



COFORD Forest Policy Review Group Report on

*'Forests, products and people - Ireland's forest policy –
a renewed vision' (2014)*

A Report on Policy Implementation with Recommendations



COFORD Forest Policy Review Group
Report on

*‘Forests, products and people - Ireland’s forest policy –
a renewed vision’ (2014)*

**A Report on Policy Implementation
with Recommendations**

By COFORD Forest Policy Review Group

Published by the Department of Agriculture, Food and the Marine
Agriculture House
Kildare Street
Dublin 2
Ireland

ISBN 978-1-902696-87-4

Citation: COFORD, 2018. COFORD Forest Policy Review Group Report on 'Forests, products and people - Ireland's forest policy – a renewed vision'(2014). A Report on Policy Implementation with Recommendations. Department of Agriculture, Food and the Marine, Dublin.

All rights reserved. No part of this publication may be reproduced, or stored in a retrieval system or transmitted in any form or by any means, electronic, electrostatic, magnetic tape, mechanical, photocopying, recording or otherwise, without permission in writing from the Department of Agriculture, Food and the Marine.

Photographs © Donal Whelan.

Table of Contents

Foreword.....	v
Executive Summary	vii
Forest Policy	1
Background	1
What is Forest Policy?	1
Forest Policy Review	2
Policy Implementation	2
Forest Sector	3
Environment and Public Goods	6
Review Process	8
Background	8
Review of progress to date.....	12
Expansion of the forest resource	12
Progress and developments	12
Issues	12
Recommendations	14
Management of the forest resource	14
Progress and developments	14
Issues	14
Recommendations	16
Environment and public goods.....	16
Progress and developments	16
Issues	17
Recommendations	17
Supply Chain.....	17
Progress and developments	17
Issues	19
Recommendations	19
Wood processing and wood based panels sector.....	19
Progress and developments	19
Issues	20
Recommendations	20
Forest protection and health	20
Progress and developments	20
Issues	21
Recommendations	21
Support - education, training and research.....	21
Progress and developments	21
Issues	23
Recommendations	23
Quality standards and certification.....	23
Progress and developments	23
Issues	24
Recommendations	24

Policy implementation and review	24
Progress and developments	24
Issues	24
Recommendations	24
Cost appraisal and funding	25
Progress and developments	25
Issues	25
Recommendations	25
Legislation	25
Progress and developments	25
Issues	27
Recommendation	27
Coillte	27
Progress and developments	27
Issues	27
Recommendation	27
Institutional arrangements	28
Progress and developments	28
Issues	28
Recommendations	28
References	30
Appendix 1 - List of submissions received within deadline.....	33
Appendix 2 - Progress on implementing strategic actions	34
Appendix 3 - Adaptation options	58
Appendix 4 - Supply chain	60
Appendix 5 - COFORD Forest Policy Review Group (CFPRG) members	61

Foreword

The forestry and timber sector is well positioned to assume a central role in the sustainable economic, environmental and social development of our country. This review of *‘Forests, products and people - Ireland’s forest policy – a renewed vision,’* which was adopted by the Department of Agriculture, Food and the Marine (DAFM) in 2014, is another significant step in achieving policy aims.

The COFORD Forest Policy Review Group was established by the COFORD Council in 2016 to track the implementation of the forest policy recommendations and monitor and report on progress in implementing the stated strategic actions. The accompanying stakeholder consultation process provided valuable feedback on the implementation of existing, and in some cases new policy recommendations. The report reviews the 107 strategic actions with regard to those that have been actioned, progress to date on others and those that remain outstanding. In addition, a further 20 new strategic actions are recommended.

Forestry enhances the sustainability of the agriculture sector through its environmental and climate change mitigation role; also forests are our most significant terrestrial carbon sink. Given our national climate change targets and our current and future projected greenhouse gas emissions, forestry must play a critical role in sequestering carbon and mitigating emissions including those from the agricultural sector as outlined in FoodWise 2025 Strategy and the National Mitigation Plan.

The future role of forestry has been highlighted in many recent reports. In addressing the topic, *“How the State Can Make Ireland a Leader in Tackling Climate Change,”* the Citizens Assembly proposed that climate change should be at the centre of Government policy-making in Ireland and the State should review and revise supports for land use diversification with attention to supports for planting forests. It is important that this forest policy review initiative is progressed particularly in light of Ireland’s ambitious Climate Change targets.

A key recommendation in the 2014 Policy document was the establishment of a Forest Council. The COFORD Council has provided an effective model for progressive and productive collaboration between the Department of Agriculture, Food and the Marine and the wider forestry and timber sector. This model of State/Sector partnership could be examined to provide a National Forest Policy Platform to ensure that this forest policy process is maintained and adaptive to changing circumstances.

We would like to acknowledge and thank the COFORD Forest Policy Review Group and all the stakeholders and others who contributed to this review of progress for their time, input, feedback and recommendations. This report with recommendations will be submitted to the Department of Agriculture, Food and the Marine and the Minister of State with responsibility for forestry. The COFORD Council is available to provide support in progressing the report’s recommendations.

Michael Lynn,
COFORD Council Chairman

Donal Whelan
COFORD Forest Policy Review Group Chairman

August 2018



Executive Summary

Forests, products and people - Ireland's forest policy – a renewed vision adopted by the Department of Agriculture Food and the Marine (DAFM) in 2014 highlighted the need to track progress on the implementation of policy actions. The COFORD Forest Policy Review Group was established by the COFORD Council in 2016 to track the implementation of the Forest Policy recommendations and monitor and report on progress in implementing the stated Strategic Actions. The accompanying stakeholder process which was embarked on as part of this review provided an enabling framework for stakeholders to participate in providing submissions, feedback and recommendations on the updating of forest policy.

In the five years since the Forest Policy process was completed, and the four years since its formal adoption, there has been a number of emerging issues globally and nationally that will impact directly on forests and forest policy. Such emerging issues include; the FoodWise 2025 process, the new Forestry Act 2014, the Forestry Programme 2014 – 2020, Climate Action and Low Carbon Development Act 2015 and associated National Mitigation Plan and Adaptation Framework, the Draft Bioenergy Plan, UN Strategic Plan for Forests 2017 – 2030, EU Forest Strategy 2014, EU Climate and Energy Framework, EU 2020 and 2030 Renewable Targets, the emergence of the Bioeconomy and Brexit, amongst others.

It is important that the social, environmental and economic contributions of our forest ecosystems are considered in policy. New accounting systems have been developed in many countries to account for environmental services provided to society which look to quantify the value of public goods benefits of ecological systems such as woodlands. The Irish forest industry comprising, growing, harvesting and processing of forest products makes a significant and increasing contribution to the Irish economy with roundwood volumes available forecast to double over the period to 2035. Forests mitigate against climate change by absorbing carbon dioxide from the atmosphere and provide the largest outdoor area in the State for recreational use. There is significant potential for wood fuel to displace fossil fuels, particularly in the generation of heat in industrial, commercial, domestic and institutional markets. This contribution of the forestry sector to our environment and the national economy was reflected in this review process.

The Stakeholder Group met on six occasions between 21st March and 14th September 2017 under the chairmanship of Mr Donal Whelan and examined each of the thirteen chapter headings in the Policy document. In addition, as part of the stakeholder consultation process, there was a public call for submissions advertised in the national media and included on the DAFM website ending on the 16th March 2017 with submissions received from representative organisations, NGOs, Local Authorities and members of the public.

During this review, recurring cross cutting themes were identified from the stakeholder meetings. These included;

1. The need to continue to improve communications and coordination within the sector and with other related sectors and stakeholders;
2. The importance of establishing a national forest policy platform, such as a Forest Council, to ensure that forest policy progress is maintained and measured against agreed indicators and adaptive to changing circumstances; and
3. The importance of the future use of technology across the sector.

To ensure that a forest policy process is maintained and adaptive to changing circumstances, many countries have set up national forest policy platforms, forest forums or similar mechanisms. These facilitate continuing communication and coordination among different stakeholders, response to emerging issues and integration of experiences or new initiatives in policy adaptation. This best practice as outlined by the FAO¹ forms a fundamental part of the recommendations arising from this Review.

Progress was noted against a wide ranging series of recommendations across all thirteen chapters including (a) introduction of a unified premium rate for afforestation, (b) the establishment of a National Forest Inventory and Management Planning Unit, (c) reintroduction of the Native Woodland Establishment and Conservation Scheme

¹ FAO 2012. Developing effective forest policy. A guide. FAO Forestry Paper 161. Food and Agricultural Organisation of the United Nations, Rome

and proposed new Woodland Enhancement and Environmental Scheme, (d) the establishment of a Forest Genetics resource working group, (e) publication of All Ireland forecast and associated GIS tool, (f) publication of the Wood Mobilisation Report and the Bioeconomy Report (g) new Forest Management Plan template developed, (h) the Strategic Research Agenda developed and published, (i) Forest Programme 2014 - 2020 developed and under implementation, (j) removal of high income threshold in 2016 Budget, (k) Forestry Act 2014 commenced and national implementing legislation for the EU Timber regulation introduced (SI NO 316 of 2014), (l) Forest Certification initiative, (m) provision of training under a number of headings e.g. habitat assessment – afforestation, (n) DAFM publication of Felling and Reforestation Policy and (o) ongoing COFORD funded research projects.

Limited progress was expressed by stakeholders against strategic actions addressing (a) the national afforestation programme, (b) the need for greater integration between afforestation and agricultural schemes, (c) unified consent system for forest roads and entrances, (d) incentivising active forest management among private forest owners, (e) improved communication with sector stakeholders and forest owners, (f) control of deer and associated measures, (g) action on Invasive Alien Species (IAS) and (h) funding procedures for forest research.

No progress was noted against a small number of strategic actions notably (a) the establishment of overarching forest body e.g. Forest Council and (b) establishment of a Task Force to consider a standalone body for the sector.

New strategic actions were identified to address changes in the operational environment notably relating to (a) communications and awareness within the sector and with related sectors, (b) survey of harvesting infrastructure, (c) lack of capacity in forest pathology and entomology, (d) Centre of Operations Excellence to support seed innovation and to promote market-led new product/systems development, (e) guidance on biosecurity, (f) guidance on harvesting of brash, (g) improved health and safety awareness, (h) guidance on fire/pest control measures, (i) harmonisation of tax treatment between forestry and agriculture, (j) national standard for timber measurement/removals and security in timber sales, (k) encouragement of more balanced gender diversity in the sector and (l) communication on mission and wider role and responsibilities of the Forestry Divisions within DAFM.

Forests have the potential to mitigate against climate change and also positively contribute to our biodiversity, recreation, water protection and flood prevention, renewable energy, air filtration/pollution removal and also Ireland's economy. With our low forest cover of 11%, there is scope for sustainable expansion of our forest area. In addition, output from our forests including timber, biomass, goods and particularly public goods and services is forecast to grow significantly in the coming years. It is hoped that this Forest Policy Review will contribute to achieving the full potential of Ireland's forestry sector.

Forest Policy

Background

Forests and their products and services are key to the well-being of society. They help mitigate the impacts of climate change, provide fuelwood for energy, timber for construction and furniture, living space and food. They also protect soil from erosion, house valuable biodiversity, are sources of income for individuals and families and offer recreation opportunities. With changing societal demands, forest policies and practices have evolved considerably over time and must continue to do so to remain relevant, useful and responsive to society's changing demands².

A number of developments have affected the way forests are governed, ranging from globalization, decentralisation and privatisation to changing demand for forest products and services from a growing and often more urbanized population. Other factors include heightened awareness of the role of forests in regulating climate and in providing other environmental services; greater recognition of the multi-functionality of forests; and a shift from timber-centred to people/service-centred forest management. International forest-related conventions, agreements and initiatives also contribute to bringing about change, the most recent being the UN Strategic Plan for Forests 2017-2030³.

The ultimate responsibility, authority and accountability for national forest policy rests with national governments and the stakeholders who help to develop and implement it – and whose actions make up the *de facto* policy.

Policies should facilitate sound decisions on forests and trees and their sustainable use – decisions that provide the benefits that society expects. Such policies must be designed to respond to the changing needs of different groups and to emerging challenges e.g. climate change and opportunities.

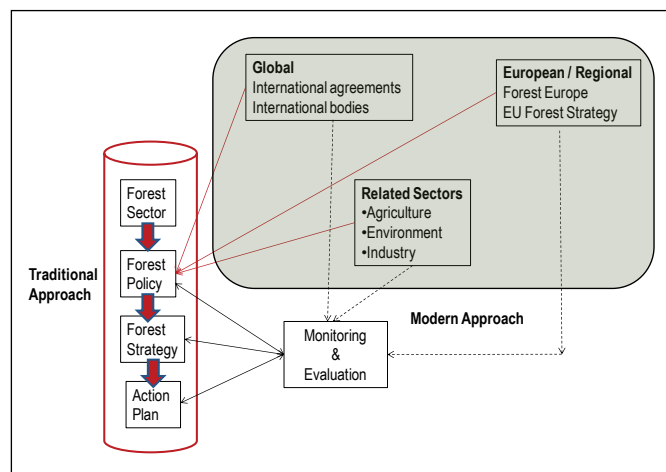


Figure 1 illustrates the traditional and modern vs. modern approach to forest policy formulation.

FIGURE 1: Forest policy formulation.

What is Forest Policy?

Two definitions of forest policy illustrate the changing attitude to and expectations from forests in recent years. The first relates to how forests were perceived during the majority of the last century

- A definite course or method of action from amongst alternatives and in the light of given conditions to guide and usually determine future decisions regarding the conservation, use and management of forests⁴.

A more recent and widely accepted definition is provided by the UN FAO

- A negotiated agreement between government and stakeholders (i.e. all those who depend on or benefit from forests or who decide on, control or regulate access to these resources) on the orientations and principles of actions they adopt, in harmony with national socioeconomic and environmental policies, to guide and determine decisions on the sustainable use and conservation of forest and tree resources for the benefit of society.

² FAO 2012. Developing effective forest policy, a guide. FAO Forestry Paper 161. Food and Agricultural Organisation of the United Nations, Rome

³ General Assembly resolution 71/285, United Nations strategic plan for forests 2017–2030, (A/71/L.63) (27th April 2017), available from undocs.org/A/RES/71/285

⁴ Hummel, F.C. Policy Formulation in Forest Policy A contribution to resource development. Edited by Hummel, F.C. Martinus Nijhoff/Dr W Junk Publishers, The Hague. 1984

This FAO definition reflects the policy formulation and consultation process which supported the development of *Forests, products and people*, Ireland’s revised forest policy published in 2014 and also this policy review process.

Overall, the most frequently addressed issues are components of the seven thematic elements of sustainable forest management (SFM), as acknowledged by the United Nations Forum on Forests (UNFF)⁵: extent of forest resources; forest biological diversity; forest health and vitality; productive functions of forest resources; protective functions of forest resources; socio-economic functions of forests; and legal, policy and institutional framework.

Forest policy-makers have become increasingly aware, especially over the past decade, that forests cannot be managed sustainably if other land and natural resource users do not recognize the importance of these resources. One reason for poor policy implementation and a lack of impact of many beautifully written policies and plans in the past was that they often were out of touch with the realities around forests and the wider societal developments. This emphasises the need to link forest policies with and to incorporate forest aspects into wider national policies – so as to make forest policies relevant and to enhance society’s recognition of the value and benefits of forests and sustainable forest management. In this regard *Forests, products and people* took on board Food Harvest 2020, the EU Policy Framework (Including Europe 2020, A Strategy for Smart, Sustainable and Inclusive Growth, EU Forest Strategy, EU Biodiversity Strategy, EU-2020 renewable energy and greenhouse gas emission targets, etc.).

Forest Policy Review

Policy-making is an iterative (repetitive) process, and it is important to view it in this light for two reasons. First, in an iterative process experiences and lessons learned can be more easily considered to inform and improve coordination. Second, iteration helps to maintain a dialogue on the policy and its implementation after the process of developing a formal policy has concluded. Ongoing dialogue, and an established platform for it is often a crucial component in implementing policies, as many concrete details in the implementation of the national forest policy need to be discussed or negotiated after it has been adopted. Established mechanisms for dialogue also make it easier to benefit from diverse lessons and experiences in implementing agreed policies and to coordinate subsequent planning.

To ensure that a forest policy process is maintained and adaptive to changing circumstances, many countries have set up national forest policy platforms, forest forums or similar mechanisms. These facilitate continuing communication and coordination among different stakeholders, response to emerging issues and integration of experiences or new initiatives in policy adaptation.

A policy review usually covers current forest policies, strategies, programmes, work plans and action plans, as well as their implementation. It identifies what worked well and what did not: whether goals were adequately set; if incentives and restrictions were counterproductive or conflicted with other instruments or goals; and if the conditions under which policies would be implemented were sufficiently considered. A review helps to draw lessons for improving forest policies and arrangements for their future implementation.

However, many reviews have failed to consider adequately the linkages with other government policies that touch on forests. Including the most relevant linkages in the review helps to reveal where policy coordination and integration of forest aspects into other policies have been effective, where they have not, and why. It also helps to prioritise areas in need of improvement in this regard under new policy goals.

Policy Implementation

With conventional policy settings and institutional arrangements, governments tend to rely on regulations, control and policing for implementation. However, this approach is often incompatible with the wish and need to involve stakeholders. Command-and-control measures alone have also been found to be ineffective in the management

⁵ General Assembly resolution 62/98, United Nations Non-legally binding instrument on all types of forests, (A/C.2/62/L.5) (17th December 2007), available from undocs.org/A/RES/62/98

of valuable protected areas. New instruments, such as voluntary agreements, public-private partnerships and market-based approaches, have surfaced over the past few decades. These not only have the potential to make implementation more efficient but may also, at times, help avoid the marginalization of governmental forest administrations.

Regulation in support of forest policy must be effective i.e. responsive, evidence based and commensurate with risk. Undifferentiated approaches to regulation can impede development and the achievement of key targets. Furthermore, it results in often scarce regulatory resources being spread more thinly causing delays and potentially distracting attention from real risks which warrant closer attention and careful management.

A mix of policy instruments is normally used to reach objectives, and it is often necessary to adjust the objectives to maximize the effectiveness of the instruments (Figure 2). While the latter need to be coherent and mutually reinforcing, the choice of which to use will affect different groups to different degrees. For example, tax exemptions for establishing plantations would not be an incentive for people who do not pay taxes. Thus, the calculation of costs and benefits by a stakeholder group will influence its support for a specific policy objective and its implementation.

The conventional reliance on regulations, control and policing is often incompatible with practical realities or the desire to involve stakeholders, such as small tree growers or NGOs, in policy implementation. Wherever the capacity to enforce regulations is limited, this approach alone is ineffective, e.g. in protecting areas of high conservation values. Thus, in many cases, measures that go beyond command-and-control practices and that involve the private sector are devised.

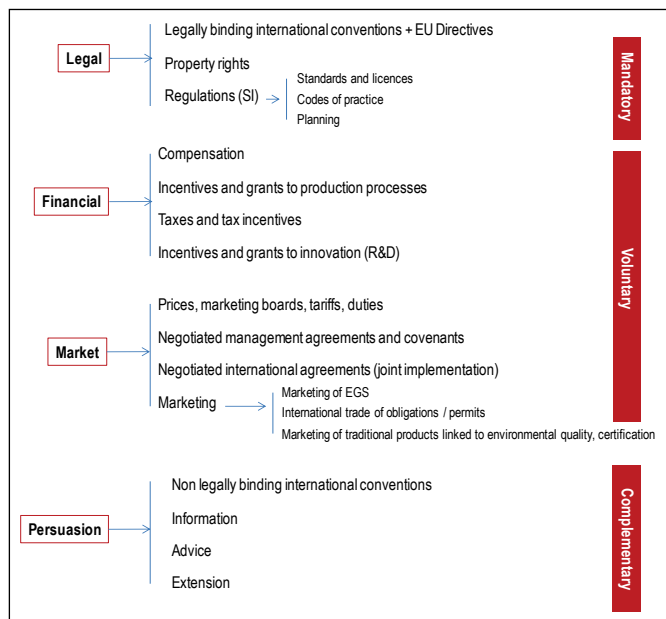


FIGURE 2: Policy instruments.

Forests, products and people uses a broad mix of policy instruments across the four broad categories with the emphasis on financial, persuasion and market instruments as opposed to legal regulations.

Forest Sector

The forest sector is relatively young but is increasingly important in the national economy and has a vital role to play in the context of rural development, renewable energy and climate change mitigation. Over the past decade, the importance of wood processing as a component of the sector has greatly increased, as levels of roundwood output have grown and the return on state and private investment in afforestation and related areas become more tangible. This trend will continue as the scope of forest policy broadens, with increasing attention being paid to competitiveness in the growing and processing forest products, and to Ireland’s comparative advantage in growing wood.

The national forest estate has increased from a modest 89,000 hectares (ha) in 1928⁶ to 770,020 ha by the end of 2017, an area which represents 11% of the land of the country (DAFM, 2018). Approximately 46% is privately owned while the remaining 54% is publicly-owned, primarily by Coillte Teoranta. Up to the 1980s, almost all afforestation was undertaken by the State. It was not until the introduction of the State/EU funded forestry grant and annual payment/premium schemes that private landowners, mainly farmers, began to plant significant amounts of forest.

⁶ Minister for Lands and Agriculture, Dáil Éireann, Volume 23, 3rd May, 1928



Environment and Public Goods

Environment - Forestry contributes much to the health and diversity of Ireland's natural environment. Irish forest management practices have impacts on water quality, habitats and ecosystems. Greater diversity of forest resources and forest management models, combined with improved environmental protection measures throughout forest planning and management cycles, can contribute to national, EU and international environmental objectives and obligations.

Climate Change - Mitigation and adaptation and the role of forests and forest policy.

According to the Fifth Assessment Report of the IPCC (Intergovernmental Panel on Climate Change), the main mitigation options within agriculture, forestry and other land use sectors (AFOLU) involve one or more of three strategies⁹: each of which is important in the Irish policy context:

1. Reduction/prevention of emissions to the atmosphere by conserving existing carbon pools in soils or vegetation that would otherwise be lost or by reducing emissions of CH₄ and N₂O;
2. Enhancing the uptake of carbon in terrestrial reservoirs, and thereby removing CO₂ from the atmosphere; and
3. Reducing CO₂ emissions by substitution of biological products for fossil fuels or energy-intensive products.

Conserving forest cover and the avoidance of deforestation are underlying principles of the 2014 Forestry Act. Furthermore, the Climate Action and Low Carbon Development Act 2015 places Ireland's national climate policy on a statutory basis for the first time. Specifically, Ireland has committed to an approach to carbon neutrality in the agriculture and land use sector, including forestry, which does not compromise capacity for sustainable food production.

The National Mitigation Plan¹⁰ 2017 represents Ireland's planned actions to reduce greenhouse gas emissions in the non Emissions Trading Sector, in the context of Ireland's emission reduction target of 30% on 2005 levels by 2030, under the EU's proposed Effort Sharing Regulation. The plan estimates the marginal abatement cost of afforestation to be ca €20/t CO₂ and follows the same general analytical approach used in the cost benefit analysis in Appendix 2 of *Forests, products and people*.

Policies and measures to encourage the greater use of wood products in the built environment as a mitigation tool are as yet not well developed in Ireland. Use of forest-based biomass in heating and power generation is not included in the forest sector but as the replacement of fossil fuels in the energy sector. This provides the policy incentive to reduce fossil fuel combustion through demand side measures such as the Support Scheme for Renewable Heat (SSRH), and on the supply side by supporting the afforestation scheme and related measures such as the forest road grant scheme and supports for forest management planning.

At the international level, the 2015 Paris Agreement on climate change recognises the important role that forests play in climate change mitigation. In the lead up to the agreement the EU pledged a '**binding target of an at least 40% domestic reduction in greenhouse gas emissions by 2030 compared to 1990**'.¹¹ Forests are now included in the EU's proposed economy wide-target, with afforestation receiving specific recognition in the LULUCF and Effort Sharing Proposals. This policy development should ensure that forests and the use of forest products are more widely recognised in the national policy context.

In relation to adaptation to climate change, forests are vulnerable to forecasted increases in summer droughts, any increase in the level of storm surges and other climate events as outlined by Nolan (2015)¹² and as summarised in the DAFM report, *Adaptation Planning - Developing Resilience to Climate Change in the Irish Agriculture and Forest Sector*¹³. The report outlines a number of potential impacts of climate change on the forest sector and increased risks of:

- Windthrow in forest plantations;
- Large pine weevil damage at reforestation stage;
- Soil moisture deficits impacting on growth in certain regions; and
- Forest fires.

⁹ Intergovernmental Panel on Climate Change (IPCCC). 2014: Climate Change 2014: Mitigation of Climate Change. Contribution of Working Group III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change [Edenhofer, O., R. et al. (eds.)]. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA.

¹⁰ Department of Communications, Climate Action and Environment.(2017). National Mitigation Plan. 29/31 Adelaide Road, Dublin D02 X285. Available from decae.gov.ie

¹¹ Submission by Latvia and the European Commission on behalf of the European Union and its Member States 2015. Available from www.unfccc.int

¹² Nolan, P. 2015. Ensemble of regional climate model projections for Ireland, Report No. 159, Environmental Protection Authority.

¹³ DAFM. 2017. Adaptation Planning - Developing Resilience to Climate Change in the Irish Agriculture and Forest. Department Of Agriculture, Food and the Marine, Kildare St. Dublin 2, Ireland. Available from www.agriculture.gov.ie.

The adaptation framework goes on to state: *All policies, strategies, plans and measures for, or related to, agriculture and forests must be informed of the need to adapt to the potential impacts of climate change.* A series of adaptation options are set out in Table 3 of the DAFM report. An extract is provided in Appendix 3 in this report of those measures that deal with land use in general and with the forest sector in particular.

Biodiversity - Biodiversity describes the variability among living organisms and the ecosystems of which they are part. Ireland is committed to the principles of Sustainable Forest Management (SFM) and inherent to these are the conservation and enhancement of biodiversity in forests through improved planning, training and management practices. The scarcity of natural woodlands in Ireland means that plantations have the potential to provide important habitats for populations of some forest species that would otherwise be even scarcer. Managed forests can provide important habitats for a range of native species and may provide habitat for threatened populations of forest specialists including rare plants, animals and fungi. Forestry plantations can make a significant positive contribution to biodiversity in the landscape when properly planned and managed, but can impact negatively in the absence of good management practices (BioForest Report, EPA, 2006).

Biodiversity benefit from the existing forest estate was valued at €5.6 million per annum over the best alternative land use (assumed to be Rural Environmental Protection Scheme (REPS)), but with the potential to increase by €1.6 million per annum under the planned afforestation targets (Bacon 2004). Using the benefit transfer approach an annual willingness to pay value (WTP) per person for forest biodiversity was estimated to be €19.78. This was then expanded across the adult population of Ireland of 3,439,565 suggesting that the annual value of forest biodiversity is €68 million (ECOVALUE 2015).

Water quality and hydrology – Forests, where well managed, can play an important positive role in the maintenance and enhancement of water quality. The ECOVALUE project concluded that as quantitative data on the flood mitigation services of Irish forests is lacking, it is impossible to assign a value to this service (ECOVALUE 2015). Updated environmental guidelines will facilitate the implementation of the Water Framework Directive (WFD).

Recreation - Forests provide the venue for a wide variety of outdoor recreational activities. The monetary value of the recreational use of forests and trails has been examined in a number of studies. Fitzpatrick and Associates (2005) in their analysis of the Coillte estate estimated that annual visits were 18 million¹⁴ and provided a non-market value of €97 million annually. More recently the number of visits to forests was estimated to be 29,105,759 per annum and combining this with the WTP estimate gives an annual value of €179 million for forest recreation (ECOVALUE 2015). The benefits from recreating in forests can be both physical and mental. Walking tourism and mountain bike trails in forests (Ticknock, Ballyhoura and planned trail in Collaney) have expanded significantly in recent years. A recent major development is the planned Centre Park in Longford. Outdoor recreation contributes €1.5 billion to the economy and further investment in outdoor infrastructure has the potential to underpin the creation of 2,500 jobs in the tourism related sector (Anon 2017).

Air Filtration/Pollution removal – Maintaining our standard of air quality in Ireland is a growing challenge and is taking on an increased importance with further understanding of the links between poor air quality and human health. Forests can make a valuable contribution in mitigating these negative effects. The European Environment Agency (EEA) has estimated a figure of 1,510 premature deaths in Ireland in 2014 (EEA 2017) directly attributable to air quality. World Health Organisation (WHO) guideline values were exceeded at a number of monitoring sites in Ireland for particulate matter (PM10 and PM2.5), ozone, SO₂ and NO₂¹⁵: Forests remove harmful pollution from the environment and this is becoming increasingly well recognised. In the UK Environmental Accounts for woodland ecosystems, it is estimated that UK woodlands removed more harmful pollution and carbon dioxide from the atmosphere than any other habitat, valued at £1.8 billion in 2015. UK woodlands removed 292,000 tonnes of air pollution in 2015 and the value of woodland vegetation removing such harmful pollution was estimated to be £767 million in 2015¹⁶).

¹⁴ Based on an adult population of 3 million and six visits annually as was found in the Great Britain Day Survey of 6,600 people. A value of €5.40 per visit was used based on survey data.

¹⁵ EPA. 2016 Air Quality in Ireland 2016. Indicators of Air Quality. Johnstown Castle Estate County Wexford, Y35 W821, Ireland. Available from www.epa.ie

¹⁶ UK natural capital: ecosystem accounts for freshwater, farmland and woodland. Office of National Statistics, July 2017

Review Process

Background

A fundamental recommendation in *Forests, products and people - Ireland's forest policy – a renewed vision*, was the need to track the progress on implementation of the identified actions and measures under each of the chapter headings. The COFORD Forest Policy Review Group (CFPRG) was established by the COFORD Council to facilitate in addressing this recommendation. The terms of reference (ToR) for the group were;

1. Monitor the progress on implementation of the recommendations in *Forests, products and people - Ireland's forest policy – a renewed vision*;
2. From information and data to be provided by bodies charged with progressing individual Strategic Actions (employing indicators and criteria referenced in the policy document), report to the COFORD Council, the Minister with responsibility for Forestry, the Department of Agriculture Food and the Marine and the Forest Sector on progress in achieving the stated Strategic Actions, with observations and/or recommendations as considered appropriate by the CFPRG; and
3. With stakeholder input provide feedback and recommendations on an approach to updating of Forest Policy/ Strategic Actions to the COFORD Council, Minister with responsibility for Forestry, Department of Agriculture Food and the Marine (DAFM) and the Forest Sector.

The CFPRG comprised representatives from across the sector including COFORD, Coillte, Enterprise Ireland, the Irish Farmers Association (IFA), the Irish Forestry and Forest Products Association (IFFPA), Teagasc, the Irish Timber Council (ITC) and the Irish Timber Growers Association (ITGA) (see Appendix 5). Representatives from Woodlands of Ireland (WOI), the Environmental Pillar, the Association of Irish Forestry Consultants (AIFC), None so Hardy Nurseries, BirdWatch Ireland and the Environmental Protection Agency (EPA) amongst others, were invited to attend stakeholder meetings as part of the stakeholder consultation process in the policy review. Staff from the DAFM participated in the meetings and provided clarification on regulatory and technical issues and information on recent developments and planned future actions by DAFM. Members were provided with background and supporting documentation to facilitate the review process. Technical consultancy support was provided and DAFM provided secretarial support. The recommendations in this report are those of the industry and in this context will be considered by the Department following formal submission to the Minister.

The Stakeholder Group met on six occasions between 21st March and 14th September 2017 under the chairmanship of Mr Donal Whelan and examined each of the thirteen chapter headings in the Policy document. In addition, as part of the stakeholder consultation process, there was a public call for submissions advertised in the national media and included on the DAFM website ending on the 16th March 2017 with submissions received from representative organisations, NGOs, Local Authorities and members of the public. A list of submissions received is included in Appendix 1.

Three recurring cross cutting themes were identified from the submissions received and the CFPRG Stakeholder meetings based on the discussions on each of the policy headings:

- a) The need to continue to improve communications and coordination within the sector and with other related sectors and stakeholders;
- b) The importance of establishing a national forest policy platform, such as a Forest Council, to ensure that forest policy progress is maintained and measured against agreed indicators and adaptive to changing circumstances; and
- c) The importance of the use of technology across the sector in achieving policy aims.

In the three years since the formal adoption of *Forests, products and people - Ireland's forest policy – a renewed vision*, good progress has been made in addressing policy actions. A summary of progress to date on all of the 107 strategic actions contained in *Forests, products and people - Ireland's forest policy – a renewed vision* and any changes to these strategic actions or new strategic actions proposed in this review are provided in Appendix 2.

Developments since the publication of *Forests, products and people of relevance to Policy Review*

There has been a number of significant developments since publication of *Forests, products and people* in 2014 which impact on forest policy and its implementation. These include:-

Brexit: -Currency exchange rate with knock on effects on price and volumes coming to market. Import of round logs from outside the EU. Impact on timber exports (excluding price).

Foodwise 2025: Summary Foodwise 2025 Recommendations and Actions for the Forestry sector:

Increase the forest area in accordance with SFM principles, to support long term sustainable roundwood supply through an increase in the annual afforestation level to 15,000 ha from 2021, subject to demand and the availability of funding. Sustainably manage the forest resource, including genetic resources through the introduction of a national forest management planning system and state support for seed stand management and the establishment of seed orchards thereby ensuring the provision of a full range of timber and other benefits. Ensure that afforestation, management of existing forests and the development of the forest sector are undertaken in a manner that enhances their contribution to the environment, takes account of the Environmental Report of the Forestry Programme 2014-2020, and fulfils their capacity to provide public goods and services. Develop a flexible and environmentally responsible roundwood supply chain to enhance the competitiveness of the processing sector and the production of high value products. Support the development of a competitive, innovative, value-added and market focused sector. Ensure that the tax treatment of forestry does not act as a disincentive for the achievement of national policy goals in particular forest cover, roundwood supply to industry and climate change mitigation.

Maintain a healthy forest environment through sustainable forest management and through early detection and control measures for pests and diseases. Ensure the availability of suitable programmes of education and training across the sector and research programmes targeted at identified needs. The importance of investment in training, research and development are recognised and the strategic actions focus on a more co-ordinated overall approach in these important areas. Forest products, forest services and the management of the forest resource must have a strong, market-led, quality focus.

Forestry Act 2014: Impact on permitting procedures and on forest activities.

Climate Action and Low Carbon Development Act 2015: The *Climate Action and Low Carbon Development Act 2015* provides the statutory basis for the *national transition objective laid out in the national policy position*. The Act provides that the first National Mitigation Plan and National Adaptation Framework were submitted to Government in 2017 (which includes actions by the forestry sector).

Forestry Programme 2014 - 2020: Impact on achievement of targets set out in *Forests, products and people* and progressing strategic actions.

DAFM (Forest Service) Environmental Requirements for Afforestation: Impact on afforestation. Impact on water quality and biodiversity.

Support Scheme for Renewable Heat (SSRH): Impact on demand for and price of biomass. Supply/demand balance.

EU Forest Strategy 2014: The Strategy highlights that forests are not only important for rural development, but also for the environment - especially for biodiversity; for forest-based industries; bioenergy; and in the fight against climate change. It advocates a holistic approach, encompassing impacts of other policies on forests as well as developments taking place beyond forest boundaries. It underlines that forest-linked EU policies should fully be taken into account in national forest policies.

EU Climate and Energy Framework: Proposed to integrate greenhouse gas emissions and removals from land use, land use-change and forestry (LULUCF) into the 2030 climate and energy framework. This is in line with the Paris Agreement, which points out the critical role of the land use sector in reaching our long-term climate mitigation objectives.

EU 2020 and 2030 Renewable Targets: Delivery of 12% of final heating demand from renewable sources by 2020. 40% emissions reduction in GHG by 2030 and 27% target for renewable energy.

UN Strategic Plan for Forests 2017 - 2030: Forest contribution to achievement of sustainable development goals (SDG). Forestry Instrument - formerly Non Legally Binding Instrument.

Natural Capital Accounting: Assessing the status and trends of natural capital, in particular, ecosystem services, is a significant challenge in view of the enormous scale and diversity of environmental stocks and flows. The EU Biodiversity Strategy to 2020 is an important policy driver of improved knowledge of ecosystems and their services. Key actions include mapping and assessing ecosystems and their services, assessing the economic value of such services, and promoting the integration of these values into accounting and reporting systems at the EU and national levels by 2020.

Draft National Bioenergy Plan: The Draft Bioenergy Plan, published in 2014, sets out the broader context for the development of Ireland's bioenergy sector, and the current status with regard to the range of policy areas that must be coordinated in order to create the conditions necessary to support its development. The forestry sector can play an important part in the development of the bioenergy sector.

Bioeconomy: At EU and national level, the bioeconomy is becoming increasingly important not only in terms of contribution to climate change but also rural development and the sustainable and wise use of natural resources¹⁷. The bioeconomy comprises those parts of the economy that use renewable biological resources from land and sea to produce food, feed, biomaterials, chemicals, pulp and paper, energy and fuels. Developments will impact on how forest resources are managed. The recent Bioeconomy Working Group Report entitled '*Growing the Irish Forest Bioeconomy*', highlights the potential contribution of the forestry sector to the emerging bioeconomy (COFORD 2017b). The report outlines the opportunity to position forestry as a central pillar of Ireland's National Policy on Bioeconomy with twelve proposals for growing a vibrant forest bioeconomy.

¹⁷ Department of the Taoiseach.2017. Discussion document for the preparation of a National Policy Statement on the Bioeconomy. Department of the Taoiseach, Government Buildings, Upper Merrion Street, Dublin 2, Ireland. Available from www.taoiseach.gov.ie



Review of progress to date

Expansion of the forest resource

Progress and developments

A full listing of progress against each of the eighteen strategic actions addressing the expansion of the forest resource is included in Appendix 2. The most significant development has been the introduction of the Forestry Programme 2014-2020. Key aspects of the Forestry Programme include;

- a) The payment of 15 premiums instead of 20 under the previous Afforestation Scheme;
- b) The significant budget increase for native woodland conservation, and increased focus on its application in relation to important native woodland types and opportunities for habitat linkage, and on environmentally sensitive areas, with a view to realising wider eco-system services such as water protection;
- c) A requirement within various water sensitive areas to include a Native Woodland Establishment plot alongside watercourses within conifer plantation design;
- d) The introduction of a single premium rate (i.e. no distinction between farmers and non-farmers); and
- e) 5% increase in fixed afforestation grant rates; an increase in the premium rate of 20% to address the reduced number of premiums; and the availability of a special construction grant for forest road construction.

Progress in achieving the targets in the Forestry Programme has been mixed (see Table 1).

Other significant developments include the re-launching of the Neighbourwood Scheme and Native Woodland Conservation Scheme in 2015, the occurrence and spread of *Hymenoscyphus fraxineus* and *Phytophthora ramorum* with the resultant delisting of ash and larch species for afforestation.

CAP Post 2020 and the review of State aid rules will have a significant influence on measures and targets contained in the next forestry programme. It is vital that provisions for continued support of Ireland's Forestry Sector are maintained particularly in the area of farm forestry and timber mobilisation. Closer alignment of agricultural schemes such as agri environment with afforestation is important if the full potential of forestry in climate change mitigation is to be realised.

Issues

Stakeholders expressed a number of issues of concern, most notably:-

- a) A need for more flexibility in how targets can be met e.g. species and silvicultural systems;
- b) Need for greater integration between afforestation and agricultural schemes e.g. GLAS and for integration of afforestation into whole farm planning as a viable enterprise;
- c) Lack of resources/expertise in NPWS to implement Native Woodland Conservation Scheme and other aspects relating to broadleaf species;
- d) Need to review cost basis for schemes especially professional fees;
- e) Need for improved communication and engagement (including the use of social media) with the younger population to help develop an overall forest culture;
- f) Publication of Environmental Requirements for Afforestation (2016);
- g) The Forestry Programme afforestation targets are less than set out in the Policy document with consequent implications for sustainable volume supply post 2030; and
- h) A significant decrease in afforestation in 2017.

TABLE 1: Forestry Programme - Implementation Progress.

Need	Measure	Schemes		Mid Term Targets (2015 - 2016)	Outturn (2015 - 2016)
Increase the level of forest cover to support increased wood production and the provision of environmental services	Measure 1	Afforestation	Planting (ha)	12,660	12,793
			Avg size (ha)	7.2	6.4
		NWS (Est) GPC 9 & 10	Planting (ha)	900	293
		Agro Forestry	Planting (ha)	30	0.6
	Measure 4	Reconstitution	Replanting (ha)	400	113
Increase supply of forestry biomass to bridge expected supply gap by 2020	Measure 1	Forestry for Fibre	Planting (ha)	300	0
	Measure 3	Forest Roads	Building (Km)	220	127
		Special construction works	Individual SCW	200	2
To support private forest holders in actively managing their forests	Measure 7	Knowledge Transfer and Information Actions (KTGs)	No. of Particip.	200	24
			no. of groups	5	2
		Continuous Professional Development	Established	Yes	No
		Targeted Training	No. Of Courses	10	2
		Advisory services	Visits	300	973
			Phone consult.	1,750	7,293
			Field Days	10	50
	Measure 8	Setting up of Producer Groups	No. of Groups	5	0
	Measure 9	Innovative Forest Technology	No. of Projects	90	0
	Measure 11	Forest management plans	No. of Plans	1,000	491
	Enhance the environmental and social benefits of new and existing forests	Measure 1	Afforestation	% broadleaf	30%
Measure 2		Neighbourhood scheme	Projects	30	2
Measure 5		WIS (Thinning and Tending of Broadleaves)	Ha thinned	3,000	1,421
		Environmental Enhancement of forests	Ha enhanced	400	0
Measure 6		Private NWS (Conservation)	Ha	160	0
		Native Emergent Woodland	Ha	100	0
		Public NWS (Conservation)	Ha	340	0
Measure 10		Forest reproductive material (Seed Stands)	Ha	75	0
		Forest reproductive material (Seed Orchards)	No. Supported	2	2

Recommendations

1. The current afforestation policy targets to be retained (SA 1.1);
2. Review current schemes to incorporate greater flexibility in how targets can be achieved with particular reference to species diversity and silvicultural systems (SA 1.1);
3. DAFM to address greater integration between afforestation and agricultural schemes e.g. GLAS; (SA 1.2);
4. Lack of expertise and knowledge in State organisations and local authorities to be addressed (SA 1.4 and SA 1.5);
5. Greater emphasis on establishing riparian woodlands and their benefits (SA 1.18);
6. Review the costs basis for current schemes in particular professional fees (SA 1.8); and
7. New strategic action to ensure that future promotional campaigns include a focus on the younger generation using social media (new SA 1.19).

Management of the forest resource

Progress and developments

Many of the strategic actions under this heading are on-going reflecting the long-term nature of forest management. A full listing of progress against each of the thirteen strategic actions addressing the management of the forest resource is included in Appendix 2. The most significant developments include:-

- a) Development of a new and improved Forest Management Plan (FMP) template;
- b) Establishment of a national forest inventory (NFI) and forecasting unit in DAFM ;
- c) Publication of the 2016 All Ireland Roundwood Forecast which utilised advanced forest management and forecasting software;
- d) Development of spatial forecasting and felling decision tools hosted on the DAFM website;
- e) Establishment of Knowledge Transfer Groups (KTG) for private forest owners;
- f) Re-introduction of Native Woodland and Conservation Scheme;
- g) Establishment of the Forest Genetics Working Group;
- h) Commencement of the 2014 Forestry Act; and
- i) DAFM publication of Felling and Reforestation Policy (2017).

The occurrence and spread of *Hymenoscyphus fraxineus* and *Phytophthora ramorum* has had a dramatic impact on the management of many important tree species while the impact of storm Darwin (2014) has had repercussions for the future management (thinning and rotation length) and stability of conifer crops not only in the southwest of the country but across all regions. More recently, the establishment of the financial instruments (funds) to promote the development of the sector through the consolidated management of fragmented assets may facilitate more active management.

Issues

Stakeholders expressed a number of issues of concern, most notably:-

- a) Lack of a unified consent system for forest roads and entrances;
- b) Late timing of forest road construction;
- c) Need for more effective and timely communication with forest owners on a range of issues;
- d) Lack of progress in implementation of Continuous Cover Forestry (CCF); and
- e) Lack of progress in incentivising active forest management among private forest owners.



Recommendations

1. DAFM to consider grant aiding forest entrances at an earlier stage (SA 2.6);
2. Implement a unified consent system for forest roads and entrances (SA 2.7);
3. Forest Service of the Department of Agriculture, Food and Marine to consider active communication with forest owners and referencing owner database (SA 2.9);
4. Improved collaboration between commercial and environmental sectors (SA 2.9);
5. Provision of guidance on CCF (SA 2.10); and
6. Reference climate change in relation to the Forest Genetics Working Group (SA 2.12).

Environment and public goods

Progress and developments

A number of the strategic actions under this heading are on-going and long-term in nature reflecting the sustainable management approach being promoted and adopted. A full listing of progress against each of the twelve strategic actions dealing with the environment and public goods is included in Appendix 2. The most significant developments include:-

- a) DAFM publication of Environmental Requirements for Afforestation (2016);
- b) Publication of COFORD ECOVALUE report in 2015 quantifying the value of a number of environmental services provided by forests e.g. recreation, biodiversity and carbon sequestration;
- c) Re-introduction of the Native Woodland and Conservation Scheme;
- d) DAFM publication of Felling and Reforestation Policy (2017);
- e) Publication of the HYDROFOR report (2016);
- f) Appropriate assessment procedures in place;
- g) Procedures for approvals/consents/licensing for afforestation, road construction, harvesting and aerial fertilisation;
- h) Provision of training to Inspectors and registered foresters (habitat assessment - afforestation);
- i) The recent publication of the COFORD Bioeconomy Working Group Report entitled, 'Growing the Irish Forest Bioeconomy', which highlights the potential contribution of the forestry sector to the emerging bioeconomy; and
- j) Publication of Outdoor Recreation Plan 2017 -2021 for public lands and waters.

There are still legacy issues with earlier afforestation on deep peats and what is the most appropriate land use for these sites. Societal expectations from forests are increasingly focussed on the range of environmental goods and services that forests can provide including recreation, biodiversity enhancement, water regulation and climate change mitigation¹⁸. Outdoor recreation contributes €1.5 billion to the economy and further investment in outdoor infrastructure has the potential to underpin the creation of 2,500 jobs in the tourism related sector (Anon 2017). Awareness of the potential adverse impact of inappropriate forest practices is increasing and there is an ongoing requirement that all practice guidance is science based using the most up to date information.

Interest and awareness of Natural Capital Accounting¹⁹ and its application to forestry are growing not only in Ireland but across the EU and worldwide with many relevant examples showing that timber production is not necessarily the most valuable benefit from forests.

The Citizens Assembly²⁰ is a government initiative which established a public forum to reflect public attitude to important current issues. Recently, the Citizens Assembly met in relation to, "**How the State Can Make Ireland a Leader in Tackling Climate Change,**" which provides an insight to the public attitude to climate change and

¹⁸ Martínez de Arano, I (2017). Potential for innovative forest based products in Southern Europe. EFI Annual European Forest Institute (EFI). 2017. Annual Conference, Oslo, October 5, 2017. Proceedings available from www.efi.int

¹⁹ Natural capital accounting is the process of calculating the total stocks and flows of natural resources and services in a given ecosystem or region. Accounting for such goods may occur in physical or monetary terms.

²⁰ The Citizens' Assembly is an exercise in deliberative democracy, placing the citizen at the heart of important legal and policy issues facing Irish society today. With the benefit of expert, impartial and factual advice the 100 citizen members consider topics of national importance, and other matters that may be referred to them. Their conclusions will form the basis of a number of reports and recommendations that will be submitted to the Houses of the Oireachtas for further debate by our elected representatives.

in this context the importance of forests in relation to the environment and provider of public goods. Members of the Citizens' Assembly voted overwhelmingly for a comprehensive Government regime to tackle climate change including the proposition that climate change should be at the centre of policy-making in Ireland. Having heard from numerous experts, the members recommended that there should be a tax on greenhouse gas emissions from agriculture. This proposition also included a proposal that farmers would be rewarded for land measures that sequester carbon such as the planting of trees. In addition, 99% of Assembly members recommended that the State should review and revise supports for land use diversification with attention to supports for planting forests.

Issues

Stakeholders expressed a number of issues of concern, most notably:-

- a) Need to engage with Natural Capital Accounting and explore the potential that such accounting systems offer to support/promote the case for sustainable forestry;
- b) Reports e.g. HYDROFOR and guidance often fail to understand the forestry context and provide broad based recommendations lacking appropriate scientific basis and/or timely data;
- c) Lack of good baseline information relating to forests and water quality and impact on the environment;
- d) Belief that forestry, in particular the Native Woodland Conservation scheme, does not get sufficient credit for the positive impact on water regulation and water quality;
- e) Lack of awareness among sector stakeholders of the full range of reports relating to forestry and the environment and public goods; and
- f) While recognising that work is ongoing, the rate of progress on updating the Code of Best Forest Practice and the suite of environmental guidelines is disappointing.

Recommendations

1. Forest sector to actively engage with the Natural Capital Accounting movement with a view to development of an environmental accounting system including the consideration of habitat values both pre and post planting (SA 3.1);
2. Undertake measures to improve the quality and timeliness of baseline data used to update guidance and environmental guidelines. (SA 3.3);
3. Consider actions to support the monitoring of water quality in relation to the Native Woodland Conservation Scheme (SA 3.11);
4. Initiatives and measures which aim to enhance the water and wetland benefits of forests to be considered under all afforestation schemes (SA 3.12);
5. Review the science behind the HYDROFOR report addressing identified gaps and updating findings and recommendations accordingly (new SA 3.13); and
6. Forest Service of the Department of Agriculture, Food and Marine to put in place system to notify stakeholders and registered foresters when a new document/report is hosted on its website (new SA 3.14).

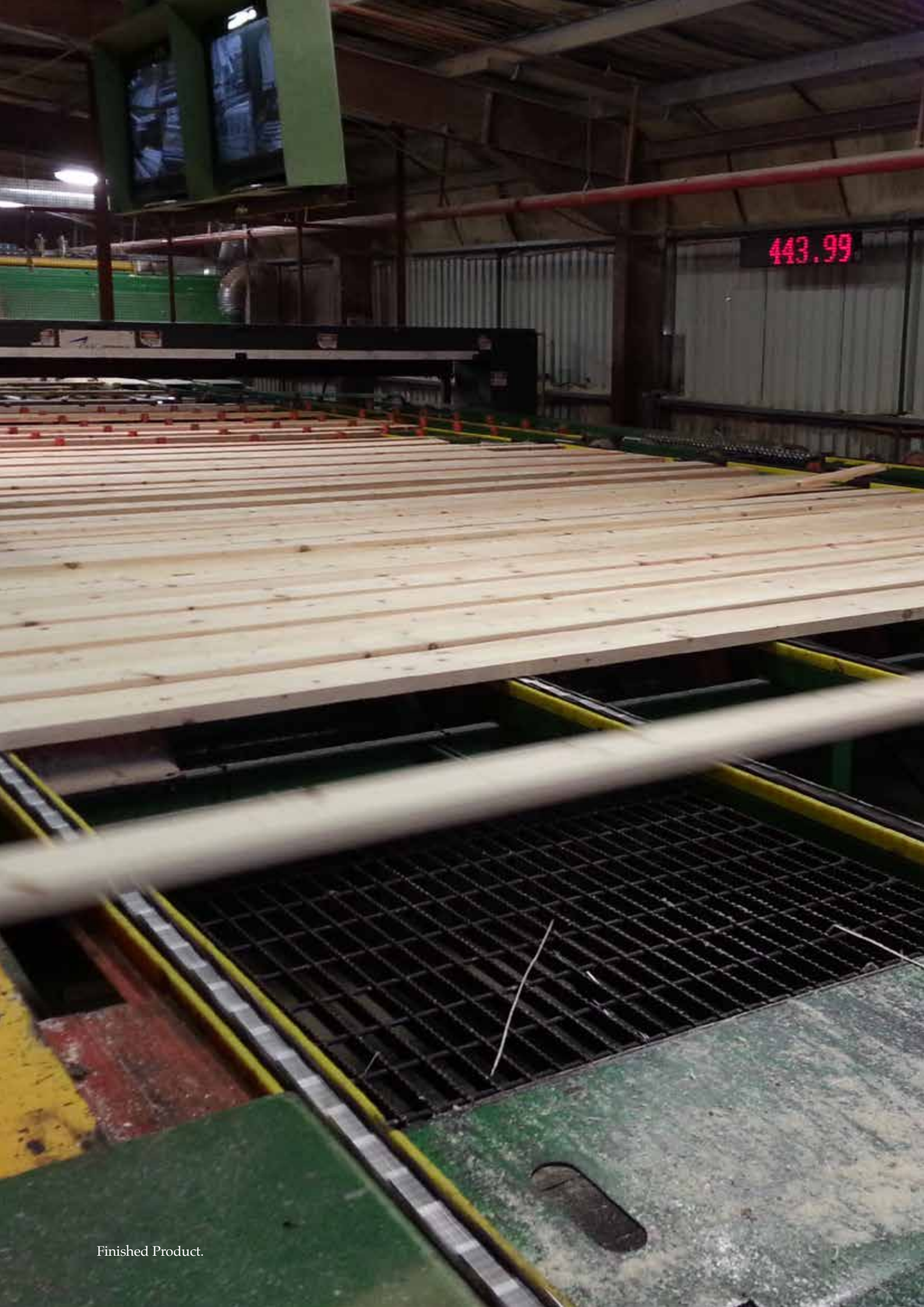
Supply Chain

Progress and developments

The majority of the strategic actions under this heading are on-going. A full listing of progress against each of the eleven strategic actions addressing the forestry supply chain is included in Appendix 2 while Appendix 4 provides details of the overall forest industry supply chain as prepared by Enterprise Ireland²¹. The most significant developments include:-

- a) Establishment of the COFORD Wood Mobilisation and Production Forecasting Working Group;
- b) Publication of the COFORD Wood Mobilisation Report (COFORD 2015);
- c) Publication of Managing Timber Transport - Good Practice Guide (FITG 2014);

²¹ Forest Industries Ireland "Worth Defending". Presentation by Neil Kerrigan, Enterprise Ireland, 12th December 2017.



Finished Product.

- d) Rooding grants for collaborative rooding projects;
- e) Development of Teagasc Ballyhaise harvester course and installation of harvest machine simulator;
- f) Establishment of two certification groups and completion of certification templates; and
- g) MARRT project is developing a GIS based agreed routes map.

The 2016 All Ireland forecast identifies that the doubling of roundwood supply by 2035 is dependent on the private sector. This presents a significant challenge due to the fragmented nature of the resource and the number of forest owners. This is especially so as the supply chain up to now has dealt primarily with a single owner i.e. Coillte. With increasing supply from the private sector, the processing sector is approaching the limit for controlled wood to ensure continued compliance with certification and chain of custody requirements which has implications for the entire supply chain.

Issues

Stakeholders expressed a number of issues of concern, most notably:-

- a) Lack of reliable and detailed information on the harvesting and transport infrastructure;
- b) Mobilising supply from the private sector in a sustained and balanced manner;
- c) Lack of suitable machines suited to smaller scale of private forests;
- d) Concern regarding timber security especially in private forests;
- e) No national standard system for timber measurement and removals;
- f) Lack of appropriate guidance on the recovery of harvesting residues for energy; and
- g) Concern regarding contractors' security of work and ongoing training.

Recommendations

1. Undertake a national survey of forest machine and transport infrastructure and collate with CSO data on machinery imports and Coillte's machinery database (new SA 4.2a);
2. DAFM in collaboration with sector stakeholders to support measures to address improved security of timber and the development of a national timber sales system including use of technology (SA 4.5 and new SA 4.3a) and;
3. DAFM to prepare guidance note on the recovery of harvesting residues (SA 4.11).

Wood processing and wood based panels sector

Progress and developments

A number of the strategic actions under this heading are on-going. A full listing of progress against each of the six strategic actions dealing with the processing sector is included in Appendix 2. The most significant developments include:-

- a) Establishment of the COFORD Wood Mobilisation and Production Forecasting Working Group (CWMPFWG);
- b) Start of the COFORD funded Exploitation and Realisation of Thinnings from Hardwoods (EARTH) project;
- c) Current All Ireland forecasts provide volume by top diameter category and not by product category;
- d) Commencement of the COFORD funded Commercialisation of Irish Cross-Laminated Timber (CICLT) project;
- e) Use of Remsoft in producing the 2016 All Ireland Roundwood Forecast;
- f) Spatial roundwood forecasting tool hosted on DAFM website; and
- g) Commencement of the COFORD funded FORECASTMODEL project.

The CWMPFWG is an implementation group focussing on identifying barriers and solutions and while its report is imminent, many issues will require further time for analysis and resolution. Despite the advances in the processing of domestic softwoods, there are still misconceptions amongst some timber specifiers regarding their quality and the use of timber in construction. The sector exhibits low investment in research development and innovation.

Developing premium products is required to maintain existing markets and achieve diversification and productivity performance. Further penetration of export markets and investment and innovation in timber products is essential if the forecast increasing supply of raw material is to be brought to market and processed.

Issues

Stakeholders expressed a number of issues of concern, most notably:-

- a) Impact of Brexit on wood processing sector;
- b) The sector currently lacks an industry led Centre of Technology and Marketing Excellence to underpin and support market led product and systems development;
- c) Need to develop higher value market than firewood for broadleaved resource which comprises circa 35,000 ha of pure grant aided and 80,000 ha private woodland;
- d) Lack of knowledge on the fire risk aspects of timber in construction resulting in over specification or use of alternative materials;
- e) Need to increase the uses of timber in building and construction; and
- f) Capacity to meet targets under the Renewable Energy Directive given the forecasted potential supply of wood fibre in the All Ireland Forecast 2016-2035;

Recommendations

1. DAFM in collaboration with Wood Technology Ireland (WTI) to undertake awareness programme for Local Authorities on use of timber in buildings and fire risk (new SA 5.7);
2. Enterprise Ireland to facilitate an industry led discussion to understand the need and to potentially scope the requirements for developing an end market strategy and a Centre of Operations Excellence to support seed innovation in the sector and supply chain and to promote market-led new product/systems development. (New SA 5.9)
3. DAFM in collaboration with WTI and wood processing sector to actively engage with the construction sector on the promotion of increased use of timber (new SA 5.8);
4. Future All Ireland Forecasts to provide estimates of volume information by main product category (new SA 5.4a);
5. Continue with actions to add value to broadleaves (SA 5.3); and
6. Continue with work on development of growth models (SA 5.4).

Forest protection and health

Progress and developments

A number of the strategic actions under this heading are on-going. A full listing of progress against each of the twelve strategic actions is included in Appendix 2. The most significant developments include:-

- a) Irish Deer Management Forum (IDMF) established;
- b) FORDEER project completed but report not yet issued;
- c) Widespread forest fires in 2017 causing extensive damage;
- d) Pest risk assessment (PRA) underway for Sitka spruce;
- e) DAHG Invasive Species Working Group (ISWG) established in 2016;
- f) DAFM reported to Government Task Force (GTF) on emergency planning on the spate of forest and land fires in early 2017. Following this, DAFM hosted a cross Departmental/Agency meeting and produced a report for the GTF outlining progress on fire prevention and preparedness recommendations. ; and
- g) Spread of *Hymenoscyphus fraxineus* and *Phytophthora ramorum* and delisting of ash and larch species for afforestation.

The stated policy in relation to deer management was to establish a National Deer Management Unit (NDMU) with overall responsibility for deer but as an alternative the Irish Deer Management Forum (IDMF) was set up

and has issued a framework for action report. Deer are an increasing problem and can cause significant damage to forests. The NPWS role is conservation and not population control where concerted action is now required. However, DAFM in partnership with DCHG has gone out to tender to establish a number of deer management units in County Wicklow to cover a three year timeframe. The aim will be to help manage deer populations at sustainable levels in the greater Wicklow region.

Disease resistance trials for Ash dieback (*Hymenoscyphus fraxineus*) have been established and progress in developing disease resistant strains is underway.

Issues

Stakeholders expressed a number of issues of concern, most notably:-

- a) The IDMF has little authority or budget to implement recommendations and stakeholders believed full time NDMU if established would overcome these shortcomings;
- b) Deer populations out of control in hotspots across the country;
- c) Deer are protected species under Wildlife Act but specific species are not identified;
- d) Climate change and globalisation will result in increasing threats from pests and diseases;
- e) Lack of capacity in the fields of forest pathology and forest entomology including on-going resource capacity for horizon scanning;
- f) Burden of proof for forest fires too onerous however burden of proof is a legal issue;
- g) Lack of knowledge on what is the best practice in relation to ash crops infected with *Hymenoscyphus fraxineus*;
- h) Lack of progress, communication and action on IAS; and
- i) Globalisation and EU membership trade rules has increased Ireland's exposure to damaging insects and diseases.

Recommendations

1. Strategic action 6.1, that a full-time National Deer Management Unit (NDMU) be established to coordinate deer management, policy development and implementation, in consultation with stakeholders, and to lead the development of a professional deer management culture in Ireland be implemented in full. (Legal basis around control of deer rests with DCHG)
2. In light of increasing biotic threats due to climate change and globalisation, DAFM to employ dedicated forest pathologist/entomologist to improve detection and response to pests and diseases (new SA 6.4a)
3. DAFM/Teagasc to develop and implement a training programme for private forest owners on fire prevention and control measures (new SA 6.5a).
4. DAFM to develop and disseminate guidance on forest bio-security (new SA 6.13)
5. DAFM to develop guidance on the management of diseased/pest infected crops e.g. ash *dieback* (new SA 6.14)
6. DAHG/DAFM in association with forest sector stakeholders to actively communicate with the sector regarding IAS and their potential impact on forests and the environment (new SA 6.15)

Support - education, training and research

Progress and developments

The majority of the strategic actions under this heading are on-going. A full listing of progress against each of the eleven strategic actions addressing education, training and research is included in Appendix 2. The most significant developments include:-

- a) Publication of the Strategic Research Agenda for Forestry in Ireland "Forest Research Ireland (FORI) – meeting the needs of Ireland's forest sector to 2017 and beyond through research and innovation" in 2014 by the COFORD Council;
- b) Support for the Society of Irish Foresters new continuous professional development (CPD) programme which commenced in 2016;
- c) Establishment of Wood Technology Ireland to deal with wood products and standards;



- d) The Forestry Programme 2014-2020 provides flexibility for funding for a wide range of training;
- e) The Forest Certification initiative under implementation;
- f) Irish forest owners: The role of knowledge transfer and social networks (FOROWN) project under implementation;
- g) Long Term Forest Research (LTFR) workshop held in 2017; and
- h) A wide range of COFORD projects both completed and on-going are noted under respective chapter headings.

The stated policy in SA 7.1 was to establish an overarching forest sector body which will guide and co-ordinate activities relating to research and development, training and education across the sector with a focus on innovation, added value and increased competitiveness. The Forestry Act allows the Minister to appoint Committees and while this might have potential, the general view was that a structure with some statutory basis would be better as currently the sector is fragmented with a lot of initiatives and projects and lacks overall guidance. DAFM are of the view that sufficient structures are already in place and focus on any new structure might divert efforts noting the amount of work that had been achieved to date.

Issues

Stakeholders expressed a number of issues of concern, most notably:-

- a) Lack of overarching forest sector body to guide and co-ordinate activities relating to research and development, training, leadership and education;
- b) Current funding procedures for research are short term and not suited to long term forestry research;
- c) The sector should have a more active role in raising health and safety (H&S) awareness issues and play a role in co-ordination/collaboration of H&S across the sector;
- d) Not all accidents or near misses are recorded/reported and there is no sharing of information in this regard;
- e) Insufficient collaboration with relevant EU research projects; and
- f) Gender balance is lacking within the industry as a whole.

Recommendations

1. Strategic action 7.1 to establish an overarching forest sector body which will guide and co-ordinate activities relating to research and development, training and education to be implemented;
2. DAFM to facilitate health and safety (H&S) awareness by supporting the development of a system for recording accidents and near misses across the sector and using lessons learned to improve H&S practices (new SA 7.5a);
3. DAFM to examine models for funding research elsewhere and their relevance to Ireland (SA 7.2); and
4. DAFM and sector stakeholders to encourage more balanced gender diversity through actively promoting forest training and education and career options (new SA 7.12).

Quality standards and certification

Progress and developments

There are only two strategic actions under this heading both of which are on-going. The most significant developments include:-

- a) DAFM's forest certification initiative has resulted in the establishment of two Certification Groups to help foster a national certification network. Certification templates have also been delivered as part of this initiative. Ongoing support for growing membership of certification groups is being considered by the Department;
- b) Sustainable Forest Management Ireland, formerly FSC Ireland, was established in 2016;
- c) The COFORD funded, Commercialisation of Irish Cross-Laminated Timber (CICLT) project is under implementation; and
- d) Wood Technology Ireland (WTI), which provides technical support for the specification and use of wood products in construction and other areas, was established.

Scale is an important factor in relation to the certification of private forests. The general stakeholder view was that established certification schemes should be encouraged to make certification more viable for small forest owners. DAFM supports the Irish Bioenergy Association's Wood Fuel Quality Assurance Scheme and the Irish Timber Research and Innovation Centre at NUI Galway. DAFM and other stakeholders are supporting Sustainable Forest Management Ireland (SFMI) initiative. Operator training course at Teagasc Ballyhaise College will be to City & Guilds Standard. DAFM to work with Enterprise Ireland and other Agencies with regard to product development and accessing funds under Horizon 2020.

Issues

Stakeholders expressed issues of concern, notably-

- a) With increasing supply from the private sector, the processing sector is approaching the limit for controlled wood to ensure continued compliance with certification and chain of custody; and
- b) Established certification schemes should be encouraged to make forest certification more viable for small forest owners.

Recommendations

Existing Strategic Actions to be further progressed taking into consideration the issues of concern above.

Policy implementation and review

Progress and developments

There are four strategic actions under this heading. The most significant developments include:-

- a) Development and implementation of the 2014-2020 Forestry Programme; and
- b) Recommendations of the BIOFOREST report incorporated into new environmental requirements for afforestation

No progress has been made on the main strategic action 9.1, i.e. *to establish a Forest Council, representative of the forest and related sectors, with a permanent secretariat....* and is still under consideration by DAFM. Consensus that the action should be progressed with a view to establishing a statutory body with broad stakeholder representation.

Issues

Stakeholders expressed a number of issues of concern, notably:-

- a) No progress on establishing a Forest Council under SA 9.1;
- b) No progress on establishing a Task Force under SA 9.2; and
- c) The EPA BioForest report (2006) findings and recommendations need to be updated in light of new research.
- d) Regulation of the sector may not always be commensurate with risk, potentially resulting in undifferentiated approaches which could undermine the development of the sector.

Recommendations

1. Strategic action 9.1 to establish a Forest Council to be prioritised and implemented.
2. Strategic action 9.2 to establish a Task Force to consider the establishment of a stand-alone government body or agency which could have the responsibility of addressing development and promotion of the forest sector and forest products nationally and internationally be progressed and implemented.
3. DAFM to liaise with the EPA to ensure that the BioForest Report (2006) findings and recommendations are updated in light of new research and to include forestry expertise in the process. (New SA 9.5)

Cost appraisal and funding

Progress and developments

The majority of strategic actions under this heading have been completed. A full listing of progress against each of the six strategic actions is included in Appendix 2. The most significant developments include:-

- a) Removal of the high income threshold in Budget 2016 for those active in forestry;
- b) Corporate social responsibility initiative with forest industry for the planting of broadleaves launched;
- c) Development and implementation of the 2014-2020 Forestry Programme; and
- d) Decision taken at a senior level within DAFM that the Forestry Programme would be 100% financed through the exchequer.

DAFM are looking at a forestry fund for native woodlands and expect to develop the concept over the next 12 months. Institutional investment has been mainly in the secondary market and the development of the secondary market has impacted on afforestation as the valuation of broadleaves by such investors does not reflect their capacity to deliver a range of environmental services.

While it could be possible to link environmental services (ES) and carbon to the premium payments, it was suggested that best not to confuse issues to the detriment of the afforestation programme. The encouragement of stronger markets for ES and broadleaves could underpin the value of embedded carbon in products.

Issues

Stakeholders expressed concern on one issue:-

- a) The anomalies between tax treatment of forestry and farming regarding capital gains tax (CGT) and capital acquisitions tax (CAT) reliefs should be addressed.

Recommendations

1. Harmonise the tax treatment of forestry and agriculture regarding eligibility for retirement relief (CGT) and business relief (CAT) (new SA 10.7).

Legislation

Progress and developments

The majority of strategic actions under this heading have been completed. A full listing of progress against each of the five strategic actions is included in Appendix 2. The most significant developments include:-

- a) The 2014 Forestry Act has been commenced and it allows the Minister to require an owner to submit a Forest Management Plan;
- b) The 2014 Forestry Act contains provision for a transparent appeals structure;
- c) National implementing legislation for the EU Timber regulation has been introduced (SI NO 316 of 2014);
- d) DAFM in communications with Department of Housing, Planning and Local Government on a single consent system for forest entrances; and
- e) Publication of Felling and Reforestation Policy (2017).

The unified consent system for forest road entrances is not yet in place. Under section 10 of the Forest Act 2014, provisions were introduced that give the Minister powers to require an owner of a forest to submit a forest management plan. The Act, however, does not make it mandatory for forest owners to prepare a forest management plan even in the context of applying for a felling licence. While the new Act allows for deforestation, the policy of replanting still remains and is set out in the Felling and Reforestation Policy (DAFM 2017) and greater flexibility in this regard is unlikely.



Roadside Roundwood.

Issues

Stakeholders expressed issues of concern, notably:-

- a) Unified consent system for forest roads and entrances remains outstanding; and
- b) Need for a more flexible approach to the removal of areas from forestry to other land use types has not been addressed.

Recommendation

1. DAFM to re-examine a more flexible approach to the removal of areas from forestry to other land use types (SA 11.4).

Coillte

Progress and developments

The majority of strategic actions under this heading are ongoing. A full listing of progress against each of the four strategic actions is included in Appendix 2. The most significant developments include:-

- a) Decision by Government not to sell state forestry assets;
- b) Proposals for licensed third party use of Coillte roads at draft stage;
- c) Increased use of technology for timber measurement and sale security e.g. Blue Tree System used by Coillte; and
- d) COFORD Wood Mobilisation Group established to assist in implementing mobilisation report recommendations.

The context for two of the strategic actions has changed with the decision not to sell state forest assets. While there has been progress in putting in place a more unified timber measurement and removals e.g. electronic docketts, there is still a long way to go before a national system could be implemented with the private sector.

Issues

Stakeholders issue of concern:-

- a) There continues to be a need for a national standard system of timber measurement and sale removals.

Recommendation

1. Establish a COFORD initiative to progress a national standard system for timber measurement and removals (new SA 12.2a).

Institutional arrangements

Progress and developments

There are only three strategic actions under this heading, which have yet to be completed. A full listing of progress against each of the three strategic actions is included in Appendix 2. The most significant developments include:-

- a) A high level organisational review has been undertaken by DAFM and its recommendations are being implemented; and
- b) DAFM commenced an annual report on Ireland's Forests - Annual Statistics in 2017 which encompasses the forest estate and the forest industry in Ireland.

The functional and efficiency review under SA 13.1 has not yet been undertaken and to some degree may have been misinterpreted. What was proposed was a **functional analysis** which is essentially an exercise in decomposing the work of an organisation into its component parts, the outputs from which contribute to improved service delivery and more efficient use of resources.

Issues

Stakeholders expressed a number of issues of concern, including:-

- a) Lack of knowledge within the sector regarding the role and functional units within the Forestry Divisions within DAFM and
- b) Annual report has been improved, however, it is lacking in a number of areas, particularly in relation to Key Performance Indicators (KPIs) and policy deliverables.

Recommendations

1. DAFM to clearly outline the mission, functional units and the roles and responsibilities and reporting arrangements of the Forestry Divisions within DAFM (new SA 13.4);
2. Include more up to date data on employment, contribution to GDP, etc in the annual report (SA 13.3); and
3. DAFM to amend the format of *Ireland's Forests - Annual Statistics* report to include policy deliverables and KPIs (SA 13.3).



References

- Anon (2017). Outdoor Recreation Plan for Public Lands and Waters in Ireland 2017-2021. Report commissioned by public landowners. Available from www.coillte.ie
- Bacon, P & Associates Economic Consultants (In Association with Deloitte), (2004). A Review and Appraisal of Ireland's Forestry Development Strategy, Stationery Office, Dublin.
- BioForest Report (2006). Environmental Protection Agency. EPA Headquarters, Johnstown Castle, Wexford. Available from www.epa.ie.
- COFORD (2015). Mobilising Ireland's forest resource. Authored by the COFORD Wood Mobilisation Group. COFORD, DAFM, Dublin Ireland. Available from www.coford.ie
- COFORD (2016). All Ireland Roundwood Production Forecast 2016 - 2035. COFORD, DAFM, Dublin Ireland. Available from www.coford.ie
- COFORD (2017a). Woodflow and forest-based biomass energy use on the island of Ireland (2016). COFORD, DAFM, Dublin Ireland. Available from www.coford.ie
- COFORD (2017b). Growing the Irish Forest Bioeconomy. COFORD, DAFM, Dublin Ireland. Available from www.coford.ie
- Coillte. (2014). Managing Timber Transport - Good Practice Guide (2014). Coillte, Newtownmountkennedy, Co. Wicklow. Available from www.coillte.ie/
- DAFM (2013). The Second National Forest Inventory. Republic of Ireland - Main Findings. Forest Service, DAFM, Johnstown Castle, Wexford, Ireland.
- DAFM (2015a). Deer Management in Ireland A Framework for Action. DAFM, Kildare St. Dublin Ireland. available from www.agriculture.gov.ie.
- DAFM (2015b). Forestry Programme 2014 – 2020: IRELAND. DAFM, Kildare St. Dublin Ireland. available from www.agriculture.gov.ie.
- DAFM (2016). Environmental Requirements for Afforestation Water. DAFM, Kildare St. Dublin, Ireland. available from www.agriculture.gov.ie.
- DAFM (2017a). Felling and Reforestation Policy. DAFM, Kildare St. Dublin, Ireland. available from www.agriculture.gov.ie.
- DAFM (2017b). Adaptation Planning - Developing Resilience to Climate Change in the Irish Agriculture and Forest. Department Of Agriculture, Food and the Marine, Kildare St. Dublin 2, Ireland. Available from www.agriculture.gov.ie.
- DCCA (2017). National Mitigation Plan. 29/31 Adelaide Road, Dublin D02 X285. Available from www.dcca.gov.ie
- Department of the Taoiseach (2017). Discussion document for the preparation of a National Policy Statement on the Bioeconomy. Department of the Taoiseach, Government Buildings, Upper Merrion Street, Dublin 2, Ireland. Available from www.taoiseach.gov.ie
- ECOVALUE (2015). Valuing the Ecosystem Services of Irish Forests. Teagasc, Athenry, co. Galway. available from www.teagasc.ie.
- EEA (2017). Air quality in Europe - 2016 report. European Environmental Agency, Denmark.
- EPA (2016). Air Quality in Ireland 2016. Indicators of Air Quality. EPA Headquarters, Johnstown Castle, Wexford. Available from www.epa.ie
- FAO (2012). Developing effective forest policy, a guide. FAO Forestry Paper 161. Food and Agricultural Organisation of the United Nations, Rome, Italy.

Fitzpatrick Associates (2005). Economic value of trails and forest recreation in Ireland. Report commissioned by Coillte and the Irish Sports Council. Fitzpatrick Associates, Dublin 2, Ireland.

FITG (2014). Managing Timber Transport. Good Practice Guide. Forest Industry Transport Group.

FORECON (2011). An economic evaluation of the market and non-market functions of forestry. COFORD, DAFM, Dublin Ireland. Available from www.coford.ie.

Forestry Act 2014. Dublin: Stationery Office. available:<http://www.irishstatutebook.ie/eli/2013/si/21/>[accessed 25 Sept 2018].

General Assembly resolution 62/98, United Nations Non-legally binding instrument on all types of forests, (A/C.2/62/L.5) (17th December 2007), available from undocs.org/A/RES/62/98

General Assembly resolution 71/285, United Nations strategic plan for forests 2017–2030, (A/71/L.63) (27th April 2017), available from undocs.org/A/RES/71/285

Hummel, F.C. 1983. Policy Formulation in Forest Policy, a contribution to resource development. Edited by Hummel, F.C. Martinus Nijhoff/Dr W Junk Publishers, The Hague. 1984

HYDROFOR (2015): Assessment of the Impacts of Forest Operations on the Ecological Quality of Water. EPA headquarters, Johnstown Castle, Wexford. Available from www.epa.ie

IFFPA. (2016). An overview of the Irish forestry and forest products sector 2016. IBEC Head Office, Dublin 2, Ireland. Available from www.iffpa.ie

IPCCC. (2014). Climate Change 2014: Mitigation of Climate Change. Contribution of Working Group III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change [Edenhofer, O., R. et al. (eds.)]. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA.

Kerrigan, K. (2017). Forest Industries Ireland “Worth Defending”. Presentation by Neil Kerrigan, Enterprise Ireland, to the COFORD Forest Policy Review Group (CFPRG), 12th December 2017.

MCPFE (2007) State of Europe’s Forests 2007. The MCPFE report on sustainable forest management in Europe. Jointly prepared by the MCPFE Liaison Unit Warsaw, United Nations Economic Commission for Europe and Food and Agriculture Organization of the United Nations.

Nolan, P. (2015). Ensemble of regional climate model projections for Ireland, Report No. 159, Environmental Protection Authority

Martínez de Arano, I (2017) Potential for innovative forest based products in Southern Europe. EFI Annual European Forest Institute (EFI). 2017. Annual Conference, Oslo, October 5, 2017. Proceedings available from www.efi.int

Ní Dhubháin, Á., Fléchar, M-C., Moloney, R., O’Connor, D. and Crowley, T. (2006) The socio-economic contribution of forestry in Ireland. COFORD, DAFM, Dublin Ireland. Available from www.coford.ie.

Phillips, H. (2011). All Ireland Round Production Forecast 2011-2028. COFORD, DAFM, Dublin Ireland. Available from www.coford.ie.



Appendix 1 - List of submissions received within deadline²²

Submission from Coillte in relation to the Forests, Policy, Products and People - A renewed version (pdf 126Kb)
Teagasc Response to Forest Policy Review (pdf 1,034Kb)
Submission from Mr Geoffrey H T Fitzjohn in relation to the Forests, Products, People - Irelands Forest Policy - a renewed vision (pdf 63Kb)
DAHG response re planned review of Forests products and people Irelands forest policy a renewed vision (pdf 178Kb)
Macra na Feirme - Review of Forests products and people Irelands forest policy a renewed vision (pdf 857Kb)
Macra na Feirme Afforestation Policy (pdf 553Kb)
Wol NW Strategy - Forest Policy Review (pdf 697Kb)
Submission from Dr G Gallagher - Forest Policy review (email)
Submission from Donal Magner in relation to Forests, Products and People - Ireland's Forest Policy. An industry stakeholder proposal (pdf 178Kb)

²² DAFM. (2017). Public Consultation. Calls for Submissions of Forestry, Products and People - Irelands Forestry Policy - A renewed Vision. DAFM, Kildare St. Dublin 2, Ireland. Available from www.agriculture.gov.ie

Appendix 2 - Progress on implementing strategic actions

No.	Original Strategic Action	Changes Required (See also minutes of meetings)	Progress and Developments to Date	Research & Development in Support of Strategic Actions
1	To increase the forest area, in accordance with SFM principles, in order to support a long term sustainable roundwood supply of 7 to 8 million cubic metres per annum			
1.1	The afforestation target will be 10,000 ha per annum up to 2015 and 15,000 ha per annum thereafter to 2046. This will, with reforestation of clearfall areas, provide a forest cover of 18%. Targets will be reviewed by DAFM every five years beginning in 2016 in the context of long term sustainable roundwood supply and other policy considerations.	Limited progress - Greater flexibility in how targets can be achieved	In 2012 the National Forest Inventory (NFI) estimated total forest cover at 731,650 ha; afforestation from 2012 -2015 averaged just over 6,000ha per annum; and new planting targets have been set in the forestry programme up to 2020. The target of 18% forest cover by 2046 now needs to be reviewed. Based on a planting target of 15,000ha per annum from 2020 and reforestation of clearfall areas, the estimated year of achieving 18% forest cover is now 2050 or if current rate of 7,000 ha per annum, was achieved then 2087. A promotion campaign supported by industry and Teagasc in conjunction with DAFM has been developed to increase awareness levels and positivity, and promote multiple benefits associated with forestry enterprises.	
1.2	Within the context of this policy and Food Harvest 2020 (Food Wise 2025), DAFM to develop an integrated approach to the achievement of these targets across land uses and schemes.	Work ongoing - Need for greater integration between schemes e.g. forestry and GIs	The Promotion Campaign for forestry calls for linkages to be created between forestry and decision making within general agriculture at a whole farm level. This could include for example areas such as farm management, business planning, retirement planning and succession. Decisions that need to be taken in these areas could for example include forestry as part of the mix when compatible with overall farm family requirements.	
1.3	The broadleaf target remains at an area equivalent to 30% of the annual afforestation programme. To broaden the scope and responsibility for increasing the area of broadleaves, DAFM will introduce an overall indicative national target level of 10% broadleaf species in reforestation, taking into account economic and site suitability considerations. This will be monitored and reviewed periodically.	Being implemented - Greater flexibility (methods) to facilitate meeting target. Address skills deficit	Forestry Act 2014 - Replanting conditions attached to Felling Licences issued. Look at new FL System and work at a landscape level.	
1.4	DAFM to encourage State organisations and Local Authorities to convert part of their land bank holdings to public purpose forestry and in particular native woodlands.	Work ongoing - Lack of expertise and knowledge to be addressed	Re-launching and promoting of Neighbourhood Scheme and Native Woodland Schemes by DAFM - Local Authorities beginning to apply.	
1.5	DAFM in collaboration with the National Parks and Wildlife Service of the Department of Arts, Heritage and the Gaeltacht (DAHG) to establish an appropriate annual target (minimum 150 ha) for the restoration and expansion of native woodlands focussing on alluvial and sessile oak woodlands. The expansion of native woodlands is additional to the afforestation target above	Lack of resources and expertise to be addressed	Covered in Native Woodland Establishment and Conservation schemes and proposed new Woodland Improvement Scheme- Environmental Enhancement Scheme. Annual NW Afforestation & Restoration figures (Has) Targets in Forestry Programme (see https://www.agriculture.gov.ie/mediamigration/forestry/forestryprogramme2014-2020/ IRELANDForestryProgramme20142020230215.pdf) and outline of recent activity.	
1.6	DAFM to commission a study in 2014 to examine the implications of forest support payments linked to management interventions and the delivery of products/ services.	No Change	Development of a new Forest Management and Certification Scheme is underway. The aim of this scheme will be to support private forest owners is achieving certification for their forests.	

1.7	DAFM to introduce, as part of the afforestation grant application and forest management planning process, a template setting out owner and State objectives, outputs and levels of support, which would facilitate early owner involvement/awareness and serve as a basis for ongoing management review (by the owner) and preliminary input to the proposed Forest Management Planning process (see also 2.1).	Completed	A new Forest Management Plan (FMP) template designed by the COFORD Forest Management Planning Group has been incorporated into the suite of Forest certification templates. This new FMP will replace the existing FMP which means that forest owners who complete this template will have started work on achieving forest certification for their forests. The new FMP will be incorporated into the Departments new Generic Land Management System (GLAMS).	The recent COFORD funded Irish private forest owners: The role of knowledge transfer and social networks (FOROWN) Project, led by UCD, is looking at understanding the extent of forest owner engagement in management and the factors that influence it, will assist in addressing this Strategic Action.
1.8	DAFM to periodically review the cost basis for grant support for afforestation to ensure that efficiencies and technical advances are reflected in the approved rates and that the State obtains value for money. DAFM to examine the impact of amending future premium payments and of limiting premiums to 15 years with particular regard to achieving afforestation targets.	Overall costs, including professional fees, to be reviewed on the basis of invoices submitted	Review of cost basis of grant support undertaken - Annual premiums are now for 15 years. Will be reviewed in the context of the mid term review.	The COFORD funded ECOVALUE Research Project, 'Valuing the Ecosystem Services of Forests in Ireland' led by UCD has recently been completed. The final report is currently in preparation and will assist with this action.
1.9	DAFM to review the incentives for planting larger areas and for consolidating existing forest areas to increase long term competitiveness and efficiency in harvesting and transport.	Completed	Considered during programme negotiations. Knowledge Transfer Groups (KTG) and the establishment of a group certification network, will support forestry producer groups and encourage cooperation between small forest owners. The forestry programme 2014-2020 sought to encourage private institutional investment. In this regard, a number of new forestry investment funds have been established, including a fund involving the European Investment Bank (EIB), the Ireland Strategic Investment Fund (ISIF) and DASOS Capital, in addition to existing funds, aims to assist with forestry development through consolidation of fragmented forests. Mid term review of the Forestry Programme increased premiums for plantations greater than 10 ha for plantations established in 2018	
1.10	DAFM to reduce the differential between farmer and non-farmer premiums and review annually to determine whether further differential adjustments are warranted to mobilise private sector and institutional investment.	Mainly complete - no change	Single rate introduced as part of Forestry Programme 2014 - 2020. NewERA invited to look at mobilising institutional investment.	
1.11	DAFM in collaboration with the wood products and wood energy sectors and other stakeholders should regularly review the most appropriate species mix to meet expected market needs taking into account sustainable forest management and climate change adaptation needs.	No change - ongoing	Review of species list was undertaken. The Forestry for Fibre measure includes eucalyptus, aspen and other species. Wood products and wood energy sectors should take the lead on this topic. New species list issued under circular 5 of 2016 also contributes to this action. Teagasc 'Alternative Conifer' Project is investigating potential of species - see https://www.teagasc.ie/crops/forestry/research/potential-of-minor-conifer-species/ . Mid term review of the Mid term review of the Forestry Programme increased grants and extended the premium payments from 10 to 15 years premiums for fibre crops.	The DAFM-funded SHORFOR project is exploring the potential of short rotation forestry (SRF) crops for biomass which may have some potential to offset some of the predicted shortfall in supply of timber for biomass and assist in achieving renewable energy targets. https://www.teagasc.ie/crops/forestry/research/shortfor-project/

No.	Original Strategic Action	Changes Required (See also minutes of meetings)	Progress and Developments to Date	Research & Development in Support of Strategic Actions
1.12	DAFM to monitor and, in consultation with stakeholders, periodically review the overall average yield class for afforestation as set out in Growing for the Future in the light of the quality of land being afforested and the more widespread use of genetically improved planting stock with a view to increasing both the minimum and average productivity levels.	No change - ongoing	The new "Land Types for Afforestation" document has the potential to increase the availability of land which would previously have been excluded from the afforestation scheme. While yield class 14 Sitka spruce is still the minimum productivity threshold for all land, the overall impact on yield class as a result of this development will need to be monitored. Seed Stand and seed orchard grant scheme introduced to improve planting stock. Programme makes provision for promoting improved planting stock.	The COFORD funded FORGEN Project, on the long-term option for improved forest productivity and timber quality in Ireland has recently been completed by UCD and will assist in supporting this action. The FORGEN report is currently being finalised. Teagasc 'Growing for Profit' research project supports this initiative by looking at the long term effect of different thinning types, thinning intensities and their effect on volume production, rotation length and profitability. This research aims to guide best practice models to support intensification of thinning practice and assess methods for thinning control linked to site specific volume production. The COFORD funded FORM Project, Forest Management Research to enhance productivity and pest control and diseases resistance in key forest species has recently commenced in UCD and will assist in drawing up future Forest Protection Guidelines and in making recommendations on the use of species and provenances with proven disease resistance.
1.13	With a view to achieving the national afforestation target and roundwood supply potential and the development of a forest culture among farmers and other landowners. DAFM to undertake a concerted two year promotion campaign to encourage afforestation and more active forest management in collaboration with Teagasc, forest companies and owners representative organisations including for example harvesting demonstrations and field days which show the impact of forest management activities on cashflows.	Include focus on younger audience e.g. Macra	An afforestation Promotion Campaign Proposal has been prepared by Teagasc in conjunction with DAFM and industry representative groups. Initiatives within this proposal have been informed by recommendations of the Forest Land Availability Implementation Group (FLAIG). The new KTG scheme for forestry along with the Forest Management and Certification scheme will promote more active forest management.	The recent COFORD funded Irish private forest owners: The role of knowledge transfer and social networks (FOROWN) Project led by UCD looking at understanding the extent of forest owner' engagement in management and the factors that influence it, will assist in addressing this Strategic Action.
1.14	The use of genetically improved planting material (see Glossary for definition) e.g. improved Sitka spruce, as distinct from genetically modified material, which will deliver improved timber quality and timber wood volumes will be supported	No Change work ongoing	Reference to improved Sitka spruce can be found in circular 5 of 2013, Accepted tree species for the afforestation scheme. Further monitoring, together with performance testing across a wider range of site types in incorporating improved Washington seedling material from the Irish improvement programme are required. Teagasc has been developing improved sources of sycamore, ash, birch and alder for deployment in the Irish forest sector. The Seed stand and Seed orchard scheme launched in 2015 is designed to take this research to a commercial level. Coford funded FORM project will also look at developing disease resistant sources of Ash. The COFORD Forest Genetic Resources Working Group is currently establishing Sitka spruce Genetic Gain Field Experiments. These trials will provide information on the level of genetic gain from material from the Irish tree improvement programme and the performance of the range of seed sources that are currently planted on the national estate.	The COFORD funded FORGEN Project, researching the long-term option for improved forest productivity and timber quality in Ireland has recently been completed by UCD and will assist in supporting this action. The FORGEN report is currently being finalised. Also, the COFORD funded FORM Project, Forest Management Research to enhance productivity and pest control and disease resistance in key forest species has recently commenced in UCD and will assist in making recommendations on the use of species and provenances.

1.15	The potential for sequestered carbon to finance future afforestation will be investigated and, if appropriate, a carbon afforestation scheme which favours management systems and species with good long-term sequestration potential will be considered.	Work ongoing - More discussion required	A privately funded, voluntary carbon scheme has been in operation in the UK for a number of years with modest success. Employing grant aided forests and the wood products derived from such forests for climate change mitigation is one of the policy drivers for the current afforestation scheme.	The current COFORD funded CASWOOD Project led by University of Limerick is looking at the economic and environmental mapping of cascade use of wood. The data and parameters identified under CASWOOD will provide the foundation for an algorithm-based computer model of forest and forest-based products capable of forecasting alternative scenarios for material flows to optimize carbon storage and biomass while maximizing economic value. This will enable policy to develop more strategic, evidence-based guidelines for forest and forest-based resource management. Also, the current COFORD funded FORREP Project led by UCD is developing additions to the Irish forest carbon accounting and reporting tool (see www.ucd.ie/forrep). The COFORD funded ECOVALUE Research Project, 'Valuing the Ecosystem Services of Forests in Ireland' led by UCD has recently been completed and will assist in addressing this action. The final report under preparation. SEAI is involved in research that has relevance in this area, see information on Task 42 on bio refining http://www.iea-bioenergy/task42-biorefineries.com/en/feabiorefinery.htm The recent COFORD funded Irish Land Use Emission and Sequestration Support Tool (IRISLANDUSES) Project led by Teagasc with the key objective to develop a modelling capacity to examine future scenarios for agricultural greenhouse gas emissions and carbon sequestration by forestry in Ireland will assist in addressing this strategic action. The ultimate project aim is to assist policy makers in delivering policy which can generate desirable economic and environmental land use outcomes in Ireland.
1.16	DAFM in collaboration with the Department of Communications, Energy and Natural Resources to undertake an appraisal of the appropriate balance between afforestation including short rotation forestry, biomass support schemes and other related measures such as agroforestry in meeting renewable energy, climate change mitigation and forest industry raw material needs, in the context of the overall level of roundwood availability.	No change - ongoing	This action was also referred to in the COFORD Wood Mobilisation Report, including recommendations 34 and 35 and is being followed up by the COFORD Wood Mobilisation and Production Forecasting Group in the context of the Support Scheme for Renewable Heat (SSRH) and other support measures. To date the demand for the Forestry for Fibre scheme has been low. See Forestry Programme targets for these schemes (see https://www.agriculture.gov.ie/media/migration/forestry/forestryprogramme2014-2020/IRELANDForestryProgramme20142020230215.pdf). Forest research into the short rotation forestry funded by DAFM is underway. (14/9/2016-Forestry for Fibre: 3 applications, 1 approved (0.6ha), 1 refused and 1 in progress) Agroforestry: 6 applications received (32ha), 4 approved, 2 being processed).	The COFORD funded SHORTFOR Project led by UCD is ongoing and is researching biomass and renewable energy from short rotation forestry. This project involves Teagasc and other partners. The COFORD funded FORREP Project is developing additions to the Irish forest carbon accounting and reporting tool (see www.ucd.ie/forrep). The ongoing COFORD funded CASWOOD Project in University of Limerick is examining the economic and environmental mapping of cascade use of wood. The COFORD funded ECOVALUE Research Project, 'Valuing the Ecosystem Services of Forests in Ireland' in UCD has been completed. The final report is under preparation and will assist with this action. The potential for an Environmental Accounting System for forestry will be investigated on foot of this report. The ongoing COFORD funded FORESITE Project in UCD looking at Monitoring and Assessment of Critical Biomass Removal in Irish Forests will also assist with this action. Forestry for Fibre and Agroforestry schemes have been launched by DAFM. SEAI is involved in a research task that has relevance i.e. Task 43 of the IEA bioenergy Technical Collaboration Platform (TCP) deals with Biomass Feedstocks for Energy Markets, see http://www.ieabioenergy/task43.org
1.17	DAFM to continue to support the dissemination of the CLIMADAPT species selection tool and any necessary updates.	No change	No change to record against this action. Possibly disseminate information on CLIMADAPT as part of promotion campaign.	The recent COFORD funded Irish Land Use Emission and Sequestration Support Tool (IRISLANDUSES) Project led by Teagasc with the key objective to develop a modelling capacity to examine future scenarios for agricultural greenhouse gas emissions and carbon sequestration by forestry in Ireland will assist in addressing this strategic action.

No.	Original Strategic Action	Changes Required (See also minutes of meetings)	Progress and Developments to Date	Research & Development in Support of Strategic Actions
1.18	DAFM will consider proposals for the establishment of riparian woodlands with a view to their function in mitigating flooding and enhancing water quality (see also 3.12).	Greater emphasis on establishing riparian woodlands and on their benefits	Native Woodland establishment and conservation scheme launched. Planting requirement of native species along sensitive waterways. Proposed new Woodland Improvement - Environmental Enhancement Scheme. The COFORD funded CROW and HYDROFOR Research Projects will input into recommendations for this action. The CROW project looked at combined research on Riparian woodlands. The HYDROFOR project investigated the effects of coniferous forests and forestry operations on Ireland's surface water quality and aquatic ecology. Both projects were led by Dr Mary Kelly Quinn of UCD and have recently been completed.	
1.19	Future promotional campaign(s) to include focus on younger generation using social media.	New strategic action. This is also relevant for management of the resource.		
2	To ensure the sustainable management of the forest resource in accordance with best practice thereby ensuring its capacity to provide the full range of timber and other benefits			
2.1	A system to standardise data requirements, on an electronic platform, for private woodland managers/ owners should be introduced from 2014 in consultation with sector stakeholders. This would include a mandatory requirement for standardised Management Plans for privately owned woodlands, with a commitment for provision and updating of same as a condition of afforestation from 2014 onwards and as a condition of roads and other support measures as well as a precondition for felling licences for thinning. The current format and scope of Management Plans will be revised to support SFM, facilitate certification, the forecasting of future roundwood supply, felling compliance and public good functions and incorporate their design, submission, updating, review and analysis into the iFORIS system while ensuring alignment between private and public sector management planning systems.	Activities ongoing to address SA	The COFORD Forest Management Planning Group, which included representatives from across the forest sector, developed a Forest Management Plan (FMP) template which will be made available to the Sector as part of the new Forest Management and Certification scheme. The new FMP has also been incorporated into a suite of forest certification templates which is available online. Eventually the plan is to include the FMP in the Department's new Generic Land Management System, GLAMS. Forestry Act 2014 - Felling Licence application procedure and format has been completed to incorporate much of this Strategic Action.	
2.2	DAFM should establish a National Forest inventory and Management Planning Unit with responsibility for ongoing national inventory, collation of private inventory data, UNECE statistical reporting, national reporting and approval of forest management plans in the context of permitted activities.	No change - action now complete	National Forest Inventory and Management Planning Unit has been established with responsibility for ongoing national inventory, collation of private inventory data, UNECE statistical reporting, national reporting and national forecasting. The All Ireland Roundwood Production Forecast 2016 - 2035 was produced by COFORD during 2016 and made available to the sector. Production Forecast data was derived from Coillte inventory, private sector parcel data and collaboration with the NIFS. The DAFM has developed a web-enabled mapping service for publishing this national roundwood forecast to external stakeholders and to staff within the Department. The objective of this web mapping system is to enable users to generate bespoke roundwood timber forecast information based on selected map location(s), see https://www.agriculture.gov.ie/roundwoodproduction/forecast/system/	The current COFORD funded FORECASTMODEL Project led by Teagasc has the objective of improving roundwood forecasting in Ireland (see also 2.4 below). The current COFORD funded BETTERFOR Project led by UCD is looking at evaluating and refining timber forecasting tools using the NFI data. These research projects will assist the work of the National Forest Inventory and Management Planning Unit.

2.3	Continue to repeat the NFI on a 5-year cycle, and based on active engagement with the private sector incorporate the collection of additional plot information which will facilitate the use of NFI data for reporting and forecasting purposes	No change - activities ongoing	The NFI is ongoing and will be updated on a 5 year rolling basis.	The current COFORD funded BETTERFOR Project in UCD is looking at evaluating and refining timber forecasting tools using the NFI data. A recent study was carried out by the Forest Service in conjunction with Colliette and the Finnish Natural Resources Institute (LUKE) to look at the operational use of Earth observation data to enhance the accuracy and precision of NFI data at geographic scales beyond what was originally intended. Work is continuing on developing the potential of this technology for use with current NFI data and in future inventory cycles.
2.4	Consideration will be given to support for projects and measures which improve the level of accuracy, reliability and relevance of timber forecasting.	No change - activities ongoing	The private sector element of the 2016-2035 Forecast was produced using Remsoff in collaboration with Colliette. DAFM has developed a web-enabled mapping service for interrogating the national roundwood forecast. The objective of this web mapping system is to enable users to generate bespoke roundwood forecast information based on selected map location(s), see https://www.agriculture.gov.ie/roundwoodproduction/forecastsystem/ . As in 2.2 above, the National Forest Inventory Unit has been established with responsibility for ongoing national inventory, collation of private inventory data, UNECE statistical reporting, national reporting and national forecasting.	The current COFORD funded FORECASTMODEL Project led by Teagasc has the objective of improving timber forecasting. The project is examining forest growth and yield modelling aimed at improving the private sector timber production forecast by addressing key components of the production forecasting process. How inventory and management data from future management plans could be utilised as inputs to the national forecasting system will be explored. This FORECASTMODEL Project will also provide further information on accessibility of private plantations and management intentions of private forest owners in order to derive a more robust management regime for forecasting. The current COFORD funded BETTERFOR Project is looking at evaluating and refining timber forecasting tools using the NFI data.
2.5	Collaborative mechanisms for the management of privately owned forests will be actively encouraged and their use to enhance the delivery of the full range of forest benefits investigated.	No change - activities ongoing	The suitability of the Forest Management Planning grant to facilitate general forest management decisions will be investigated. Promotion of Producer Groups and related works actively ongoing by Teagasc. Collaborative Forest Rooding Grants available to growers. Proposed initiatives on Group Forest Certification and KTGs on mobilising timber and biomass are being progressed.	The recent COFORD funded Irish private forest owners: The role of knowledge transfer and social networks (FOROWN) Project led by UCD looking at understanding the extent of forest owner engagement in management and the factors that influence it, will assist in addressing this strategic action.
2.6	Recognising the market failures which would prevent early production from private forests and the economic benefits of first (and subsequent) thinning, funding for two consecutive priority 5-year harvesting roads programmes, of at least 45,000 ha and 32,000 ha respectively for privately owned forests will be provided to enable access to and delivery of the forecast volumes in the COFORD all-Ireland forecast of net realisable volume 2011-2028.	Need to consider forest entrances at an earlier stage- activities ongoing but update forecast reference	Rooding scheme included in current Forestry Programme and actively promoted by DAFM and Teagasc. Outline rooding grant targets in programme (see Forest Service website).	
2.7	DAFM to work with the Department of the Environment, Community and Local Government to ensure an efficient implementation of a unified consent system for forest roads and entrances that supports timber mobilisation and maintains the competitiveness of the sector (see also 11.1). This should be coupled with updating of relevant guidelines (see also 4.9). The implementation of the Environmental (Miscellaneous Provisions) Act 2011 needs to be reviewed in terms of how it is applied to the sector in order to maintain its competitiveness.	Awaiting legislation	Work is ongoing on implementing a single consent system for new forest road entrances. Amendments to be made in the Planning and Development Act in this regard. New Appeals mechanism now in place. Revision of Forest Rooding including COFORD Forest Road Manual has commenced and the revised Afforestation Environmental Requirements are now in place.	

No.	Original Strategic Action	Changes Required (See also minutes of meetings)	Progress and Developments to Date	Research & Development in Support of Strategic Actions
2.8	DAFM to explore ways of linking existing and future premium payments for plantations over ten years with specified forest activities that provide for the active management and protection of the forest resource and the environment and appropriate reporting of timber inventory and other outputs (see also 2.1)	Consider rewriting for more incentivised approach	Currently investigating the suitability of the Forest Management Planning grant to facilitate forest management decisions and certification. COFORD FMP template designed. Forestry Act 2014 - Felling Licence application procedure and format is being finalised potentially to report on timber inventory.	The recent COFORD funded Irish private forest owners: The role of knowledge transfer and social networks (FOROWN) Project led by UCD looking at understanding the extent of forest owner engagement in management and the factors that influence it, will assist in addressing this Strategic Action.
2.9	The current mechanisms of informing the forest sector and in particular forest owners will be reviewed, and where appropriate more effective initiatives and measures will be put in place including more direct collaboration with stakeholder representative organisations.	Consider referencing owner database and improved collaboration between commercial and environmental	Ongoing dialogue and regular meetings between sector and DAFM on important issues. Proposed promotional campaign with sector using the FLAG forum. The Teagasc promotion plan for Forestry 2017-2020 has been prepared and will involve collaboration with DAFM Promotion Campaign and the industry.	The COFORD funded low impact silvicultural systems (LISS) Research Project, led by UCD has recently been completed. The final report will assist with this strategic action. The new Teagasc-funded project, TransSFor, will build on the LISS project and further investigate the impact of thinning treatments on the transformation of pure Sitka spruce stands to CCF and provide an assessment of potential economics, stand stability and impact on diversity and crown cover of using such treatments. https://www.teagasc.ie/crops/forestry/research/transformation-of-sitka-spruce-to-ccf/ Teagasc promotes awareness of CCF to relevant forestry stakeholders and has recently published a new CCF booklet (Teagasc Farm Forestry Series 19). Teagasc Ballyhaise College offers a QQI Level 6 minor CCF Award as part of the QQI level 6 Advanced Certificate in Forestry. Five year plan to convert part of Oak Park to CCF management as a demonstration and educational support and for research purposes.
2.10	The conversion of plantations to continuous cover forest (CCF) will be supported by initiatives and measures to heighten awareness of and/or promote alternative silvicultural systems.	Work ongoing to address SA. Include provision of guidance	Proposed new Woodland Improvement - Environmental Enhancement scheme. Native Woodland Establishment and Conservation schemes and also Agro Forestry scheme (close to nature silviculture scheme) promote CCF and provided for under targeted training.	The COFORD funded project BSLVRD Project, Broadleaf Silviculture Research & Development Programme, recently completed by Teagasc and the LISS Research Programme, on low impact silvicultural systems led by UCD will assist with this strategic action. The recent COFORD funded Project led by NUJ Galway with the objective of developing knowledge on the wood quality of Irish hardwood thinning and identifying possible end-use applications and new products will assist in addressing this strategic action as will the Supporting Hen Harrier in Novel Environments (SHINE) Project, led by UCC with the objective of investigating opportunities for the expansion of the forestry that are compatible with Hen Harrier conservation and disseminating these results to stakeholders.
2.11	DAFM will encourage the management of all broadleaves including native woodlands for timber production and where there is a particular conservation or protection requirement, shall, in cooperation with the National Parks and Wildlife Service and other Government agencies, facilitate management that is compatible with such objectives.	See 2.10	Native Woodlands Establishment and Conservation schemes & Woodland Improvement - Thinning & Tending scheme in place and a proposed new Woodland Improvement - Environmental Enhancement scheme. Selection of seed stands and seed orchard grant schemes to improve the productive potential of new broadleaved woodlands. Appropriate Assessment Procedures assist with conservation and protection of broadleaves in association with NPWS and other state agencies.	The COFORD funded FORGEN Project, on the long-term options for improved forest productivity and timber quality in Ireland has recently been completed by UCD and the final report is being drafted. The promotion of FORGEN research findings as appropriate by DAFM/Teagasc to farm forestry sector. Teagasc continues to promote the use of improved planting stock.
2.12	DAFM to establish a representative National Forest Genetic Resources Advisory Group to guide all aspects of future genetic requirements and advice on the management of reproductive material and tree improvement and breeding programmes including formalising the national tree improvement programme.	No change but reference climate change in text	COFORD has recently established a Forest Genetic Resource Working Group with relevant objectives and terms of reference.	The COFORD funded FORGEN Project, on the long-term options for improved forest productivity and timber quality in Ireland has recently been completed by UCD and the final report is being drafted. The promotion of FORGEN research findings as appropriate by DAFM/Teagasc to farm forestry sector. Teagasc continues to promote the use of improved planting stock.

2.13	Integrate and develop the current monitoring schemes on forest health and biogeochemistry, climate change mitigation and adaptation, biodiversity, nutrient status and phonological observations within the NFI framework and use them to assess biodiversity, and monitor the impacts of climate change, thereby contributing to the improved future management of the forest resource.	Complete - Addressed under NFI actions	Various COFORD Research projects will contribute to assisting with this action. The BIOPLAN Research Project, on Implementation of an assessment and monitoring programme for Irish and British forests, led by UCC has recently been completed. This will assist in recommendations for this action. The ADAPT Research Project, Avian Diversity and afforestation Planning Tools, also led by UCC has recently been completed. The final report is currently in preparation. This project looked at the risks posed by forest planting to vulnerable habitats and bird species in Ireland, and to ensure that forest expansion targets are met without compromising vulnerable habitats or bird species. The GEOFOREST Research Project, looking at the impacts of forest clearfelling on the Kerry slug (<i>Geomalacus Maculosus</i>), led by NUIG has recently been completed. The final report is currently in preparation. The FORMARR Research Project looking at forest management for the Freshwater Pearl Mussel (FPM), led by TCD, has been completed. The final report is currently in preparation. The above research projects will assist with integrating and developing the current monitoring schemes on forest health and biogeochemistry, climate change mitigation and adaptation, biodiversity, nutrient status and phonological observations. The recent COFORD funded Irish Land Use Emission and Sequestration Support Tool (IRISHLANDUSES) Project led by Teagasc with the key objective to develop a modelling capacity to examine future scenarios for agricultural greenhouse gas emissions and carbon sequestration by forestry in Ireland will assist in addressing this strategic action.
3	Environment and Public Goods To ensure that afforestation, management of existing forests and development of the forest sector are undertaken in a manner that ensures compliance with environmental requirements and objectives and enhances their contribution to the environment and their capacity for the provision of public goods and services.		
3.1	The value of the complete range of non wood benefits to be quantified and included in a revised Cost Benefit Analysis of the planned afforestation programme.	Forest sector to liaise with Natural Capital Accounting (NCA) movement. Need to consider habitat value pre-forestry	The potential for an Environmental Accounting System for forestry will be investigated.
3.2	All relevant proposed EU regulations, EU Directives and national legislation should be subject to full stakeholder consultation and Regulatory Impact Assessment (RIA) as per RIA guidelines.		The COFORD funded ECOVALUE Research Project, Valuing the Ecosystem Services of Forests in Ireland led by UCD has recently been completed. The final report is in preparation and will assist with this action. SEAI is involved in research that has relevance, see information on task 42 on bio refining http://www.iea-bioenergy/task42-biorefineries.com/en/ieabiorefinery.htm

No.	Original Strategic Action	Changes Required (See also minutes of meetings)	Progress and Developments to Date	Research & Development in Support of Strategic Actions
3.3	DAFM in collaboration with the main sector stakeholders to update the complete set of environmental guidelines with priority given to guidelines that address water quality, fertilisation and biodiversity. In the revision consideration should be given to structuring the guidelines so they can be used either at forest developmental stages (establishment, thinning, harvesting) or thematically to deal with water, biodiversity etc. The revised guidelines should be comprehensive, provide clarity regarding requirements including buffer zones as appropriate, permit procedures and facilitate compliance of forestry activities with the overall environmental regulatory framework including inter alia the Water Framework Directive (including high status waters), the EIA Directive, the Birds Directive and the Habitats Directive.	Need for good baseline information DAFM to comply with DPER guidance on public consultation	A public consultation process was undertaken for the document to replace the environmental guidelines as they apply to afforestation. A range of COFORD funded Research project results will feed into these environmental guidelines and requirements (See Strategic Action 1.13, etc).	
3.4	DAFM to update the Code of Best Forest Practice and the National Forest Standard (NFS) will be updated to reflect changes in the suite of environmental guidelines, changes in best practice, changes in the regulatory and compliance framework and as a means to support compliance with the principles of sustainable forest management and the ecosystem approach as elaborated in the 2008 MCPFE (now Forest Europe)/PEBLDS jointly adopted Pan-European Guidelines for Afforestation and Reforestation	Ongoing - awaiting new guidelines	Code of Best Forest Practice and the National Forest Standard (NFS) will be updated to reflect changes in the suite of Environmental Requirements when all Environmental Requirement have been drafted and the public consultation process is completed.	
3.5	The Irish National Forest Standard will be used as the basis for reporting on the state of Ireland's forests and on sustainable forest management.	see 3.4 above		
3.6	DAFM, in collaboration with DoECLG, the NPWS and statutory bodies to develop a guidance document outlining the nature and use of current environmental and best practice compliance requirements.	Ongoing - awaiting new guidelines	Initial work has commenced on this through ongoing updating of Environmental Requirements/Guidelines. Revised Afforestation and Environmental Requirements have been drafted. Work ongoing on further Environmental Requirements for various forest operations.	
3.7	Training will be provided to Forestry Inspectors in the first instance; and its rollout to forestry practitioners will be considered as appropriate, to enable the assessment of habitat types in afforestation proposals.	Ongoing - training being provided	Initial training provided to inspectors and practitioners in 2015-2017. The Society of Irish Foresters with funding from the Department have upgraded their CPD system. Funds have also been made available to hire administrative support and this post has been filled. The aim of the CPD programme will be to include all registered foresters as participants and all organisations providing forestry training and holding events. This system will be online and will include a calendar showing upcoming courses/ events and the points will that be awarded for attending them. Foresters will register online to attend. The CPD Board will set the training agenda for the coming year to reflect the needs of the industry. The list of Registered foresters will include a column that will indicate if the forester is CPD certified. Registration began in 2017.	

3.8	Procedures to be developed by DAFM for Approvals/Consents and Licences for afforestation, forest road construction and harvesting to ensure that all applications in and adjacent to Natura 2000 sites are subject to an appropriate assessment procedure.	Complete - assessment procedures in place	Appropriate Assessment Procedures have been drafted and implemented to ensure that all applications in and adjacent to Natura 2000 sites are subject to these procedures. These procedures can be found at http://www.agriculture.gov.ie/media/migration/forestry/publications/ForestServiceAPIInformationNoteMarch12CONSOLIDATED060312.pdf . Teagasc advisors disseminate information regarding the procedures to relevant clients when considering afforestation adjacent to Natura 2000 sites. Procedures have been developed for approvals/consents and licences for afforestation, forest road construction, harvesting/felling and aerial fertilisation.	
3.9	Initiatives and measures which aim to enhance provision of recreation/tourism and landscape benefits from forests will be supported.	Ongoing	Neighbourhood scheme has been implemented. Proposed new Woodland Improvement - Environmental Enhancement scheme to be introduced. Improved access through forest roading grants. Updating of recreation and forest visit statistics is being considered by DAFM through COFORD Research call.	
3.10	Based on the findings of a Working Group to be established by DAFM in collaboration with Coillte and relevant stakeholders, introduce guidance and criteria for the identification and future management of peat areas currently afforested which are to be deforested to mitigate continued environmental degradation. The Working Group will also provide clear guidance on future afforestation of peat soils.	Ongoing but mainly completed	A new Felling and Reforestation policy document has been published. This policy deals with the existing forest estate including those on peatlands. The new environmental requirements document also deals with afforestation on peatlands.	
3.11	Facilitate the cost-benefit analysis process for identifying the most cost-effective measures for compliance with the Water Framework Directive	Consider action on monitoring of water quality in relation to Native Woodland Scheme		The COFORD funded CROW and HYDROFOR Research Projects will input into recommendations to support this action. The CROW project looked at combined research on Riparian woodlands. The HYDROFOR project investigated the effects of coniferous forests and forestry operations on Ireland's surface water quality and aquatic ecology. Both projects were led by UCD and have recently been completed.
3.12	Initiatives and measures which aim to enhance the water and wetlands benefits of forests will be considered under the Native Woodland Establishment Scheme.	Expand action to include benefits from afforestation and non native species	Native Woodland establishment and Conservation schemes launched and the proposed new Woodland Improvement scheme- Environmental Enhancement scheme to be introduced. Appropriate training for these schemes will be provided by DAFM.	The COFORD funded CROW and HYDROFOR Research Projects will also input to support this strategic action.
3.13	Review the science behind the HYDROFOR report addressing identified gaps and updating findings and recommendations accordingly	New Strategic Action added 28-08		
3.14	Forest Service (DAFM) to put in place system to notify stakeholders and registered foresters when a new document/report hosted on its website	New Strategic Action		

No.	Original Strategic Action	Changes Required (See also minutes of meetings)	Progress and Developments to Date	Research & Development in Support of Strategic Actions
4	Supply Chain To further develop an efficient, sustainable and environmentally responsible supply chain that is compatible with forecast volumes, which will enhance the competitiveness of the processing sector and its wood paying capacity to forest owners.			
4.1	In consultation with stakeholders, DAFM will develop a National Roundwood Mobilisation Strategy to implement improved efficiency and logistics along the supply chain from grower to final end user, bearing in mind the increased volumes that will now come from the private sector, and taking account of best international practice.	No change - work ongoing	COFORD's Mobilisation of Ireland's Forest Resource report, launched in March 2015, has gone some way towards making progress on this action. A follow up COFORD Wood Mobilisation and Production Forecasting Working Group was set up to review and report on the recommendations contained in this Mobilising Ireland's Forest Resource Report and the Roundwood forecasting systems. This will assist with this action. Managing Timber Transport - Good Practice Guide was launched in 2014.	Research ongoing on haulage route optimisation and tyre deflation systems on forest roads. The current COFORD funded MARTT Project led by UCD is developing a GIS based agreed routes map for sustainable timber transport in Ireland and also a mobile App 'Route Tagger'. SEAI involvement in research. Task 43 of the IEA bioenergy TCP deals with Biomass Feedstocks for Energy Markets, see http://www.ieabioenergytask43.org is also relevant.
4.2	Carry out a national survey of current harvesting and transport infrastructure capacity and identify the future capacity requirement in line with the forecast volumes and the increased thinning volumes from the private sector.	Undertake survey of forest machine manufacturers/dealers. Collate with Coillte database and machine import data.	See CSO data on roundwood harvesting machinery imports over past 10 years and track in future. Potential survey to be considered by DAFM.	
4.2a	Continue to use CSO machine import data to assess market conditions for the purchase and replacement of harvesting machines.	New action arising from 4.2 above		
4.3	DAFM to commission a desk study to review the practice and consequence of licensing/permitting of harvesting contractors in other European countries to determine whether such systems have any application under Irish conditions.	No change	No progress - still under consideration	
4.3a	DAFM in collaboration with sector stakeholders to support measures to address security of timber in sales including the use of technology	New strategic action		
4.4	DAFM should initiate discussions with Coillte and other forest owners to develop a framework to allow shared use of forest roads for forest operations (see also 12.3)	No change - awaiting Coillte licence protocol	The Teagasc Ballyhaise harvester/forwarder course with includes a harvesting simulator could facilitate a licensing/permitting system if introduced.	
4.5	DAFM, in partnership with grower representative organisations, Coillte and the forest industry, should facilitate the development of a standard system for timber measurement and removals.	No change - consensus for national standardised system	Standard system for timber removals/sales in private sector to be further developed utilising existing systems including the Forest Mensuration Handbook published with DAFM's support. DAFM will look to having specifications drafted for proposal.	
4.6	DAFM to investigate measures which will support the phased development of the harvesting infrastructure.	No change - work ongoing	Some Leader initiatives have provided funding assistance in the past for forest machinery purchase by groups. CSO data on roundwood harvesting machinery imports available over past 10 years provide indication of capacity and these will be monitored annually. Teagasc Ballyhaise to establish a harvester/forwarder course which includes a harvesting simulator.	

4.7	DAFM will support measures that encourage collaborative actions to improve economies of scale among forest owners.	No change - work ongoing	Forest Certification initiative by DAFM being progressed including new schemes. Roading grants for collaborative roading projects have been introduced. Promotion of Producer Groups through Teagasc. National KTG scheme for forestry included in midterm review of forestry programme.	The recent COFORD funded Irish private forest owners. The role of knowledge transfer and social networks (FOROWN) Project led by UCD looking at understanding the extent of forest owner engagement in management and the factors that influence it, will assist in addressing this strategic action.
4.8	Support the evaluation and testing of small scale harvesting equipment for the thinning of privately owned forests		Potentially investigate the requirement for small scale harvesting equipment through appropriate study/research. Teagasc will continue to investigate and promote the use of appropriate harvesting technology including small scale harvesting technology.	
4.9	Support measures, initiatives and awareness-raising aimed at achieving good practice in roundwood haulage.	No change - work ongoing	Managing Timber Transport - Good Practice Guide was supported by DAFM and launched in 2014. Research is ongoing on haulage route optimisation. Scheme for funding tyre deflation systems on forest roads due for launch soon and funding has been approved to draft information booklet on Health and Safety in Road Haulage.	The current COFORD funded MARTT Project led by UCD is developing a GIS based agreed routes map for sustainable timber transport in Ireland and also a mobile App 'Route Tagger' will assist in achieving good practice in roundwood haulage.
4.10.	In consultation with stakeholders, provide support measures and initiatives to identify the most suitable roundwood transport routes and their co-ordination with Local Authorities.	No change - work ongoing	Work ongoing on preferred routes with Local Authorities in the context of the single consent system for forest road entrances and Felling Licence applications. The current COFORD funded MARTT Project is developing the concept of GIS based agreed routes map for sustainable timber transport in Ireland and also a mobile App 'Route Tagger'. More work is required to complete a national agreed network of preferred routes.	
4.11	Support measures to optimise the environmentally efficient and sustainable recovery of harvesting residues for energy.	No change but guidance required	Look at general Guidance Note on measures to optimise environmentally efficient and sustainable recovery of harvesting residues for energy.	The ongoing COFORD funded FORESITE Project led by UCD looking at Monitoring and Assessment of Critical Biomass Removal in Irish Forests will assist with a strategy for optimising the environmentally efficient and sustainable recovery of harvesting residues for energy. Also, the COFORD funded FORESTENERGY Project led by WIT looking at Harvesting & Processing Forest Biomass for Energy Production will assist with a strategy for sustainable recovery of harvesting residues for energy. The final report for this project is in preparation.
5	To support the development of a competitive, innovative, value-added and market focused wood processing sector which provides sustainable solutions to a diverse portfolio of users in the construction, lifestyle, renewable energy, furniture and related markets.			
5.1	DAFM to facilitate a review of the wood processing and wood based panels sector with a view to improving long term sustainable roundwood supply from both the private sector and Coillte, identifying areas where collaboration can contribute to realising increased levels of supply from the private sector.	No change - work ongoing	COFORD's Mobilisation Irelands Forest Resource report (March 2015) has gone a long way in progressing this action. A follow up COFORD Wood Mobilisation and Production Forecasting Working Group was set up to review and report on the recommendations contained in the Mobilising Ireland's Forest Resource Report and the Roundwood forecasting systems and outcomes together with review and input to National Renewables Policy. Work is currently ongoing on updating the demand side forecast to 2020 and 2025 to be completed in 2017.	

No.	Original Strategic Action	Changes Required (See also minutes of meetings)	Progress and Developments to Date	Research & Development in Support of Strategic Actions
5.2	State agencies including Enterprise Ireland will support initiatives to add value, including niche markets, to the current range of timber products being processed and to the development of new and innovative products, including biofuels, which can be manufactured from existing and future raw materials.	No change - work ongoing	DAFM will liaise with Enterprise Ireland in relation to supporting initiatives to add value to the current range of timber products including biofuels through different funding programmes such as Horizon 2020. The current COFORD funded Irish Timber Research and Innovation Centre based in NUIG will assist with this aim. DAFM also provides support for Wood Technology Ireland which provides technical support for the specification and use of wood products in construction and other areas. COFORD has established a Forestry and Bio economy Working Group which will assist with providing information to address this action.	SEAI is involved in research that has relevance in this area. see information on task 42 on biorefining http://www.iea-bioenergy/task42-biorefineries.com/en/leabiorefinery.htm . The recent COFORD funded Exploitation and Realisation of Thinnings from Hardwoods (EARTH) Project led by NUJ Galway with the objective of developing knowledge on the wood quality of Irish hardwood thinnings and identifying possible end-use applications and new products will assist in addressing this SA. The recent COFORD funded, Commercialisation of Irish Cross-Laminated Timber (CIGLT) Project, led by NUJ Galway with the objective of developing the necessary data to support the commercialisation of using Irish Silka spruce to manufacture a cross-laminated timber modular flooring system will support addressing this SA.
5.3	State agencies will support measures aimed at forest product market identification and exploitation including markets and uses for small diameter hardwoods.	No change - work ongoing	DAFMFS has approved grant aid funding for work on the properties and utilisation of home grown hardwoods to be carried out in GMT Letterfrack, National Centre for Excellence in Furniture Design and Technology. DAFM supports the Irish Bioenergy Association's Wood Fuel Quality Assurance Scheme and the Irish Timber Research and Innovation Centre at NUIG.	The recent COFORD funded Exploitation and Realisation of Thinnings from Hardwoods (EARTH) Project led by NUJ Galway with the objective of developing knowledge on the wood quality of Irish hardwood thinnings and identifying possible end-use applications and new products will assist in addressing this strategic action.
5.4	DAFM will facilitate projects and measures which lead to the development of more reliable forecasting tools and methodologies.	No change - work ongoing	The 2016 COFORD Roundwood Production Forecasting Group employed Remsoft software to improve forecasting accuracy in the 2016-2035 forecast. COFORD Wood Mobilisation and Production Forecasting Working Group was set up to review and report on the recommendations contained in the Mobilising Ireland's Forest Resource Report. Work on the National Forest Inventory (NFI) is ongoing and the 3rd cycle was completed in 2017. Spatial roundwood forecasting tool has been developed by DAFM to improve regional and spatial production forecasting and to improve access to forecasting information and technology, see https://www.agriculture.gov.ie/roundwoodproductionforecastingsystem/ GROWFOR Forecasting Models are being disseminated to the sector on an ongoing basis.	The current COFORD funded FORECASTMODEL Project led by Teagasc has the objective of improving timber forecasting in Ireland. The project is examining forest growth and modelling aimed at improving the private sector timber production forecast by addressing key components of the production forecasting process. How inventory and management data from future management plans could be utilised as inputs to the national forecasting system will be explored. This FORECASTMODEL Project will also provide further information on accessibility of private plantations and management intentions of private forest owners in order to derive a more robust management regime for forecasting. Also, the current COFORD funded BETTERFOR Project led by UCD is looking at evaluating and refining timber forecasting tools using the NFI data.
5.4a	Future All Ireland Forecasts to provide volume information by main product category	New strategic action		
5.5	DAFM will give consideration to support for the supply of quality and added value fuels from the tending of broadleaved species, especially where this involves locally organised producer groups.	No change - work ongoing	Woodland Improvement - Thinning & Tending scheme in place. Forest Road Grant scheme available. Teagasc working with Producer Groups on an ongoing basis and continues to develop and provide skills training and research generated advice to forest owners. Future development of KTG in relation to Wood Mobilisation. DAFM supports the Irish Bioenergy Association's Wood Fuel Quality Assurance scheme.	

5.6	DAFM, in collaboration with Enterprise Ireland, SEAI and sector stakeholders to monitor the balance between forecast supply and demand across the wood energy, wood based panels and sawmilling sectors.	No change - work ongoing	Work is currently ongoing on updating the demand side forecast to 2020 and 2025 and is now completed. DAFM/FS is also working with stakeholders and Department of Communications, Energy and Natural Resources on the finalisation of the draft updating the Bioenergy Plan, which includes work on the introduction of a SSRH scheme. COFORD's Mobilisation Ireland's Forest Resource report has gone some way towards making progress on this action. A follow up COFORD Wood Mobilisation and Production Forecasting Working Group was set up to review and report on the recommendations contained in this Mobilising Ireland's Forest Resource Report and the Roundwood forecasting systems.	
5.7	DAFM in collaboration with Wood Technology Ireland (WTI) to undertake awareness programme for Local Authorities on use of timber in buildings and fire risk	New Strategic Action		
5.8	DAFM in collaboration with WTI and wood processing sector to actively engage with the construction sector on the promotion of increased use of timber	New Strategic Action		
5.9	Enterprise Ireland to facilitate an industry led discussion and to potentially scope the requirements for a Centre of Operations Excellence to support seed innovation in the sector and to promote market-led new product/systems development	New Strategic Action		
6	To maintain a healthy forest environment through sustainable forest management and early detection and control measures to prevent the introduction and spread of harmful invasive alien species, pests and diseases			
6.1	A full-time National Deer Management Unit (NDMU) to be established within DAFM to coordinate deer management policy development and implementation, in consultation with stakeholders, and to lead the development of a professional deer management culture in Ireland.	Leave action as is reflecting consensus of the meeting	Deer Management in Ireland – A Framework for Action Report was completed in 2015. The Irish Deer Management Forum (IDMF) was established shortly after and includes relevant stakeholders (DAFM, NPWS, Teagasc, hunting organisations, farming and forestry sectors representatives, etc) with the objective to implement the recommendations of this Report and deal with or make recommendations on any deer related issue. A Forestry and Agricultural Impact Group will be established in early 2017 for the purpose of knowledge transfer, with an emphasis on management techniques and accredited courses aimed at forestry professionals/land managers. (See https://www.agriculture.gov.ie/forests/forests-service-general-information/deer-management/) DAFM in partnership with DCHG have tendered to establish a number of Deer management units in County Wicklow to cover a three year timeframe. The aim will be to help manage deer populations at sustainable levels in the greater Wicklow region.	

No.	Original Strategic Action	Changes Required (See also minutes of meetings)	Progress and Developments to Date	Research & Development in Support of Strategic Actions
6.2	The NDMU to undertake a national census of deer population distribution and density and based on this to develop an appropriate culling regime in the context of a national strategy for deer management, particularly in forest areas.	No change - work ongoing	Work is underway in this area: for example a hot spot map has been prepared showing deer population densities. The COFORD funded FORDEER project on the use of forests by deer in Ireland will also assist in developing an appropriate culling regime. Despite significant numbers of deer being culled each year (12,000 in Wicklow alone) the fact remains that not enough deer are being culled to maintain damage at acceptable levels. DAFM will liaise with the DMF in how the Forum will progress a national census of deer population distribution and density and also in developing an appropriate culling policy. The establishment of a number of deer management units in County Wicklow where deer management plans will be developed and implemented should generate good learning opportunities for progressing a culling policy and in carrying out a deer census.	
6.3	DAFM to update the format for the forest management plan to include an overall risk assessment (biotic and abiotic) and identification of appropriate mitigation and prevention measures.		Template for HIRA included as annex to FMP template. Basic site risk assessment checklist (biotic and abiotic) and initial identification of potentially required appropriate mitigation and prevention measures has been included in the KTG Forest Certification Initiative. Also wider KTG initiatives would present a good opportunity for forest owners to learn methods of overall risk assessment (biotic and abiotic) and identification of appropriate mitigation and prevention measures.	The ongoing COFORD funded WINDRISK Project on windthrow risk modelling led by UCD will assist in windthrow risk assessment. The aim of the project is to determine the factors that influence the risk of wind damage and generate a model that can be used to assess that risk. How thinning practice and forest design influences risk will also be investigated and recommendations provided as to how to minimise risk. The COFORD funded MASAD project on assessing Ireland's risk to airborne spread of ash dieback disease with Lagrangian stochastic models led by UCD is ongoing and may assist in potential identification of appropriate mitigation measures to reduce the spread of ash dieback.
6.4	The Forest Protection Guidelines and Forestry Schemes Manual to be updated in light of new and emerging threats to forests and supported where appropriate with public awareness campaigns and information targeted at forest owners, landowners and the general public.	Consider new action to address lack of dedicated forest entomologist and forest pathologist	Some information on forest pests available on DAFM, Teagasc and industry websites. Reconstitution grant scheme for Ash dieback is currently available and being revised. Teagasc and growers organisations active in informing growers of new and potential pests and appropriate mitigation measures. Additional information to be made available with public awareness campaigns and information targeted at forest owners, landowners and the general public.	The COFORD funded FORM Project, Forest Management Research to enhance productivity and pest control and diseases resistance in key forest species has recently commenced in UCD and will assist in drawing up future Forest Protection Guidelines and in making recommendations on the use of species and provenances with proven disease resistance. The COFORD funded MASAD project on Assessing Ireland's risk to airborne spread of ash dieback disease with Lagrangian stochastic models is ongoing. The COFORD funded DAFM PHYTOFOR Project's final report is in preparation which will assist with detection and epidemiology and control of Phytophthora ramorum and Phytophthora kernoviae. The COFORD funded WIGS Project in NUIG on the spread of grey squirrel to the west of Ireland is also in final preparation and will aid in updating forest protection guidelines.
6.4a	In light of increasing biotic threats due to climate change and globalisation, DAFM to employ dedicated forest pathologists/ entomologist to improve detection and response to pests and diseases	New strategic action		

6.5	<p>The current forest fire warning risk assessment carried out by Met Office should be supported. DAFM in collaboration with the Local Authorities and relevant stakeholders to put in place guidance, in order to increase awareness and reduce the risk of forest fires, which would facilitate a co-ordinated system of fire plans (including dealing with fire outbreaks) for forest plantations and implement by 2014 the recommendations of the Land and Forest Fires Working Group.</p>	<p>Consider amending or new action to address issues around burden of proof, land eligibility and training. Note burden of proof a legal issue</p>	<p>A recommendation of Land and Forest Fires Working Group was addressed by the publication of a set of guidelines to advise farmers on all aspects of controlled burning, including planning, safety, notification and the legal requirements. A Code of Practice for Prescribed Burning was developed which included the publication of guidelines on controlled burning. A colour coded Forest Fire Danger rating warning system and the risk assessment notification by the Met Office are in place. DAFM, Teagasc and grower associations issue relevant circulars on foot of this information which is also available on the DAFM, Teagasc and industry websites. Teagasc in conjunction with the Forest Service organises prescribed burning information days in high risk areas in cooperation with other organisations. The Cork Wildfire Co-operation Group is been expanded from one to four Meitheal groups, with the training of key members in conjunction with the Fire Service, with a further training event to be organised in early 2017.</p>	
6.5a	<p>DAFM/Teagasc to develop and implement a training programme for private forest owners on fire prevention and control measures</p>	<p>New strategic action</p>		
6.6	<p>The use of species and provenances with proven disease resistance to be favoured in grant-aided afforestation and encouraged in all planting.</p>	<p>No change - work ongoing</p>	<p>DAFM is funding trials in the UK on Chalara resistance in Ash. Japanese Larch and Ash removed from the list of grant approved species due to disease risk.</p>	<p>The COFORD funded FORM Project, Forest Management Research to enhance productivity and pest control and disease resistance in key forest species has recently commenced in UCD will assist in making recommendations on the use of species and provenances with proven disease resistance. Teagasc also involved in research to find Chalara 'tolerant' ash (https://www.teagasc.ie/crops/forestry/research/ash-resistance-to-ash-dieback/) and research into alternative conifer species to encourage a more species diverse national forest estate.</p>
6.7	<p>DAFM to continue to identify and analyse forest pest and disease risks from abroad and to maintain monitoring, bio security and phytosanitary measures to reduce the risk of entry and establishment of harmful non-native pests, diseases and invasive alien species and, depending on impending threats, consider the establishment of a Bio security Taskforce.</p>	<p>No change - work ongoing</p>	<p>The Forest Service is responsible for implementing the forestry aspects of the EU Plant Health Directive, Council Directive 2000/29/EC on protective measures against the introduction into the Community of organisms harmful to plants or plant products and against their spread within the Community. The Forest Service implements the provisions relating to timber, wood packaging material (pallets, crates etc), forest plants, Christmas trees and other forest products and undertakes surveys of the national forest estate for quarantine forest pests and diseases.</p>	<p>The COFORD funded FORM Project, Forest Management Research to enhance productivity and pest control and diseases resistance in key forest species has recently commenced in UCD in association with Teagasc and other partners and will assist in drawing up future Forest Protection Guidelines and in making recommendations on the use of species and provenances with proven disease resistance. The COFORD funded MASAD project on Assessing Ireland's risk to airborne spread of ash dieback disease with Lagrangian stochastic models is ongoing. The COFORD funded DAFM PHYTOFOR Project's final report is in preparation which will assist with detection and epidemiology and control of Phytophthora ramorum and Phytophthora kernoviae.</p>
6.8	<p>DAFM/COFORD to implement a decision support system (DSS) to facilitate the selection and planting of most appropriate species in the light of the potential impact of climate change and to guide the forest industry accordingly.</p>	<p>Complete but requiring dissemination</p>	<p>DAFM to continue to support the dissemination of the CLIMADAPT species selection tool and any necessary updates. Disseminate further information on CLIMADAPT (see also 1.17).</p>	<p>The current COFORD funded CFORREP Project led by UCD is developing additions to the Irish forest carbon accounting and reporting tool (see www.ucd.ie/cforrep/) will assist with this action. Teagasc research into alternative conifer species to encourage a more species diverse national forest estate (Alternative Conifer Project). The recent COFORD funded Irish Land Use Emission and Sequestration Support Tool (IRISHLANDUSES) Project led by Teagasc with the key objective to develop a modelling capacity to examine future scenarios for agricultural greenhouse gas emissions and carbon sequestration by forestry in Ireland will assist in addressing this strategic action.</p>

No.	Original Strategic Action	Changes Required (See also minutes of meetings)	Progress and Developments to Date	Research & Development in Support of Strategic Actions
6.9	DAFM/COFORD to consider support of field scale evaluation of non-chemical measures including nematodes, and silvicultural practices and following this indicate appropriate measures for the control of the large pine weevil.	No change - work ongoing	See also the Forest Research Ireland (FORI) report and current research programme.	The COFORD funded MCOP Project looking at multi agent control options for pine weevil led by NUIM is ongoing and will assist in indicating appropriate measures for the control of the large pine weevil.
6.10.	DAFM to co-ordinate efforts across the forest sector to collaborate with the NPWS and other organisations in the early identification and control of invasive alien species which represent a threat to forest biodiversity and economic development.		Native Woodland Conservation scheme grant aids the removal of some invasive alien species. Along with Horticulture & Plant Health Division and the Veterinary side, the Forest Service are DAFM members of the DAHG Invasive Alien Species (IAS) Stakeholder Group. The NPWS is the lead implementing agency in relation to IAS. DAHG have held two of these group meetings- the last on 9 March 2016. This group was set up by DAHG with regard to the implementation of the new EU IAS Regulation.	The COFORD funded RHODO Project on achieving effective Rhododendron control will assist in relation to recommendations on Rhododendron control in forests.
6.11	In the light of the new regulations (SI 477 of 2011), DAFM to consider providing support for the control of rhododendron and other IAS in all forests and on lands adjacent to forests which act as a seed source. Where appropriate, support for control should be considered under the new CAP reform measures.	No change - work ongoing	Native Woodland Conservation scheme provides support for removal of invasive exotics such as laurel and rhododendron. Support is provided under the Seed Stand and Seed Orchard Scheme in the management of Seed Stands which includes the removal of IAS. The COFORD funded RHODO Project on achieving effective Rhododendron control will support achieving this strategic action.	
6.12	DAFM should evaluate the option of licensing the cutting and use of rhododendron for decorative purposes, especially in the area of 'proof of origin'.		No legal basis exists for the cutting and use of rhododendron for decorative purposes unless a new SI is introduced.	
6.13	DAFM to develop and disseminate guidance on forest biosecurity	New Strategic Action		
6.14	DAFM to develop guidance on the management of diseased/ pest infected crops e.g. Ash and Chalara	New Strategic Action		
6.15	DAHG/DAFM in association with forest sector stakeholders to actively communicate to the sector regarding IAS and their potential impact on forests and the environment	New Strategic Action		
7	To ensure the availability of suitable programmes of education and training across the sector and research programmes targeted at identified needs.			

7.1	<p>Support measures and initiatives to establish an overarching forest sector body which will guide and co-ordinate activities relating to research and development, training and education across the sector with a focus on innovation, added value and increased competitiveness.</p>	<p>Ongoing - Little progress</p>	<p>Many supporting measures have already been put in place as for example, the COFORD Council published in October 2014 the Strategic Research Agenda for Forestry in Ireland "Forest Research Ireland (FOR) – meeting the needs of Ireland's forest sector to 2017 and beyond through research and innovation", which gives guidance for future calls for research proposals. In the area of development, the COFORD Council are addressing this through the Wood Mobilisation Report and the All Ireland Roundwood Production Forecast 2016-2035. With regard to training this area is being supported through the Department's development of CPD with the Society of Irish Foresters and its work with the Forest Machine Operators Training Group. Wood Products and Standards are being managed and developed by the new Wood Technology Ireland group. (See also 9.1 which was previously discussed) Since 1988 Teagasc has provided vocational forestry education and training and recently acquired a harvester simulator and is well placed to contribute through its educational programme and its advisory and research programmes.</p>	
7.2	<p>In order to increase the level of involvement of the forest sector in funding research DAFM will examine the feasibility of the sector part-funding national forest research.</p>	<p>DAFM to examine models for funding research elsewhere and their relevance to Ireland</p>	<p>Reference to private sector funding of forest research is made in sections 2.5.3 and 4.3 of the Forest Research Ireland report (FOR). While a small number of research projects have been joint funded with the private sector to date, it is generally the case that this support normally comes in the form of Benefit in Kind in terms of time, use of equipment etc and rarely in the form of actual cash contribution to the research proposed.</p>	
7.3	<p>DAFM will evaluate the findings from the 2011 FTEI training needs analysis for the forest sector and issues raised by the Farm Safety Partnership Advisory Committee and prepare a phased implementation plan to address prioritised needs, including competency based training and certification systems.</p>	<p>No change - work ongoing</p>	<p>The 2011 FTEI Training needs analysis was reviewed as part of developing the forestry programme 2014 - 2020 and was recognised as a strength in the SWOT analysis of the sector. Measure 7 of the programme called Knowledge Transfer and Information actions allocates funding to address the findings of that report. Training is currently being supported through the Department's development of CPD and its work with the Forest Machine Operators Training Group. Wood Products and Standards are being managed and developed by the new Wood Technology Ireland Group. The Department's Forest Certification initiative will include relevant certification systems for growers groups. The Teagasc educational programme through the QQI Level 5 & 6 forestry courses provide competency based training and certification. Chainsaw skills and pesticides application elements are already certified under QQI L5 and L6</p>	
7.4	<p>The wood industry in collaboration with IFPPA and Irish Business and Employers Confederation (IBEC) should put in place a training programme, utilising Skillnets and other initiatives as appropriate, to meet the needs of the wood industry.</p>	<p>No plans to implement</p>	<p>An alternative approach to training has been supported by the Irish Forestry and Forest Products Association (IFFPA) to date. This includes support for the development of a Forest Machine Operator course and training courses for foresters run by Teagasc. Teagasc also has a forestry training programme in place, offering QQI Level 5 & Level 6 awards. Included are major, minor and skills components (http://qsearch.qqi.ie/WebPart/AwardDetails?awardCode=5M3425 & http://qsearch.qqi.ie/WebPart/AwardDetails?awardCode=6M4337) which are reviewed regularly through forestry educational stakeholders meetings.</p>	

No.	Original Strategic Action	Changes Required (See also minutes of meetings)	Progress and Developments to Date	Research & Development in Support of Strategic Actions
7.5	Teagasc in collaboration with the HSA and other public bodies to heighten awareness among forest owners of their responsibility regarding employment of contractors and health and safety issues.	System for recording accidents and near misses across sector and using lessons learned to improve H&S practices (See new SA 7.5a below)	Teagasc sits on the forestry HSA subcommittee and there is HSA representation at Teagasc events (both practical demonstrations and information). HSA are invited (and attend) Talking Timber events and other forestry events. The Department's Forest Certification initiative will include relevant certification related systems for growers groups. Under Teagasc's forestry educational programme a specific module is dedicated to Health & Safety (Forest Safety). Teagasc Forestry development officers provide advice and guidance through site visits, courses, events, demonstrations and social media.	
7.5 a	DAFM to facilitate health and safety (H&S) awareness through supporting the development of a system for recording accidents and near misses across sector and using lessons learned to improve H&S practices	New Strategic Action		
7.6	DAFM to consider the possibility of supporting a network of forestry demonstration farms.	Such farms have limited life. May not be implemented as drafted	Teagasc have a number of well run forests that they refer to when looking for "best in class" examples of forest management. These were used in the Departments promotional videos for forestry. Teagasc are preparing a proposal on demonstration forests to put these forests on a more formal footing. This will need to consider issues that may arise with regard to H&S, insurance cover and remuneration for facilitating visits. In 2017, Teagasc is supporting the new Farm Forest category in the RDS forestry awards.	The recent COFORD funded Irish private forest owners: The role of knowledge transfer and social networks (FOROWN) Project led by UCD looking at understanding the extent of forest owner' engagement in management and the factors that influence it, will assist in addressing this strategic action.
7.7	DAFM to maintain, in real terms, the current level of State-led investment in forest research over the coming decade.		See 9.1, 9.2 and 9.4 which were previously discussed.	
7.8	National forest research and development priorities will be established by DAFM in consultation with the membership of COFORD council, other government agencies and stakeholders.	Completed but need to repeat	This has been addressed by publication in October 2014 of the Strategic Research Agenda for Forestry in Ireland "Forest Research Ireland (FORI) – meeting the needs of Ireland's forest sector to 2017 and beyond through research and innovation."	
7.9	DAFM, in cooperation with the COFORD Council to examine the feasibility of establishing long-term research programmes involving partnerships between State agencies and third level institutions.	No change - work ongoing	This strategic action is shared by DAFM's Research Division and is referenced in Section 2.5.1 of the Forest Research Ireland Report (FORI). Recognising the importance of a long term approach to forest research, DAFM included a Long Term Forest Research (LTFR) initiative in its 2014 call for proposals. A two stage application process was adopted involving an expression of interest (Eoi) & submission of full proposals. A large consortium with wide expertise successfully negotiated stage 1 of this process. However, the full proposal was unsuccessful through stage 2 of the process and the proposal was not funded on this occasion. DAFM is considering options in this area. Teagasc has a number of research plots that have been designed for medium- to long-term research. Teagasc will support the facilitation of a long-term research programme.	

7.10	Ensure that ecological and environmental aspects of forestry are adequately covered in education and training courses.	No change - work ongoing	Ecological and environmental aspects of forestry will be covered in all relevant training courses (see 7.3 above). Training under Native Woodlands supports ecology and water values. KTG initiatives will assist in covering Habitats Directive and Water Framework Directive and other requirements. Under Teagasc's QQI certified forestry educational programme a specific award is dedicated to Forestry and the Environment. References to the environment and legislation are imbedded into other relevant awards such as Sustainable Forestry, Silviculture, etc.	
7.11	The COFORD council, in collaboration with forest industry, relevant State agencies and sector stakeholders to undertake a review of the Strategic Research Agenda with a view to prioritising areas for investment in research and development across the sector.	Completed but need to repeat	This has been addressed through the publication and launch in October 2014 of the Strategic Research Agenda for Forestry in Ireland "Forest Research Ireland (FORI) – meeting the needs of Ireland's forest sector to 2017 and beyond through research and innovation"	
7.12	DAFM and sector stakeholders to encourage more balanced gender diversity through actively promoting forest training and education and career options	New strategic action		
8	Forest products, forest services and the management of the forest resource will have a strong, market-led, quality focus.			
8.1	DAFM to facilitate voluntary forest certification through the structure and content of environmental guidelines, an updated Code of Best Forest Practice and forest management planning systems, and through other measures, in order to facilitate access to market.	Ongoing & certification schemes should be encouraged to make forest certification more viable for small forest owners.	The forest certification project has established two Certification Groups to help foster a national certification network. Certification templates have also been delivered as part of this project and is accessible to all. Sustainable Forest Management Ireland (SFMI), formerly FSC Ireland, was established in 2016 and held a successful conference on certification for private forest owners. Updating of Environmental Guidelines ongoing - Afforestation and Environmental guidelines drafted. COFORD FMP template undertaken. Update of Code of Best Forest Practice is currently being reviewed by DAFM. Teagasc is instrumental in the FSC Ireland SDG proposal to FSC International and will contribute once set up.	
8.2	DAFM will engage in and support the development of forest product and other standards of relevance to the Irish forest sector.	Ongoing	DAFM provide support for Wood Technology Ireland (WTI) which provides technical support for the specification and use of wood products in construction and other areas. DAFM supports the Irish Bioenergy Association's Wood Fuel Quality Assurance Scheme and the Irish Timber Research and Innovation Centre at NUIG. DAFM and other stakeholders are supporting Sustainable Forest Management Ireland (SFMI) initiative. Machine operator training course at Teagasc Baillyhaise College will be to City & Guilds Standard. DAFM liaising through contact person with Enterprise Ireland and other Agencies with regard to product development and accessing funds under Horizon 2020.	The recent COFORD funded Exploitation and Realisation of Thinnings from Hardwoods (EARTH) Project led by NUI Galway with the objective of developing knowledge on the wood quality of Irish hardwood thinnings and identifying possible end-use applications and new products will assist in addressing this Strategic Action. The recent COFORD funded, Commercialisation of Irish Cross-Laminated Timber (CICLT) Project, led by NUI Galway with the objective of developing the necessary data to support the commercialisation of employing Irish Sitka spruce to manufacture a cross-laminated timber modular flooring system will assist in addressing this strategic action.

No.	Original Strategic Action	Changes Required (See also minutes of meetings)	Progress and Developments to Date	Research & Development in Support of Strategic Actions
9	Policy will be implemented through ongoing monitoring and reporting of progress in consultation with stakeholders, and the policy will be updated to meet changing needs and circumstances.			
9.1	Establish a Forest Council, representative of the forest and related sectors, with a permanent secretariat and three subordinate committees (a) research and sectoral development, (b) schemes and measures and (c) environment, which would have the responsibility for ongoing monitoring and reporting of progress on policy implementation against agreed indicators of achievement and providing advice on the updating of policy and/or strategic measures.	No change - progress action to be prioritised	Under consideration by DAFM	
9.2	Establish a Task Force to consider the establishment of a stand-alone government body or agency which could have the responsibility of addressing development and promotion of the forest sector and forest products nationally and internationally. The Task Force would report to DAFM through the Forest Council.	No change - no progress	Under consideration by DAFM	
9.3	The level of implementation of the recommendations from the BioForest report would be assessed by the environment group.		As the various environmental requirements are rolled out, starting with afforestation, the appropriate recommendations in the BIOFOREST report will be incorporated into these requirements.	
9.4	The Forest Service to publish five year and annual business plans which clearly set out the work programme for the coming period, indicators of achievement and the funding arrangements.	No change - actions ongoing on 5 year cycle	Forestry programme 2014 -2020 addresses this action.	
9.5	DAFM to liaise with the EPA to ensure that the BioForest reports (2006) findings and recommendations are updated and include forestry expertise	New Strategic Action		
10	To support the development of the forest sector through a combination of funding and fiscal arrangements including joint EU funding, direct State funding and facilitating private investment.			
10.1	The tax treatment of forestry should be examined taking into account the timing and scale of timber revenues and reforestation costs to ensure that tax treatment does not act as a disincentive for the achievement of national policy goals in particular forest cover, roundwood supply to industry and climate change mitigation.	Ongoing -See new SA 10.7 below	Removal of the high income threshold in Budget 2016 for those active in forestry has addressed a major taxation issue.	

10.2	The recommendations of the review of tax schemes (Department of Finance 2006) and the Commission on Taxation (2009) in relation to thresholds to be implemented.	Completed	Removal of the high income threshold in Budget 2016 for those active in forestry has addressed the taxation issue.	
10.3	DAFM to explore financial and funding mechanisms to encourage a greater level of institutional investment in afforestation and in mobilising wood supply from the existing private forest estate.	Ongoing	Progress being made in this area as a result of single premium and forest investment vehicles.	
10.4	DAFM and the Forest Service to work with Coillte and other bodies to explore the viability and cost of a national carbon-based afforestation scheme.	No change - work ongoing	NewERA have done some work on the UK Carbon Code with the UK Forestry Commission and this work is ongoing.	
10.5	Government to examine possibility of multi-annual funding for afforestation and forest road schemes.	Completed	Forestry programme 2014 -2020 addresses this action	
10.6	DAFM to examine the feasibility of co-funding the afforestation programme and support measures under the Rural Development Regulation.	Completed	Decision taken at a senior level within the Department that the Forestry Programme would be 100% financed through the exchequer.	
10.7	Harmonise the tax treatment of forestry and agriculture regarding eligibility for retirement relief (CGT) and business relief (CAT)	New Strategic Action	Revenue eBrief No. 06/18 dated 10 th January has helped to clarify the position regarding eligibility for retirement relief	
11	To ensure that forest related legislation is relevant to the needs of the sector and underpins the principles of sustainable forest management while recognising the multifunctional nature of forestry.			
11.1	DAFM to address implementation of Planning and Development Act in line with Strategic Action 2.7.	Ongoing -Awaiting legislation	DAFM in communications with Department of Housing, Planning and Local Government on a single consent system for forest entrances.	
11.2	DAFM to ensure that the Forestry Bill includes provision for forest management plans and their use for simplified permitting procedures for the undertaking of forest operations including thinning, clearfelling and regenerative fellings.	Completed	Under section 10 of the Forest Act 2014, provisions were introduced that give the Minister powers to require an owner of a forest to submit a forest management plan. The Act in itself however does not make it mandatory for forest owners to prepare a forest management plan even in the context of submitting an application for a felling licence. The Coford Forest Management Planning Group, which included representatives from across the forest sector, have developed a forest management plan template. However, it is worth noting that the submission of a FMP in support of a felling licence application is not a mandatory requirement.	
11.3	DAFM to ensure that the Forestry Bill provides for a transparent and independent appeals procedure.	Completed	New Appeals structure is provided for within the Forestry Act 2014.	

No.	Original Strategic Action	Changes Required (See also minutes of meetings)	Progress and Developments to Date	Research & Development in Support of Strategic Actions
11.4	DAFM to include provisions in the Forestry Bill for a more flexible approach to the removal of areas from forestry to other land use types.	New Forestry Act commenced with only limited flexibility	This position was reviewed by the Department in the context of recent proposals by the EU Commission on climate change to 2030 and the Department's position is to continue with the policy of replanting as a condition of a felling licence. The new Forestry Act was commenced last May and includes provisions that allow deforestation but only under special licence, i.e. the conversion of forest land to other land use types. DAFM policy is to increase the area of forest from 10.5% to 18% by 2046, through the reforestation of existing forest lands and afforestation. In line with this long-term aim, it is vital that DAFM maintain a robust replanting policy. Where deforestation is licensed by DAFM it is important that alternative lands are afforested to replace the forest area being lost.	
11.5	DAFM to ensure that the implementing legislation for the EU Timber Regulation takes full account of forest certification and chain of custody and does not adversely impact on the wood paying capacity within the sector.	Completed	The importance of certification and chain of custody was highlighted by Ireland during the drafting stages of the EUTR Regulations and this has been reflected in the final draft. National implementing legislation was introduced in mid 2014 – SINO 316 of 2014. This solely concentrates on the designation of Ireland's EUTR Competent Authority, offences, penalties, authorised officers, compliance notices, fixed penalty notices, appeals, warrants and proceedings etc. This legislation was developed under the guidance and in conjunction with Legal Services Division and the Parliamentary Draughtsman's Office. DAFM as Competent Authority will continue to implement the EUTR in a fair manner applying a risk based approach which primarily focuses on product from high risk sources.	
12	Coillte to work in co-operation with the industry and the private growing sector in developing a viable and competitive harvesting capability which will meet the needs of the overall sector. Any significant developments in harvesting systems should be implemented in a co-ordinated manner with all parties to ensure a strong and competitive national harvesting infrastructure.			
12.1	Coillte to work in co-operation with the industry and the private growing sector in developing a viable and competitive harvesting capability which will meet the needs of the overall sector. Any significant developments in harvesting systems should be implemented in a co-ordinated manner with all parties to ensure a strong and competitive national harvesting infrastructure.	See action 4.2	New COFORD Wood Mobilisation Group established to assist in implementing mobilisation report recommendations.	
12.2	Coillte to work in co-operation with other industry players to reduce supply chain costs. Coillte together with private owners, the forest industry and stakeholders should facilitate the development of a standard system for timber measurement and removals.	No change - consensus for national system	Coillte is working with a series of industry partners to develop innovative methods of tracking and coordinating timber harvesting and removals by electronic means. Elements are now operational such as electronic dockets (eliminating need for paper dockets) and smart timber security system.	
12.2a	Establish a COFORD initiative to progress a national standard system for timber measurement and removals	New strategic action		

12.3	In conjunction with Strategic Action 4.4, Coillte, as an owner of public lands, to implement initiatives to progress co-operation with private growers in facilitating access to private forest areas for harvesting. Coillte and private growers to develop a framework to allow shared use of forest roads for forest operations	No change - awaiting Coillte licence protocol	Similar to recommendation 5.1 where collaboration between public and private forest owners is referred to as a means of increasing supply from private producers. In relation to shared roads the Department has introduced support for connecting roads to encourage shared use of existing infrastructure. Coillte is preparing a set of guidelines on third party use of its road network - currently at draft stage.
12.4	Any future strategy for Coillte should contribute to the sustainable development of the overall forest sector.	Ongoing - Coillte committed to sustainable development	This is agreed and will be supported by the DAFM.
13	To support the development of the Forest Service as an efficient delivery service organisation meeting the needs of Government, national forest policy and the forest sector.		
13.1	DAFM should undertake a functional and efficiency assessment of the Forest Service which would examine the extent to which this structure is optimally efficient in the delivery of services across the sector and the extent to which skills capacities meet existing and future needs.	Outstanding	DAFM organisation review underway across all divisions within Department, the preliminary conclusions are being considered by DAFM.
13.2	DAFM/Forest Service should establish permanent structures to support the development of the forest sector, in areas such as roundwood supply and demand, climate change mitigation, ecosystem services, wood energy, certification and product standards.	Link with 9.1 and 9.2	Progress being made in these areas: Climate change mitigation now being managed by Forest Development Division. www.Woodenergy.ie has been established to help promote wood energy. Structures to support certification for private forest owners are well underway with the establishment of two certification groups and templates for certification available to all. A new Forest Management and Certification Scheme is also in the pipeline which will support private forest owners in achieving certification for their forests. Teagasc have a role in roundwood supply and demand where they hold a number of Talking Timber Events throughout the country where these issues are discussed. The all Ireland roundwood production forecast 2016 - 2035 also addresses this action. (See also Strategic Actions 9.1 and 9.2)
13.3	The Forest Service should re-instate a stand-alone Annual Report, providing a review of achievement versus specific goals in areas such as afforestation, timber production, environmental compliance and climate mitigation while also providing a statistical database for reporting and planning. The Annual Report should also feature on DAFM's website.	Include more up to date data on employment, contribution to GDP, etc in the annual report. Amend format to include policy deliverables in report	Most of this information is available in various reports such as the Forest Service monthly statistics report, COFORDs Wood Flow Report and all Ireland Roundwood forecast and information on climate change mitigation. Reorganisation of DAFM website is underway and will pull together this information for ease of access by sector.
13.4	DAFM to clearly outline the mission, functional units and the roles and responsibilities and reporting arrangements of the Forestry Divisions within DAFM	New Strategic Action	

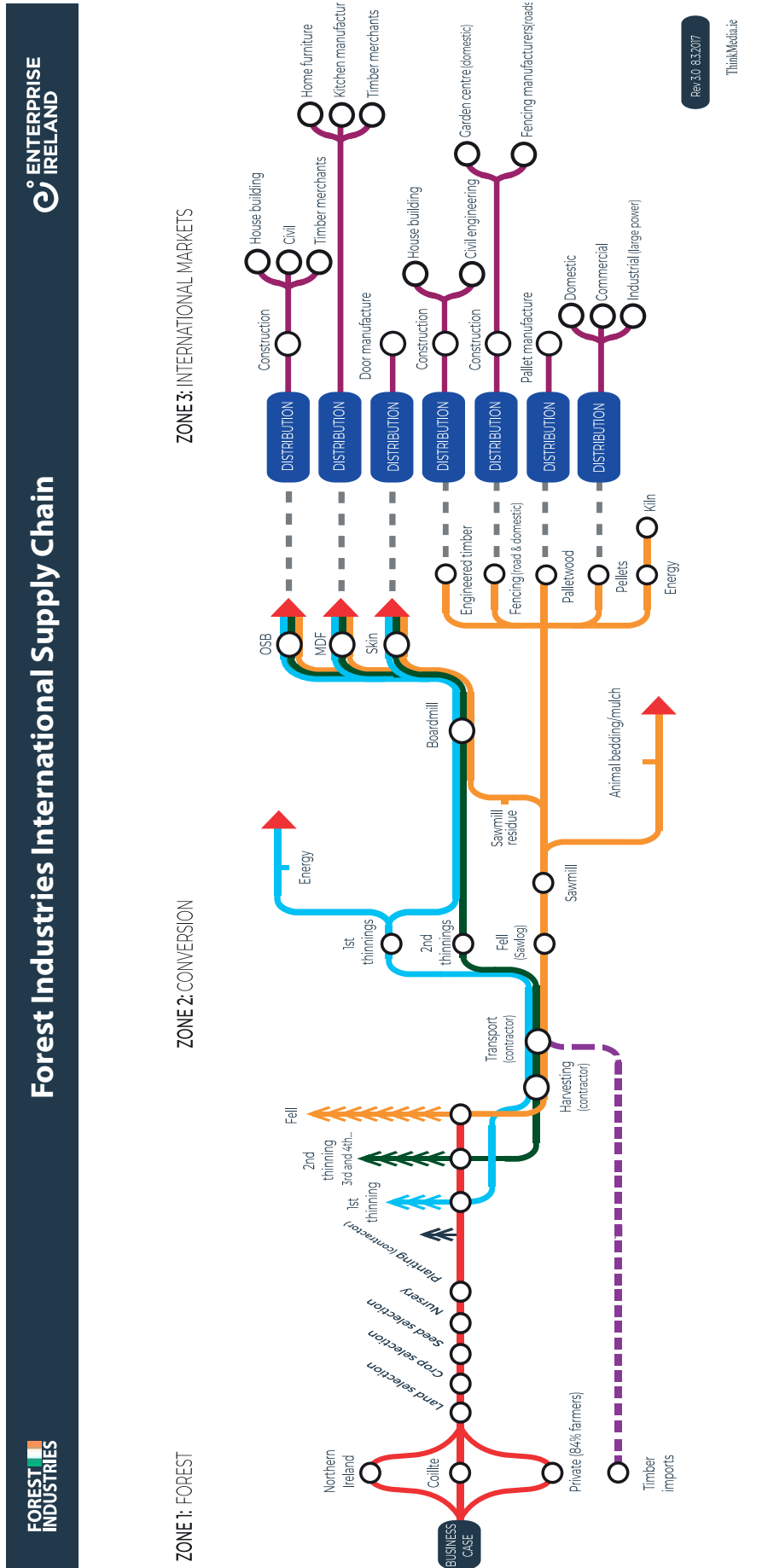
Appendix 3 - Adaptation options

Table 1: Some adaptation options for the land use and forest sectors (based on Table 3 in Adaptation Planning - Developing Resilience to Climate Change in the Irish Agriculture and Forest Sector).

National Actions	Timeframe	Responsibility
Keep under review and update the agriculture and forest sectoral adaptation plan in the context of the Climate Action and Low Carbon Development Act 2015.	Short - Medium Term	DAFM
Ensure adaptation requirements are considered during the establishment of sectoral policies, strategies, plans and measures.	Short Term/Ongoing	DAFM
Implementation of relevant legislation and other statutory and control instruments.	Short Term/Ongoing	DAFM
Interagency		
Interdepartmental and interagency interaction in relation to adaptation, environmental policy development and monitoring.	Short Term/Ongoing	DAFM and relevant Departments and Agencies
Interaction with Met Éireann.	Short Term/Ongoing	DAFM, Teagasc
Met Éireann		
Active participation with the Office of Emergency Planning.	Short Term/Ongoing	DAFM
Office of Emergency Planning		
Knowledge Transfer and Communication		
Regular communication to stakeholders including via the knowledge transfer network and advice provision system at local, national and interagency levels.	Short Term/Ongoing	DAFM, Teagasc
Representative Organisations		
Continue to participate in national, international fora and initiatives in agri-food and forest so as to share experiences and best practices.	Short Term/Ongoing	DAFM
Research		
Sustained monitoring of research results and dissemination of results to relevant parties.	Ongoing	DAFM
Sustained monitoring of research results and dissemination of results to relevant parties.	Ongoing	DAFM

Adaptation Options		
Encourage policy creation which takes advantage of technological advances in adaptation.	Short-Medium Term	DAFM
Monitor adaptation options in place in other countries to extract knowledge which can be implemented within the Irish context.	Medium Term	DAFM
Consider the appropriateness of the introduction of new plant, crop, tree and livestock varieties which are more resilient to the changing climate.	Medium-Long Term	DAFM
Encourage research into the effects of climate change and adaptation measures through programmes informed by relevant strategic research agendas at national and international levels.	Short-Medium Term	DAFM
Research and implement methods to monitor, review and evaluate the adaptation options put in place.		
Long Term		
DAFM		
Land Management		
Continue research on, and promotion of, better land management in light of projected climatic changes.	Short Term	DAFM
Continue with pest and disease surveillance, monitoring and research.	Short Term	DAFM
Promote the use of forest decision support systems to support adaptive forest management.	Short Term	DAFM
Implementation of Forest Protection and Health measures.	Short Term	DAFM
Implementation of risk assessment and risk warning systems in relation to uncontrolled wild fires.	Short Term	DAFM
Implementation of Sustainable Forest Management including training and advice on species selection, etc.	Short Term	DAFM, Coillte
Continued implementation of the Pesticide Control Service.	Short Term	DAFM

Appendix 4 - Supply chain



Appendix 5 - COFORD Forest Policy Review Group (CFPRG) members

The COFORD Forest Policy Review Group (CFPRG) comprised the following members:

Karl Coggins	(DAFM)
Pat Collins	(IFA)
Seamus Dunne	(DAFM)
Michael Glennon	(ITC)
Eugene Hendrick	(DAFM)
Neil Kerrigan	(Enterprise Ireland)
Daragh Little	(IFFPA)
Gerard Murphy	(Coillte)
Nuala Ni Fhlatharta	(Teagasc)
John Phelan	(COFORD)
Donal Whelan	(ITGA) Chairman

The staff from the DAFM above participated in the meetings and provided clarification on regulatory and technical issues and information on recent developments and planned future actions by DAFM.

Henry Phillips (forestry consultant) provided technical support for the review process and in drafting of the report.



Stand Tall.



Department of Agriculture, Food and the Marine
Agriculture House
Kildare Street
Dublin 2
Ireland

www.coford.ie

