</p> <p>1. Managers are aware of both the direct and indirect impacts of their decisions and have opted for measures that enhance multiple purpose forestry.</p>	<p>Forest Manager's awareness of impacts and justification of management practices. Typical examples include:</p> <ul style="list-style-type: none"> • Employment changes associated with mechanised harvesting; • Ecological effects of different weed control regimes; • The positive and negative impacts of road construction; • Ecological effects of different thinning regimes; • Ecological and visual impact of fencing versus tree shelters; • Impact of exotic species, species diversity, draining and clearfelling.

<p>FSC Criterion 5.2 Forest management and marketing operations should encourage the optimal use and local processing of the forest's diversity of products.</p>	
<p>FSC Criterion 5.4 Forest management should strive to strengthen and diversify the local economy, avoiding dependence on a single forest product.</p>	
<p>IFCI Interpretation</p>	<p>Means of Verification and Guidance Notes</p>
<p>5.B: Local Employment & Services: Optimal and Diverse Uses (Also relevant to FSC Criteria 4.1)</p> <p>1. Forests are integrated into the rural economy with local contractors and suppliers not prevented from providing services and supplies. Forest managers promote the integration of forests into the local economy by:</p> <ul style="list-style-type: none"> • making reasonable provision for local contractors and suppliers to provide services and supplies; • facilitate exchange and/or resale of land, where appropriate; • local or specialist markets are not denied opportunities to purchase small scale or specialist portions of timber; • promoting and encouraging enterprises that will strengthen and diversify the forest or local economy. 	<p>Information on sales and marketing from Forest Manager, adverts., mailing lists, sales particulars, sale contracts.</p> <p>Details of contractors and service providers from Forest Manager.</p> <p>Information from the Forest Manager on how local firms are given opportunities.</p> <p>Communication with local contractors.</p>
<p>FSC Criterion 5.3 Forest management should minimise waste associated with harvesting and on-site processing operations and avoid damage to other forest resources.</p>	
<p>IFCI Interpretation</p>	<p>Means of Verification and Guidance Notes</p>
<p>5.C: Minimising Waste and Damage</p> <p>1. Timber is harvested efficiently and without undue waste, and unless there is strong environmental justification avoids:</p> <ul style="list-style-type: none"> • retention of logs with a high timber value as deadwood habitat; • damage to standing trees during extraction and burning; • timber degrade through poor harvesting techniques or conversion. 	<p>Field inspection of harvesting sites roadside timber stacks and minimum intervention areas.</p> <p>Prescriptions in management plans.</p> <p>Relevant clauses in harvesting or sales contracts.</p>

<p>2. Lop and top is only burnt where alternatives are not feasible or burning is environmentally preferable. If burning is done, the location and density of fire sites are carefully planned and several heaps or patches of lop and top are left unburned as habitat unless there are severe biotic problems.</p>	<p>Field observations.</p> <p>Manager documents reasons for burning.</p>
<p>3. Whole tree harvesting is only practiced where it will have significant benefits for biodiversity or where it is unlikely to have significant negative effects on the site (<i>i.e.</i> run-off, leaching, soil compaction and nutrient loss). Professional advice sought, where appropriate.</p>	<p>Check regarding operator safety.</p> <p>Riparian zones and regeneration of non-forest habitats, <i>e.g.</i> peatlands, <i>etc.</i></p>
<p>FSC Criterion 5.5 Forest management operations shall recognise, maintain, and, where appropriate, enhances the value of forest services and resources such as watersheds and fisheries.</p>	
<p>IFCI Interpretation</p>	<p>Means of Verification and Guidance Notes</p>
<p>5.D: Forest Services</p> <p>1. Forest management is enhancing the multiple benefits that the forest provides, both to local people and to the wider public, including:</p> <ul style="list-style-type: none"> • Recreational access (see Principle 3); • Water resources (see Principle 6); • Protection of landform and soils (see Principle 6); • Landscape and cultural heritage (see Principles 3 and 6); • Employment (see Principles 4 and 5); • Biodiversity (see Principle 6). 	<p>FS Guidelines and Code of Best Forest Practice</p> <p>FMU Management plan and associated maps and policy statements</p> <p>Field inspection of routes, entrance points and signs</p> <p>Feedback from locals</p> <p>Consultation with:</p> <ul style="list-style-type: none"> • Wildlife and other ENGOs; • Local angling clubs; • Fisheries Boards; • EPA.

FSC Criterion 5.6 The rate of harvest of forest products shall not exceed levels which can be permanently sustained.	
IFCI Interpretation	Means of Verification and Guidance Notes
<p>5.E: Sustained Yield</p> <p>1. Harvesting plans do not jeopardise the long-term productive potential of the forest, and are based on careful planning of felling, sensitive harvesting techniques and full regeneration of felled areas, where appropriate. Forest Managers have clear and soundly based thinning, felling and regeneration plans that stipulate:</p> <ul style="list-style-type: none"> • Felling ages or size; • Thinning type, intensity and frequency; • Species preferences and selection criteria; • Means of regeneration and desired species composition; • Scale of operations and rate of application (<i>i.e.</i> areas and time periods). <p>These plans take into account:</p> <ul style="list-style-type: none"> • Stem size and quality; • Growth rates and wind firmness; • Current and future markets for timber; • Biodiversity hotspots/features; • Topographical features; • Impacts on the landscape; • flora and fauna, in particular in sensitive areas. <p><i>The above will reflect intensity of management, size of plantation, and sensitivity of site.</i></p>	<p>Field inspection.</p> <p>FMU Management plans.</p> <p>Forest Inventory.</p> <p>Thinning Rotation and Classification (TRC).</p> <p>Forest Design plan.</p> <p>Work and Sales plans.</p> <p>Harvest Site plan.</p> <p>Rationale for harvesting regime is provided in the management plan.</p> <p>Sensitive areas include aquatic habitats, other semi-natural habitats, NHA's, etc.</p>
<p>2. Where timber production is a primary objective, Forest managers have estimates of key production data including:</p> <ul style="list-style-type: none"> • Average growth rates and yield class for all commercial species on different site types; • Forecasts of thinning and felling yields for different crop types; • Forecasts of areas to be subject to different harvesting operations in future years; • Records of production (<i>i.e.</i> output) from all significant harvesting operations. 	<p>The accuracy of growth and yield estimates is appropriate to the scale and intensity of the operation and size of forest.</p> <p>For example:</p> <ul style="list-style-type: none"> • For medium-sized forests estimates made by professional foresters with relevant experience and substantiated by occasional measurement. • For large conifer forests sample measurement (or height and/or possibly diameter) and use of appropriate yield models.

<p>3. Where production is a primary objective, forest managers have ensured that forecasts of growth and production are compatible, and reconcile actual with forecasted production, investigating any major disparities.</p>	<p>Forest records – harvesting and sales.</p>
<p>4. Where timber production is not a primary objective, then greater emphasis is placed on other objectives rather than volume predictions and data.</p>	<p>Management of biodiversity, riparian zones, open spaces, etc.</p>
<p>5. Large even-aged forests are gradually being restructured to diversify ages and species and thereby achieve a more even spread of fellings and yield of timber.</p>	<p>Forest Design plans. Field inspection.</p>
<p>6. If any non-timber forest products – such as foliage, moss, fungi or venison – are harvested with the permission of the forest manager/owner, the same principle of sustained yield is applied using best practice. Information is provided from relevant experts, which demonstrate that either the scale and impact is insignificant, or the quantities harvested are in line with sustainable growth rates and that there are no significant adverse environmental impacts.</p>	<p>Harvesting/sale contracts. Historical records demonstrating past uses. Baseline data on abundance and relevant research. Sample plots and records of regrowth.</p>

PRINCIPLE # 6: ENVIRONMENTAL IMPACT

Forest management shall conserve biological diversity and its associated values, water resources, soils, and unique and fragile ecosystems and landscapes, and, by so doing, maintain the ecological functions and the integrity of the forest.

FSC Criterion 6.1

Assessment of environmental impacts shall be completed appropriate to the scale, intensity of forest management and the uniqueness of the affected resources and adequately integrated into management systems. Assessments shall include landscape level considerations as well as the impacts of on-site processing facilities. Environmental impacts shall be assessed prior to commencement of site-disturbing operations

IFCI Interpretation	Means of Verification and Guidance Notes
<p>6.A: Assessment of Environmental Impacts</p> <p>1. An environmental appraisal of forest operations have been assessed prior to implementing management, in a manner appropriate to the scale of operations and sensitivity of the site:</p> <ul style="list-style-type: none"> • Appropriate environmental appraisals (including Landscape Design plans) for planting or felling schemes which will affect sites recognised for their cultural, landscape, hydrological or ecological and public amenity value; • Forest Design plans covering at least 20 years for major restructuring of large forests; • Ecological assessments of semi-natural woodlands and projections of how they are likely to change in response to management and natural processes (see Criterion 7.1); • Environmental Impact Assessments (EIA) - In line with current legislation; • Consultation with Local Authorities – In line with current legislation. Seeking specialist advice on the impact of forest operations on any rare or vulnerable species or on special sites; • Ensure implementation of the Acid Sensitive Protocol. <p><i>The results of these assessments have been incorporated into the management plan by modification and mitigation measures to ensure every effort has been made to ensure any adverse impacts are avoided.</i></p>	<p>Forest Design plan, Environmental appraisals.</p> <p>Environment impact statements (EIS).</p> <p>Records of consultation.</p> <p>Specific reports, e.g. Forest Management plans (10 ha and over).</p> <p>Modifications to original proposals.</p> <p>Monitoring procedures.</p> <p>FS Code of Best Forest Practice, National Forest Standard and the suite of Forest Service Environmental Guidelines.</p> <p>Acid-sensitive Protocol – Forest Service. Consult with the Forest Service regarding best practice and mitigation measures when re-forestation in acid sensitive areas. Management practice is currently being informed by research in Ireland.</p>

<p>2. The impact of forest plans and associated operations has also been evaluated at a landscape level, with due account taken of the interaction with adjoining land and other nearby habitats. In particular, the operations have been planned with consideration of:</p> <ul style="list-style-type: none"> • The age structure and species composition of other woodland in the area; • The needs of fauna that use both the forest and surrounding land; • Habitats which are continuous from inside to outside the forest (<i>e.g.</i> watercourses); • The role of forest margins as transitional habitats; • Linking open space within the forest with similar habitats outside; • The spread of invasive species across the forest boundary, in either direction; 	<p>Compatibility of management proposals with wider plans, strategies and assessments:</p> <ul style="list-style-type: none"> • Indicative forestry strategies and regional plans; • Landscape character maps, habitat maps, where appropriate, priorities and assessments; • Adjoining habitats, i.e. riparian zones, wetlands, etc. Whole farm plans. • Deer management strategies; • County Development Plan; • Local and/or Community Development Plans.
<p>3. The impact of forest operations on natural physical features (such as rock exposures, drainage patterns, riparian zones and other geomorphic entities) has been considered and specified in the management plan measures adopted to protect and enhance them.</p>	

FSC Criterion 6.2 Safeguards shall exist which protect rare, threatened and endangered species and their habitats (e.g., nesting and feeding areas). Conservation zones and protection areas shall be established, appropriate to the scale and intensity of forest management and the uniqueness of the affected resources. Inappropriate hunting, fishing, trapping and collecting shall be controlled.	
IFCI Interpretation	Means of Verification and Guidance Notes
<p>6.B: Protection of Rare Species and Habitats</p> <p>1. The areas and features of particular significance for biodiversity have been identified by a suitably qualified person and marked on an appropriate map(s), and measures for their protection are included in the Management Plan. These include:</p> <ul style="list-style-type: none"> • Natural Reserves – Nature Reserves, NHA's, SACs, SPAs, National Forest Parks; • Semi-natural woodland; • Other valuable or diverse wildlife communities; • Rare or vulnerable species; • Breeding sites, feeding areas and habitats of notable species, including migrants; • Water courses, ponds and lakes; • Wetland habitats; • Unplanted peatland and turbary; • Semi-natural grassland and heath; • Ridelines and open ground; • Woodland margins and hedgerows; • Soil fauna; • Veteran and specimen trees. <p>These special areas and features are safeguarded and where possible enhanced through:</p> <ul style="list-style-type: none"> • Following 'best practice' recommended by relevant statutory bodies; • Excluding areas from conventional forest operations, which may involve temporary demarcation; • Minimising the impact of operations carried out on surrounding land – whether forest or other land; • Carrying out operations specifically prescribed to protect these sites or species; • Seeking specialist advice for particularly rare or vulnerable species or features; • Setting aside Minimum Intervention Areas surrounding them for appropriate periods. 	<p>Any ecological survey data may be used in the plan, i.e., SAC, Native Woodland Scheme (NWS) management plan, etc.</p> <p>Suitably qualified person, i.e. woodland ecologist and/or qualified forester.</p> <p>Map of biodiversity features, checked during field inspections.</p> <p>Notable and Red Data Flora and Fauna Species, e.g. Wood Orchid, Hen Harrier, Red Grouse, Golden Plover, etc.</p> <p>Forest Manager's communication with relevant Statutory Authorities, specialists and local people. Consultation, where appropriate, with specialist interest groups/local people.</p> <p>FMU Management plan. Special clauses in sales or harvesting contracts.</p> <p>Specific field inspection of harvesting sites containing special features.</p>

<p>2. Hunting, game rearing and shooting, stalking and fishing are carried out in accordance with Forest Service guidelines and the recommendations and Codes of Practice produced by the relevant national bodies.</p>	<p>Compliance with Wildlife Act (1976) and Wildlife Amendment Bill (2000). Game and Deer management plans. Refer to local communities regarding wildlife populations and game management. Field inspection.</p>
<p>3. Game management does not cause long-term or widespread negative impacts on the forest ecosystem. Feeding and rearing is carried out in a manner and in locations that minimise any adverse impacts on the ground flora.</p>	<p>Contact with individuals exercising shooting and hunting rights. Sporting Licenses, associated correspondence and 'annual returns.' If necessary, feedback from other users of the forest.</p>
<p>4. Nuisance species and/or vermin control is:</p> <ul style="list-style-type: none"> • Carefully planned; • Species specific; • Only carried out where strictly necessary; • Carried out in a humane manner; • Reducing rather than eradicating natural predator populations. 	<p>Examples of pest species include sika and fallow deer, grey squirrel, feral goats and rabbits.</p> <p>Compliance with Wildlife Act (1976) and Wildlife Amendment Bill (2000).</p>
<p>5. Game species, other wild birds and animals which are not pests, are only shot when they are locally abundant, and such shooting is at a level that will not affect numbers in successive years. Locally uncommon species are not shot or hunted. (See Wildlife Act, 1976 – Protected Species listings.)</p>	<p>Compliance with Wildlife Act (1976) and Wildlife Amendment Bill (2000). A licence must be obtained under the Wildlife Act for controlling game species.</p>
<p>6. Deer and rabbit populations are managed – in co-operation with neighbouring landowner(s) – at a level that ensures they are not causing ecological damage. If this has not been achieved, then sensitive areas – including regeneration sites, coppice areas and areas with vulnerable flora – must be protected from browsing.</p>	<p>Deer management plans. Population control, <i>i.e.</i> culling. Protection, <i>i.e.</i> fencing.</p>

FSC Criterion 6.3 Ecological functions and values shall be maintained intact, enhanced, or restored, including: a) Forest regeneration and succession; b) Genetic, species, and ecosystem diversity; c) Natural cycles that affect the productivity of the forest ecosystem.	
IFCI Interpretation	Means of Verification and Guidance Notes
<p>6.C: Ecological Functions and Processes</p> <p>1. The ecological integrity of the forest is sustained by ensuring that:</p> <ul style="list-style-type: none"> • There is continuity of forest habitat through adequate regeneration, with the promotion of natural regeneration and continuous cover, where feasible; • Ecological functions, processes and values are maintained and enhanced; • Ecological cycles of carbon, oxygen, water and minerals are sustained; • Species and ecosystem diversity is maintained and, where they have been depleted, are enhanced; • Dilution of local gene pools is minimised/avoided; • Silvicultural systems as practiced in the management of plantation forests endeavour to recognise and incorporate, where appropriate, natural ecological processes – such as fire and windthrow - to ensure adverse impacts are reduced and other benefits are achieved. • Areas that have suffered environmental degradation due to inappropriate and uneconomic forest practices shall be rehabilitated, as appropriate. 	<p>Field inspection of the whole forest, especially felling and restocking areas, to ascertain whether any activity likely to endanger such ecological processes is being practiced.</p> <p>Use of local provenances, where applicable Guidance for ecological functions and processes should be derived from data on semi-natural woodlands.</p> <p>Measures to maintain and enhance ecological diversity and ecosystems should be included in the management plan.</p> <p>Rehabilitation must be technically and economically feasible.</p>

FSC Criterion 6.4 Representative samples of existing ecosystems within the landscape shall be protected in their natural state and recorded on maps, appropriate to the scale and intensity of operations and the uniqueness of the affected resources.	
IFCI Interpretation	Means of Verification and Guidance Notes
<p>6.D: Natural Reserves, Retentions and Deadwood</p> <p>1. A minimum of 15% of the forest area is managed with biodiversity as a first priority, where feasible. In exiting forests this objective should be achieved in subsequent rotations; (Refer also to Criteria 10.4 and 10.8).</p> <p>Conservation Areas: Variable in percentage of Forest Management Unit (FMU). Significant features and areas of high value for biodiversity are conserved; will, include non-forest habitats. The semi-natural characteristics of all types of forest will be conserved and/or enhanced. In addition, a national network of the best representative examples of all semi-natural woodland types in Ireland, of high conservation value, should be established, where the management applied would strictly adhere to biodiversity and research objectives only. Measures adopted to facilitate the retention and expansion of semi-natural woodlands elsewhere.</p> <p>Long-Term Retentions: Areas for indefinite long-term retention, representative of all semi-natural woodland types, including ancient woodlands and seed stands, to be identified and included in a national network. If necessary, some of these samples should be expanded to ensure the future viability of these ecosystems and the species they support. Within plantations, areas of scrub and/or broadleaves, which have been planted, ridelines and buffer zones should be managed for conservation and maintained through subsequent rotations. Areas for indefinite long-term retention have been identified and constitute a minimum of 1% of the forest area.</p>	<p>Management plan – forests planted prior to the current biodiversity guidelines must indicate how they are to achieve the 15% biodiversity target in future planning. Flexibility may be shown with regard to the 15% biodiversity requirement in forests of <10 ha in accordance with Forest Service Biodiversity Guidelines.</p> <p>Field inspection.</p> <p>Forest Service – Grants/Premiums – Operational Procedures/Standards (Chapter 12).</p> <p>National network to be formed under the auspices of the relevant statutory authorities, <i>i.e.</i> National Parks and Wildlife.</p>

Natural Reserves: Areas of forest have been set aside where biodiversity is the primary management objective. Research may also be an objective to enhance conservation management and forestry objectives. These are managed with minimum intervention to ensure the future viability of the ecosystem and its constituents. **Natural reserves should comprise at least 1% of plantations and 10% of semi-natural woodlands (taken over the whole forest area).**

Other semi-natural woods: Within larger forest units, all semi-natural woodland areas greater than 5ha should be identified and retained to maintain and enhance biodiversity and wildlife. **Where present, in forest areas >100 ha, measures must be adopted to facilitate and achieve this objective at site level.** Degraded and/or semi-natural woodlands previously intensively managed for timber production should not be precluded from wood production. **However, close-to-nature silvicultural principles will apply, which may incorporate selective and group felling, shelterwood systems and coppicing.** Where non-productive areas and buffer zones within plantations, *i.e.* riparian woodlands, comprise of semi-natural woodland/scrub, which has developed naturally or otherwise, these will be retained between rotations and linked, where possible to maintain and enhance diversity, and protect sensitive areas.

If the total of conservation, long-term retentions and nature reserves comprises <15% of the national forest area, then additional areas should be identified where the enhancement of biodiversity is pursued.

Conservation areas include:

- Nature Reserves;
- NHAs, SACs, SPAs;
- Breeding sites;
- Water courses and bodies;
- Wetlands;
- Ridelines and open ground;
- Margins and buffer zones;
- Rare species and habitats;
- Old and/or specimen trees.

Long-term retentions and natural reserves should be selected as stable stands or clumps and belts, or even individual old trees, particularly in small woodlands.

<p>2. The amount of deadwood retained is site- and woodland type-specific and will depend on recommendations from ongoing international and/or future national research in this area. The retention of deadwood is especially relevant in broadleaf woodlands and areas of woodland/scrub set aside for conservation, biodiversity and protection purposes.</p> <ul style="list-style-type: none"> • Keeping snags, hulks, dead trees or those containing deadwood habitats standing. • Retaining deadwood that reflects the size and species present on the site. <p><i>The amount, state and type of deadwood and lop and top retained is modified to accommodate any public safety or plant health constraints.</i></p>	<p>Field inspection of selected harvested sites.</p> <p>Research required instigated at a national level.</p> <p>An average density of 5 standing and 5 fallen stems (>15cm diam.) per hectare across the forest as a whole, would be an appropriate minimum target.</p> <p>FASTco and Safety Guides.</p>
<p>FSC Criterion 6.5 Written guidelines shall be prepared and implemented to: control erosion; minimise damage during harvesting, road construction, and all other mechanical disturbances; and protect water resources.</p>	
<p style="text-align: center;">IFCI Interpretation</p>	<p style="text-align: center;">Means of Verification and Guidance Notes</p>
<p>6.E: Harvesting Impacts (Also relevant to FSC Criterion 10.6)</p> <p>1. The silvicultural system adopted, and particularly the scale and rate of felling, is determined by a careful consideration of:</p> <ul style="list-style-type: none"> • The silvicultural characteristics of the species; • The current and future markets for timber products; • The scale and character of the landscape; • Edaphic and climatic factors; • Riparian and other habitats/ecosystems; • The age-structure of nearby forest(s), and any felling planned therein; • The ecological processes and natural disturbances regime for that forest type; • The need for continuity of open habitats within the forest; • Historical management practices; • The perceptions and preferences of local people. 	<p>Management plans are widely promoted during a period of consultation.</p> <p>Adequate records of consultations are kept and are available.</p> <p>Compliance with Forest Service Harvesting Guidelines.</p>

<p>2. In semi-natural woodland, underplanted semi-natural woodland sites and plantations on ancient woodland sites clearfell/replant silvicultural systems will be phased out in favour of one or more of the following systems:</p> <ul style="list-style-type: none"> • Continuous cover • Group selection; • Shelterwood or under-planting; • Small coupe felling systems; • Coppice or coppice with standards; • Minimum intervention; 	<p>Close-to-nature silviculture. Natural regeneration. Coupe size not greater than 0.25 ha. Adhere to Forest Service Silvicultural Guidelines devised for the Native Woodland Scheme.</p>
<p>3. In windfirm conifer plantations lower impact silvicultural systems are to be encouraged, where they are suited to the site and species present.</p> <p><i>Research work is to continue towards evaluation of the techniques involved and their impact on current commercial practice.</i></p>	<p>Management plans. Forest Design plans. Lower impact silvicultural systems to include:</p> <ul style="list-style-type: none"> • Group selection; • Shelterwood or underplanting; • Small coupe felling systems; • Coppice or coppice with standards; • Single-tree selection systems.
<p>4. The rate of clear felling is subject to the following conditions:</p> <ul style="list-style-type: none"> • Where site factors favour coupe sizes over 5 ha in lowland plantations and over 20 ha in upland and exposed plantations, all felling and restocking is in accordance with an adequate felling design plan outlining the reasons why these thresholds are exceeded (<i>i.e.</i> through a combination of windthrow risk, plant health, specific economic factors, landscape features and restructuring of current plantation design); • The rate of felling is subject to the following condition: in plantations over 20 ha no more than 25% is felled in any 5-year period unless all felling and restocking is based on an adequate felling design plan. In semi-natural woodlands felling must comply with nature conservation objectives using low-impact harvesting systems; • In all semi-natural woods, silvicultural systems, which provide continuity of forest cover, must be practiced. 	<p>Compliance with Forest Service Code of Best Forest Practice (2000 - pg 141) and Harvesting Guidelines, particularly Felling Licence conditions. Site factors favouring larger coupe sizes to include:</p> <ul style="list-style-type: none"> - windthrow risk; - landscape scale; - current plantation design; - archaeological features; - wildlife features. <p>Felling in semi-natural woodlands must comply with guidelines in the Forest Service Native Woodland Manual. These limits may be exceeded in plantations on semi-natural sites in order to speed the restoration of the semi-natural character of the wood (semi-natural incorporate ancient woodland).</p>

<p>5. An evaluation has been made to achieve a balance between timber extraction distances and road density, which takes into account the impact on the environment of both off-road extraction machinery and road construction. Roads and timber extraction tracks are designed, created and used in a manner that minimises their environmental impact, notably soil erosion. Particular attention should be paid to ensure:</p> <ul style="list-style-type: none"> • Bridges or culverts are used to cross watercourses; • The route chosen avoids features of biological, geological or cultural value; • The perceptions and preferences of local people should be considered; • They are carefully landscaped, both internally and externally; • The width of road cut is kept to a minimum, usually < 15m between canopy edges, (unless there are environmental reasons to do otherwise, e.g. open space) • The verges and drains are created and managed to maximise their habitat/biodiversity value and enhance forest access; • The materials used – especially rock type – do not disrupt the ecology of the forest. 	<p>FS Code of Best Forest Practice.</p> <p>Compliance with relevant Planning Acts.</p> <p>Wherever possible, road materials should be compatible with soil parent material in the forest, especially in semi-natural woodlands.</p>
<p>6. The impacts of harvesting are reduced through the following:</p> <ul style="list-style-type: none"> • Harvesting within a catchment should be co-ordinated to the impact on the aquatic ecosystem; • Avoiding sensitive areas during the breeding season, e.g. adjacent salmonid waters, SPAs (i.e. breeding/roosting sites of protected species); • In order to protect soil and prevent soil erosion extraction should be delayed until ground conditions are suitable; • The use of brash mats on extraction racks or low ground pressure vehicles; • Post harvest site repair to be incorporated in the harvesting plan; • Careful planning of extraction routes to avoid sensitive areas. 	<p>Consultation with relevant agencies, i.e. Fisheries Boards, National Parks and Wildlife Service, etc.</p> <p>Forest Service Harvesting Guidelines must be adhered to.</p> <p>Site repairs include roads, drains, silt traps.</p>

FSC Criterion 6.6

Management systems shall promote the development and adoption of environmentally friendly non-chemical methods of pest management and strive to avoid the use of chemical pesticides. World Health Organisation Type 1A and 1B and chlorinated hydrocarbon pesticides; pesticides that are persistent, toxic or whose derivatives remain biologically active and accumulate in the food chain beyond their intended use; as well as any pesticides banned by international agreement, shall be prohibited. If chemicals are used, proper equipment and training shall be provided to minimise health and environmental risks.

FSC Criterion 6.7

Chemicals, containers, liquid and solid non-organic wastes including fuel and oil shall be disposed of in an environmentally appropriate manner at off-site locations.

FSC Criterion 6.8

Use of biological control agents shall be documented, minimised, monitored and strictly controlled in accordance with national laws and internationally accepted scientific protocols. Use of genetically modified organisms shall be prohibited.

IFCI Interpretation	Means of Verification and Guidance Notes
<p>6.F: Control of Biotic Problems</p> <p>In the absence of viable alternatives, forest owners and managers consider pest management through pesticides as the action of last resort and may not use pesticides prohibited by FSC without completion of the FSC derogation process.</p> <p>Forest crop management systems promote the use of integrated forest establishment. This includes; cultivation, use of vigorous plants; trampling/manual weeding; and, where the need for pesticide is currently unavoidable, the policy is one of strict minimum use. This is achieved: through evaluation of the necessity for use; the choice of correct pesticide; the application of the minimum efficacy rate; and spot or band application, where appropriate. The aim is to reduce and eventually avoid the use of pesticides.</p> <p>Establishment of forest cover, especially on fertile lowland sites, may require the use of pesticides, particularly with broadleaf tree species. In addition, pesticide treatment may be needed to manage damaging outbreaks of pests; currently, in particular, insecticide treatment is needed for the pest management of the large pine weevil, <i>Hylobius abietis</i>, in reforestation.</p> <p>The Forest Service and COFORD vigorously support research into non-chemical alternatives with a view to their implementation. Comprehensive trials of alternative silvicultural techniques such as the use of nurse crops, mulches, etc. should be established.</p>	<p>Non-chemical alternatives: Biological control, mulching, etc. Pesticides may be needed to control outbreaks of non-native pests on native and non-native tree species, i.e. rhododendron, pine weevil, grey squirrel. insects, etc.</p>

<p>1. Managers have prepared and implemented an effective strategy for the minimisation of pesticide and fertiliser use as part of an integrated pest management approach. Managers also have a stated commitment to using the least environmentally-damaging option, wherever possible and economically feasible. The strategy is appropriate to the scale of the forest management being audited and:</p> <ul style="list-style-type: none"> • Specifies targets for the minimisation or elimination of such usages consistent with best available practices not entailing excessive costs; • Usage and targets for minimisation are expressed on a per hectare basis and sub-divided according to operation being undertaken (<i>e.g.</i> establishment of broadleaves; establishment of conifers; harvesting). <p>2. Care must be taken at all times not to impact negatively on non-target organisms.</p>	<p>Written strategy for minimisation of pesticide and fertiliser use, where there is no practicable alternative that does not entail excessive cost.</p> <p>Compliance with National and International legislation and Standards regarding use of timber preservatives.</p> <p>Non-target organisms: wildlife flora and fauna, <i>i.e.</i> bees.</p>
<p>3. Managers should demonstrate knowledge of latest published advice and implementation of new advice in their chemical strategy.</p>	<p>Must comply with national and International legislation (Dept. of Agriculture and Food Pesticide Regulations - Pesticide Control Committee).</p> <p>Regular in-service training of staff incorporating newly-available information in order for forest workers to engage in best practice. Contractors must demonstrate a similar level of training and expertise.</p> <p>All training records to be retained.</p>
<p>4. Managers maintain a written record of the precise usage (including reason, method of application, site and quantity) of all chemicals and retain all records for at least five years. The record of usage is accompanied by a justification that includes:</p> <ul style="list-style-type: none"> • Description of non-chemical alternatives that were considered; • Reasons for rejection of non-chemical alternatives; • An evaluation of effectiveness versus environmental risks for the chemical chosen, utilising the information available in the sources of best practice guidance. 	<p>Written records/Management Plans.</p> <p>Disposal of chemicals.</p>

<p>5. Managers should demonstrate that they are meeting the requirements of best practice for chemical use as specified in the listed documents (<i>e.g.</i> storage, disposal, safety equipment, written contingency plans in case of accident, availability of locked boxes for transport, availability of absorbent materials, <i>etc.</i>)</p>	<p>Requirements are specified in the following documents:</p> <ul style="list-style-type: none"> • All relevant current and future guidelines, <i>i.e.</i> FS Code of Best Forest Practice; • Guidelines For The Use Of Herbicides in Forestry (2nd edition) (1998). D. Ward – Coillte; • Code of Practice – Safe Use of Chemicals in Forest Operations (1991) – Coillte; • Site notice of pesticide usage in areas of public access.
<p>6 Genetically modified Organisms (GMOs) are not used.</p>	
<p>7. Surplus chemicals, containers, waste materials, fuels and lubricants are disposed of in a manner that minimises their impact on the environment. Containers are not washed out on site and the wash is not disposed of by spraying on 'waste' land.</p>	<p>Contracts for chemical applications. Field inspection of chemical storage, equipment and associated documentation. Communication with any relevant contractors. Training record and certificates of competence. Field inspection of restocked areas.</p>
<p>8. Biodegradable lubricants are used where suitable in forest machinery and equipment.</p>	
<p>9. Tree shelters are collected once redundant and recycled or disposed of in a manner that causes minimal pollution. Biodegradable tree shelters are used where possible.</p>	
<p>FSC Criterion 6.9 The use of exotic species shall be carefully controlled and actively monitored to avoid adverse ecological impacts.</p>	
<p>IFCI Interpretation</p>	<p>Means of Verification and Guidance Notes</p>
<p>6.G: Exotic Species</p> <p>1. The criteria for using or reducing exotic tree crop species are specified under Principle 9 and Criteria 10.4. Other exotic plant or animal species are only introduced if they are confined to a very restricted area, are non-invasive and will bring economic and environmental benefits. Any such introductions are carefully monitored in order to avoid adverse ecological impacts.</p>	<p>Use of non-native biological control agents may be desirable to control pests.</p>

<p>2. Forest areas may be converted to areas used solely for Christmas tree production, only where conversion is consistent with other requirements of the Standard and relevant national legislation. Such requirements include the need to leave open space in accordance with the Standard and any approved FS Management plan. When clearance is required for non-forestry reasons, such as under a Wayleave Agreement, Christmas trees may be planted in the cleared areas. Christmas trees are grown using traditional, non-intensive techniques.</p>	<p>Forestry Act 1946 Field inspection. Management records. The requirement restricting conversion relates to use for growing Christmas trees of less than 4 meters in height. The chemicals regime for Christmas trees must meet all the requirements of the FSC. ROI Standard. Examples of Christmas trees which may be covered by a certificate are:</p> <ul style="list-style-type: none"> • Trees (< 4m in height) grown on areas within the forest matrix used solely for Christmas tree production; • Trees (< 4m in height) grown on areas used solely for Christmas tree production, which, although outside the forest, form part of the certification unit; • Thinnings from forest tree crops; • Tops from harvested forest tree crops; • Trees grown by inter-planting of forest tree crops; • Mature trees (< 4m in height). <p>Christmas trees grown as a horticultural or nursery crop cannot be covered by a certificate.</p>
<p>FSC Criterion 6.10 Forest conversion to plantations or non-forest land uses shall not occur, except in circumstances where conversion:</p> <ul style="list-style-type: none"> a) entails a very limited portion of the forest management unit; and b) does not occur on high conservation value forest areas; and c) will enable clear, substantial, additional, secure, long-term conservation benefits across the forest management unit. 	
<p>IFCI Interpretation</p>	<p>Means of Verification and Guidance Notes</p>
<p>1. Forest conversion to plantations or non-forest land uses shall not occur, except in circumstances where conversion:</p> <ul style="list-style-type: none"> • entails a very limited portion of the forest management unit; and • does not occur on high conservation value forest areas; and • will enable clear, substantial, additional, secure, long-term conservation benefits across the forest management unit. 	<p>NOTE: This has not been dealt with. May have relevance in the conversion of broadleaved woodland to conifers.</p>

PRINCIPLE # 7: MANAGEMENT PLAN

A management plan – appropriate to the scale and intensity of the operations -- shall be written, implemented, and kept up to date. The long-term objectives of management, and the means of achieving them, shall be clearly stated.

FSC Criterion 7.1

The management plan and supporting documents shall provide:

- a) Management objectives.**
- b) Description of the forest resources to be managed, environmental limitations, land use and ownership status, socio-economic conditions, and a profile of adjacent lands.**
- c) Description of silvicultural and/or other management system, based on the ecology of the forest in question and information gathered through resource inventories.**
- d) Rationale for rate of annual harvest and species selection.**
- e) Provisions for monitoring of forest growth and dynamics.**
- f) Environmental safeguards based on environmental assessments.**
- g) Plans for the identification and protection of rare, threatened and endangered species.**
- h) Maps describing the forest resource base including protected areas, planned management activities and land ownership.**
- i) Description and justification of harvesting techniques and equipment to be used.**

FSC Criterion 7.3

Forest workers shall receive adequate training and supervision to ensure proper implementation of the management plan.

FSC Criterion 7.4

While respecting the confidentiality of information, forest managers shall make publicly available a summary of the primary elements of the management plan, including those listed in Criterion 7.1 above

IFCI Interpretation	Means of Verification and Guidance Notes
<p>7.A: Scope and Objectives of the Plan (also relevant to FSC Criterion 10.1)</p> <p>1. Each Forest Management Unit (FMU) must have a Forest Management plan, which includes the commitment to comply with Forest Service Guidelines.</p> <p><i>The level of detail in the Forest Management plan should reflect the scale of the forest, the sensitivity of the site, and the intensity and impact of the operations planned.</i></p>	<p>Refer to Forest Service Forestry Schemes Manual (2003).</p> <p>Forest/FMU Management plan and associated documents and maps.</p> <p>Details of surrounding land (see Criterion 6.1).</p> <p>FS Forest Management plan (>10 ha).</p>

<p>2. The Management plan incorporates:</p> <ul style="list-style-type: none"> • A statement of objectives; • The rationale for silvicultural systems and prescriptions including species selection; • An appropriate assessment of the forest including physical, ecological and landscape characteristics; • Details of current standing crops, species and areas; • The rationale for silvicultural systems and prescriptions; • Harvesting plans for the next five years; • Outline plans for felling, regeneration and restructuring (where applicable) over the next 20-30 years; • A vision forest development over the long term, <i>i.e.</i> 50+ years; • Maps showing, where appropriate; • Sites and features of biodiversity significance and biodiversity protection measures (FSC Criteria 6.2 and 6.3); Natural reserves and retentions (Criterion 6.4); • Sites and features of cultural significance (FSC Criterion 3.3); Forest Design plan showing all sites (FSC Criterion 6.1); • Plans for implementation/schedule 1 to 10 years depending on size and complexity of the forest/FMU. <p>The process of management planning has identified the uniquely valuable characteristics of each individual forest or wood, and has prescribed treatments that will conserve and enhance these special qualities.</p> <p>Where a Management Plan for part of the Forest Management Unit is in preparation, but not yet complete, no operations which would have a significant long-term impact are carried out.</p>	<p>Detailed schedule of plan required for first ten years. Thereafter a medium and long-term vision outlining a brief description of management objectives. (See Forest Service Forestry Schemes Manual (2003)).</p>
<p>3. There is a local consultation at least once every 5 years on the Management Plan, as prescribed under Principle 4.</p>	<p>See 4.E.1 and 4.F.1, in particular.</p>
<p>4. Forest managers are appropriately trained to ensure that they have relevant competencies to implement and monitor the Management plan.</p>	

FSC Criterion 7.2 The management plan shall be periodically revised to incorporate the results of monitoring or new scientific and technical information, as well as to respond to changing environmental, social and economic circumstances.	
IFCI Interpretation	Means of Verification and Guidance Notes
<p>7.B: Monitoring and Revision</p> <p>1. The Management Plan is being adequately implemented with:</p> <ul style="list-style-type: none"> • Close correlation between the plan, management procedures and operations on the ground; • Sound justification for any deviations; • A rate of progress that will allow a reasonable degree of completion within the time period of the plan; • No backlog of costly, difficult or unprofitable operations. 	<p>Management plan plus monitoring information in Criterion 8.1. Field inspection focusing on:</p> <ul style="list-style-type: none"> • Reforested areas; • Harvesting sites; • Pest control and exclusion of livestock; • Treatment of sites identified in Criteria 3.3 and 6.2.
<p>2. The Management plan is reviewed at least every 5 years. New plans reflect scientific and technical advances, as well as the results of monitoring and the experience of implementing management in that forest.</p>	

<p>PRINCIPLE # 8: MONITORING AND ASSESSMENT Monitoring shall be conducted – appropriate to the scale and intensity of forest management -- to assess the condition of the forest, yields of forest products, chain of custody, management activities and their social and environmental impacts.</p>	
<p>FSC Criterion 8.1 The frequency and intensity of monitoring should be determined by the scale and intensity of forest management operations as well as the relative complexity and fragility of the affected environment. Monitoring procedures should be consistent and replicable over time to allow comparison of results and assessment of change.</p>	
<p>FSC Criterion 8.2 Forest management should include the research and data collection needed to monitor, at a minimum, the following indicators:</p> <ul style="list-style-type: none"> a) Yield of all forest products harvested. b) Growth rates, regeneration and condition of the forest. c) Composition and observed changes in the flora and fauna. d) Environmental and social impacts of harvesting and other operations. e) Costs, productivity, and efficiency of forest management. 	
<p>IFCI Interpretation</p>	<p>Means of Verification and Guidance Notes</p>
<p>8.A: Appropriate Level of Monitoring (Also relevant to FSC Criterion 10.8)</p> <p>1. Forest Managers monitor, (<i>i.e.</i> observe and record):</p> <ul style="list-style-type: none"> • The extent and details of management operations implemented, particularly any modifications from work planned; • Responses to such operations; • Any significant natural developments. <p>Such records are kept in a form that ensures that they are of use over the long-term and are passed on with the forest when the owners or managers change in the future.</p> <p><i>The level of detail and means of monitoring are appropriate to the size of the enterprise, the intensity of operations, the objectives of management and the sensitivity of the site.</i></p>	<p>Annual reports or other general reporting documents.</p> <p>Management Information Systems.</p> <p>Monitoring records (<i>e.g.</i> photographs, plot data, compartment database, written notes).</p> <p>Correlation with observations made during field inspection.</p> <p>Action taken to counteract unexpected and undesired responses.</p>

<p>2. An assessment is produced at the end of each 5 year period that includes an appropriate amount of information on:</p> <ul style="list-style-type: none">(a) Harvested Yield;(b) Quantity of timber produced;(c) Areas thinned, selectively felled, clear felled and coppiced;(d) Non-timber products;(e) Growth;(f) Area and species, afforested, reforested and natural regeneration;(g) Changes in species composition or structure of stands;(h) Changes in age class distribution;(i) Flora and Fauna;(j) Increase or decrease of rare, notable or widely recognised species;(k) Spread of invasive species;(l) Environmental and social impacts;(m) The appearance of the forest in the landscape;(n) Changes to water quality within the catchment;(o) Changes to sites and features of particular cultural significance to local people;(p) Changes in the levels or types of social benefits, such as employment or access. <p><i>Baseline data are recorded at the outset for each of the aspects listed above to enable the changes to be assessed.</i></p>	<p>Record the methods used to assess flora and fauna populations.</p>
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<p>FSC Criterion 8.4 The results of monitoring shall be incorporated into the implementation and revision of the management plan.</p>	
<p>FSC Criterion 8.5 While respecting the confidentiality of information, forest managers shall make publicly available a summary of the results of monitoring indicators, including those listed in Criterion 8.2.</p>	
<p>IFCI Interpretation</p>	<p>Means of Verification and Guidance Notes</p>
<p>8.B: Use of Monitoring Data</p> <p>1. Any discrepancies between outcomes (<i>i.e.</i> yields, growth, ecological changes, <i>etc.</i>) and expectations (<i>i.e.</i> plans, forecasts, anticipated impacts, <i>etc.</i>) are appraised and taken into account in preparing the next plan.</p> <p>Specialist advice to be sought where necessary and considered.</p>	<p>5-yearly Monitoring Report. Comparison of monitoring information with 5-year plan. Evidence of manager’s awareness.</p>
<p>2. A summary of work completed and other major changes in the forest is made available for public inspection at least every 5 years and preferably in conjunction with consultation on the Management plan.</p>	<p>Outside consultation periods. Management plans may be available at the discretion of the owner.</p>

FSC Criterion 8.3 Documentation shall be provided by the forest manager to enable monitoring and certifying organisations to trace each forest product from its origin, a process known as the "chain of custody."	
IFCI Interpretation	Means of Verification and Guidance Notes
<p>8.C: Chain of Custody</p> <p>1. Harvesting and timber sales documentation enables each forest product to be traced from the forest to the initial point of sale – but not beyond. These documents show: product, quantity, customer, date of production/removal, forest or wood of origin, initial destination and individuals/companies involved in harvesting, sale, purchase and transport from the forest.</p> <p><i>Documentation allows reconciliation with harvesting prescriptions given in the Management plan.</i></p>	<p>Management Information Systems.</p> <p>Sale(s) System.</p> <p>Harvesting output records for employed staff.</p> <p>Harvesting Contractors' invoices.</p> <p>Dispatch or Delivery Notes.</p> <p>Haulier's invoices.</p> <p>Timber sales invoices.</p>

PRINCIPLE # 9 : MAINTENANCE OF HIGH CONSERVATION VALUE FORESTS

Management activities in high conservation value forests shall maintain or enhance the attributes that define such forests. Decisions regarding high conservation value forests shall always be considered in the context of a precautionary approach.

High Conservation Value Forests are those that possess one or more of the following attributes:

- a) forest areas containing globally, regionally or nationally significant :**
 - concentrations of biodiversity values (*e.g.* endemism, endangered species, refugia); and/or
 - large landscape level forests, contained within, or containing the management unit, where viable populations of most if not all naturally occurring species exist in natural patterns of distribution and abundance;
- b) forest areas that are in or contain rare, threatened or endangered ecosystems;**
- c) forest areas that provide basic services of nature in critical situations (e.g. watershed protection, erosion control);**
- d) forest areas fundamental to meeting basic needs of local communities (e.g. subsistence, health) and/or critical to local communities' traditional cultural identity (areas of cultural, ecological, economic or religious significance identified in co-operation with such local communities).**

Note: About 100,000 ha of native broadleaved woodland remain in the Ireland of to-day, of which perhaps 20,000 ha could be described as ancient, i.e. woodlands that originated before 1600 AD, but which has been invariably manipulated by man to a significant extent. For the purpose of this Standard, it is proposed to describe the native broadleaved woodland as "semi-natural woodland". It has a widespread distribution pattern, is fragmented and grows under a wide variety of local climatic conditions and on a diverse range of soil types. Some of the woodland is owned by the National Parks and Wildlife Service, some by Coillte Teo. and by County Councils, and the remainder is on estates and farms nationwide.

<p>FSC Criterion 9.1 Assessment to determine the presence of the attributes consistent with High Conservation Value Forests will be completed, appropriate to scale and intensity of forest management.</p>	
<p>FSC Criterion 9.2 The consultative portion of the certification process must place emphasis on the identified conservation attributes, and options for the maintenance thereof.</p>	
IFCI Interpretation	Means of Verification and Guidance Notes
<p>9.A: Conservation of Semi-Natural Woodland</p> <p>1. The relevant parts of the Code of Best Forest Practice and the Forest Service Guidelines are applied to all semi-natural and high conservation value underplanted semi-natural woodland sites, which have retained many of their semi-natural characteristics.</p> <p>Only native seed/planting stock of local origin should be used in semi-natural semi-natural woodlands of high conservation value. In the creation of new native woodlands seed/planting stock of native provenance should be used.</p>	<p>Management plans.</p> <p>Field inspection of semi-natural stands which are subject to management.</p> <p>Relevant authorities: National Parks and Wildlife Service (NPWS) and the Forest Service (FS).</p> <p>Where the FS Native Woodland and Woodland Improvement Schemes are being applied the relevant FS management guidelines must be adhered to.</p> <p>SACs, NHAs.</p> <p>Certificates of origin.</p> <p>EU Directive on Reproductive material must be complied with.</p> <p>In non-designated semi-natural woodlands of moderate conservation value seed/planting material may be of local and/or regional origin.</p>

FSC Criterion 9.3 The management plan shall include and implement specific measures that ensure the maintenance and/or enhancement of the applicable conservation attributes consistent with the precautionary approach. These measures shall be specifically included in the publicly available management plan summary.	
IFCI Interpretation	Means of Verification and Guidance Notes
<p>9.B: Restoration of Semi-Natural Forest (Also relevant to FSC Criterion 10.5)</p> <p>1. Semi-natural woodlands that are being restored should be managed in a manner that retains and enhances their natural characteristics:</p> <ul style="list-style-type: none"> • Thinnings are of sufficient intensity and frequency to maintain the understorey and ground flora; • The understorey is not avoidably damaged during thinnings • When restocking, a discrete part of the stand is restored to native alone; • Restocking techniques facilitate incorporation of natural regeneration and coppice regrowth, where present; • The species composition of the semi-natural component reflects the range of species that would naturally occur on that site; • Diversifying the age structure is valid in even-aged semi-natural woodlands and should be encouraged to enhance biodiversity and the viability of the ecosystem as a whole. <p>An average reduction in the canopy cover of exotic species on semi-natural woodland sites of at least 10% in the first 10 year period is concentrated on sites of greatest potential biodiversity gain (<i>e.g.</i> a woodland with 70% exotic species is modified over 10 years to 60% exotic species). Exotic species may be retained where they have a high ecological or cultural value.</p>	<p>Management Plan.</p> <p>Underplanted species may include non-native conifers and broadleaves as well as native tree and shrub species.</p> <p>Field inspection of areas undergoing management operations.</p> <p>On plantations where exotic species dominate (<i>i.e.</i> > 50%), they are reduced during any thinning and felling operations.</p> <p>Where exotics are only a minor component of the canopy (<i>i.e.</i> < 50% of the canopy), the site is restocked with only native species of Irish provenance after felling.</p> <p>This is achieved through:</p> <ul style="list-style-type: none"> • Management Plan; • Felling and restocking proposals; • Selection criteria for thinnings; • Harvest and thinnings contracts.

FSC Criterion 9.4 Annual monitoring shall be conducted to assess the effectiveness of the measures employed to maintain or enhance the applicable conservation attributes.	
IFCI Interpretation	Means of Verification and Guidance Notes
<p>9.C: Monitoring of management measures in high value conservation forests</p> <p>1. Monitoring shall entail a walkover survey which will be conducted on measures/operations adopted on sites in the previous year. This information will be documented.</p>	<p>Interviews with management, field staff or contractors.</p>

<p>FSC PRINCIPLE # 10: PLANTATIONS Plantations shall be planned and managed in accordance with Principles and Criteria 1 - 9, and Principle 10 and its Criteria. While plantations can provide an array of social and economic benefits, and can contribute to satisfying the world's needs for forest products, they should complement the management of, reduce pressures on, and promote the restoration and conservation of natural forests.</p>	
<p>FSC Criterion 10.1 The management objectives of the plantation, including natural forest conservation and restoration objectives, shall be explicitly stated in the management plan, and clearly demonstrated in the implementation of the plan.</p>	
<p>FSC Criterion 10.2 The design and layout of plantations should promote the protection, restoration and conservation of natural forests, and not increase pressures on natural forests. Wildlife corridors, streamside zones and a mosaic of stands of different ages and rotation periods, shall be used in the layout of the plantation, consistent with the scale of the operation. The scale and layout of plantation blocks shall be consistent with the patterns of forest stands found within the natural landscape.</p>	
<p>FSC Criterion 10.3 Diversity in the composition of plantations is preferred, so as to enhance economic, ecological and social stability. Such diversity may include the size and spatial distribution of management units within the landscape, number and genetic composition of species, age classes and structures.</p>	
IFCI Interpretation	Means of Verification and Guidance Notes
<p>10.A: Diversity and Design</p> <p>1. The potential environmental impacts of afforestation have been assessed in a manner appropriate to the scale of operations and sensitivity of the site and in addition to environmental appraisals required by law for larger schemes appropriate environmental appraisals are prepared for smaller schemes in sensitive locations in accordance with FS Code of Best Forest Practice (draft) and FS Guidelines. These focus on the issues of particular relevance, for example their historical, hydrological or ecological value.</p> <p>The results of these assessments have been incorporated into the proposals, through modification and mitigation measures in order to minimise adverse impacts.</p>	<p>Environmental Impact Statements (EISs) on areas > 50 ha.</p> <p>FS notification procedures.</p> <p>Consultation notes <i>vis a vis</i> Local authorities re afforestation on areas in excess of 25 ha.</p> <p>Forest Design Plan.</p>

<p>2. Existing plantations are being actively restructured in accordance with the principles and recommendations of the FS Landscape Design Guidelines.</p> <p>Co-operation has been sought with adjoining forest owners to try to ensure that the restructuring of one forest complements and does not endanger the improvement of adjoining ones.</p>	<p>FS Code of Best Forest Practice.</p> <p>Refer also to 5.E.5.</p> <p>Forest Design plan and field inspection of felling and planting sites.</p> <p>Evidence of Forest Manager’s contact with neighbours and awareness of their plans.</p> <p>Feedback from neighbouring owner/manager, if considered necessary.</p>
<p>3. New plantations are designed and located in ways that enhance and do not detract from the visual, cultural and ecological value and character of the wider landscape. In particular, new plantations are not located where they are likely to have significant adverse impacts on valuable habitats.</p> <p>New plantations may contribute to the conservation of nearby semi-natural woodland habitats, depending on species selected, and have:</p> <ul style="list-style-type: none"> • Utilised seed or natural regeneration from nearby existing woodland; • Created ecological corridors from the existing woodland into the plantation; • Established effective buffers around existing woodland; • Provided complementary habitats; • Avoided fragmentation of adjacent habitats; • Sought co-operation with adjoining landowners where major changes are planned; • Retention of scrub areas. 	<p>To avoid negative impacts on valuable habitats consultation with NPWS is required.</p> <p>Valuable habitats: as listed in 6.B.1.</p> <p>FS Landscape and Biodiversity Guidelines.</p> <p>Design plan for new planting.</p> <p>Examples of measures that contribute to conservation include retention of hedgerows, leaving buffer areas around streams, lakes and rivers and other sensitive habitats such as marsh and semi-natural woodlands.</p>
<p>4. New planting is designed in such as way as to facilitate the creation over time of a diverse age structure over forest management units and group scheme areas.</p>	<p>Forest Design plan.</p> <p>FS Code of Best Forest Practice.</p> <p>Site Development plan.</p> <p>This is achieved through one or more of the following:</p> <ul style="list-style-type: none"> • Use of a diversity of species, clones and provenances; • Planting mixed stands; • Variation in site types and growth rates; • Phased planting; • Retention of open ground. <p>Principles of Low Intensity Silvicultural Systems (LISS), e.g. Continuous Cover Forestry (CCF).</p>

FSC Criterion 10.4

The selection of species for planting shall be based on their overall suitability for the site and their appropriateness to the management objectives. In order to enhance the conservation of biological diversity, native species are preferred over exotic species in the establishment of plantations and the restoration of degraded ecosystems. Exotic species, which shall be used only when their performance is greater than that of native species, shall be carefully monitored to detect unusual mortality, disease, or insect outbreaks and adverse ecological impacts.

FSC Criterion 10.8

Appropriate to the scale and diversity of the operation, monitoring of plantations shall include regular assessment of potential on-site and off-site ecological and social impacts, (*e.g.* natural regeneration, effects on water resources and soil fertility, and impacts on local welfare and social well-being), in addition to those elements addressed in principles 8, 6 and 4. No species should be planted on a large scale until local trials and/or experience have shown that they are ecologically well adapted to the site, are not invasive, and do not have significant negative ecological impacts on other ecosystems. Special attention will be paid to social issues of land acquisition for plantations, especially the protection of local rights of ownership, use or access.

IFCI Interpretation	Means of Verification and Guidance Notes
<p>10.B: Species Selection for Plantations</p> <p>1. The species chosen for plantations are suited to the site and matched to the commercial, environmental and social objectives. A varied species selection should take into account current and future market expectations for forest and non-forest products</p> <p>The proportions of different types of species are as follows. These percentages apply over forest management units and/or the total forest area covered by group certification schemes. The Forest Design Plan shows how these percentages will be achieved.</p> <ul style="list-style-type: none"> • < 65% Primary Species; • > 20% Secondary Species; • 15% actively managed for biodiversity, including open space, containing up to 10% native species (conifers, <i>Taxus</i> and broadleaves), if it does not have negative impacts on other important habitats or landscape features. <p>Where only one commercial species is adapted to the site:</p> <ul style="list-style-type: none"> • < 80% Primary species; • > 5% Broadleaf or Scots Pine; • 15% actively managed for biodiversity, including open space, containing up to 10% native species (conifers, <i>Taxus</i> and broadleaves), if it does not have negative impacts on other important habitats or landscape features. 	<p>Adherence to the FS Code of Best Forest Practice, Guidelines and Grant scheme regulations.</p> <p>Selection of Species Map.</p> <p>Plantation Profile.</p> <p>Certificates of Seed Origin for Registered Species.</p> <p>This aspect will be carefully monitored by FSC.</p> <p>FS Biodiversity Guidelines.</p> <p>Valuable open space habitats include marsh, bog, open water, heath, species-rich grassland, etc.</p> <p>Examples of active management for biodiversity which will be site-specific may include; Planting up to 10% native species, graded road edges, natural regeneration in unproductive areas, protection of non-forest habitats, rock outcrops and streams.</p> <p>In the areas managed for biodiversity, limited sustainable timber production may be a secondary objective using close-to-nature, low impact silvicultural systems, i.e. continuous forest cover.</p> <p>Native species include broadleaf trees and shrubs, Scots pine and Yew.</p>

<p>2. Results of national monitoring and research on the health and ecological impacts of exotic species are considered and, where necessary, complemented by forest-level plant health assessments.</p>	
<p>FSC Criterion 10.5 A proportion of the overall forest management area, appropriate to the scale of the plantation and to be determined in regional standards, shall be managed so as to restore the site to a natural forest cover.</p>	
<p>IFCI Interpretation</p>	<p>Means of Verification and Guidance Notes</p>
<p>10.C: Restoration of Semi-Natural Habitats (Also relevant to FSC Criterion 9.3)</p> <p>1. Valuable habitats that have been colonised, planted or incorporated into plantations, but which have retained their ecological characteristics and have a high potential to be restored, should be restored or treated in a manner that does not lead to further loss of biodiversity or cultural value:</p> <ul style="list-style-type: none"> • Ridelines and open spaces containing remnant semi-natural communities are widened and extended; • Areas with potential for a rich ground flora and shrub layer are heavily thinned; • Remnants of underplanted wood pasture are gradually opened up. 	<p>Identification of such areas in an ecological appraisal, <i>i.e. semi-natural grassland, bogs, marsh, etc.</i></p> <p>Proposals for such areas in Management plan.</p> <p><i>Areas for restoration may include heathland, bog and other open habitats.</i></p> <p><i>Maintenance of open ground around archaeological sites.</i></p> <p>Field inspection of such areas.</p> <p>Native broadleaves of local origin.</p> <p><i>Consultation with NPWS on valuable habitats.</i></p>
<p>2. Clear felling of part of an area within a Forest Management Unit and restoration of the area to non-commercial forest land is carried out only where:</p> <ul style="list-style-type: none"> • The new land use will be ecologically more valuable than the plantation or the removal of the plantation constitutes an improvement in the landscape or cultural/archaeological features. 	<p><i>Refer to FSC 6.10.</i></p> <p>Management plan.</p> <p><i>Replanting obligations can be reviewed with permission from the FS.</i></p>
<p>FSC Criterion 10.6 Measures shall be taken to maintain or improve soil structure, fertility, and biological activity. The techniques and rate of harvesting, road and trail construction and maintenance, and the choice of species shall not result in long term soil degradation or adverse impacts on water quality, quantity or substantial deviation from stream course drainage patterns.</p>	
<p>Not interpreted by IFCI.</p>	

<p>FSC Criterion 10.7 Measures shall be taken to prevent and minimise outbreaks of pests, diseases, fire and invasive plant introductions. Integrated pest management shall form an essential part of the management plan, with primary reliance on prevention and biological control methods rather than chemical pesticides and fertilisers. Plantation management should make every effort to move away from chemical pesticides and fertilisers, including their use in nurseries. The use of chemicals is also covered in Criteria 6.6 and 6.7.</p>	
<p>IFCI Interpretation</p>	<p>Means of Verification and Guidance Notes</p>
<p>1. The risk of plantations being damaged by wind, fire, pests and diseases is kept to a minimum through careful management, which includes:</p> <ul style="list-style-type: none"> • Robust and well-researched planting design and restructuring plans; • Creation of a diverse forest in terms of ages, species and open ground; • Sensitive and careful implementation of silvicultural operations; • Measures to prevent abuse of the forest by people; • Preparation of a fire plan. 	<p>Management plan.</p>
<p>FSC Criterion 10.8 Appropriate to the scale and diversity of the operation, monitoring of plantations shall include regular assessment of potential on-site and off-site ecological and social impacts, (e.g. natural regeneration, effects on water resources and soil fertility, and impacts on local welfare and social well-being), in addition to those elements addressed in principles 8, 6 and 4. No species should be planted on a large scale until local trials and/or experience have shown that they are ecologically well adapted to the site, are not invasive, and do not have significant negative ecological impacts on other ecosystems. Special attention will be paid to social issues of land acquisition for plantations, especially the protection of local rights of ownership, use or access.</p>	
<p>Not interpreted by IFCI. FSC SLIMF guidelines need to be incorporated in this section.</p>	
<p>FSC Criterion 10.9 Plantations established in areas converted from natural forests after November 1994 normally shall not qualify for certification. Certification may be allowed in circumstances where sufficient evidence is submitted to the certification body that the manager/owner is not responsible directly or indirectly for such conversion.</p>	
<p>Not interpreted by IFCI.</p>	

Appendix A.1: Legislation and Guidelines

A.1.1: Irish Legislation

Forestry Acts (1946 – 1988)
Wildlife Act (1976)
Safety, Health and Welfare at Work Act (1989)
Local Government (Planning and Development) Acts (1963-1996)
Local Government (Water Pollution) Acts (1977-1992)
Local Government (Special Amenity and Conservation Orders) Act (1976)
Local Government (Planning Development) Regulations – Environmental Impact Assessment – Statutory instrument No. 100 of 1996
European Communities (Environmental Impact Assessment) (Amendment) Regulations – Statutory Instrument No. 101 of 1996
Planning and Development Bill (1999)
Waste Management Act (1996)
Litter Pollution Act (1997)
Environmental Protection Agency Act (1992)
National Monuments Acts (1930-1989)
Road Traffic Acts (1963-1997)
Roads Act (1993)
Occupiers Liability Act (1995)

Acts and Bills as published by the Stationary Office, Dublin

A.1.2: EU Directives

EU Habitats Directive – 92/3 EEC
EU Birds Directive – 79/409 EEC
EU Marketing of Forest Reproductive Material Directive – 64/404 EEC
EU External Quality Standards for Forest Reproductive Material – 71/161 EEC
EU Directive – 75/445 EEC

EU Plant Health Directive – 77/93 EEC
Protection of Forests against Atmospheric Pollution – Regulation 35/28 EEC
EU Environmental Impact Assessment (EIA) Directive – 85/337 EEC
EU Environmental Impact Assessment (EIA) Directive – 97/11 EEC

EU Directives as published in the Official Journal of the EU

A.1.3: International Protocols

Protection of the World Cultural and Natural Heritage (1972)
Biological Diversity (1992)
Climate Change – UN Framework (1992)
Helsinki Protocols – Ministerial Conference on Forestry, Helsinki (1994)
Lisbon Protocols – Ministerial Conference on Forestry, Lisbon (1998)
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A.1.4: Guidelines

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Appendix 2: Acronyms

EIA	Environmental Impact Assessment
EIS	Environmental Impact Statement
EPA	Environmental Protection Agency
EU	European Union
FASTCo	Forestry and Arboriculture Safety and Training Council
FMU	Forest Management Unit
FS	Forest Service (Dept. of Agriculture and Food)
FSC	Forest Stewardship Council
GMO	Genetically Modified Organisms
HSA	Health and Safety Authority
NHA	Natural Heritage Area
NPWS	National Parks and Wildlife Service (formerly Duchas) of the Dept. of the Environment, Heritage and Local Government
P&C	Principles and Criteria (FSC)
ROI	Republic of Ireland
ROW	Right of Way
SAC	Special Area of Conservation
SAAO	Special Amenity Area Order
SOP	Standard Operating Procedure(s)
SPA	Special Protection Area
TPO	Tree Preservation order
TRC	Thinning Rotation Classification

GLOSSARY

Words in this document are used as defined in most standard English language dictionaries. The precise meaning and local interpretation of certain phrases (such as local communities) should be decided in the local context by forest managers and certifiers. In this document, the words below are understood as follows:

Access	Refers to the forest and its associated land open to the public for business, recreational or educational use (sometimes subject to changes). See also 'permissive access' and 'recreation'.
Ancient Woodland	In the Irish context, woodlands that originated before 1600 AD, but which have been invariably manipulated by man to a significant extent.
Brash mats	Cut branches spread along the route where machinery will be driving to reduce soil damage.
Biodiversity	The variety of ecosystems and living organisms (species), including genetic variation within species.
Biological diversity	The variability among living organisms from all sources including, <i>inter alia</i> , terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are a part; this includes diversity within species, between species and of ecosystems. (See Convention on Biological Diversity, 1992).
Biological diversity values	The intrinsic, ecological, genetic, social, economic, scientific, educational, cultural, recreational and aesthetic values of biological diversity and its components. (See Convention on Biological Diversity, 1992).
Biological control agents:	Living organisms used to eliminate or regulate the population of other living organisms.
Broadleaves	Broadleaved trees and woodlands. In the ROI, most have laminar leaves. Although often referred to as 'hardwoods' not all produce hardwood timber. In the ROI, most are deciduous.
Buffer	An area of non-invasive trees or other land use of sufficient width to protect a semi-natural woodland from significant invasion by seed from a nearby non-native source.
Chain of custody	The channel through which products are distributed from their origin in the forest to their end-use.
Chemicals	The range of fertilizers, insecticides, fungicides, and hormones which are used in forest management.
Criterion (pl. Criteria)	A means of judging whether or not a Principle (of forest stewardship) has been fulfilled.

Customary rights	Rights which result from a long series of habitual or customary actions, constantly repeated, which have, by such repetition and by uninterrupted acquiescence, acquired the force of a law within a geographical or sociological unit.
Clear felling	See 'felling: clear'.
Common rights	Legal definition covering communally held land use rights, <i>e.g.</i> commonage.
Conifers	Coniferous trees and woodlands. In the ROI, conifer trees all have needles or scale-like leaves. With the exception of larches, all are evergreen. Sometimes referred to as 'softwoods' because (along with some broadleaved trees) they produce softwood timber.
Consultation	Consultation is a two way process whereby the decisions of each party can be and are influenced by the views of the other.
Continuous cover	Silvicultural systems whereby the forest canopy is maintained at one or more levels without clear-felling.
Coppice	Management based on regeneration by regrowth from cut stumps (coppice stools). The same stool is used through several cycles of cutting and regrowth.
Coppice with standards	Coppice with a scatter of trees of seedling or coppice origin, grown on a long rotation to produce larger sized timber and to regenerate new seedlings to replace worn out stools.
Cultural features	Archaeological sites, historic buildings and heritage landscapes, including industrial archaeology.
Customary rights	Rights which result from a long series of habitual of customary actions, constantly repeated, which have, by such repetition and by uninterrupted acquiescence, acquired the force of a law within a geographical or sociological unit.
Design Plan (Forest Design Plan)	Long term outline design plan (20 years or more). The first few years of planting, felling, regeneration and environmental management plans are shown in detail.
Drainage	An operation to remove excess water from an area in a controlled way. In forests, drains are usually open, unlined channels.
Ecosystem	A community of plants and animals (including humans) interacting with each other and the forces of nature. Balanced ecosystems are stable when considered over the long term (hundreds of years in the case of woodland).
Edaphic Factors	Factors produced or influenced by the soil.
Exotic species	An introduced species not native or endemic to the area in question.

Endangered species	Any species which is in danger of extinction throughout all or a significant portion of its range.
Felling: clear	Cutting down of an area of forest. Sometimes a scatter or clumps of trees may be left standing within the felled area.
Felling: group	As clear felling, but in small areas (typically less than 0.25 hectares) whose microclimate is strongly influenced by the surrounding forest left standing.
Forestry	The management of predominantly tree covered land, whether in large tracts (generally called forests) or smaller units (known by a variety of terms such as woods, copses and shelterbelts).
Forest integrity	The composition, dynamics, functions and structural attributes of a natural forest.
Forest management/ Manager	The people responsible for the operational management of the forest resource and of the enterprise, as well as the management system and structure, and the planning and field operations.
Forest Service	Government department with responsibility for forestry policy in the Republic of Ireland.
Game	Animals, either wild or reared, managed for hunting or shot for food.
Genetically modified organisms	Biological organisms which have been induced by various means to consist of genetic structural changes.

High Conservation Value Forests	<p>High Conservation Value Forests are those that possess one or more of the following attributes:</p> <p>a) forest areas containing globally, regionally or nationally significant:</p> <ul style="list-style-type: none">concentrations of biodiversity values (<i>e.g.</i> endemism, endangered species, refugia); and/orlarge landscape level forests, contained within, or containing the management unit, where viable populations of most if not all naturally occurring species exist in natural patterns of distribution and abundance; <p>b) forest areas that are in or contain rare, threatened or endangered ecosystems;</p> <p>c) forest areas that provide basic services of nature in critical situations (<i>e.g.</i> watershed protection, erosion control);</p> <p>d) forest areas fundamental to meeting basic needs of local communities (<i>e.g.</i> subsistence, health) and/or critical to local communities' traditional cultural identity (areas of cultural, ecological, economic or religious significance identified in cooperation with such local communities).</p>
Indicative Forest Strategies (IFS)	Local planning authority strategy showing the strategic impacts of afforestation according to sensitivity of different areas.
Indigenous people	The FSC ROI Working Group has decided that this Principle (No. 3) is more usefully interpreted to include the entire population of the Irish Republic. In the text, the term 'local people' is used.
Landscape	A geographical mosaic composed of interacting ecosystems resulting from the influence of geological, topographical, soil, climatic, biotic and human interactions in a given area.
Local laws	Includes all legal norms given by organisms of government whose jurisdiction is less than the national level, such as departmental, municipal and customary norms.
Local (Planning) Authority	Local government planning authority, <i>i.e.</i> The Co. Council.

Local People	Anyone living or working the vicinity who has an interest in the forest. It is intentional that this term is not more closely defined, and the wider public is not excluded. It is particularly difficult to be precise about how local people are to be contacted or consulted. In some situations, it would be appropriate for this to simply mean those living beside the forest (<i>e.g.</i> concerning noise disturbance). In other cases – such as using local services – a much wider geographical area will be appropriate. If there is difficulty in identifying local contacts, then the elected representatives should be the first choice.
Long term	The time-scale of the forest owner or manager as manifested by the objectives of the management plan, the rate of harvesting, and the commitment to maintain permanent forest cover. The length of time involved will vary according to the context and ecological conditions, and will be a function of how long it takes a given ecosystem to recover its natural structure and composition following harvesting or disturbance, or to produce mature or primary conditions.
Lop and top	Woody debris from thinning or felling operations.
Minimum Intervention	Management with only the basic inputs required to protect the forest from external forces or to ensure succession of key habitats and species. This usually means no major silvicultural operations, such as felling or planting of trees. Operations normally permitted are fencing, control of exotic plant species and vertebrate pests, maintenance of paths and ridelines and safety work. Other work specifically to enhance the social or ecological value of the woodland is also often carried out.
Native (species)	A species that has arrived and inhabited an area naturally, without deliberate assistance by man, or would occur had it not been removed through past management. For trees and shrubs in ROI, usually taken to mean those present after post-glacial recolonisation and before historic times. Some species are only native in particular regions. Differences in characteristics and adaptation to conditions occur more locally – hence ‘locally native’.
Natural cycles	Nutrient and mineral cycling as a result of interactions between soils, water, plants, and animals in forest environments that affect the ecological productivity of a given site.
Natural Forest	Forest areas where many of the principal characteristics and key elements of native ecosystems such as complexity, structure and diversity are present, as defined by FSC approved national and regional standards of forest management.
Natural reserve	Any designated conservation area, <i>e.g.</i> NHA, SAC, SPA.

Non-timber forest products	All forest products except timber, including other materials obtained from trees such as resins and leaves, as well as any other plant and animal products.
Other forest types	Forest areas that do not fit the criteria for plantation or natural forests and which are defined more specifically by FSC-approved national and regional standards of forest stewardship.
Permissive (access/use)	Use by permission whether written or implied, rather than by right.
Pesticides	This term covers products used to control plant and animal populations and therefore includes herbicides.
Plantation	Forest where the current trees have been planted. Often includes naturally regenerating trees as well. Includes former semi-natural woodlands restocked by planting.
Precautionary approach	Tool for the implementation of the precautionary principle.
Provenance	Location of trees from which seed or cuttings is collected. Designation of Regions of Provenance under the Forest Reproductive Materials regulations is used to help nurseries and growers select suitable material. The term is often confused with 'origin', which is the original natural genetic source.
Primary Species	Species of highest percentage in plantation/management unit.
Recreation	Activity of experience of the visitor's own choice within a forest setting. (Facilities may sometimes be provided and charges levied for their use). See also 'access'.
Regeneration	Renewal of a forest through planting or natural regeneration.
Retentions	Trees retained, usually for environmental benefit, significantly beyond the age or size generally adopted by the owner for felling.
Rideline	Permanent unsurfaced access route through a forest, usually separating compartments.
Semi-natural woodland.	In the ROI context, woodland composed in the main of native trees and shrubs that derive from natural seedfall and/or coppice with the probability of some infill planting of exotic and/or naturalised species at one time or another.
Secondary species	All other tree/shrub species in a plantation/management unit other than the primary species.
Shelterwood	The shelterwood system involves the felling of a proportion of trees within an area whilst leaving some trees as a seed source and shelter for natural regeneration. The seed trees are subsequently removed.

Silviculture	The techniques of tending and regenerating forests and harvesting their physical products.
Small coupe felling	A silvicultural system intermediate between a group selection or shelterwood system and a clear-felling system. The system is imprecisely defined by coupes are typically between 0.5 ha and 2.0 ha in extent, with the larger coupes elongated in shape so the edge effect is still high.
Snag	A standing dead tree that may or may not lost its top.
Succession	Progressive changes in species composition and forest community structure caused by natural processes (nonhuman) over time.
Tenure	Socially defined agreements held by individuals or groups, recognized by legal statutes or customary practice, regarding the "bundle of rights and duties" of ownership, holding, access and/or usage of a particular land unit or the associated resources there within (such as individual trees, plant species, water, minerals, <i>etc.</i>).
Thinning	A temporary reduction in standing volume made after canopy closure to promote growth and greater value in the remaining trees.
Threatened species	Any species which is likely to become endangered within the foreseeable future throughout all or a significant portion of its range.
Underplanted	Conifers have been introduced in areas where the canopy is currently dominated by semi-natural species.
Use rights:	Rights for the use of forest resources that can be defined by local custom, mutual agreements, or prescribed by other entities holding access rights. These rights may restrict the use of particular resources to specific levels of consumption or particular harvesting techniques.
Watercourse	Streams and rivers. References to forestry practice on adjacent land should be taken as applying also beside waterbodies, <i>e.g.</i> ponds and lakes.
Windthrow	Uprooting of trees by the wind.
Windthrow risk	A technical assessment of risk based on local climate, topography, site conditions and tree height.