

# FSC Irish Forest Stewardship Standard

FSC-STD-IRL-012012- Irish Forest Stewardship Standard-EN

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# Introduction

## 1. Preface

### 1.1 The Forest Stewardship Council

Forest Stewardship Council (FSC) is an independent, non-governmental, not-for-profit organization established to promote the responsible management of the world's forests. FSC is widely regarded as one of the most important initiatives of the last decade to promote responsible forest management worldwide. Products carrying the FSC label are independently verified to assure consumers that they come from forests that are managed to meet the social, economic and ecological needs of present and future generations. FSC is active in more than 45 countries worldwide.

Forests are an enormously important natural resource, and can provide us with products (such as timber and paper) as well as generally undervalued but vital 'ecosystem services' (such as flood control, climate regulation, and carbon sequestration) if managed appropriately.

However, in some countries as much as 80% of the timber is harvested illegally. This often violates human rights and destroys protected forests. Poor management of plantations can also cause significant environmental problems. Certification helps to combat these problems by pursuing social engagement, good environmental performance, and economic viability, the elements of sustainability.

The process of choosing to be audited for FSC forest management certification is voluntary and can only be initiated by the forest owners/managers. It is the management of the forest that is assessed (and not the current condition of the forest). FSC certification is open to all enterprises regardless of their starting point. Thus, the important issue with regard to certification is the steps taken by the forest owner/manager to continuously improve the forest management in accordance with the goals described in the Management Plan.

For further information, please visit: [www.fsc.org](http://www.fsc.org)

### 1.2 What is Forest Stewardship Council (FSC) forest certification?

Forest managers or owners who want to prove that their forest operation is socially beneficial, and managed in an environmentally appropriate and economically viable manner, can apply for Forest Stewardship Council (FSC) certification.

FSC certification offers forest managers rewards for managing their forests the FSC way - following high social and environmental criteria. In some instances rewards can be in the form of price premiums. But increasingly, FSC certification is rewarded with improved access to environmentally sensitive markets. Also, increasingly governments and leading businesses specify FSC certified materials in their purchasing programs.

The FSC Principles and Criteria describe how the forests have to be managed to meet the social, economic and environmental needs of present and future generations. They include managerial aspects as well as environmental and social requirements. FSC-accredited certification bodies certify and audit each individual forest management operation at least once a year. If the forest management is in full compliance with FSC requirements, the FSC certificate is awarded. If minor non-compliances are noted, the certificate can be issued with conditions that have to be met within a clearly determined time frame. If the forest management is not fully compliant with FSC requirements, pre-conditions are noted which have to be fulfilled before the FSC certificate can be awarded.

The certificate lasts for five years, with annual checks by the certification body. If, during these audits, the certification body finds that an FMU has non-compliances with FSC requirements, Corrective Action Requests (CARs) are issued and the company is required to make the prescribed changes within a given time frame or it will lose its FSC certificate. Depending on the seriousness of the infringement, the time can vary from one year for minor administrative infringements to three months or less for major infringements.

To trade forest products with the FSC logo, the forest manager or owner must also obtain FSC "Chain of Custody" certification. The timber can then carry the FSC label, ensuring that it comes from a well-managed forest and providing a credible link between responsible production and consumption of forest products.

### 1.3 Interpretation of the Standard

"FSC and FSC-accredited certification organizations will not insist on perfection in satisfying the Principles and Criteria. However, major failures in any individual Principles will normally disqualify a candidate from certification, or will lead to de-certification. These decisions will be taken by individual certifiers, and guided by the extent to which each Criterion is satisfied, and by the importance and consequences of failures. Some flexibility will be allowed to cope with local circumstances." (FSC 01-001)

For further information, please visit: [www.fsc.org](http://www.fsc.org).

### 1.4 FSC Ireland, the FSC National Initiative in Ireland

FSC Ireland is the trading name of Irish Forestry Certification Initiative Ltd., a company established to develop a national forest management standard in Ireland based upon the principles and criteria of the Forest Stewardship Council (FSC). It is accredited by the Forest Stewardship Council as the National Initiative in Ireland.

The main objectives of FSC Ireland are:

- \* To advance sustainable forest management in Ireland
- \* To develop a certifiable forest management standard for Irish forests based upon the principles and criteria of the Forest Stewardship Council (FSC)
- \* To engage the general public and relevant interest groups in the development of the Irish FSC forest management standard.

As the National Initiative, FSC Ireland also promotes the work and objectives of FSC International in Ireland and assists with information queries from the public and interested parties.

FSC Ireland is a membership based organisation, and membership of FSC Ireland is open to all interested individuals and organisations. As in FSC, members of FSC Ireland are affiliated with one of three chambers: economic, environmental and social.

FSC Ireland is structured and administered according to procedures laid down in its Memorandum and Articles of Association and the Companies Acts. FSC Ireland is directed by a Steering Committee.

For more information, see [www.irishforestcertification.com](http://www.irishforestcertification.com).

## 2. Introduction

### 2.1 Purpose of this Standard

This Standard sets out the necessary steps for forest owners and manager to achieve and maintain Forest Stewardship Council (FSC) certification for their forest. Accredited "Certification Bodies" evaluate forest management practices according to the Standard. In order to become FSC-certified in Ireland, management of an FMU must comply with this Irish FSC Standard.

The FSC Principles and Criteria for Forest Stewardship (February 2000) provide an internationally recognised standard for responsible forest management. However, any such international standard for forest management needs to be adapted at the regional or national level in order to reflect the diverse legal, social and geographical conditions in different parts of the world. The FSC International Principles and Criteria therefore require the addition of indicators that are adapted to regional or national conditions in order to be implemented at the forest management unit (FMU) level. The FSC Principles and Criteria together with a set of indicators accredited by FSC constitute an FSC Forest Stewardship Standard.

This Standard follows the requirements of FSC-STD-20-002 Structure and content of forest stewardship standards (November 2004). This is required to improve consistency and transparency in certification decisions between different certification bodies in the region/nation and in different parts of the world, and thereby to enhance the credibility of FSC certification as a whole.

In many instances, this standard details specific requirements regarding minimum areas where ecological and social objectives are to be prioritized. While this is necessary to protect and enhance ecological and social functions of forests it does not mean that these areas should be considered economically "sterile". Similarly and importantly, neither does it mean that in other areas where the economic function is prioritized, ecological and social functions are disregarded. It is the intention of the standard to promote good forestry practice throughout the FMU and to ensure that the different functions are managed sustainably and collectively in time and space and not compartmentalized to different areas of the FMU.

## 2.2 Scope

This Standard is applicable to all forest operations seeking FSC certification for FMUs within Ireland.

The Standard is applicable at "forest management unit" (FMU) level. This may comprise:

- a single forest property with one owner, or;
- a number of forest properties with one owner.

Accordingly, the FMU refers to the total forest area within the concerned property/properties.

The majority of Indicators apply to all FMUs, small and large. Some additional Indicators relate only to large FMUs (over 200 ha). These indicators for large forests primarily relate to additional administrative requirements associated with forest management. The Standard is written in such a way as to ensure delivery of social, environmental and economic objectives in all certified forests as per FSC International's Principles and Criteria. These indicators for large forests are denoted with the suffix "L" e.g. 8.5.3L.

Parkland and hedgerow trees may be included in a certificate provided that the owner/manager has a written policy and plans for managing them.

While it is possible for owners of small forests to have individual certification, it is likely they will participate in group certification schemes, as is the norm among European forest owners (where xxx% of certified small forest owners participate in group certification schemes). This is a practical and cost-effective means of achieving certification. (see FSC International's online resource centre: <http://www.fsc.org/publications.html> ).

Endorsing this forest Standard does not mean that the evaluation process has stopped. On the contrary it has only started. A forest Standard has to be continually evaluated and revised every 5 year to accommodate new knowledge and stakeholder feedback. We therefore encourage your active participation in the ongoing discussion in the spirit of FSC.

## 2.3 Background information on the standard setting process

This Standard was developed for Ireland following a Workplan registered by FSC and in accordance with FSC-STD-60-006.

Included in the process was announcement of the standard development process, establishment of the Standard Development Group (SDG), training by FSC Global Standards Manager Richard Robertson, analysis of the international Criteria, and drafting of indicators to reflect the aims of the Principles and Criteria for forest management in Ireland. Reference was made to existing literature, including previous draft Standards for Ireland and consultation responses to these. Technical experts were consulted where necessary, to base the indicators on relevant and most up to date science. The standard development process was guided by FSC policy and standard guidelines, including FSC-STD-60-006, FSC-STD-20-002, and the Principles and Criteria (FSC-STD- 01-001).

The SDG was supervised by the Steering Committee of FSC Ireland and facilitated by Dr Harriet Emerson. The SDG scrutinized, discussed, and recommended Indicators based on their range of expertise; reviewed comments submitted by technical experts; and agreed wording on specific aspects to achieve consensus support of all members of the SDG.

The Standard has been tested (field and desk studies) by experienced auditors and has been submitted to the Consultative Forum and wider public for comment for a period of 90 days. The Standard has been revised by FSC Ireland based on feedback from both field testing and public consultation.

FSC International has a set of Principles and Criteria that are universally applicable and not negotiable. The Standard document consists of these ten core 'Principles', under which a number of compliance Criteria are listed. Each national initiative develops Indicators and Verifiers for each Criterion, which detail the necessary measures to deliver the Principles and Criteria. Guidance is provided to clarify the requirements of Indicators where necessary.

The following hierarchy describes the function of each level in this Standard:

Principle - What is wanted

Criterion - What needs to happen

Indicator - What can be measured

Verifier - Where auditors can look for evidence that the forest owner/manager has fulfilled the requirement of the Indicator (Verifiers are examples of how forest owners/managers can demonstrate compliance with particular indicators, they are not prescriptive.)

## **2.4 Revision of the Standard**

This Standard is valid for a period of 5 years from the date of its approval by FSC International. The National Initiative is required to review the Standard every five years and make any necessary amendments to ensure that it delivers the FSC Principles and Criteria effectively, taking into account stakeholder feedback, new knowledge and information, and experience from the previous 5 years of the Standard's operation.

[FSC International is currently in the process of revising the Principles and Criteria. A process for the adjustment of national standards to incorporate any changes will be set out by FSC International at the time that the changes are adopted.]

## **2.5 Disputes relating to the application of the Standard to a particular FMU**

Where disputes arise in relation to the application of the Standard to a particular FMU, this shall first be raised with the owner/manager of that FMU. If this does not result in a satisfactory outcome, the issue shall then be raised with the FSC-approved Certifying Body that has approved the certification of the FMU. Where a dispute remains unresolved, it shall then be referred to FSC International.

## **3. Version of the Standard**

### **3.1 Version**

This is Version 2.2 of the Irish (RoI) Forest Management Standard, agreed in September 2010 by the Standard Development Group and reviewed and agreed in September and October 2010 by the Steering Committee of FSC Ireland. The draft Standard was assessed in the field by an FSC-accredited Certification Body in June 2010, with an earlier desk review by an FSC-accredited Certification Body in the summer 2009. It was agreed by the National Initiative on 13<sup>th</sup> October 2010. This Standard was accepted by FSC International on 8<sup>th</sup> May 2012.

### **3.2 Statement of the Standard Development Group**

This Standard was developed by a 13-member, multi-interest Standard Development Group from early 2009.

## **4. Context**

### **4.1 General description of forestry in Ireland**

As the last ice age receded from Ireland about 10,000 years ago, plants began to grow and animals arrived. Our land area was gradually colonised by trees, initially with species like birch, hazel, mountain ash, whitebeam and alder. Later, forests of pine and oak with mixtures of elm and ash became dominant. Between 5,000 and 7,500 years ago, woodland probably covered about 80% of the country. Man arrived in Ireland about 7,000 years ago to find a country covered in dense woodlands. With the arrival of neolithic man came the beginning of Ireland's deforestation. Forests began to be cleared for fuel wood and agriculture, and gradually large areas of the country became treeless. Climate change coupled with human activity caused the bogs to grow and colonise areas previously covered with forests.

Irish forests used to be home to a number of mammals such as wolves, wild boar and the brown bear which now no longer survive in this country. The extinction of these mammals from Irish shores coincides with periods of forest decline. These and other species still survive happily in other parts of mainland Europe where there is sufficient forest cover to provide them with undisturbed habitat.

The development of large monastic settlements during Ireland's Golden Age (9<sup>th</sup> century) accelerated forest clearance while the Vikings prized Irish timber so highly that they built their biggest long ships from Irish oak. This is thought to be because Irish trees grew to bigger dimensions than those in their native Scandinavian countries. When the Normans came to Ireland in the 12<sup>th</sup> century they introduced permanent agricultural holdings that further changed the landscape of Ireland. Throughout the middle ages there was further woodland exploitation with the result that by the 16<sup>th</sup> century only about 12% of the country was forested.

Following the Tudor plantations in Ireland and associated rebellions, forest cover fell again. However, by the middle of the 18<sup>th</sup> century owners of large estates, which were now occupied by descendants of government assisted settlers or “planters”, began to realise the value of tree cover and forest management both as a long term economic activity and as a means of enhancing the beauty of their surroundings. These estates developed grandiose planting schemes for woodlands, avenues and parkland and were assisted in doing so by the Royal Dublin Society which administered a grant scheme at the time for tree planting. However, the demise of the great estates following the land acts at the end of the 19<sup>th</sup> century left Ireland with less than 1% forest cover by the beginning of the 20<sup>th</sup> century.

Modern Irish forestry began in 1904 when the Department of Agriculture and Technical Instruction purchased Avondale, Co. Wicklow and used it as a forest experimental station. During the first 75 years of the 20<sup>th</sup> century, forestry in Ireland was mainly state controlled with the aims of halting Ireland's deforestation and decreasing Ireland's timber dependency. Afforestation progress was initially slow and in 1951 there was still less than 2% of Ireland under woods and plantations. In 1948 a target of 10,000 ha per annum was set and this was reached in the 1960's at a time of great activity in land acquisition and state forest planting. With the advent of the Common Agricultural Policy in the early 1970s, much of the land source for state afforestation projects dried up. However, by the 1980's the State afforestation programme had succeeded in raising the national level of tree cover to over 7%. Because State afforestation was restricted to lands considered to be unsuitable for agriculture, most of the land planted during this era was mountainous, peaty or very wet. The main commercial tree species planted during the 20<sup>th</sup> century in Irish forests came from western North America which has a similar climate to ours: Sitka spruce, Douglas fir and Lodgepole pine being the principal tree species.

The mid 1980's saw a dramatic increase in privately owned afforestation projects with the introduction of a series of European Union and State funded programmes to promote private, and in particular farm, sector involvement in forestry as an alternative to traditional agricultural enterprises. These programmes, which continue today, provided capital grants to largely cover the cost of establishing new forests, combined with annual premium payments to provide landowners with a replacement income from their land while awaiting their initial timber harvest. From 1980 on, grant aided private or farm forestry grew to the extent that today it is the dominant player in afforestation. This period marked the most rapid expansion in Irish forests since the foundation of the state, with forest cover now accounting for over 10% of Ireland's land area. In 1980, private forestry consisted of a small number of privately owned estates while today there are over 15,000 farmers with forest enterprises. The recent focus on farm forestry has yielded a significant improvement in the quality of land being planted. With better quality land available and additional environmental controls in place, it has been possible to establish a more diverse range of tree species, both coniferous and broadleaved. Today, about 30% of all new planting is comprised of broadleaved species such as oak, ash, beech and sycamore.

In 1989 Coillte, the semi-state forestry company, was established and charged with the commercial and sustainable management of over 400,000 hectares of public forests. Other areas of non-commercial but ecologically important woodlands were put under the charge of the Department of Environment and Local Government. Also at this time, the Forest Service, now in the Department of Agriculture, Fisheries & Food, continued in its role as the forest authority and regulatory body for the industry. This role also involves the administration of all forestry grant schemes and the regulation of tree felling licences.

Ireland still has the lowest forest cover in Europe (10% compared to a European average of over 30%). Government policy is to bring the national forest cover to 17% by 2030.

## **4.2 List of members of the committee that prepared the Standard**

This Standard was developed by a 13-person Standard Development Group representing Environmental, Social, and Economic interests, under the aegis of the FSC Ireland Steering Committee. The Standard Development process was facilitated by a professional facilitator (Dr Harriet Emerson).

### Environmental chamber

- Siobhán Egan, Birdwatch Ireland/ Cliona O'Brien, Heritage Council\* (shared seat)
- Dr Ruth McGrath, VOICE/IPCC
- Dr Evelyn Moorkens, Evelyn Moorkens and Associates
- Anja Murray, An Taisce

### Economic chamber

- Dr Mick Keane, Coillte
- Steven Meyen, Teagasc
- Geraldine O'Sullivan, Irish Farmers' Association
- Paddy Purser, Purser Tarleton Russell Ltd.

### Social chamber

- Kevin Birchall, Tree Care Ireland
- Dr Sasha Bosbeer, Galway Mayo Institute of Technology (GMIT)
- Helen Lawless, Wicklow Uplands Council
- Peter Sweetman, The Swans and the Snails Ltd.

\* Cliona O'Brien withdrew from the process in March 2009 as a result of it taking more time than had been originally anticipated, which could not be balanced with existing commitments.

Helen Lawless also resigned at this time as a result of changed economic circumstances and organization demands within the Wicklow Uplands Council.

### **4.3 List of Steering Committee members who helped to agree the Standard**

Forest Stewardship Council of Ireland Steering Committee members have also had an important role in the preparation of this standard. These contributors include:

- Dr. Declan Little, Woodlands of Ireland
- Tony Mannion and Pat O'Sullivan, Society of Irish Foresters
- John Jackson, Donegal Woodland Owners Society Limited
- Dr. Fran Igoe, Shannon Regional Fisheries Board
- Oisín Naughton, Inland Fisheries Ireland
- Monica Muller
- Camilla Keane and Caoimhe Muldoon, An Taisce
- Maria Cullen

Many thanks to all of those who took part as Steering Committee members in the preparation of an Irish FSC forest management standard.

### **4.4 List of key consultants and advisors who assisted the committee**

The following is a list of professionals consulted for advice on different aspects of the Standard:

- Prof. Fergus Kelly, School of Celtic Studies, Dublin Institute of Advanced Studies – customary rights
- Oisín Sweeney, University College Cork (UCC) - deadwood volumes
- Dr Patrick J. Walsh, Galway Mayo Institute of Technology (GMIT) - integrated pest management
- Dr. Padraic Kenna, National University of Ireland (NUI) (Galway) - customary rights

### **4.5 Associated documentation referenced in the Standard**

The following documentation was used by the Standard Development Group in their work on developing this Irish Standard:

FSC-STD-01-001-V4 International Principles and Criteria  
FSC-STD-01-003 SLIMF Eligibility Criteria  
FSC-STD-20-002 V1 Standard requirements  
FSC-STD-60-006 Draft 4-5 Draft process standard

FSC-ADV-30-901 Interpretation of Criterion 9-2  
FSC-GUI-30-004 Guidance on Principles 2 and 3  
FSC-POL-30-401 (2002) FSC Certification and the ILO Conventions

FSC accredited certification standards:

- Standard for FSC Certification in Denmark
- National Forest Stewardship Standard for Finland
- German Standard for Forest Management Certification
- Swedish Standard for Forest Management Certification
- United Kingdom Standard for Forest Management Certification
- Control Union Generic Standard adapted for Ireland
- Woodmark Generic Standard adapted for Ireland
- Regional Certification Standards for British Columbia, FSC Canada, October 2005, Small Operations Standards
- Certification Standards for Best Forestry Practices in the Maritimes Region, FSC Canada, January 2008, Standard for Small and Low Intensity Forests
- Belgische FSC Standaard and annexes
- Protocol FSC groeps certificering ANB

Draft 3 of the Irish National Standard (2006) and related stakeholder comments  
FSC Survival Guide by Taiga Rescue Network

(All the above, except the earlier Draft version of the Irish National Standard (2006) and associated comments, can be found on FSC International's website [www.fsc.org](http://www.fsc.org))

#### 4.6 Terms and definitions

(those which are crucial to the Standard and are not defined in the FSC Principles and Criteria)

This Standard uses the FSC International definitions, supplemented by definitions from the Oxford English Dictionary. Definitions can be found in the glossary at the end of the Standard, but the following are [particular to this standard and crucial to its understanding:

**Plantations:** Forest areas lacking most of the principal characteristics and key elements of native ecosystems, which result from the human activities of either planting, sowing or intensive silvicultural treatments. (This is a working definition compiled by the SDG for the purposes of applying Principle 10 in Ireland. It is recognised that many plantations exhibit over time characteristics associated with natural forests. For example, some of Ireland's best oak woodlands are, or originated as, plantations, including some of Ireland's SAC woodlands.)

**Natural Forest:** FSC Ireland acknowledges that there are no remaining natural forests in Ireland that have not been influenced by humans. For the purpose of this Standard, natural Forest is defined as areas where many of the principal characteristics and key elements of native ecosystems such as complexity, structure and diversity are present. This includes older plantations where processes and physical structure mimic the complexity of natural forest.

**Large forests ("L"):** For the purpose of this Standard, Large forests are considered to be those over 200 ha in size.

See the glossary for further explanation of terms.

## **5. Hierarchical framework**

The Principles and Criteria in this Standard are international and have been set and agreed by the FSC membership. Under each Criterion are indicators which are interpretations of the Criteria for this region. The Verifiers listed under each Indicator are not mandatory requirements; they comprise guidance for possible sources of verification of the related Indicator for the auditors. Any guidance or applicability notes associated with this Standard are also not mandatory requirements but intended to be informative.

In some places, this Standard refers to Forest Service and other Government best practice guidelines (see Annex 1).

The specific form of words used in this Standard is required by FSC. The verb 'shall' indicates a requirement of the Standard, and "shall not" indicates a prohibition; 'should' and 'should not' indicate a recommendation; 'may' indicates a permitted course of action, and 'need not' indicates that a specified course of action is not a requirement.

The hierarchical framework implements the basic principles described in the introduction to the FSC Principles and Criteria for Forest Stewardship (February 2000):

## Indicators and Verifiers

(**Indicators** highlighted in green involve requirements already present under existing legislation or regulations.)



## 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.

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### Criterion C1.1 Forest management shall respect all national and local laws and administrative requirements.

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#### Indicator 1.1.1

The forest owner/manager is conversant with the implications of, and abides by the relevant national and local laws and administrative requirements. All personnel, including contractors, shall understand and comply with relevant legislation, codes of practice, operational guidelines and other accepted norms or agreements relevant to their responsibilities. (ref. Annex 1)

#### Indicator 1.1.2

If any non-compliance with legal requirements has been identified in the previous five years by either a. the forest owner/manager, or b. in writing by a third party, the forest owner/manager shall have documented, investigated, and (if substantiated) promptly address this. Effective action shall have been taken to prevent recurrence.

*Verifiers (potential sources of information an auditor may find useful in evaluating compliance)*

- documentation (incl. Management Plan)
- interview with manager, staff & contractors

- documentation
- records of correspondence

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### Criterion C1.2 All applicable and legally prescribed fees, royalties, taxes and other charges shall be paid.

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#### Indicator 1.2.1

All applicable and legally prescribed fees, taxes and other charges shall be paid or otherwise up to date. (see Annex 2)

*Verifiers (potential sources of information an auditor may find useful in evaluating compliance)*

- tax clearance certificate
- receipts, VAT return receipts

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### Criterion C 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.

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#### Indicator 1.3.1

The forest owner/manager shall respect the provisions of all relevant binding international agreements to which Ireland is a signatory. (See Annex 4.) In particular they shall be aware of the national and local strategies, and plans, policies or programmes which put these into effect.

*Verifiers (potential sources of information an auditor may find useful in evaluating compliance)*

- interview with forest owner/manager
- Management Plan
- site visit

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**Criterion C 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.**

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**Indicator 1.4.1**

Identified conflicts between laws, regulations and the FSC Principles and Criteria shall be brought to the attention of the certification body, FSC and the involved or affected parties by the forest owner/manager. (See Annex 3) Any actions taken to address identified conflicts shall be documented.

*Verifiers (potential sources of information an auditor may find useful in evaluating compliance)*

- documentation
- records of actions taken

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**Criterion C 1.5 Forest management areas should be protected from illegal harvesting, settlement and other unauthorized activities.**

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**Indicator 1.5.1L**

The forest owner/manager shall protect each FMU from unauthorised activities\*\* and shall have systems for addressing risks identified for each FMU.

*Verifiers (potential sources of information an auditor may find useful in evaluating compliance)*

- record of systems
- consultation with owner/manager and staff
- site visits
- staff training

**Indicator 1.5.2**

In the case of unauthorised activity, the forest owner / manager shall notify the responsible authority and shall document steps taken to prevent recurrence.

- records of unauthorised activity, notifications made, and steps taken
- file of relevant communication, including third party correspondence
- interviews with owner/manager and staff
- consultation with locals
- site visits

**Indicator 1.5.3L**

Where preventative measures have been taken, their effectiveness shall be assessed by the owner/manager and improved where needed.

- records
- a file of unauthorised use and preventative steps taken
- interviews with forest owner/manager
- interviews with staff

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**Criterion C1.6 Forest owner/managers shall demonstrate a long-term commitment to adhere to the FSC Principles and Criteria**

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**Indicator 1.6.1**

The forest owner/manager shall have entered into a long-term written commitment to adhere to the FSC Principles and Criteria throughout the forest cycles/rotations, which shall be included in the Summary of the Management Plan.

**Indicator 1.6.2L**

The forest owner/manager shall take proactive steps to inform staff and interested stakeholders about FSC certification and the long-term management implications of adherence.

*Verifiers (potential sources of information an auditor may find useful in evaluating compliance)*

- Management Plan
- documentation

- interviews with staff / interested stakeholders
  - record of information disseminated
  - Management Plan
-

## 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.

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### Criterion C2.1 Clear evidence of long-term forest use rights to the land (e.g. land title, customary rights, or lease agreements) shall be demonstrated

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#### Indicator 2.1.1

The forest owner shall provide documentation (including associated maps), which clearly identifies the ownership of all the lands and forests in the FMU, public or private. The forest owner shall demonstrate that s/he has all the use rights and/or permissions needed to implement forest management which is compatible with long-term compliance with the requirements of the FSC Principles and Criteria. Any restriction(s) or covenants on the title shall be shown.

#### Indicator 2.1.2

There shall be documentation (including associated maps) that clearly identifies and describes legally established rights of way, tenure or use rights or use permissions applicable to the lands and forests under evaluation.

*Verifiers (potential sources of information an auditor may find useful in evaluating compliance)*

- folio or title deeds
- map

- folio or title deeds (legal rights)
- map
- any other legal documents

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### Criterion C2.2 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.

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#### Indicator 2.2.1

The forest owner/manager shall demonstrate in the Management Plan that all established rights are not infringed, where these exist. (see Criterion 4.4)

#### Indicator 2.2.2

Sites of special cultural or religious significance shall be clearly identified, and recognised and existing public access to these shall be protected by forest owner/managers.

*Verifiers (potential sources of information an auditor may find useful in evaluating compliance)*

- Management Plan
- records of consultation
- discussions with holders of legal rights
- documentation of complaints

- Management Plan
- maps
- historical documentation
- consultation with stakeholders

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**Criterion C.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.

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**Indicator 2.3.1**

The forest owner/manager shall keep a record of and respond constructively to any disputes over tenure claims and use rights that arise, and efforts made to resolve these.

**Indicator 2.3.2L**

The forest owner/manager shall have a documented dispute resolution mechanism in place to resolve disputes over tenure claims and use rights promptly and fairly. The forest owner/manager shall document evidence that he/she has attempted, through dispute resolution mechanisms, all avenues to resolve the issue before any court proceedings arise.

*Verifiers (potential sources of information an auditor may find useful in evaluating compliance)*

- documentation
  - communication with stakeholders
  
  - documented dispute resolution mechanism
  - interviews with stakeholders and forest owner/manager
-

### **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 recognized and respected.**

FSC Ireland considered the working definition adopted by the UN Working Group on Indigenous Peoples (below) and used by FSC in relation to Principle 3: The legal and customary rights of indigenous peoples to own, use and manage their lands, territories, and resources shall be recognised and respected. The text below records FSC Ireland's agreement in relation to this Principle.

#### Definition

*"The existing descendants of the peoples who inhabited the present territory of a country wholly or partially at the time when persons of a different culture or ethnic origin arrived there from other parts of the world, overcame them and, by conquest, settlement, or other means reduced them to a non-dominant or colonial situation; who today live more in conformity with their particular social, economic and cultural customs and traditions than with the institutions of the country of which they now form a part, under State structure which incorporates mainly the national, social and cultural characteristics of other segments of the population which are predominant."*

Working definition adopted by the UN Working Group on Indigenous Peoples.

FSC Ireland considered that there are no clearly identifiable groups of indigenous peoples in Ireland, distinct from the general population, as described in the above definition, whose rights need additional specific protection over and above those delivered in the Standard to the Irish population in general in relation to forestry.

The aspects of this Principle that relate to the local communities' interest in relation to forest management are covered under Principles 2, 4 and 9.

## 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.

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### Criterion C4.1 The communities within, or adjacent to, the forest management area should be given opportunities for employment, training, and other services.

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#### Indicator 4.1.1

When direct or indirect employment (including voluntary activity) or supply contracts arise, the owner/manager shall make efforts to provide opportunities for these to be taken up by workers or service providers from local communities.

#### Indicator 4.1.2

The forest owner/ manager shall make efforts to facilitate access to his/her forest, that does not negatively affect its sustainable and responsible management, for training and educational purposes, and amenity and community initiatives when requested.

#### Indicator 4.1.3

Where access is provided to a third party, the forest owner/manager shall inform them of FSC certification status and the management requirements (to which they must adhere) relevant to their activities on the site. If required, evidence of public liability insurance may be requested by the forest owner/manager.

*Verifiers (potential sources of information an auditor may find useful in evaluating compliance)*

- documentation

- documentation  
- communication with stakeholders

- documentation  
- communication with stakeholders

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### Criterion C4.2 Forest management should meet or exceed all applicable laws and/or regulations covering health and safety of employees and their families.

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#### Indicator 4.2.1

Forest owner/managers and workers shall abide by all relevant health and safety legislation, codes of practice, and industrial guidance (see Annex 1). A contingency plan/ emergency procedure for any accidents shall be in place.

*Verifiers (potential sources of information an auditor may find useful in evaluating compliance)*

- interviews with forest owners/managers, workers  
- training records  
- accessible copies of health and safety legislation, codes of practice and industrial guidance notes  
- discussions with workers  
- site visits  
- documentation

**Indicator 4.2.2**

Forest owner/managers shall promote current health and safety standards and ensure that all workers and/or contractors have had accredited safety training relevant to their duties and have up to date certificates of competence, including evidence of refresher training. (see reference to AFAG 805 in Annex 1).

**Indicator 4.2.3**

The forest owner/ manager shall provide employees, volunteers or family members with personal protective equipment appropriate to the task they have been assigned. All workers, including contractors, shall be prohibited from working without personal protective equipment when required.

**Indicator 4.2.4**

All tools, machines and safety equipment, including personal protective equipment, shall be in safe and serviced condition.

**Indicator 4.2.5**

Forest owner/managers shall record all work-related accidents and deaths of employees in accordance with Health and Safety Authority requirements. Causes of accidents shall be investigated, and a record kept of actions taken to prevent similar accidents in future. A record shall be kept of the implementation of these preventative actions.

**Indicator 4.2.6**

Forest owners/ manager and contractors employing staff shall hold employers liability insurance.

*Verifiers (potential sources of information an auditor may find useful in evaluating compliance)*

- training records, certificate of competence (where appropriate), risk assessment
- interviews with workers - field inspections.
- content of training programs
  
- safety equipment available
- records of equipment allocation
- interviews with staff and contractors
  
- evidence of maintenance of tools, machines and safety equipment
- visual condition of equipment - equipment inspection records
  
- accident book - documentation
- interviews with managers
- evidence that preventative actions are implemented
  
- copies of current insurance policies

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**Criterion C4.3 The rights of workers to organize and voluntarily negotiate with their employers shall be guaranteed as outlined in Conventions 87 and 98 of the International Labour Organisation (ILO).**

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**Indicator 4.3.1**

There shall be no restriction on any staff joining workers' unions or professional associations.

*Verifiers (potential sources of information an auditor may find useful in evaluating compliance)*

- interviews with forest owner/manager and staff
- interviews with forest trade union

**Indicator 4.3.2**

Staff shall have the right to organise, voluntarily negotiate, collectively bargain, and make collective agreements with their employers as outlined in Conventions 87 and 98 of the International Labour Organisation (ILO).

**Indicator 4.3.3**

Staff representatives within the enterprise shall enjoy effective protection against any act prejudicial to them, including dismissal, based on their status or activities as a staff representative or on union membership or participation in union activities, in so far as they act in conformity with existing laws or collective agreements or other jointly agreed arrangements.

**Indicator 4.3.4**

Forest owner/manager shall document, respect and implement agreements reached with the staff in relation to pay and conditions.

*Verifiers (potential sources of information an auditor may find useful in evaluating compliance)*

- interviews with the forest owner/manager and staff
- interviews with the forest trade union

- interviews with the forest owner/manager and staff
- interviews with the trade union
- employment agreements/contract

- documentation
- interviews with staff

**Criterion C4.4 Management Planning and operations shall incorporate the results of evaluations of social impact. Consultations shall be maintained with people and groups (both men and women) directly affected by management operations**

**Indicator 4.4.1**

The forest owner/manager shall work to build and maintain good relations with individuals and groups who are directly affected, by consulting them in advance of significant forest management operations, and will consider their input in order to enhance positive and avoid or reduce negative impacts.

**Indicator 4.4.2**

The forest owner/ manager shall demonstrate how s/he has incorporated consultation responses and the results of evaluation of social impacts into the Management Planning and operations (appropriate to scale and intensity) when required. For large forests there shall be a documented protocol explaining how the consultation process operates.

*Verifiers (potential sources of information an auditor may find useful in evaluating compliance)*

- records/ logs of consultations with local people/ groups
- interviews with local people groups

- Management Plan
- interviews with forest owner/manager
- documented protocol
- interviews with local people / groups / contractors / employees

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**Criterion C4.5 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.**

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**Indicator 4.5.1**

The forest owner/manager shall have considered the potential impacts of the relevant forest operation on the established tenure and use rights, property, resources and livelihoods of local people, and have included mitigation measures to address these in all relevant operational plans.

**Indicator 4.5.2**

The forest owner/manager shall take proactive steps to avoid and/or resolve grievances and shall keep record of and respond constructively to all grievances.

**Indicator 4.5.4L**

The forest owner/ manager shall have a documented dispute resolution mechanism in place to resolve grievances promptly and fairly. The forest owner/manager shall document evidence that s/he has attempted, through dispute resolution mechanisms, all avenues to resolve the issue before any court proceedings arise

*Verifiers (potential sources of information an auditor may find useful in evaluating compliance)*

- Management Plan

- record of consultation

- record of proactive steps taken to avoid grievances

- documented dispute resolution mechanism

- interviews with stakeholders and forest owner/manager

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## 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.

Monitoring data collected under 8.1.1 may also be used to satisfy criteria associated with benefits of the forest .

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### Criterion C5.1 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.

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#### Indicator 5.1.1

The FMU shall comprise (or have a plan that will deliver) a range of species suited to the site\*\* that will contribute to fulfilling the social, economic and environmental objectives in a sustainable manner.

#### Indicator 5.1.2

The FMU shall have an annual budget based on income and expenditure.

*Verifiers (potential sources of information an auditor may find useful in evaluating compliance)*

- Management Plan/management policies
- interviews with forest owner/manager and staff
- recommendations from statutory consultees
- site visit

- documentation

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### Criterion C5.2 Forest management and marketing operations should encourage the optimal use and local processing of the forest's diversity of products.

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#### Indicator 5.2.1

Forest products shall be available to the local market and for local processing, subject to the owner's rights to achieve the best return for product and not prejudicing the rights of owners to enter into collective supply contracts.

*Verifiers (potential sources of information an auditor may find useful in evaluating compliance)*

- record of timber sales
- record of non-timber forest product sales where such sales have occurred
- interviews with staff, local forest initiatives and local forest producer groups if they exist

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**Criterion C5.3 Forest management should minimize waste associated with harvesting and on-site processing operations and avoid damage to other forest resources.**

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**Indicator 5.3.1**

Harvesting Plans are required under Forest Service Harvesting and the Environment Guidelines. These shall be designed to assess site and residual crop damage and harvest waste (taking account of the deadwood requirements of Indicator 6.2.4), and include measures to avoid these.

**Indicator 5.3.2**

To avoid soil and root damage, current best practice shall be used (e.g. brush mats).

**Indicator 5.3.3**

All timber sale contracts shall ensure that harvested wood and processed wood\*\* shall be transported from the forest before loss of economic value occurs (taking account of the deadwood requirements of Indicator 6.2.4).

**Indicator 5.3.4**

Whole tree harvesting shall not take place where significant negative effects on biodiversity (i.e. run-off, leaching, soil compaction and nutrient loss) or forest productivity may occur.

**Indicator 5.3.5**

Contractors and forest workers shall be required, and encouraged through awareness, knowledge transfer, training and guidance, with appropriate penalties for non compliance, to minimise damage to the forest, soils and water, that may occur during forest management operations.

*Verifiers (potential sources of information an auditor may find useful in evaluating compliance)*

- site visits
- Management Plan
- clauses in harvesting contract
  
- site inspection of harvesting site(s)
  
- timber sale contracts
- site visits
  
- site visit of harvesting sites
- documented appraisal where whole tree harvesting is carried out
- Harvest Plans
  
- contracts
- site visits
- documentation

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**Criterion C5.4 Forest management should strive to strengthen and diversify the local economy, avoiding dependence on a single forest product.**

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**Indicator 5.4.1**

The forest owner/manager shall demonstrate that the diversification of forest products and services is being actively incorporated into forest management. S/he shall have as a long-term objective the development of diverse multi-functional forests . (See Criterion 10.3 for delivery) S/he should encourage and endeavour to be supportive of niche markets for, and sustainable harvesting of, diverse forest products.

*Verifiers (potential sources of information an auditor may find useful in evaluating compliance)*

- Management Plan

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**Criterion C5.5 Forest management operations shall recognize, maintain, and, where appropriate, enhance the value of forest services and resources such as watersheds and fisheries.**

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**Indicator 5.5.1**

Forest management operations shall recognise, maintain, and, where appropriate, enhance the value of forest services and resources such as watersheds and fisheries.

*Verifiers (potential sources of information an auditor may find useful in evaluating compliance)*

- Management Plan
- site visit
- documentation

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**Criterion C5.6 The rate of harvest of forest products shall not exceed levels which can be permanently sustained**

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**Indicator 5.6.1**

The planned and actual harvest levels shall not in the medium and long term jeopardise the ability to sustain the forest's productive potential. These shall be revised in any update to the Management Plan based on analysis of growth rates from the forest inventory (See 7.1.2) The forest owner/manager shall have a clear methodology to demonstrate that the rate of harvest is sustainable.

*Verifiers (potential sources of information an auditor may find useful in evaluating compliance)*

- Management Plan
- Forest Inventory (7.1.2)

**Indicator 5.6.2**

The forest owner/manager shall keep clear, accurate and up-to-date records of harvested quantities of all commercial timber species, and of the harvest of any non-timber forest products. The harvesting of Non Timber Forest Products\*\* shall be done on a sustainable basis.

- documentation

## 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

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**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**

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### Indicator 6.1.1

The forest owner/manager shall produce a habitat map\*\* for the FMU as part of the development of the Management Plan (See 7.1.2). This map shall include biodiversity features\*\*\* and actions shall be taken to safeguard these in the Management Plan and marked in operational maps for retention.

### Indicator 6.1.2

The Management Plan shall include a sub-catchment map showing the location of the FMU in the catchment, the status of water quality, and other catchment and landscape level environmental information\*\*.

### Indicator 6.1.3

Prior to all site-disturbing forest operations and activities\*\* as set out in the Management Plan (including on-site processing operations) the forest owner/manager shall:

- identify any potential environmental impacts\*\* resulting from the operation;
- document and implement the specific actions to be taken to avoid, reduce or mitigate negative impacts and enhance positive impacts.

### Indicator 6.1.4L

A documented procedure to review and evaluate potential environmental impacts (identified under Indicators 6.1.3 above) shall be implemented.

*Verifiers (potential sources of information an auditor may find useful in evaluating compliance)*

- habitat survey including map
- Management Plan

- catchment boundary map
- water quality, other environmental data
- Management Plans

- documented assessment
- Management Plan

- documented procedure

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**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.**

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**Indicator 6.2.1**

There shall be an up to date list of the rare, threatened or endangered species\*\* and their habitat that are present and likely to interact with or be impacted by management of the FMU. This list shall be drawn up following consultation with statutory and other appropriate bodies\*\* and following the habitat map (as per 6.1.1) and any further survey work advised by statutory agencies. Source(s) of information shall be identified, and where required competent personnel\*\* undertake additional survey work.

**Indicator 6.2.2**

The Management Plans and other relevant policies and procedures of the forest owner/manager shall clearly identify actions that are taken to maintain or enhance the presence of rare, threatened or endangered species\*\* and their habitats (including ecological corridors) identified in Indicator 6.2.1 above, within the FMU as a whole.

**Indicator 6.2.3**

A minimum of 4m<sup>3</sup>/ha of lying and 4m<sup>3</sup>/ha standing dead wood shall be retained across the FMU. If there is no standing dead wood the equivalent amount shall be retained for natural decay and death and marked for retention.

**Indicator 6.2.4**

Areas designated as, or adjacent to, Special Areas for Conservation, Special Protection Areas, Ramsar Sites, Nature Reserves and/or proposed/Natural Heritage Areas shall be managed in accordance with plans agreed with nature conservation authorities, and these shall be marked on the habitat map (6.1.1) and all operational maps.

**Indicator 6.2.5**

Where the forest owner/manager holds these rights, hunting, fishing and collecting shall be managed in accordance with existing legislation to safeguard the sustainability of the forest, its species and other ecosystems and to protect rare, threatened and endangered species and their habitats.

**Indicator 6.2.6**

Where a known third party holds and utilises the hunting and/or fishing rights, the forest owner/manager shall have informed this third party of FSC requirements and have sought their co-operation in meeting these. This third party shall be made aware of the context of Indicator 6.4.3 and their co-operation sought where it is of relevance in restoring and maintaining 15% of the FMU as a protected area.

*Verifiers (potential sources of information an auditor may find useful in evaluating compliance)*

- list of rare, threatened or endangered species
- maps
- survey, including methodology (where relevant)
- correspondence with statutory and appropriate bodies

- Management Plan

- field visits/survey
- map(s)

- documentation of management agreement
- Management Plans
- EIS

- consultation with staff.
- map
- site visit
- Management Plan/ management policies

- documentation
- correspondence

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**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.**
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**Indicator 6.3.1** (ref: Criterion 6.3a)

At all design stages\*\* the management and silvicultural systems shall aim to reflect natural patterns of regeneration and succession\*\* to enhance, maintain or restore the ecological functions and values of the FMU. (See 8.2.4)

**Indicator 6.3.2** (ref: Criterion 6.3a)

Where natural regeneration and succession is occurring it shall be encouraged and enhanced by the forest management system, unless this is damaging to the management objectives of the FMU or the integrity of the habitats identified in Criterion 6.1.1.(See 8.2.4) (See Criterion 10.3 for species diversity issues in monoculture plantations.)

**Indicator 6.3.3** (ref: Criterion 6.3b)

All forest operations shall be designed and managed to maintain, enhance, or restore ecological functions of catchments (both land and water habitats, including wetlands). In FMUs in catchments that are naturally oligotrophic or ultraoligotrophic\*\* or contain protected aquatic species particular care will be taken to ensure that siltation and nutrient enrichment do not occur.

**Indicator 6.3.4** (ref: Criterion 6.3b)

Site-adapted and diverse forest fringes (internal and/or external to the forest) shall be established or maintained using native tree or shrub species characteristic to the region. The latest Forest Service Forestry and the Landscape Guidelines shall be applied. Forest fringes shall be managed to function as an ecological connection between the forest and open areas.

**Indicator 6.3.5** (ref: Criterion 6.3b)

Any plant species recognised as invasive\*\* shall be recorded by the forest owner/manager, and action shall be taken to control these through planned management operations (in compliance with Criterion 6.6).

**Indicator 6.3.6** (ref: Criterion 6.3b)

Forest cover shall be maintained throughout the forest cycle in at least 5% of the FMU area in order to maintain a refuge of forest flora and fauna.

**Indicator 6.3.7** (ref: Criterion 6.3b)

*Verifiers (potential sources of information an auditor may find useful in evaluating compliance)*

- site visits
- Management Plan
- documentation
  
- field visits
- Management Plan
  
- Management Plan
- site visits
- reference to species identified in 6.2.1 and 6.2.2
  
- field inspection.
- Management Plan
  
- site visit
- Management Plan
  
- site visit
- Management Plan

Biodiversity features\*\* as identified in 6.1.1 shall be systematically retained and protected (e.g. through appropriate buffer zones) throughout the production area of the FMU.

**Indicator 6.3.8** (ref: Criterion 6.3b)

Attempts shall be made to restore valuable habitats\*\* (as identified in 6.1.1) which have been colonised, planted or incorporated into plantations, but which have retained their characteristics (or have a high potential to be restored), in a manner that does not lead to further loss of biodiversity or cultural value.

This may require approval from the Forest Service for a derogation from the current obligation to replant areas after final harvesting, as per Principle 1.

This indicator does not apply in cases where the derogation involves repayment of any grant aid and/or farm premium, and substantial restoration or replacement costs, by the forest owner.

**Indicator 6.3.9** (ref: Criterion 6.3b)

Where established native tree species exist within the FMU they shall not be replaced with exotic tree species (See Criterion 10.4 for genetic, species and ecosystem diversity within plantations).

**Indicator 6.3.10** (ref: Criterion 6.3b)

Where native species are used in an FMU, indigenous genetic stock shall be used where available\*\* and retained throughout the rotation. Plans and implementation of this shall be outlined in the Management Plan.

**Indicator 6.3.11** (ref: Criterion 6.3c)

Site preparation and harvesting methods shall be designed to minimise compaction and other damage to soil, so as not to compromise the overall long-term ecological functions (including timber productivity) of the forest ecosystem. (See Criteria 5.3 and 6.5 )

**Indicator 6.3.12** (ref: Criterion 6.3c)

Current best practice for on-site brush management\*\* shall be implemented. Brush shall not be removed off site unless it has been clearly established that the relevant forest ecosystem will not be adversely affected.

**Indicator 6.3.13** (ref: Criterion 6.3c)

There shall be no use of fertilisers within the forest or plantation area, other than as a measure to achieve canopy closure. (See Criterion 5.1.1 on use of tree species appropriate to the site and indicators 6.3.3 re: maintaining, protecting and enhancing

- site visits  
- Management Plan - maps  
*Verifiers (potential sources of information an auditor may find useful in evaluating compliance)*

- site visits  
- Management Plan  
- documentation  
- survey in Criterion 6.1.1

- Management Plan/management policies.  
- reforestation plans  
- field inspection.

- records of provenance  
- Management Plan

- Management Plan  
- site visits  
- reference to water monitoring data from Principle 8

- harvest plan  
- Management Plan  
- documentation  
- site visits  
- current best practice documentation

- records of fertiliser applications  
- site visits

ecological functions of catchments and 10.6.1 re: water quality)

**Indicator 6.3.14** (ref. Criterion 6.3a, b & c)

Where deer are present within the FMU the forest owner/manager shall actively seek to co-operate with statutory authorities, neighbouring landowners and stakeholders in drawing up and effecting local and regional deer management plans\*\*.

- foliar analysis results
- documentation
- Management Plan
- interviews with forest owner/ manager & stakeholders

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**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.**

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**Indicator 6.4.1**

The forest owner/manager shall conserve within the FMU representative samples of existing ecosystems\*\* that occur within the wider landscape (identified in Indicator 6.1.1). These shall be managed for conservation, but they need not be non-intervention areas (e.g. hazel coppice, hedgerow, etc.), where intervention is to ensure their protection or conservation for long-term retention.

**Indicator 6.4.2**

Management prescriptions associated with Criteria 6.2, 6.3 and 6.4 shall be implemented and adapted as necessary, based on monitoring under Principle 8 below.

**Indicator 6.4.3**

Where the total area protected as per Criteria 6.2, 6.3 and 6.4 is less than 15% of the FMU, the forest owner/manager shall restore areas of land to reach this percentage.

*Verifiers (potential sources of information an auditor may find useful in evaluating compliance)*

- designation and maps in Management Plan

- site visits
- documentation of actions taken

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**Criterion 6.5 Written guidelines shall be prepared and implemented to: control erosion; minimize/se forest damage during harvesting, road construction, and all other mechanical disturbances; and protect water resources.**

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**Indicator 6.5.1**

The latest Forest Service suite of guidelines and COFORD Forest Roads Manual shall be adhered to at all times.

*Verifiers (potential sources of information an auditor may find useful in evaluating compliance)*

- reflection of guidelines in Management Plan
- site visits

**Indicator 6.5.2**

The operational plans shall include specific provisions to prevent erosion by identifying and marking on operational maps areas which are susceptible to erosion/slippage, and in which practices must ensure no increased erosion or reduction in soil stability (which could impact adjacent ecosystems). These maps shall be disseminated to appropriate personnel including contractors.

- operational plans

**Indicator 6.5.3**

All phases in the design, construction and maintenance of forest roads or tracks, bridges and other infrastructure within the FMU shall be carried out in a manner that will minimise any negative impacts on the environment. This includes any ongoing measures needed to minimise soil erosion and disturbance to drainage patterns. Environmentally appropriate materials that minimise damage to the surrounding environment, including aquatic habitats, shall be used. The rationale of road design and management shall be presented in the Management Plan.

- records of consents  
 - Environmental Impact Assessment (where required)  
 - Management Plan, policies  
 - documentation of decision making procedure for selection of materials used for construction  
 - record of materials used for construction

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**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 Organization 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 minimize health and environmental risks.**

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**Indicator 6.6.1**

The forest shall be monitored for forest invertebrate pests, tree diseases and invasive species, in order to enable early detection of these before they become established. The forest owner/manager shall co-operate in any national programme monitoring invasive and emergent pests and diseases as well as mammal damage. (Refer to Criterion 7.3, link to Principle 8)

*Verifiers (potential sources of information an auditor may find useful in evaluating compliance)*

- discussion with forest owner/manager  
 - documentation  
 - record of correspondence

**Indicator 6.6.2**

Any forest pests and diseases, including those recognised as invasive, shall be recorded by the forest owner/manager, reported to the relevant authorities, and action shall be taken to control these according to best national or international practice. (Precautions to avoid accidental introduction of forest pests and diseases should be taken by acquiring biological material from trusted/certified sources.).

- documentation  
 - Management Plans

**Indicator 6.6.3**

Management systems shall promote the adoption of environmentally friendly non-chemical methods of pest management and strive to avoid the use of chemical pesticides. Forest owners/ managers shall prepare and implement an effective plan for the minimisation of chemical pesticide use as part of an integrated pest management approach.

- documentation  
 - Management Plan

**Indicator 6.6.4**

Silvicultural practices that minimise the incidence and impact of forest pests shall be adopted as part of an integrated pest management approach.

#### **Indicator 6.6.5**

If the forest owner/manager intends to use chemical pesticides then they shall comply with the following indicators for their use.

- documentation
- interviews with forest owner/manager
- site visit

*Verifiers (potential sources of information an auditor may find useful in evaluating compliance)*

##### **Indicator 6.6.5.1**

Chemical pesticides shall only be used when there is no effective and financially viable alternative action.

- documentation

##### **Indicator 6.6.5.2**

The forest owner/manager shall have an up-to-date copy of FSC's list of 'highly hazardous' chemical pesticides, and of any derogations that have been approved and are applicable in Ireland.

- FSC's list of "highly hazardous" pesticides
- Material Safety Data Sheets (MSDS)
- list of nationally approved pesticides'

##### **Indicator 6.6.5.3**

The forest owner/manager shall document how any proposed chemical pesticide use may affect the achievement of the environmental, social and other objectives of the Management Plan. Actions shall be taken to minimise and negative effects in this regard. Where potential impact(s) on protected species are identified this shall prohibit the use of chemical pesticides. (see Principle 1)

- documentation

##### **Indicator 6.6.5.4**

There shall be no storage or use of any chemical pesticide included on FSC's list of 'highly hazardous' chemical pesticides within the FMU, unless the forest owner/manager/enterprise is subject to a current FSC chemical pesticide derogation for the pesticide concerned.

- derogation
- documentation

##### **Indicator 6.6.5.5**

The forest owner/manager shall maintain complete and up to date records of all chemical pesticide usage, including trade name, active ingredient(s), quantity of active ingredient used, date of use, location of use, reason for use, and the names of persons involved in the use.

- documentation

##### **Indicator 6.6.5.6**

Chemical pesticides shall be used in minimum effective quantities, and with strict observation of controls and regulations relating to use.

- documentation
- interviews with staff and contractors

**Indicator 6.6.5.7**

All staff and contractors involved in chemical pesticide use shall have received accredited training in handling, application and storage procedures.

- documentation
- training records
- interviews with staff and contractors

**Indicator 6.6.5.8**

All staff and contractors involved in chemical pesticide use shall use proper safety equipment (e.g., spray suits, gloves, eye protection, dust masks, etc.).

- interviews with staff and contractors
- availability of proper safety equipment

**Indicator 6.6.5.9**

Where access to the forest is provided to the public, dated notices shall be posted to inform the public of chemical pesticide use.

- site visits
- documentation
- interviews with forest owner/manager and staff

**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.**

**Indicator 6.7.1**

The forest owner/manager shall ensure that a record is kept\*\* of the disposal of chemicals, containers, liquid and solid non-organic waste products including fuel and oil waste, that shall include the following:

- the name/ type of the materials
- how they are safely stored
- the quantity/volume of materials
- how they are safely transported to legal disposal sites
- the name and location of the legal disposal sites
- the date of delivery to such sites

This record shall include disposal of waste from the FMU by contractors or other third parties.

- waste management record

**Indicator 6.7.2**

There shall be a documented procedure, supported by training and materials, for controlling and cleaning up chemicals, fuel and oil, in the case of accidental spillage.

- documentation
- Material Safety Data Sheets (MSDS)
- site visits
- inspection of machines
- spillage kits

**Indicator 6.7.3**

A record shall be kept by the forest owner/manager or contractor of all spillages of chemicals, fuel and oil, the actions taken

- documentation

listed, and the outcomes evaluated. The evaluation shall result in the inclusion in the procedure (Indicator 6.7.2) of any recommendations for the revision of the procedure or its implementation.

- site visits

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**Criterion 6.8 Use of biological control agents\*\* shall be documented, minimized, monitored and strictly controlled in accordance with national laws and internationally accepted scientific protocols. Use of genetically modified organisms shall be prohibited.**

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**Indicator 6.8.1**

Genetically modified organisms (GMOs) shall not be used.

**Indicator 6.8.2**

If biological control agents are used, the forest owner/manager shall demonstrate that such use is in strict compliance with national laws and internationally accepted scientific protocols.

**Indicator 6.8.3**

The forest owner/manager shall maintain comprehensive records of the use of biological control agents and make these available for the purpose of the evaluation and monitoring of their effects on both target and non-target species and habitats.

*Verifiers (potential sources of information an auditor may find useful in evaluating compliance)*

- documentation (including provenance certificates)

- documentation  
- interviews with forest owner/manager

- documentation

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**Criterion 6.9 The use of exotic species shall be carefully controlled and actively monitored to avoid adverse ecological impacts.**

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**Indicator 6.9.1**

Exotic species\*\* shall not be newly introduced into the FMU or onto new sites within the FMU unless there is convincing evidence available that species will not become invasive or have adverse ecological impacts at the local level.

**Indicator 6.9.2**

The use of exotic species\*\* shall be carefully controlled and actively monitored to avoid adverse ecological impacts. (See Criteria 8.1 & 8.2 ). If exotic species are found to be invasive, these should be managed as set out in Indicator 6.3.5.

*Verifiers (potential sources of information an auditor may find useful in evaluating compliance)*

- Management Plan  
- research publications  
- site visits  
- records of consultation

- interview with forest owner/manager  
-site visit  
- monitoring

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**Criterion 6.10 Forest conversion to plantations or non-forest land uses shall not occur, except in circumstances where conversion:**

- 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.**
- 

*Note: The 2005 FSC General Assembly Motion 10 determined that "the first word "forest" in Criterion 6.10 shall be interpreted to refer to natural or semi-natural forests rather than plantations.*

**Indicator 6.10.1**

Conversion of natural, semi-natural or designated forests to plantations shall not occur.

**Indicator 6.10.2**

Conversion of natural or semi-natural forests to non-forest land uses shall not occur, except in circumstances where conversion:

- 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.
- Any conversion shall be in line with FSC International Excision policy (FSC-POL-20-003) and in line with Criterion 1.6.

*Verifiers (potential sources of information an auditor may find useful in evaluating compliance)*

- site visit
  
  - site visit
  - maps
  - documentation / demonstration of c)
  - interviews with forest owner/manager
-

## 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.

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**Criterion C7.1** 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.
- 

**Indicator 7.1.1** (ref: Criterion 7.1a)

The Management Plan shall clearly state the short, medium and long term\*\* management objectives for the FMU.

**Indicator 7.1.2** (ref: Criterion 7.1b&h)

The Management Plan shall contain a forest inventory and map(s) for the FMU, including:

- a timber inventory
- a non-timber forest products\*\* and services\*\* inventory
- a statement identifying the key ecosystem services provided by the FMU.

In addition the forest inventory shall include the following information, gathered and mapped under other indicators (as referenced):

- Sites of special cultural, economic and religious significance (2.2.2)
- Habitat map (6.1.1)
- Catchment and boundary map (6.1.2)
- Designated areas (6.2.6)
- Areas protected under 6.4.1 and 6.4.2
- Features of particular significance for conservation (6.2.3).

*Verifiers (potential sources of information an auditor may find useful in evaluating compliance)*

- Management Plan
- documentation

- Management Plan
- forest inventory
- documentation
- map(s)

**Indicator 7.1.3** (ref: Criterion 7.1b)

The Management Plan shall include a description of land use and ownership and use rights status and a description of adjacent lands.

*Verifiers (potential sources of information an auditor may find useful in evaluating compliance)*

- Management Plan  
- documentation

**Indicator 7.1.4** (ref: Criterion 7.1c)

The Management Plan shall describe the silvicultural system(s) (including planned felling and regeneration) to be employed to achieve the management objectives. The choice of silvicultural system shall be based on an identification of potential environmental impacts, to ensure that this will not adversely impact on the environment. A justification for the selected system(s) based on the ecology of the forest, the forest inventory (7.1.2) and the management objectives shall be included in the Management Plan.

- Management Plan  
- documentation

**Indicator 7.1.5** (ref: Criterion 7.1d & i)

The Management Plan shall incorporate a Harvesting Map and forecast (see 4.4.2 and Forest Service Guidelines) where harvesting operations are planned. The Harvesting Map and forecast shall state the planned harvest volumes per annum for the management period and per species selected, and a rationale for these with reference to Indicators 7.1.1 & 7.1.2. It shall provide description and justification of the proposed harvesting techniques and associated equipment to be used. The planned harvest volumes shall be in keeping with requirements under Criterion 5.6.

- Management Plan

**Indicator 7.1.6** (ref: Criterion 7.1e)

The Management Plan shall include provision for the monitoring of forest regeneration, growth and dynamics and record these as described under Criterion 8.2.

- Management Plan

**Indicator 7.1.7** (ref Criterion 7.1f)

Management prescriptions and monitoring shall be specified in the forest Management Plan and other documents in order to protect the representative examples of ecosystems within conservation zones in their natural state and in the long term.

- Management Plan

**Indicator 7.1.8** (ref: Criterion 7.1f)

The Management Plan shall specify environmental safeguards (including fire plans in fire prone areas -Indicator 10.7.2, deer management plans, erosion and siltation control, etc.).

- Management Plan

**Indicator 7.1.9** (ref: Criterion 7.1g)

The Management Plan shall state how protection measures for any rare, threatened or endangered species and their habitats, identified in Criterion 6.2, are incorporated into the Plan.

- Management Plan

**Indicator 7.1.10** (ref: Criterion 7.1h)

Management Plans shall include a landscape design plan in accordance with Forest Service Guidelines (see 6.3.2, 6.5.1 and 10.2).

*Verifiers (potential sources of information an auditor may find useful in evaluating compliance)*

- Management Plan
- landscape design plan
- maps

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**Criterion C7.2 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.**

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**Indicator 7.2.1**

The Management Plan shall be reviewed at least every 5 years and updated as necessary.

*Verifiers (potential sources of information an auditor may find useful in evaluating compliance)*

- Management Plan

**Indicator 7.2.2**

Where the Forest Inventory (Indicator 7.1.2) in the Management Plan provides estimates of productivity that are different from previous estimates in previous Management Plans, these shall be highlighted and explained.

- forest inventory/ies
- Management Plan

**Indicator 7.2.3**

The Management Plan shall at each review, incorporate the results of any monitoring within or relevant to the FMU (Criterion 8.4). This shall include experience gained or observations made by the forest owner/manager.

- Management Plan
- record of monitoring

**Indicator 7.2.4**

The Management Plan shall at each review, incorporate any new scientific or technical knowledge that has been adopted as good practice by relevant authorities since the previous review.

- Management Plan
- record of monitoring showing sources of new scientific or technical knowledge
- evidence of review of new scientific and technical information
- subscription to owner organisations (e.g. ITGA or IFA Forestry section) or being on COFORD mailing list
- participation in continuing professional development programmes

**Indicator 7.2.5**

The Management Plan shall at each review, identify any relevant change in social, environmental or economic circumstances, and adjust the Management Plan accordingly.

- Management Plan
- documentation

**Indicator 7.2.6**

Operational procedures and training shall be kept up to date to incorporate any changes as identified in Indicators 7.2.3, 7.2.4 and 7.2.5.

- documentation
- interviews with Staff

**Indicator 7.2.7L**

The forest owner/manager shall have a formal system to identify and review new scientific and technical information that is relevant to its forest management. Where such information exists this shall have been taken into account in the most recent revision of its Management Plan and supporting documents.

- documentation
- Management Plan
- interviews with staff
- subscription to owner organisations (e.g. ITGA or IFA Forestry section) or being on COFORD mailing list
- participation in continuing professional development programmes

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**Criterion C7.3 Forest workers shall receive adequate training and supervision to ensure proper implementation of the Management Plan.**


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**Indicator 7.3.1**

Forest owner/managers shall have qualifications, training and/or experience to ensure that they are able to plan, organise and supervise their forestry operations and associated environmental management including recognition of biodiversity areas and features identified in P6.

*Verifiers (potential sources of information an auditor may find useful in evaluating compliance)*

- documentation
- evidence of continuous professional development of managers
- interviews with forest owner/managers

**Indicator 7.3.2**

All personnel (including contractors and their employees) shall have up-to-date training and competence, to implement the tasks they are assigned properly, effectively and safely, and with due care to environmental and social issues, including recognition of biodiversity areas and features identified in Principle 6.

- documentation (including Certificates of Competence)
- site visit
- interviews with staff

**Indicator 7.3.3L**

For each forest operation a designated works manager\*\* shall be responsible for ensuring proper implementation of that operation.

The quality of this work shall be effectively monitored by the forest owner/manager.

- documentation
- visits to working sites
- discussions with staff/contractors

**Indicator 7.3.4L**

The forest owner/manager shall implement a documented system to identify the skills and training needs of its staff, and provide or support an ongoing training programme for its staff to meet these needs. The forest owner/manager shall ensure that contractors and their staff are sufficiently trained (with up to date records available) for the tasks for which they are contracted.

*Verifiers (potential sources of information an auditor may find useful in evaluating compliance)*

- documentation
- discussions with staff / contractors

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**Criterion C7.4 While respecting the confidentiality of information, forest owner/managers shall make publicly available a summary of the primary elements of the Management Plan, including those listed in Criterion 7.1.**

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**Indicator 7.4.1**

A summary of the Management Plan shall be prepared which includes the primary elements of the Management Plan as listed in Criterion 7.1, within the accepted norms of commercial confidentiality. The Summary Plan shall include a date for review of the Management Plan.

*Verifiers (potential sources of information an auditor may find useful in evaluating compliance)*

- Management Plan summary

**Indicator 7.4.2**

Consultees (including those identified in Indicator 4.4.1) on the development of the Management Plan will have been notified that a Summary Management Plan will be available on request..

- documentation
- interview with consultees

**Indicator 7.4.3L**

A summary of the Management Plan shall be made publicly available.\*\*

- availability of summary plan (as stated on the Summary Plan)
- website or blog
- newspaper/radio announcement
- interviews with stakeholders
- correspondence

## 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.

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**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.

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### Indicator 8.1.1

Monitoring shall be based on best practice and determined by the scale and intensity of forest management and the relative complexity as well as the fragility of the affected environment. Monitoring shall be documented in a consistent and replicable way over time to allow comparison of results and assessment of change. \*\*

### Indicator 8.1.2

The described methodologies shall be consistent and replicable over time to allow comparison of results and assessment of change. (ref. Criterion 8.4).

*Verifiers (potential sources of information an auditor may find useful in evaluating compliance)*

- documented monitoring protocol and results

- documentation  
- Management Plan

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**Criterion 8.2** Forest management should include the research and data collection needed to monitor, at a minimum, the following indicators:

- 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.
- 

Monitoring data shall be collected and updated as per 8.1.1. Monitoring under 8.2 may be incorporated into other visits by the forest owner/manager or other parties to the forest site. Monitoring data collected by third parties may be used to inform forest management as appropriate.

**Indicator 8.2.1**

The forest owner/manager shall monitor the performance of the Management Plan objectives in terms of:

- a. the effects of forest operations on biological diversity, water resources, soils and unique and fragile ecosystems and landscapes as identified under Principle 6
- b. timber and non-timber forest product yields\*\*
- c. water quality in the FMU and water that leaves the forest property\*\*
- d. impacts on neighbours and/or local communities relevant to forest activities
- e. annual budget estimates
- f. natural regeneration.

*Verifiers (potential sources of information an auditor may find useful in evaluating compliance)*

- monitoring data
- Management Plan
- documentation

**Criterion 8.3 Documentation shall be provided by the forest owner/manager to enable monitoring and certifying organizations to trace each forest product from its origin, a process known as the "chain of custody."**

**Indicator 8.3.1**

There shall be a system in place which allows all products (timber and non-timber) harvested within the FMU to be readily identified, from the time of harvesting through to the point of sale.

*Verifiers (potential sources of information an auditor may find useful in evaluating compliance)*

- documentation
- product inspection

**Indicator 8.3.2**

Harvesting and sales documentation for timber and non-timber products shall show: product, quantity, date of production, production site, forest (FMU) of origin, FSC certification code, destination, and persons/companies involved in processing, sale, and transport of the product.

- documentation
- file with harvesting and timber sales record.
- invoices.
- field inspection

**Criterion 8.4 The results of monitoring shall be incorporated into the implementation and revision of the Management Plan**

**Indicator 8.4.1**

The data collected as a result of the monitoring procedures specified under Criteria 8.1 and 8.2 shall be readily accessible to forest owners/ managers, and in a format which permits the analysis of trends over time.

*Verifiers (potential sources of information an auditor may find useful in evaluating compliance)*

- monitoring results (qualitative)
- monitoring results (quantitative)



## **Principle #9: Maintenance of high conservation value forests**

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

FSC Ireland has agreed to use the current Coillte draft definition for HCVF in Ireland, with a number of amendments (see below). At present this includes only two of six categories of HCVF listed by FSC International, HCVF 2, 4, 5 & 6 are not currently recognised as present in Ireland and are therefore not addressed under Principle 9.

### **HCVF1**

Forest areas containing globally, regionally or nationally significant concentrations of biodiversity values (e.g. endemism, endangered species, refugia).

In the Irish context, areas with significant concentrations of biodiversity values include EU and national designations such as Special Areas for Conservation (SACs), Species Protection Areas (SPAs) for birds, National Heritage Areas (NHAs) and proposed NHAs<sup>♦</sup>. Areas known to hold significant concentrations of threatened, endangered or protected species that are *not* currently identified in one of the above designations shall also be considered as HCVF1, for example, areas known to contain significant populations of red squirrel. Additional consideration will be given to concentrations of other red-listed species as data becomes available. It is suggested that the PRESENCE OF species listed by IUCN as VULNERABLE Endangered or Critically Endangered shall always be considered potential HCVs.

[www.iucnredlist.org/search/details.php/40658/all](http://www.iucnredlist.org/search/details.php/40658/all)

(<sup>♦</sup> when the NHA designation process is completed for woodlands, only woodland NHAs will be considered HCV1)

### **HCVF3**

Forest areas that are in or contain rare, threatened or endangered ecosystems.

This HCVF will be denoted by habitats recognised under the EU Habitats Directive (Annex 1) as being critically rare. (see Annex 7). Many of these HCVFs are protected as SACs and some as NHAs, but the latter process has yet to be completed for woodlands in Ireland. Proposed NHA (pNHA) sites and Annex 1 habitats (Habitats Directive) occurring outside of designated areas shall also be considered HCVF<sup>♦</sup>.

Therefore, in addition, some sites not identified under the EU Habitats directive will be considered HCVF. This may include **some** other examples of old woodland sites, for example semi-natural oak ash woodlands (some of which are included in alluvial woodlands). ([www.heritagecouncil.ie/publications/habitats/8.html](http://www.heritagecouncil.ie/publications/habitats/8.html))

(<sup>♦</sup> Once the NHA process has been completed for woodland areas, the completed list of NHA woodland sites will be included as HCV3.)

In addition, broadleaf and Scots pine woodlands identified as continually present since the First or Second Edition OS maps should also be assessed for High Conservation Value.

HCV "Forests" is taken to include non-forested areas WITHIN THE FMU with high conservation values, such as upland and raised bogs.

**Note:** High Conservation Value forest is not necessarily precluded from application for grant aid and participation in government forestry schemes. (Any proposed activity that may impact on the interests of an SAC or SPA is subject to Appropriate Assessment as required under Article 6 of EU Habitats Directive as applies to SPA and SAC interests, as per Principle 1)

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**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.**

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**Indicator 9.1.1**

The forest owner/ manager shall have carried out an assessment of the FMU to identify and map all parts of the FMU that have any of the attributes listed in Annex 6. (see 6.1.1. and 6.2.1)

**Indicator 9.1.2L**

The forest owner/ manager shall have consulted with local and/or national stakeholders with relevant expertise or knowledge\*\* relating to the identification of areas with HCV values within the FMU. Consultees shall have been notified that the results of the assessment will be made available. When requested the forest owner/manager shall provide a copy of the assessment to these third parties.

**Indicator 9.1.3L**

The assessment procedure and its results including the comments and suggestions of stakeholders in response to consultation shall be fully documented.

*Verifiers (potential sources of information an auditor may find useful in evaluating compliance)*

- interviews with staff
- reports
- maps
- Management Plan
  
- interviews with stakeholders
- correspondence
  
- reports
- maps
- correspondence

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**Criterion 9.2 The consultative portion of the certification process must place emphasis on the identified conservation attributes, and options for the maintenance thereof.**

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**Indicator 9.2.1**

The forest owner/manager shall consult with NPWS and local and national stakeholders with relevant expertise or knowledge\*\* about the management options to maintain or enhance the identified High Conservation Values within each FMU. Consultees (including those under 9.1.2L) shall have been notified that a Management Plan Summary referring to management of High Conservation Values will be made available.

**Indicator 9.2.2**

The forest owner/ manager shall maintain a file of all stakeholder comments submitted in relation to its management of high conservation values.

*Verifiers (potential sources of information an auditor may find useful in evaluating compliance)*

- interviews with stakeholders
- interviews with forest owner/manager
- documentation (including correspondence) <sup>CT</sup>
- Management Plan consultation
  
- interviews with stakeholders
- interviews with forest owner/manager
- documentation (including correspondence)

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**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.**

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**Indicator 9.3.1**

The Management Plan shall include specific measures for the management of identified high conservation value forest consistent with the precautionary approach to ensure the conservation values are maintained and/or enhanced. These measures shall be included in the publicly available Management Plan Summary. (See also Criteria 6.2, 6.3 and 6.4.)

**Indicator 9.3.2**

In sites of high conservation value, if planting is required to maintain or enhance the conservation value, native tree/shrub seed/planting stock shall be used, preferably of certified local provenance.

*Verifiers (potential sources of information an auditor may find useful in evaluating compliance)*

- Management Plan
- maps and records
- field inspection
  
- certificates of provenance/origin

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**Criterion 9.4 Annual monitoring shall be conducted to assess the effectiveness of the measures employed to maintain or enhance the applicable conservation attributes.**

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**Indicator 9.4.1**

The forest owner/manager shall have an annual monitoring plan for all identified HCVF areas to assess the effectiveness of the measures employed to maintain or enhance their conservation attributes(identified in Indicator 9.1.1)

**Indicator 9.4.2**

The forest owner/manager shall report\*\* on the annual monitoring of the identified HCV attributes as determined in the monitoring plan (Indicator 9.4.1) in each Management Plan. If necessary, the forest owner/manager shall alter the management according to the precautionary principle, to ensure the maintenance and enhancement of these conservation attributes. This monitoring may be carried out by, or in co-operation with, other agencies and third parties.

**Indicator 9.4.3**

The forest owner/manager shall consider any impacts forest operations and recreation activities have on HCVF values and shall include these considerations in the Management Plan and monitoring (see 6.1.3).

*Verifiers (potential sources of information an auditor may find useful in evaluating compliance)*

- monitoring plan
- Management Plan
  
- monitoring reports
- consultation with the forest owner/manager.
- consultation with relevant authorities
- field inspection
  
- monitoring report.
- consultation with the forest owner/manager.
- field inspection

## 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.**

In Ireland the majority of forests come under the category of "plantation" (see FSC International definition). In this context all Indicators under Principles 1-9 have been written to apply to both plantation and other forests. Principle 10 includes specific measures for plantations additional to those already detailed under Principle 1 – 9. In many cases no additional requirements are involved, but indicators are written in order to satisfy FSC International's Principles and Criteria requirements.

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**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**

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### Indicator 10.1.1

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. This criterion is addressed under other Principles, including in the following criteria:

Criterion 5.1  
Criterion 5.5  
Criterion 6.2  
Criterion 6.3  
Criterion 6.4  
Criterion 6.9  
Criterion 7.1  
Criterion 7.2

**If all the cross-referenced Indicators and/or Criteria listed are fulfilled then this Indicator is satisfied.**

*Verifiers (potential sources of information an auditor may find useful in evaluating compliance)*

- Management Plan

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**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**

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*Verifiers (potential sources of information an auditor*

**Indicator 10.2.1**

The design, composition, and layout of plantations shall promote the protection, restoration and conservation of natural forests\*\*, and not increase pressures on these (see Criteria 10.5, and 6.1-6.4).

**Indicator 10.2.2**

In both afforestation and reforestation, the forest owner/manager shall design plantations (and subsequent operations) in line with Forest Service Guidelines and up to date ecological best practice and/or professional ecological advice, following the habitat map (Indicator 6.1.1) with regard to wildlife corridors, riparian areas (streamside zones), and delivery of a mosaic of stands of different ages and rotation periods.

**Indicator 10.2.3**

The layout of plantations shall comply with Forest Service Forestry and Landscape Guidelines and be consistent with the Local Authority's landscape objectives. Enhancement of existing plantations' layout shall take place at times of major change (such as reforestation, felling).

*may find useful in evaluating compliance)*

- documentation
- field visit
- Management Plan

- record of consultations
- maps/GIS databases including ecological recommendations
- baseline habitat survey & map
- Management Plan
- interview with forest owner/manager

- field visits
- documentation
- Management Plan
- maps
- Local Authority Landscape Character Assessment and objectives where available

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**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**

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**Indicator 10.3.1**

The schedule of felling and regeneration in the Management Plan shall provide for a variety of age classes, species and rotation periods, (See Indicator 7.1.4), thereby achieving diversity in the size and spatial distribution of management units within the landscape (where possible).

**Indicator 10.3.2**

Transformation to continuous cover forest management systems\*\* shall be considered in Indicator 7.1.4 as a means of achieving management objectives.

*Verifiers (potential sources of information an auditor may find useful in evaluating compliance)*

- Management Plan/management policies.
- reforestation plans.
- field inspection

- Management Plan
- interview with forest owner/manager
- field visit

Diversity in number and genetic composition of species are considered in Criterion 10.4.

This criterion (10.3) is also addressed under:

- Criterion 5.1 Economic viability
- Criterion 5.2 Optimal local use
- Criterion 5.4 Diversify local economy
- Criterion 6.3 Ecological functions
- Criterion 6.5 Erosion control.

---

**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.

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**Indicator 10.4.1**

Species selected and subsequently planted shall be suited to the site and to the social, environmental and economic objectives of management.

**Indicator 10.4.2**

If there are native species that meet the social, environmental and economic management objectives to the same level as exotic species, the native species shall be selected. Where exotic species have been selected for the site, the choice shall be justified. The most suitable native species shall have been identified and reasons given for its/their rejection.

**Indicator 10.4.3**

Exotic species shall be monitored as part of the Monitoring Plan (see Criterion 8.2) to detect unusual mortality, disease, or insect outbreaks and adverse ecological impacts, and shall be addressed as detailed in Criterion 8.4.

*Verifiers (potential sources of information an auditor may find useful in evaluating compliance)*

- Management Plan
- documented procedure

- interviews with staff
- Management Plan
- site visits

- monitoring plan

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**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.

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**Indicator 10.5.1**

Plantations on woodland sites, which were historically recorded as wooded on any of the First Series Ordnance Survey Maps\*\*, shall be identified, mapped and managed in a manner that retains and/or enhances their semi-natural and old woodland characteristics where such characteristics exist on site\*\*.

*Verifiers (potential sources of information an auditor may find useful in evaluating compliance)*

- maps
- Management Plan

**Indicator 10.5.2**

At least 10% of the area of the FMU under assessment shall be managed with the objective of transforming to native semi-natural woodland where this is appropriate to the locale of the FMU. This 10% area shall be included in the identified conservation zones (see Indicator 6.4.2). Where non-woodland habitats are more ecologically desirable, such that this 10% is inappropriate, this shall be documented in accordance with Indicator 6.4.1.

*Verifiers (potential sources of information an auditor may find useful in evaluating compliance)*

- maps
- Management Plan

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**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.**

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**Indicator 10.6.1**

There shall be no long-term soil degradation, adverse impacts on water quality, adverse impacts on drainage or deviation from stream course drainage patterns as a result of forest design or operations.

*Verifiers (potential sources of information an auditor may find useful in evaluating compliance)*

- site visits
- Management Plan

**Indicator 10.6.2**

Measures shall be taken on an ongoing basis 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. This criterion is addressed under other Principles and specifically in the following criteria:

Criterion 5.5 – maintaining and enhancing forest services and catchments

Criterion 5.6 – rate of harvest

Criterion 6.3 – species selection, ecological functions, harvesting techniques

Criterion 6.5 – harvesting techniques, road and trail construction and maintenance, erosion control

Criterion 7.1 – rate of harvest, harvesting techniques, protection for endangered species and habitats

Criterion 8.4 – incorporating results of monitoring into Management Plan and practices

Criterion 10.8 – monitoring of potential ecological impacts.

- Management Plan
- interviews with forest owner/manager

**If all the cross-referenced Indicators and/or Criteria listed are fulfilled then this Indicator is satisfied.**

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**Criterion 10.7** Measures shall be taken to prevent and minimize 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 fertilizers. Plantation management should make every effort to move away from chemical pesticides and fertilizers, including their use in nurseries. The use of chemicals is also covered in Criteria 6.6 and 6.7.

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**Indicator 10.7.1**

Measures shall be taken on an ongoing basis 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 shall make every effort to move away from chemical pesticides and fertilisers, including their use in nurseries. This criterion is addressed under other Principles and specifically in the following Criteria and Indicators:

Criterion 6.6 – Management systems for development of environmentally friendly pest management

Indicator 6.3.13 – control of fertiliser use.

If all the cross-referenced Indicators and/or Criteria listed are fulfilled then this Indicator is satisfied.

**Indicator 10.7.2**

There shall be a current fire plan that includes both preventative measures and emergency response procedures. An up-to-date copy of the fire plan shall be provided to the local fire service. (See Indicator 7.1.8).

**Indicator 10.7.3**

Plant and animal species shall only be introduced to the FMU if they are not invasive, and all introductions shall be monitored for signs of their becoming invasive. (See 6.9.1 & 6.9.2).

*Verifiers (potential sources of information an auditor may find useful in evaluating compliance)*

- Management Plan

- fire plan

- results of monitoring programme
- discussions with the owner/manager
- habitat map

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**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.

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**Indicator 10.8.1**

The monitoring programme (specified in Criterion 8.1) shall be sufficient to identify potential on-site and off-site ecological impacts related to plantations within the FMU. This is addressed under the requirements of:

Criterion 6.1 – assessment of environmental impacts

Criterion 6.2 – safeguards for habitats and species

Criterion 6.3 – maintenance of ecological functions and values

Criterion 6.7 – storage and disposal of wastes

Criterion 6.8 – use of biological control agents

Criterion 6.9 – use of exotic species

Indicator 7.2.3 - inclusion of monitoring results in Management Plan

Indicator 7.2.4 – incorporation of new scientific or technical knowledge

Indicator 7.2.5 - adjustment of Management Plan to social, environmental and economic changes

Criterion 8.1 – frequency & intensity of monitoring programme

Criterion 8.2 – research and data collection

Criterion 8.4 – incorporation of monitoring into Management Plan.

**[if all the cross-referenced Indicators and/or Criteria listed are fulfilled then this Indicator is satisfied.]**

**Indicator 10.8.2**

The monitoring programme (specified in Principle 8) shall be sufficient to identify potential on-site and off-site social impacts related to plantations within the FMU. This is also delivered under the requirements of:

Criterion 4.4 - incorporation of social impacts into Management Plan

Indicator 7.2.3 - inclusion of monitoring results in Management Plan

Indicator 7.2.4 – incorporation of new scientific or technical knowledge into the Management Plan

Indicator 7.2.5 - adjustment of Management Plan to social, environmental and economic changes

Indicator 8.2.8 - identification of social impacts

Criterion 8.5- availability of information.

**[if all the cross-referenced Indicators and/or Criteria listed are fulfilled then this Indicator is satisfied.]**

*Verifiers (potential sources of information an auditor may find useful in evaluating compliance)*

- monitoring programme
- Management Plan

- monitoring programme
- Management Plan
- records of consultation

**Indicator 10.8.3**

No non-native species shall be planted on a large scale until experience has shown that they are ecologically well-adapted, are not invasive, and do not have significant negative ecological impacts on other ecosystems.\*\*

**Indicator 10.8.4**

Where land is acquired for plantation establishment, local rights of ownership, use or access shall be demonstrably recognised and protected. This is also addressed in the requirements of:

Indicator 2.1.1 – demonstration of use rights by forest owner/manager

Indicator 2.1.2 – documented rights

Criterion 2.2 – established tenure or use rights.

If all the cross-referenced Indicators and/or Criteria listed are fulfilled then this Indicator is satisfied.

*Verifiers (potential sources of information an auditor may find useful in evaluating compliance)*

- Management Plan
- research publications
- site visits
- records of consultation

- records of consultation
- folios
- title deeds
- other legal documents

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**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 of such conversion.**

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**Indicator 10.9.1**

Plantations established in areas converted from semi-natural forests after November 1994, shall not qualify for certification, except where a new owner wishes to restore to a semi-natural woodland site.

*Verifiers (potential sources of information an auditor may find useful in evaluating compliance)*

- planting records
  - consultation with local stakeholders
  - historical aerial photographs
  - documentation
-

# Supporting Guidance

## **Indicator 1.5.1**

“unauthorised activities” - would include dumping, littering, timber theft, burning, and anti-social activities, e.g. quad bikes.

## **Criterion 2.2**

Local communities - FSC Ireland considers that in Ireland local communities cannot be sufficiently legally established to delegate control of their rights and so are not included within this Indicator).

## **Indicator 4.4.1**

”social impacts” - include landscape and aesthetic values, cultural & recreational values in terms of quality of life indicators.

## **Indicator 5.1.1**

“Species suited to the site” - The suitability of species for specific sites shall be determined in accordance with the COFORD Publication “A Guide to Forest Tree Species Selection and Silviculture in Ireland” Second Edition (2004) Horgan, T., Keane, M., McCarthy, R., Lally, M. and Thompson, D. (Edited by O’Carroll, J.) COFORD, Dublin.

## **Indicator 5.3.3**

”processed wood” - includes wood processed beyond initial felling, processing; secondary processing.

## **Indicator 5.6.2**

“non-timber forest products” - include 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. FSC Source: FSC-STD-01-001.

## **Indicator 6.1.1**

The “habitat map” - shall depict habitats (including water courses) present in the FMU as classified to at least level 3 (latest edition Fossitt, J.A. Guide to Habitats in Ireland, Heritage Council) in accordance with Heritage Council Draft Best Practice Guidelines. This shall be carried out at an appropriate time of year. A “habitat map” is a record of the different types of plant communities present on any given piece of land. Habitat survey techniques outlines in A Guide to Habitats in Ireland (Fossitt, 2000) presents a standard scheme for Ireland providing a relatively rapid system to record vegetation types and habitats that are present. Each habitat type and feature is allocated a named habitat type and associated code from the survey system.

“biodiversity features” - may include other valuable or diverse wildlife communities, rare or vulnerable species, breeding sites, feeding areas and habitats of notable species, small wetlands, ponds, riparian zones, small open areas, old, dead, hollow and specimen trees, buildings and stone walls.

## **Indicator 6.1.2**

“Landscape level environmental information” relates to the wider landscape context within which the FMU is located and the environmental information relating to this scale. This would include SACs, SPAs, pNHAs, protected landscapes, sensitive landscapes, etc. Data can be found on the iforis web-based data sets of the DoAg, and County Council Development Plans.

“Water quality status data” shall be obtained from WFD implementation data held by the EPA for the river segment(s) into which the FMU drains.

**Indicator 6.1.3**

“Forest operations and activities” include uses other than timber production such as on-site processing, game management, recreation, etc.

“potential environmental impacts” - are considered to be any that negatively impact on NHAs and Natura 2000 sites, non-designated water courses, and protected species and habitats. If additional professional advice is required this should be obtained by the forest owner/manager.

“competent personnel” shall have the skills and experience demanded by the complexity of the site(s) in question and the operations and activities proposed.

**Indicator 6.2.1**

“rare threatened or endangered species” are listed in Annex 5 and sources of information on these include NPWS, the National Biodiversity Data Centre, local naturalists clubs, local conservation officers, wildlife rangers, NGOs, etc.

In this Indicator “other appropriate bodies” may include the National Biodiversity Datacentre, environmental NGOs, local interest groups, NPWS Rangers, Regional Fisheries Boards, etc. (this list is not exhaustive).

“competent personnel” shall have the skills and experience demanded by the complexity of the site(s) in question and the operations and activities proposed.

**Indicator 6.2.2**

“rare threatened or endangered species” are listed in Annex 5 and sources of information on these include NPWS, the National Biodiversity Data Centre, local naturalists clubs, local conservation officers, wildlife rangers, NGOs, etc.

**Indicator 6.2.3**

“features of particular significance for conservation” may include other valuable or diverse wildlife communities, rare or vulnerable species, breeding sites, feeding areas and habitats of notable species, water courses, ponds, boggy pools and hummocks, and other wetland habitats, unplanted peatland and turbary, ride lines and open ground, woodland remnants/margins and hedgerows, old, dead, hollow and specimen trees, buildings and stone walls.

**Indicator 6.2.5**

A “mature” tree - is a specimen of dimensions typical of a full-grown specimen of its species. Future growth would tend to be extremely slow with little, if any, dimensional increase.

**Indicator 6.3.1**

“Design stages” include for example planning, planting, thinning, felling and roading.

“Natural patterns of regeneration and succession” may be evidenced by the size (and range of sizes) and distribution of coupe sizes and harvested areas across the FMU, the maintenance of conservation areas (see Criterion 6.2), seed trees and understorey species within the plantation throughout the management cycle.

**Indicator 6.3.3**

“Oligotrophic and ultraoligotrophic” catchments - these are river and lake basins that by the nature of their underlying rock have naturally low nutrients. The rivers and lakes within these catchments in the absence of anthropogenic inputs have very low levels of primary productivity. Their flora and fauna are adapted to low nutrient conditions. In rivers (and lakes) within oligotrophic catchments, anthropogenic inputs, particularly of phosphorus, are quickly transferred into inappropriate algal growths, which in turn increase the productivity of the river (or lake) and allow more tolerant species to outcompete those requiring low nutrient conditions.

#### **Indicator 6.3.5**

“Invasive species” are those recognised by the All-Ireland Invasive Species Initiative or any that may be included in any forthcoming legislation.

#### **Indicator 6.3.7**

“Small features of high ecological value” may include nesting sites, small wetlands, ponds, riparian zones, small open areas, etc. of local importance for biodiversity.

#### **Indicator 6.3.8**

“Valuable habitats” include fen, bog, or other habitats identified in Annex 1 of the EU Habitats Directive.

#### **Indicator 6.3.10**

Use of “**some**” native genetic stock is preferable and required to fulfil Criterion 6.3b. However, it is acknowledged that there may be periods when native genetic stock is not available. Evidence of this needs to be presented to justify use of non-native stock. The percentage of native stock planted should be retained throughout the rotation.

#### **Indicator 6.3.12**

“Current best practice on brush management” include:

- *Whole tree harvesting: a guide to good practice.* (1997) Nisbet, T., Dutch, J. & Moffat, A., Forestry Commission Research Agency, The Forestry Authority.
- *Forest residue harvesting – Good Practice Guide.* (2006) Purser, P., COFORD.

#### **Indicator 6.3.13**

“Species suited to the site” - The suitability of species for specific sites shall be determined in accordance with the COFORD Publication “A Guide to Forest Tree Species Selection and Silviculture in Ireland” Second Edition (2004) Horgan, T., Keane, M., McCarthy, R., Lally, M. and Thompson, D. (Edited by O’Carroll, J.) COFORD, Dublin.

#### **Indicator 6.3.14**

Templates for deer management plans, with guidance on how they may be completed, are available on a number of websites such as [www.thedeerinitiative.co.uk](http://www.thedeerinitiative.co.uk)

#### **Indicator 6.4.1**

“ecosystem” – a community of all plants and animals and their physical environment, functioning together as an interdependent unit. (FSC –STD-01-001 Principles and Criteria for Forest Stewardship, glossary).

#### **Criterion 6.6**

In the Irish Draft Standard pesticides are understood to include herbicides, insecticides, fungicides, and acaricides.

#### **Indicator 6.7.1**

“The forest owner/manager shall ensure a record is kept..” - The forest owner/manager is responsible for ensuring that contractors are aware of their responsibilities to keep records of all disposal of wastes addressed in this indicator. Where the forest owner employs his/her own workers, the responsibility is on the forest owner to maintain this record.

### **Criterion 6.8**

“biological control agents” - are living organisms used to eliminate or regulate the populations of other living organisms. (FSC –STD-01-001 Principles and Criteria for Forest Stewardship, glossary).

### **Indicator 6.9.1**

“Exotic species” - are introduced species not native to Ireland or endemic to the area in question (FSC –STD-01-001 Principles and Criteria for Forest Stewardship, glossary).  
*A plant or animal is “endemic” if it is ‘native to, and especially restricted to, a certain country or area’ (Oxford English Dictionary).*

### **Indicator 6.9.2**

“Exotic species” - are introduced species not native to Ireland or endemic to the area in question (FSC –STD-01-001 Principles and Criteria for Forest Stewardship, glossary).  
*A plant or animal is “endemic” if it is ‘native to, and especially restricted to, a certain country or area’ (Oxford English Dictionary).*

### **Indicator 7.1.1**

“short term” =0-5 years, “medium term” =6-20yrs, “long term” =20+ years.

### **Indicator 7.1.2**

“ecosystem services” are the benefits provided by ecosystems. These include provisioning services such as food, water, timber, fibre, and genetic resources; regulating services such as the regulation of climate, floods, disease, and water quality as well as waste treatment; cultural services such as recreation, aesthetic enjoyment, and spiritual fulfilment; and supporting services such as soil formation, pollination, and nutrient cycling. (*Ecosystems and human wellbeing: a framework for assessment*. Millennium Ecosystem Assessment, 2003).

For the purposes of this Management Plan, it is sufficient to provide a short list of the key services that the FMU provides, for example:

- if there is a wetland or pond it may provide flood attenuation, or if it is beside a stream or river it may provide a fish nursery;
- if there is an area of wet bog in the FMU it is likely to store carbon and thus mitigate against climate change;
- bat roosts such as standing dead trees will support local bat populations which will in turn help to keep local midge populations in check.

(For more detailed information on ecosystem services also see Rudolf S. de Groot, Matthew A. Wilson, Roelof M.J. Boumans. *A typology for the classification, description and valuation of ecosystem functions, goods and services*. Ecological Economics 41 (2002) 393–408, available at [http://www.uvm.edu/giee/publications/deGroot\\_et\\_al.pdf](http://www.uvm.edu/giee/publications/deGroot_et_al.pdf) )

“non-timber forest **products**” - include 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. FSC Source: FSC-STD-01-001.

“non-timber forest **services**” – in this Indicator (7.1.2) non-timber forest services exclude ecosystem services (which are dealt with separately under the same indicator) and would include recreational, educational and research services for which charges may or may not be made.

“environmental requirements” – shall include requirements of rare, threatened and endangered species, acid sensitive catchments, and such requirements may apply outside of the FMU.

**Indicator 7.3.3**

The “work(s) manager” is the person or company who commissions work on a forestry site, e.g. anyone in the landowner role directly engaging forestry contractors as part of their business, or timber purchasers such as traders, processors and contractors (who for example purchase standing timber and cut it themselves).

**Indicator 7.4.3L**

“publicly available” - where the facility is available the Summary of the Management Plan should be made publicly accessible via the Internet. If this is not possible, then there shall be evidence of efforts made to publicise that the plans are available. Where requested, copies of the Summary Plan shall be provided in digital or hard copy as appropriate.

**Indicator 8.1.1**

Monitoring programme – The design of the monitoring programme shall be informed by the Habitat Map (6.1.1).

**Indicator 8.2.1**

In monitoring, consideration should be given to the impacts of the use (if any) of pesticides on non-timber forest products (see Criterion 6.6).

Water quality monitoring shall be sufficient to identify both short and long-term impacts of forest management and operations, e.g. at harvesting and/or prior to soil disturbing operations and aerial fertiliser applications.

**Indicator 8.5.1**

“sensitive” – may include data which may jeopardise the protection of vulnerable species, commercially sensitive data, etc.

**Indicator 8.5.2**

The National Biodiversity Data Centre would appreciate submissions of monitoring information; the template in Appendix 7 should be used when making submissions. Additional data on your FMU may also be available from the National Biodiversity Data Centre, for more information or to submit data [www.biodiversityireland.ie](http://www.biodiversityireland.ie)

**Indicator 8.5.3L**

“publicly available” – where the facility is available the Summary of Monitoring should be made publicly accessible via the Internet. If this is not possible, then there shall be evidence of efforts made to publicise that the plans are available. Where requested, copies of the Summary of Monitoring shall be provided in digital or hard copy as appropriate.

**Indicator 9.1.1**

“competent personnel” shall have the skills and experience demanded by the complexity of the site(s) in question and the operations and activities proposed.

**Indicator 9.1.2**

“relevant expertise and knowledge” – stakeholders with “relevant expertise and knowledge” are those with technical expertise and knowledge, over and above that held by the forest owner/manager, that is specifically relevant to the components of woodland which render it of High Conservation Value.

**Indicator 9.1.3**

“relevant expertise and knowledge” - stakeholders with ‘relevant expertise and knowledge’ are those with technical expertise and knowledge, over and above that held by the forest owner/manager, that is specifically relevant to the components of woodland which render it of High Conservation Value.

**Indicator 9.2.1**

“relevant expertise and knowledge” - stakeholders with “relevant expertise and knowledge” are those with technical expertise and knowledge, over and above that held by the forest owner/manager, that is specifically relevant to the components of woodland which render it of High Conservation Value, e.g. Birdwatch Ireland for birds, An Taisce.

**Indicator 9.4.2**

“annual monitoring reports” - shall include monitoring results, interpretation and recommendations for management changes.

**Indicator 10.2.1**

“Natural forest” - forest areas where many of the principal characteristics and key elements of native ecosystems are present, such as complexity, structure and diversity. FSC International P&C glossary. In the Irish context such forests are normally described as semi-natural woodland.

**Indicator 10.3.2**

“Continuous cover forestry systems” - this term is an umbrella term for a range of silvicultural systems such as shelterwood systems, Close to Nature systems, see (COFORD Connects Management No.8).

**Indicator 10.5.1**

Historic 6" mapping series (1837-1842) and the historic 25" mapping series (1888 - 1913) are available to view on the OSI website at no cost. If the site or part thereof was wooded on either of these historic layers, then it is considered as HCVF. [www.osi.ie](http://www.osi.ie)

The Native Woodland Scheme Manual and Information Notes may be referred to for management guidance.

**Indicator 10.8.3**

See recommended species list in the Forest Service Manual.