AN OVERVIEW OF THE IRISH FORESTRY AND FOREST PRODUCTS SECTOR 2012
IBEC is the voice of Irish business and employers both nationally and internationally. It is the umbrella body for Ireland’s leading business and industry groups and associations. IBEC represents more than 7,500 member organisations, of all sizes, in all regions and across all industry sectors.

With acknowledged expertise in all aspects of business representation, policy development, employee relations, human resources, employment law, environment, health and safety, trade and EU affairs, IBEC is uniquely positioned to provide indispensable, tailored advice to members. To learn more, contact IBEC on www.ibec.ie

IBEC MISSION

IBEC promotes the interests of business and employers in Ireland by working to foster the continuing development of a competitive environment that encourages sustainable growth, and within which both enterprise and people can flourish.
An overview of the Irish forestry and forest products sector 2012

Contents

Foreword by Minister of State McEntee 2

Director’s introduction and review 4

The sector in numbers 6

2011 key forestry data 8

Key focus areas 10

Executive summary 12

Industry overview 14

Sectoral review/The Irish forestry development sector 31

IFFPA member profiles/Forestry development 35

Sectoral review/Irish sawmilling sector 41

UK overview 45

Member profiles/Sawmilling 48

Sectoral review/The Irish panel products sector 51

Member profiles/Panel products 54

Sectoral review/Other sectors 58

Sectoral review/Environmental and recreational benefits of forests 63

Case studies 67

IFFPA weblinks 78

Abbreviations 80

Glossary 81

Contact details 83
Foreword by Minister of State McEntee

I would like to thank the Irish Forestry and Forest Products Association for the opportunity to add some comments to their annual Review publication. I welcome the publication of the Review as it gives a valuable insight into the developments in the sector over the last year, its achievements and its concerns. Not only does such a publication increase the awareness of the general public of the importance, and contribution, of forestry and the forest industry in general, it also gives me, as the Minister of State with responsibility for forestry, an update on progress within the overall sector.

In relation to the issues of concern, readers may be reassured to know that I am already extremely conscious of such concerns, through the forum of the Forestry Liaison Group, on which the IFFPA is represented, and through my other meetings with stakeholders and visits to forest plantations, sawmills and processing plants.

As mentioned in the Review, I was pleased to announce the allocation of some €111 million for the forestry programme in 2012, which, in addition to other commitments, will facilitate payment for the new planting of some 6,500 hectares of forestry. The allocation of such a significant amount for the development of forestry should be viewed, and appreciated, in the context of the current budgetary and financial environment. I will once again be striving to maximise our allocation in the budgetary process for 2013 and to achieve an appropriate balance of the amount allocated between afforestation and other forestry schemes.

The Forestry Development Department of Teagasc is continuing to work with producer groups to increase the awareness of forest owners about the importance of thinnings. I welcome the two new initiatives by Teagasc this year in relation to the promotion of forestry. One was their organisation of a nationwide series of One-2-One Forestry Clinics from 13 to 24 February whereby farmers and landowners seeking independent advice and up-to-date information on planting and managing forestry and trees availed of a one-to-one consultation with an experienced Teagasc forestry adviser at one of the free Clinics throughout the country in local Teagasc offices. The other new initiative was the organisation of four Regional Timber Marketing Days during March 2012 attracting over 500 forest owners. The purpose of these ‘Talking Timber’ events was to give forest owners the opportunity to make contact with foresters, harvesting contractors and timber buyers and also to provide forest owners with information about thinning. I thank Teagasc for their ongoing efforts in this regard as the provision of such support to forest producer groups and advice will help to build the confidence of forest owners to manage their forests appropriately.

I am conscious of the concerns in relation to the restriction on the planting of unenclosed land. There are a number of reasons, environmental and economic, for the restriction which I have previously outlined. I am pleased to advise that a working group has been established, as a sub group of the COFORD Council, which will facilitate a wider review of the issue. This ‘land availability for forestry group’ is tasked with examining a broad range of issues regarding land availability for forestry. These include the identification of productivity thresholds, environmental and planning issues and socio-economic factors. The group will make recommendations on ways to address constraints on achieving afforestation goals.

As all of us in the sector are aware, forest fires were of particular concern in 2010 and 2011. The current position regarding the reported rate of incidents of forest fires during 2012 so far is lower than the level of...

---

1 http://www.teagasc.ie/forestry/
2 http://www.teagasc.ie/news/2012/20120210.asp
4 http://www.coford.ie/aboutcoford/cofordcouncil/
reported cases in 2011. It is difficult to quantify the overall amount of forestry which was lost or damaged but significant losses were incurred. My Department has sought to alert farmers and landowners, through an extensive nationwide publicity campaign, to the dangers of uncontrolled burning of agricultural land. As noted in the Review, a ‘Code of Practice for Prescribed Burning’ to advise farmers on all aspects of controlled burning, including planning, safety, notification and the legal requirements was developed and launched in February 2012. The full Code is available in hard copy on request or can be downloaded from the Department’s website. The IFFPA has been active in addressing the issue of forest fires through the hosting of a workshop on the issue in February 2012 and its participation in the preparation of a submission of an application under the EU LIFE+ programme to support a rural fire awareness and prevention programme. I understand that LIFE has supported such programmes in other Member States and I am confident that, given the experience and knowledge gained in recent years by all of the parties involved in Ireland, a successful application and a credible, effective programme will emerge. I understand that officials of my Department have been involved in the preparatory stages of the application and will continue to lend technical advice and assistance as appropriate.

Since the assignment of responsibility for forestry to me in April 2011, I have availed of as many opportunities as time and other commitments permitted to meet with stakeholders in the industry to discuss developments and concerns. I appreciate the constructive input from all sectors in the various fora such as the Forestry Liaison Group and COFORD Council. This Review adds to our understanding of the many facets of the Irish forest industry and I thank the IFFPA for its ongoing contribution towards the development of Irish forestry.

Shane McEntee T.D.
Minister of State at the Department of Agriculture, Food and the Marine with special responsibility for Food Safety, Forestry and Horticulture

---

5 http://www.agriculture.gov.ie/media/migration/forestry/landandforestfires/CoPPrescribedBurningFinal90212.pdf
6 http://ec.europa.eu/environment/life/
Director’s introduction and review

Forestry for the Future of Ireland
Expand, Improve, Innovate - for Employment, Exports and Environment

The Irish Forestry and Forest Products Association (IFFPA) is the IBEC sector created to provide a strong united voice for the entire forestry and forest product industry chain.

The key objectives of IFFPA are:

• To achieve a vibrant, sustainable and competitive forestry and forest products industry for Ireland.

• To unite the members of the various sectors of the industry and to co-ordinate their efforts and activities in matters of common concern.

• To communicate the benefits and potential benefits of the industry sector to a wide variety of stakeholders.

The information in this 2012 Review highlights the value, the opportunities and the potential of the industry along with the economic, funding and bureaucratic challenges hampering a vibrant, enthusiastic and entrepreneurial sector. This Government has an
ambitious agenda for Ireland to become the best small country in the world in which to do business. In addition to a strategic commitment, efficient and effective services from State and public agencies are crucial to achieving competitive advantage in our sector.

Rural employment is vital to maintaining the social integrity of Irish life. Employment in forestry and its attendant industries is one of the key export led employment opportunities enabling valuable skills and knowledge to remain within local areas.

To maintain and develop that employment and to generate economic value from the forest resource requires a major drive at national level on all aspects of timber mobilisation.

Land use, land-use change and forestry (LULUCF) has a major role in reducing or offsetting emissions. At EU level it is proposed that Member States take action plans to maintain or increase removal from the LULUCF sector. Ireland has a major opportunity in large areas of marginal land, well suited to afforestation. However, it is vital that the accounting for emissions and storage be robust and that at EU level the accounting rules for the next and following commitment period provide adequate recognition to ensure the success and sustainability of both grassland and forestry land sectors.

The Rural Development Programme for 2014 – 2020 and the attendant CAP reform and forestry measures will determine land use for that period and probably beyond. Its negotiation presents both a challenge and a vital opportunity to ensure that the necessary expansion of the productive forest resource – targeted at over 100,000 hectares in that period - can be achieved in a focused manner that complements the development of agriculture.

This Government has an ambitious agenda, supported by IBEC, for Ireland to become the best small country in the world in which to do business. It is vital that in the heavily regulated forestry and forest products sector that every interaction with the State is achieved with a high degree of efficiency for all. A single consent system for forest roads and entrances and the implementation of the Illegal Timber Trading Directive are immediate opportunities to make progress on this vital agenda.

IFFPA members are making huge contributions to Ireland's rural community, its economic recovery, employment, emissions management and integrated landscape optimisation. Our members are ready to continue to deliver this and more. However, to provide maximum return, it needs the long-term investment through a focused support mechanism backed up by a determination to deliver on national targets so as to allow the sector deliver on its full capacity to expand, innovate, export and employ.

Yours sincerely

Marian Byron
# The sector in numbers

<table>
<thead>
<tr>
<th>Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>2,200,000,000</td>
<td>The total value, in euro, of the forestry and forest products sector to the Irish economy.</td>
</tr>
<tr>
<td>11,939</td>
<td>The number employed in the Irish forestry and forest products sector.</td>
</tr>
<tr>
<td>490</td>
<td>This is the estimated number of direct jobs which would be created annually over the period of an average 40 year forest rotation if 15,000 hectares are planted each year.</td>
</tr>
<tr>
<td>10.6</td>
<td>Percentage of Ireland’s land area under forest as of December 2011.</td>
</tr>
<tr>
<td>744,000</td>
<td>National forest estate in hectares as of December 2011.</td>
</tr>
<tr>
<td>47</td>
<td>The percentage of the Irish forest estate that is privately owned.</td>
</tr>
<tr>
<td>19,000</td>
<td>The number of private individuals who have invested in the Irish Forestry Funds since 1997.</td>
</tr>
<tr>
<td>6,653</td>
<td>The area of land, in hectares which was afforested in Ireland in 2011.</td>
</tr>
<tr>
<td>116,174</td>
<td>The length, in metres of forest roads which were grant aided in 2011.</td>
</tr>
<tr>
<td>3,864</td>
<td>The number of felling licences which were issued by the Department of Agriculture, Food and the Marine in 2011.</td>
</tr>
<tr>
<td>8</td>
<td>The area in hectares of the average farm forest holding in Ireland.</td>
</tr>
</tbody>
</table>
1,500
The area, in hectares of Irish forests which were damaged by forest fires in 2011.

1,000,000
The estimated lost future volume of roundwood in cubic metres which will not be produced due to damage caused by forest fires in 2011.

2,899,000
The volume of roundwood in cubic metres overbark which was harvested from Irish forests in 2011. Of this, 2.7 million cubic metres was industrial roundwood, with the remainder being used for firewood.

6,564,000
The forecast roundwood production, in cubic metres for the Republic of Ireland in 2028.

1,780,000
For every one million euro in expenditure in the forestry and forest products sector, a further €780,000 in expenditure is generated in the rest of the Irish economy.

286,000,000
The total value in euro of the forest products which were exported from Ireland in 2011. This includes pulp and paper products, wood-based panels and sawn timber.

82
The percentage of the sawn timber and wood-based panels which were produced in Ireland in 2010, which were exported.

170,000,000
The total number of door panels produced and shipped from Masonite Ireland, Drumsna, Co. Leitrim to their customers worldwide over their 15 years of operation.

11,000,000
Irish forests which have been established since 1990 will sequester 11 million tonnes of carbon dioxide over the 5-year commitment period of the Kyoto Protocol (2008-2012). In today’s terms this equates to a value to the Irish Exchequer of €220 million.

18,000,000
Over 18 million visits to forest take place every year; mainly in the Coillte estate.
Ireland’s forestry and forest products sector employs close to 12,000 people across the State. It comprises a vibrant forest products sector, with state-of-the-art boardmills and sawmills, exporting a high proportion of output. Considerable potential exists to expand production and employment; half the forest estate is less than 25 years old, and further expansion of forest cover is planned so as to achieve forest cover of approximately 17% by 2030.

In 2010, the Irish forestry and forest products sector generated approximately €2.2 billion in annual output representing almost 1.4% of GDP.

10.6% of Ireland is under forest, supporting a vibrant and export oriented forest products sector.

The Irish forestry and forest products sector employs close to 12,000 people.

Investment in Irish forests has the potential to add close to 7,000 new jobs by 2025. This is a 58% increase over current employment levels.

In 2011, 6,653 hectares of new forest were planted. However, this was a decline of 20% on 2010. Government afforestation targets are still not being met.

In 2011, 116,174 metres of harvesting roads were constructed, mobilising roundwood to the processing sector. This was an increase of 17% on 2010.

The national forest estate covers 744,000 hectares. However, Ireland has the lowest forest cover by percentage of land area in the European Union at just under 11% compared to an EU average of 38%. Forest cover within broader Europe is 44%.

47% of Irish forest estate is now in private ownership. The size of the average holding is 8 hectares (20 acres).

It is estimated that every 15,000 hectares planted will generate 490 direct jobs for each year of an average 40 year forest rotation.

In 2011, the overall roundwood harvest was 2.899 million cubic metres of roundwood (overbark). Demand was strong across all sectors, from forest-based biomass for energy, through to wood-based panels and sawn timber. 2.7 million cubic metres of this harvest comprised industrial roundwood with the balance being sold as firewood.

Ireland’s private forest estate is fast becoming a considerable wood and energy resource. Most of the private forest estate has been established over the past two decades, with many areas now entering into production.

There is a growing awareness of the need to mobilise wood fibre from the private forest sector to meet a growing demand from the forest products industry and from bio-energy markets.

By 2028, there is the potential to increase the harvest of roundwood from privately owned forests in Ireland eight fold.

In 2011, forest products to a value of €286 million were exported from Ireland; un-changed from 2010. This includes wood-based panels, sawn timber and pulp and paper products.

In 2011, Irish sawmills produced 867,000 cubic metres of sawn timber products.

Over the period 2000-2010, the volume of sawn softwood exported by the sawmill sector in the Republic of Ireland increased by 227%.

Over the period 2007-2010, Ireland’s market share of the UK sawn softwood timber market grew from 4.23% in 2007 to 6.34%. This is an impressive increase of almost 50% over a four year period.

In 2011, the Irish wood-based panel products sector had an output of 736,000 cubic metres, 87% of which was exported.

Over the period 2007 - 2010, Ireland was the largest exporter of medium density fibreboard (MDF) to the UK.
• In 2010, the Irish wood-based panel sector was the second largest exporter of particleboard and oriented strand board (OSB) to the UK.

• Cost control allied to an on-going investment in innovation is key to maintaining and increasing the competitiveness of the forest products sector in Ireland. The sector continues to innovate with improved processes, products and market development.

• IFFPA members key focus areas are to expand, innovate, improve, export and employ. Success in exports, import substitution and employment are vital to national economic recovery.

• After wind, wood fuels are the second largest contributor to the renewable energy sector in Ireland.

• By 2020, it is estimated that Irish forests will sequester over 4 million tonnes of carbon dioxide (CO₂) annually.
Key focus areas

Key focus areas for IFFPA members are as follows:

**Expand**

Expansion of the forest estate would provide a number of downstream benefits. Innovative schemes should be developed to fund an expansive afforestation programme beyond that committed by exchequer funding. There is an urgent need to have a one-stop shop approach to meet planting targets and to minimise bureaucratic ‘red tape’ and waiting times for planting approval:

- An annual afforestation programme of 15,000 hectares could create 490 direct jobs per annum to establish, manage, harvest and process the resulting timber resource.
- This can be delivered with the same Government led determination that was experienced in the 1990s.
- A steady supply of raw material from Irish forests could create 7,000 jobs by 2025.
- Today’s planting programme supplies tomorrow’s industry so it is essential that a long-term supply platform be put in place to support the timber processing sector.
- Expansion of the forest estate would secure the amount of raw material needed for the wood processing industry to achieve sustainable production levels.
- Expansion and investment would assist and be assisted by the promotion, development and fostering of a farm forestry culture.
Improve

Mobilisation; ensuring that the volume of roundwood which is brought to market in an efficient and cost effective manner is maximised is vital to the growth of the Irish forest products and wood energy sectors:

• Improve the transport and harvesting infrastructure in rural areas to ensure that roundwood is harvested from the forests which have been planted over the past 20 years with both EU and State support.

• Facilitate the development of this infrastructure by working with Government to work towards the provision of a national body to oversee compliance with planning and development requirements.

• Provide for a single Authority to develop cost effective efficient structures and supports to maximise the harvest of wood fibre from Irish forests.

• Need for a private sector national inventory led by the sector with the support of Government. A critical link is missing in that the processing sector doesn’t know what the private estate intends to produce. A comprehensive national private sector inventory and production forecast will secure investment by the processing sector resulting in a win-win for all. The State can help by insisting upon inventory and forecast within premium time or at felling licence stage.

Innovate

Applied industry led research can lead to improved mobilisation, greater material yields, new product lines and access to new markets.

• IFFPA will collaborate with the relevant research areas on industry led and applied research to ensure the best return on investment.

• IFFPA's focus is to move from the production of commodity products to added value products designed to meet specific customer needs.

• IFFPA supports research, development and innovation in the sector to develop these next generation products.

Export

To ensure that Irish forestry and forest products remain a key export led industry sector. In this context, IFFPA calls for:

• Support for manufacturers to identify and develop market opportunities in export markets.

• Ongoing support for market development.

• Irish sawmills and wood-based panel manufacturers to successfully continue to enter export markets
  - Currently, these markets are primarily in the UK.
  - Greater levels of support would enable the Irish forest products sector to capture market share in new markets.
  - This ability has been proven in the opening up of continental export markets.

Employ

• Employment is a key focus area for IFFPA.

• Seek to maximise the value added in all sectors of the forest products value chain.

• Training and up-skilling of employees is a key area for IFFPA to support. If forestry is to be innovative it must invest in training its people in the latest techniques and technologies.

• Seek to improve the efficient movement of timber along the value chain through proactive engagement with Government and industry so as to expand the sector and maximise employment.
The Irish forestry and forest products sector makes a significant contribution to the Irish economy. Close to 11% of Ireland is under forest, supporting a vibrant and export oriented forest products sector. The sector employs about 12,000 people, the majority of whom are employed in rural Ireland. In 2010, the output of the sector was estimated at €2.20 billion. This was 1.4% of Ireland’s Gross Domestic Product (GDP)\textsuperscript{9,10}. Considerable potential exists to expand production; half the Irish forest estate is less than 25 years old, and further expansion of forest cover is planned\textsuperscript{11}.

The forestry and forest products sector has already proven that it is creative, innovative and not afraid to invest in itself. It can become a world leader in forestry through further investment in innovative solutions designed to meet the needs of our markets. But there is a need for the co-ordination of planning, funding and the development of incentives if the full potential of the sector is to be realised. Forestry is Ireland’s largest biomass resource with over 744,000 hectares, nearly half of which is privately owned. Production from the private forest estate is forecast to increase eightfold to 2.95 million cubic metres by 2028. It is estimated that energy wood volumes will increase to 0.63 million cubic metres per annum in 2028 or a total of 10.75 million cubic metres over the period 2011-2028.

\textsuperscript{9} http://www.esri.ie/irish_economy/
\textsuperscript{10} http://www.coford.ie/publications/forestry2030/
irishforestryandtheeconomy/
\textsuperscript{11} http://www.coford.ie/media/coford/content/publications/
projectreports/forecast_31Jan11.pdf
The main successes of the sector in 2010-2011 were:

- In 2010, the output of the sector was estimated at €2.20 billion. This was 1.4% of Ireland’s Gross Domestic Product (GDP).\(^{12,13}\)
- The Irish forestry and forest products sector employed close to 12,000 people, the majority of whom work in rural Ireland.
- 6,653 hectares of new forest was planted in 2011.\(^{14}\)
- In 2011, there was strong demand for wood fibre from sawmills, wood-based panel mills and from the energy sector.
- In 2011, 2.7 million cubic metres of industrial roundwood was harvested from Irish forests.
- In 2011, forest products to a value of €286 million were exported from Ireland.
- In 2011, 87% of the wood-based panels produced in Ireland were exported. Key markets for Irish panel product exports were the UK and the Benelux countries.
- In 2011, €174 million of wood-based panels were exported.\(^{5}\)
- In 2010, Ireland was the largest exporter of MDF to the UK.\(^{15}\)
- In 2010, the Irish panel products sector was the second largest exporter of particleboard and OSB to the UK.
- Over the period 2007-2010, Ireland’s share of the UK sawn softwood timber market has grown by 50%, from a market share of 4.23% in 2007 to 6.34% in 2010.\(^{16}\)
- In 2011, €64 million of sawn softwood timber was exported.\(^{5}\)
- In 2011, Medite Europe, a subsidiary of Coillte Panel Products (CPP) launched Medite Tricoya.
- Masonite Ireland exports 100% of its output. In 2011, it launched two new door products. It also entered a significant new market; India.
- 66% of the output from Glennon Brothers' Irish operation was sold in export markets. Glennon Brothers' continued to develop a market for Irish sawn timber in France. In 2011, more than 10% of the output from Glennon Brothers Irish operation was sold in France. Export value doubled over 2009.
- Continued Government investment was secured for the afforestation programme. A forestry budget of €111 million was secured for 2012.\(^{16}\). This will support an afforestation programme of 7,000 hectares under the Afforestation, Native Woodland and FEPS schemes.
- Over the period 2006-2011, the demand for firewood in the Republic of Ireland grew by 46%.\(^{17}\)
- Coillte celebrated 10 years of FSC certification for its forest estate.
- A PEFC Standard was launched for the certification of Irish forests.
- In 2011, 18 million recreational visits were made to Irish forests. This activity has been valued at €97 million. This generates €268 million in downstream economic activities for rural communities.\(^{18}\)
- The Irish forest sector has a key role to play in addressing climate change, through carbon sequestration and through the development of renewable energy resources. In 2011, Irish forests sequestered 2.2 million tonnes of carbon dioxide (CO\(_2\)). This represents a saving of €44 million to the Irish taxpayer.

\(^{12}\) http://www.esri.ie/irish_economy/
\(^{13}\) http://www.coford.ie/publications/forestry2030/irishforestryandtheeconomy/
\(^{14}\) http://www.agriculture.gov.ie/forestservice/forestservicegeneralinformation/foreststatisticsandmapping/afforestationstatistics/
\(^{15}\) Source: EUROSTAT; ec.europa.eu/Eurostat
\(^{17}\) UNECE Joint Wood Energy Enquiry for Ireland (2007-2012)
\(^{18}\) www.coford.ie/publications/forestry2030/irishforestryandtheeconomy
Employment

The Irish forestry and forest products sector employs close to 12,000 people, the majority in rural Ireland (Table 1). A study carried out by University College Dublin (UCD) estimated that an annual afforestation programme of 15,000 hectares would on average create 490 direct jobs annually. Most of these jobs would be based in rural communities in forest establishment, forest management, timber harvesting and road haulage and in timber processing. The study indicated that for every 100 jobs in the forestry sector, an extra 70 full-time equivalent jobs are provided in other sectors of the Irish economy.

Table 1: Employment in the Irish forestry and forest products sector.

<table>
<thead>
<tr>
<th>No employed</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Forestry development sector</td>
<td>3,125</td>
</tr>
<tr>
<td>Forest products sector</td>
<td>3,907</td>
</tr>
<tr>
<td>Indirect/contract employment</td>
<td>4,907</td>
</tr>
<tr>
<td>Total</td>
<td>11,939</td>
</tr>
</tbody>
</table>

If 15,000 hectares are planted annually from 2011 to 2025, the potential exists to increase employment in the sector by 7,000. This is an increase of 58% over current employment levels. This could bring forestry related employment in 2025 to 19,000.

Meeting Ireland’s afforestation programme

In the period 1981-2011, over 250,000 hectares of forest were established by private growers in Ireland. 219,712 hectares of this estate has been planted since 1990. 84% of private forest owners are farmers. Much of this estate is now ready for harvesting.

However, the full potential of this farm forest resource for rural development in Ireland has not yet been fully realised. 42% of the private forest estate in Ireland is less than 25 years old.

In 1996, the Irish Government’s afforestation plan set national planting targets of 20,000 hectares per annum for the period 2001-2030. These targets were reaffirmed in the National Development Plan (NDP) (2000-2006). This afforestation policy was supported by the provision of Government grants and premium payments. In addition, the development of emerging markets such as wood biomass energy offers the potential for significant growth in the long-term demand for wood fibre.

However, Ireland’s afforestation programme, which is designed to support a viable forestry and forest products industry, is currently achieving less than 35% of this
annual 20,000 hectares afforestation target. Over the period of the current Irish National Development Plan (NDP) (2007-2013), the short-term objective is for annual planting to reach 10,000 hectares per annum. However these targets are not being met (Table 2).

IFFPA feels that current levels of afforestation are inadequate. They do not meet the levels of planting which must be undertaken to achieve the national carbon sequestration levels necessary for post Kyoto reporting. In addition, the volume of roundwood which is estimated to be harvested from these forests in the future will not meet the wood fibre demand of either the forest products industry or the wood-biomass energy sector. The shortfall will have to be met by imported wood fibre.

In 2011, 6,653 hectares of forest were planted in Ireland. This level of afforestation in Ireland declined by 20% over 2010 (Table 2). The reasons for this decline include:

- The complex approvals process for new afforestation projects.
- Restrictions on the planting of un-enclosed land imposed during 2011. These restrictions are likely to have contributed to the reduced level of planting in 2011, coupled with on-going restrictions due to environmental considerations involving hen harriers, pearl mussel areas and acid-sensitive areas.
- Concerns by forest owners as to the security of the forest premium payment and uncertainty over proposed changes to the Common Agricultural Policy (CAP) may be also be contributing to a reluctance by farmers to commit to long term land use decisions.
- Growth in farm incomes may have reduced the area of land which is available for afforestation.

Research undertaken by Drima Marketing (for this Review) has found that the fall off in planting is due to a combination of factors. These include the complex approvals process which must be undertaken before new afforestation projects can be planted. Furthermore, research by Teagasc has shown that the restrictions on the planting of un-enclosed land imposed during 2011 are likely to have contributed to the reduced level of planting in 2011. IFFPA finds this restriction all the more unusual as significant areas of the current forest estate were established on just such land and were the current restrictions in place in the past then the scale of today’s national forest estate would be far smaller. This is coupled with on-going restrictions due to environmental considerations involving hen harriers, pearl mussel areas and acid-sensitive areas.

Concern by farmers over potential changes to the Common Agricultural Policy (CAP) and to potential changes in forest premium payments are other contributing factors to the decline in planting. Rising farm incomes may also be a contributory factor. In 2011, the European Commission estimated that Irish farm incomes rose by 30.1% compared to an average 6.7% for the rest of Europe.

It is estimated that to achieve Government policy from 1996 of attaining a 17% forest cover by 2030, an afforestation programme of 25,000 hectares per annum would be required. More realistic afforestation targets and timeframe are proposed in the 2012 Forest Policy Review currently with the Minister.

Table 2: Area of new forests planted in the Republic of Ireland by area and by ownership (2005-2011).

<table>
<thead>
<tr>
<th>Year</th>
<th>State</th>
<th>Private</th>
<th>Total</th>
<th>Target</th>
<th>Surplus/</th>
<th>Shortfall</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005</td>
<td>64</td>
<td>10,032</td>
<td>10,096</td>
<td>10,000</td>
<td>96</td>
<td></td>
</tr>
<tr>
<td>2006</td>
<td>25</td>
<td>8,012</td>
<td>8,037</td>
<td>10,000</td>
<td>-1,963</td>
<td></td>
</tr>
<tr>
<td>2007</td>
<td>0</td>
<td>6,947</td>
<td>6,947</td>
<td>10,000</td>
<td>-3,053</td>
<td></td>
</tr>
<tr>
<td>2008</td>
<td>67</td>
<td>6,182</td>
<td>6,249</td>
<td>10,000</td>
<td>-3,751</td>
<td></td>
</tr>
<tr>
<td>2009</td>
<td>35</td>
<td>6,613</td>
<td>6,648</td>
<td>10,000</td>
<td>-3,352</td>
<td></td>
</tr>
<tr>
<td>2010</td>
<td>4</td>
<td>8,310</td>
<td>8,314</td>
<td>10,000</td>
<td>-1,686</td>
<td></td>
</tr>
<tr>
<td>2011</td>
<td>62</td>
<td>6,591</td>
<td>6,653</td>
<td>10,000</td>
<td>-3,347</td>
<td></td>
</tr>
</tbody>
</table>

References:
28 www.ndp.ie
31 http://www.agriculture.gov.ie/forestservice/forestservicegeneralinformation/foreststatisticsandmapping/afforestationstatistics/
32 www.teagasc.ie/forestry/docs/advice/Teagasc_Situation_Outlook_Forestry_2012.pdf
IFFPA believes that once an integrated approach is taken by Government that afforestation targets can be achieved without interfering with the targets for other agricultural sectors as outlined in Food Harvest 2020.  

**Funding for expansion of forest estate and infrastructure in 2011**

In February 2012, Shane McEntee T.D., Minister of State at the Department of Agriculture, Food and the Marine with special responsibility for Food Safety, Forestry and Horticulture said: ‘In view of the current challenging budgetary and economic environment, the allocation of some €111 million for the forestry programme in 2012 was recognition by the Government of the important contribution forestry makes to the economy, environment and society through employment, exports and climate change mitigation’.

The budget allocation for forestry for 2012 allows for 6,500 hectares of new planting under the Afforestation, Native Woodland and FEPS Schemes. However, only limited funding was provided for spending on forest infrastructure. As a result, the harvesting of roundwood from private forests may fall in 2012 and in 2013.

Government investment in expansion of and access to the private forest resource remains low in relation to national capital expenditure, although the annual premium payments reflect the competition between forestry and agricultural supports. Given the level of premium commitments (Table 3), any adjustment to annual expenditure has a significant impact on capacity for new activity; a small additional investment can yield significant results. A nominally small reduction would have a major impact on activity levels and by extension, employment and timber stocks.

While the continued support programme for 2012 is welcomed, IFFPA seeks an adequate level of multi-annual Government funding to support an ongoing afforestation programme with a planting target in excess of 10,000 hectares/annum. This would facilitate the ongoing sustainable development of the sector.

If 15,000 hectares are planted annually from 2011 to 2025, the potential exists to increase employment in the sector by 7,000. Government assistance can help the Irish forestry and forest products sector to improve, expand, export, innovate and employ. Support is required to:

- Optimise the use of wood biomass,
- Ensure an adequate supply of wood fibre for the wood processing sector and
- Balance supports and subsidies for the wood energy sector to reflect the needs of this emerging sector while not disadvantaging the existing forest products sector.

Table 3: Annual expenditure on forest schemes (2005-2012)

<table>
<thead>
<tr>
<th>Year</th>
<th>Forestry support schemes</th>
<th>Premia</th>
<th>Afforestation</th>
<th>Total € million</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005</td>
<td>13.8</td>
<td>58.1</td>
<td>38.9</td>
<td>110.8</td>
</tr>
<tr>
<td>2006</td>
<td>17.4</td>
<td>60.0</td>
<td>33.6</td>
<td>111.0</td>
</tr>
<tr>
<td>2007</td>
<td>13.9</td>
<td>71.6</td>
<td>31.6</td>
<td>117.1</td>
</tr>
<tr>
<td>2008</td>
<td>12.0</td>
<td>74.3</td>
<td>29.4</td>
<td>115.7</td>
</tr>
<tr>
<td>2009</td>
<td>8.7</td>
<td>70.5</td>
<td>31.8</td>
<td>111.0</td>
</tr>
<tr>
<td>2010</td>
<td>6.6</td>
<td>72.3</td>
<td>35.5</td>
<td>114.4</td>
</tr>
<tr>
<td>2011</td>
<td></td>
<td></td>
<td></td>
<td>114.5</td>
</tr>
<tr>
<td>2012</td>
<td></td>
<td></td>
<td></td>
<td>111.0</td>
</tr>
</tbody>
</table>

According to the Irish Timber Growers Association (ITGA), “the demand for timber and new forests is very real but it is necessary to have the appropriate structures in place for land owners to commit their resources to it. Falling planting levels have been put forward as an argument to reduce funding - but it is the very short term stop start approach to funding which undermines the confidence of landowners to commit to this long term national asset”. To paraphrase the ITGA commentary, using the shortfall in planting levels as the reason to cut the budget does, itself, reduce the potential for future forest establishment. It is a vicious spiral that can only be halted through a focused and fully resourced plan backed up with the determination to deliver on that plan. This focused determination was  

---

16 A total of €114.5 million in funding has been allocated for capital and current expenditure for 2011. This should facilitate an afforestation programme of between 7,500 and 8,000 ha. Source: Department of Agriculture, Food and the Marine http://www.agriculture.gov.ie/media/migration/publications/2011/AR02011.pdf  
17 Irish Timber Growers Association (ITGA); http://www.forestryyearbook.ie/articles/Intro.pdf  
18 Irish Timber Growers Association (ITGA); http://www.forestryyearbook.ie/articles/Intro.pdf
An overview of the Irish forestry and forest products sector 2012

IFFPA also suggests that a ‘one-stop Agency’ be introduced to promote afforestation, together with all directly related forest activities and to work in a determined and focused manner towards meeting Ireland’s planting targets. This Agency would seek to promote the uptake of forest planting, speed up grant decisions and minimise red tape across the entire value chain.

Support

Irish roundwood harvest (2007-2011)

In 2011, 2.74 million cubic metres of roundwood was processed in the Republic of Ireland, virtually unchanged on 2010 (Table 4). In mid 2011, John Phelan, Managing Director of the Galway based company Woodland Managers Ltd. described 2010 as ‘a milestone year’ in bringing new woodlands into timber production. It is vital that we build on this success’ he said. However, in 2011, the harvest of industrial roundwood from Irish private forests declined by 16.6% over 2010 (Table 4).

![Support](image)

Table 4: Roundwood available for processing in the Republic of Ireland (2007-2011)

<table>
<thead>
<tr>
<th></th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>Log imports less exports</td>
<td>57</td>
<td>106</td>
<td>-63</td>
<td>28</td>
<td>55</td>
</tr>
<tr>
<td>Coillte harvest</td>
<td>2,556</td>
<td>2,279</td>
<td>2,354</td>
<td>2,215</td>
<td>2,299</td>
</tr>
<tr>
<td>Private forest harvest</td>
<td>390</td>
<td>118</td>
<td>130</td>
<td>463</td>
<td>386</td>
</tr>
<tr>
<td>Total</td>
<td>3,003</td>
<td>2,503</td>
<td>2,421</td>
<td>2,706</td>
<td>2,740</td>
</tr>
</tbody>
</table>

In 2012, Shane McEntee, T.D., Minister of State at the Department of Agriculture, Food and the Marine with special responsibility for Food Safety, Forestry and Horticulture stated that one of the challenges which is faced by the Irish forestry sector ‘is to get the timber out of our forests onto the market so that forest owners can not only yield a return on their investment, but also maximise it’.

Irish roundwood harvest to 2028

Forestry is Ireland’s largest biomass resource with over 700,000 hectares, nearly half of which is privately owned. Over the period to 2028, the production capacity of Ireland’s forests will almost double to 7 million cubic metres, from the current 3.79 million cubic metres. Almost all of the increase in supply is set to come from privately-owned forests in the Republic of Ireland.

Improving the accessibility to Irish private woodlands is a key issue for IFFPA.

---

39 http://www.woodland.ie/

40 Firewood is excluded from this analysis

41 http://www.forestryyearbook.ie/articles/Foreword2012.pdf

42 http://www.coford.ie/media/cofard/content/publications/projectreports/forecast_31Jan11.pdf
In 2011, Pat Delaney, Chairman, IFFPA stated that ‘forest roads are the kingpin to improved mobilisation’. However, obstacles to improving the forest road infrastructure must be removed. These include:

- Minimise ‘red tape’,
- IFFPA proposes that the Forest Service (Department of Agriculture, Food and the Marine) be the single, central seat of authority for all aspects of forest roads with expert knowledge of and mandate for forestry,
- Demand value for money,
- Improve and upgrade the public road network to enable access to/from forests and
- Provide clarity for forest owners by establishing a multi-annual budget for the building of forest roads.

In addition, existing sales/procurement systems are too costly and are in need of radical overhaul. Savings due to economies of scale by the combined selling of roundwood from clusters should be examined.

The economic and environmental cost of forest fires

IFFPA and a number of other concerned stakeholders are working together to put in place a fire prevention and awareness programme to ensure that a concerted awareness campaign is launched to warn people of the dangers posed to forests by the lighting of land fires and the burning of vegetation. This proactive effort by IFFPA members, in conjunction with various other stakeholders, will focus on delivering greater awareness of the issue of land fires together with providing necessary training on the matter.

In February 2012, IFFPA held a workshop to highlight the damage caused to Irish forests by uncontrolled fires. This reviewed the causes and extent of such fires and discussed ways in which such damage could be minimised\(^{43,44}\).


On average for the 20 year period to 2009, 250 to 300 hectares of forest per annum have been destroyed by fire in the Republic of Ireland\(^45\).

However, this average figure was far overtaken in 2010 and 2011. In the spring of 2011, Coillte lost 1,000 hectares of forest while 600 hectares of private forest were destroyed. Donegal accounted for 60% of the total area destroyed. The cost of this damage is estimated at €7.5 million. This includes lost timber value, re-establishment costs and the costs of fighting forest fires. Such fires are damaging an important natural resource and are threatening the future development of the sector. The effect of fire goes well beyond the economic value of the actual trees damaged or destroyed (Figure 1). The opportunity cost to the owner can be immeasurable depending on circumstances (older forest owners depending on harvesting incomes may never see such income following a fire) and the fire’s effect of delaying or removing the supply of the timber results in further shortages of supply to industry and thus increases the need for greater imports.

Irish privately owned forests have an average size of 8 hectares and thus have long perimeter boundaries. As such, these are especially vulnerable to damage by fire\(^47\).

In addition to the economic losses, these forest fires caused considerable environmental damage. The spring fires occurred in the middle of the bird nesting season, destroying tens of thousands of chicks and eggs while those birds that managed to escape found it difficult to survive because of the loss of food sources.

In Ireland, forest fires never start naturally within the forest setting. Their cause can always be traced back to the purposeful lighting of a land fire, normally in adjoining unplanted lands where fire can be utilised as a land management tool. It is widely recognised that fire is an important management tool when used in a responsible manner. IFFPA welcomes the publication of the Prescribed Burning Code of Practice\(^48\) by the Department of Agriculture, Food and the Marine which establishes important guidelines for prescribed burning.

![Figure 1: Impact of forest fires on the Irish forestry and forest products sector\(^46\).](image-url)
In 2011, FEL, an IFFPA member, ran an advertising and editorial campaign in local and national papers and contacted its clients to make them aware of the dangers and costs of not protecting their forests.

The Irish forest products sector

Through innovation and improved product marketing, along with high levels of customer care and responsiveness to end user demands; the Irish sawmilling and panel sectors are securing increased export market share, particularly in the UK, France and in the Benelux countries.

Nine companies form the core of the Irish sawmilling sector with three wood-based panel mills in operation in the Republic of Ireland. Member companies within the Irish forest products sector are modern, efficient and customer focused.

Sawmilling output

- In 2011, Irish sawmills utilised 1.70 million cubic metres of roundwood to produce 874,000 cubic metres of sawn timber. 80% of this roundwood was sold by Coillte, with the balance supplied by imports and by the private forest sector.
- The UK, Northern Ireland and France are the three key export markets for Irish sawn softwood.
- In value terms, Ireland’s market share of the UK sawn softwood timber market grew from 4.23% in 2007 to 6.34% in 2010. This is an impressive increase of 50% over a four year period. Moreover, in 2010, Irish sawmills were the fifth largest exporter of sawn softwood timber to the UK.
- There are further opportunities for the Irish sawmilling sector to grow its market share in the UK.
- However, there are concerns over transportation, fuel, energy and labour costs which could hamper competitiveness in these markets.

Wood-based panel output

- In 2011, the Irish wood-based panel sector had a combined output of 736,000 cubic metres. This was produced from 1.29 million cubic metres of wood fibre.
- 87% of the wood-based panels manufactured in Ireland were exported.
- In 2011, these exports were worth €174 million.

Over the period 2007-2010, the Irish wood panel products sector was the second largest exporter of particleboard and oriented strand board (OSB) to the UK. Over the same period, Ireland was the largest exporter of medium density fibreboard (MDF) to the UK.

---

49 A fourth wood-based panel producer was operated by Finsa Forest Products. In January 2011, it announced that from March 2011 that it would cease the production of particleboard at Scariff, Co. Clare.

50 Source: EUROSTAT; ec.europa.eu/eurostat

51 At the time of writing, data for 2011 was not available.

52 Source: EUROSTAT; ec.europa.eu/eurostat
Product and market innovation

In recent years Irish timber processors have developed innovative new products:

- Such new products include the development of eased edge structural carcassing\(^{53}\) by the Murray Timber Group (MTG) and the development of SmartPly SiteProtect\(^{54}\) by Coillte Panel Products (CPP).

- Other timber processors including Grainger Sawmills\(^{55}\) have grown their market share in the UK. In addition, the Irish forestry and forest products sector has developed new markets for its products and services. These include the ongoing development of the French market by Glennon Brothers\(^{56}\).

- In 2011, Coillte Panel Products (CPP) launched Medite Tricoya\(^{57}\). This acetylated MDF product offers superior performance in exterior uses. Research undertaken by the Fraunhofer Institute for Wood Research\(^{58}\), Wilhelm-Klauditz-Institut (WKI), in Germany concluded that the performance of Medite Tricoya is ‘so outstanding that it will allow it to be used in applications that have not previously been possible’.

- Over the past 2 years, Masonite Ireland has developed 2 new door facings. These have enabled it to develop new markets in India and continue to grow their export sales steadily.

- Dempsey Timber Engineering\(^{59}\), a subsidiary of Glennon Brothers has continued to grow its market in the UK.

- In November 2011, Imperative Energy, a supplier of biomass energy solutions was named ‘Best of BioEnergy’ by the Global Cleantech Cluster Association\(^{60}\).

- Woodfab Timber is currently installing a combined heat and power (CHP) plant at its facility in Aughrim, Co. Wicklow, thus enabling it to reduce its energy costs.

However, investment in forest research and development averages 0.63% of the contribution of the sector to gross national product (GNP). This compares to a national average spend on research and development of 1.68%\(^{61}\).

Exports

In value terms, exports of wood products remained level in 2011 over 2010 at €286 million, €174 million of which comprised wood-based panel exports. The balance was made up of paper and sawn timber exports\(^4\) (Table 5). Export volumes of wood-based panels declined by 6.6% over 2010. This was due to the closure of the Finsa Forest Products’ manufacturing facility in early 2011\(^{62}\).
An overview of the Irish forestry and forest products sector 2012

Table 5: Timber trade (2008-2011)\(^63\).

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Imports</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sawn timber</td>
<td>412</td>
<td>232</td>
<td>242</td>
<td>201</td>
<td>141</td>
<td>66</td>
<td>74</td>
<td>64</td>
</tr>
<tr>
<td>Wood-based panels</td>
<td>264</td>
<td>181</td>
<td>166</td>
<td>195</td>
<td>108</td>
<td>68</td>
<td>65</td>
<td>68</td>
</tr>
<tr>
<td>Pulp products</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>000 tonnes</td>
<td>29</td>
<td>32</td>
<td>41</td>
<td>54</td>
<td>20</td>
<td>22</td>
<td>31</td>
<td>45</td>
</tr>
<tr>
<td>Paper and paper-board products</td>
<td>526</td>
<td>379</td>
<td>370</td>
<td>383</td>
<td>520</td>
<td>308</td>
<td>313</td>
<td>333</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>789</td>
<td>464</td>
<td>483</td>
<td>510</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Exports</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sawn timber</td>
<td>389</td>
<td>564</td>
<td>621</td>
<td>462</td>
<td>54</td>
<td>51</td>
<td>63</td>
<td>61</td>
</tr>
<tr>
<td>Wood-based panels</td>
<td>614</td>
<td>580</td>
<td>660</td>
<td>616</td>
<td>195</td>
<td>147</td>
<td>179</td>
<td>173</td>
</tr>
<tr>
<td>Pulp products</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>000 tonnes</td>
<td>2</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Paper and paper-board products</td>
<td>77</td>
<td>45</td>
<td>33</td>
<td>59</td>
<td>69</td>
<td>45</td>
<td>44</td>
<td>52</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>318</td>
<td>243</td>
<td>286</td>
<td>286</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Balance of payments

Since 2007 the trend has been for Ireland to become a net exporter of sawn timber, largely due to the collapse of the domestic construction market and increased levels of exports to the UK. Due to the closure of Finsa Forest Products’ manufacturing facility, the value of wood-based panel exports declined by 3.4% in 2011 (Table 6).

Table 6: Balance of payments trade in the value of forest products (2007-2011).

<table>
<thead>
<tr>
<th></th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Imports</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sawn timber</td>
<td>-180</td>
<td>-87</td>
<td>-15</td>
<td>-11</td>
<td>-3</td>
</tr>
<tr>
<td>Wood-based panels</td>
<td>116</td>
<td>87</td>
<td>79</td>
<td>114</td>
<td>105</td>
</tr>
<tr>
<td>Pulp products</td>
<td>-22</td>
<td>-20</td>
<td>-22</td>
<td>-31</td>
<td>-45</td>
</tr>
<tr>
<td>Paper and paper-board products</td>
<td>-375</td>
<td>-451</td>
<td>-263</td>
<td>-269</td>
<td>-281</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>-461</td>
<td>-471</td>
<td>-221</td>
<td>-197</td>
<td>-224</td>
</tr>
</tbody>
</table>

Demand and supply of roundwood to 2020

The projected level of demand and supply\(^64\) of roundwood on the island of Ireland in 2020 from both the conventional timber processing sector\(^65\) and from the emerging wood biomass energy sector is shown in Table 7. This shows that if demand for roundwood is to be met that by 2020, 1.25 million cubic metres of roundwood will have to be imported.

---

\(^63\) Includes import/export figures for sawn timber, wood-based panels and pulp/paper products only. Data are taken from Ireland’s EUROSTAT JFSQ returns (2009-2012). Roundwood, sawmill residues and secondary processed timber products are not included. Trade data for the JFSQ is provided by the Central Statistics Office (CSO); www.cso.ie

\(^64\) Conventional demand is taken as the demand for roundwood from the sawmilling and panel sectors

\(^65\) Conventional roundwood demand is defined as the demand for roundwood for processing by the sawmills and boardmills. The use of wood fibre for process drying and heating is included in biomass numbers.
### Table 7: Estimated demand and supply for roundwood on the island of Ireland in 2011 and 2020

<table>
<thead>
<tr>
<th></th>
<th>2011 000 cubic metres overbark</th>
<th>2020 000 cubic metres overbark</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conventional demand</td>
<td>3,456</td>
<td>3,830</td>
</tr>
<tr>
<td>Wood biomass energy demand</td>
<td>1,589</td>
<td>3,084</td>
</tr>
<tr>
<td>Residues from conventional demand which are used to meet energy demand</td>
<td>-750</td>
<td>-876</td>
</tr>
<tr>
<td>Demand total</td>
<td>4,295</td>
<td>6,038</td>
</tr>
<tr>
<td>Supply by assortment</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tip - 7 cm</td>
<td>108</td>
<td>145</td>
</tr>
<tr>
<td>7 - 13 cm</td>
<td>835</td>
<td>1,187</td>
</tr>
<tr>
<td>14 - 19 cm</td>
<td>1,083</td>
<td>1,514</td>
</tr>
<tr>
<td>20 cm +</td>
<td>1,877</td>
<td>1,940</td>
</tr>
<tr>
<td>Supply total</td>
<td>3,903</td>
<td>4,786</td>
</tr>
<tr>
<td>Supply surplus or deficit</td>
<td>-392</td>
<td>-1,252</td>
</tr>
</tbody>
</table>

### Wood biomass energy

The use of wood biomass in Ireland is dominated by the forest products sector which uses it for process drying and for energy purposes. However, since 2006, the use of wood biomass energy by commercial and domestic users has risen considerably. Over the period 2006-2011, the demand for firewood in the Republic of Ireland grew by 46%.

Considerable scope exists to expand wood energy production. This is in addition to supplies of roundwood for use in sawmilling and for the manufacture of wood-based panels.

Work in the forest energy research programmes has shown that if first thinnings are harvested as chipped whole trees, output can be increased by up to 50%. Not all stands are suitable for whole-tree harvesting, but nevertheless a very significant increase in harvested volume can be obtained using such a method. Similarly substantial amounts of wood for energy can be harvested on clearfells, where logging slash can be harvested for energy. Again this is not possible on all sites. This is because there is a need to retain a larger proportion of slash as a nutrient source on poorer forest sites, or it is used as a brash mat on forest soils with a low ground-bearing capacity.

There are other sources of wood biomass, particularly from short rotation coppice (mainly willow) with a harvesting rotation of 2-3 years, or potentially from short rotation forestry (ash, eucalyptus etc.) on a rotation of 5-15 years. Yields of 10-12 tonnes dry matter/hectare/year can be expected on suitable soils.

Finally, trees in parks and alongside roads, when felled for safety or other reasons, can be a source of woody biomass fuel.

### Forest certification

There are a number of forest certification schemes worldwide. In Europe, the two most active schemes are the Forest Stewardship Council (FSC) and the Programme for the Endorsement of Forest Certification (PEFC).

The Irish forestry and forest products sector has strong environmental and non-timber benefits. All major Irish timber processors and growers are certified by the Forest Stewardship Council (FSC) or by the Programme for the Endorsement of Forest Certification (PEFC).

In 2000, when Coillte decided to seek forest certification, the FSC scheme was chosen for a number of reasons:

- The UK markets were increasingly demanding FSC certified timber,
- The FSC scheme was one of the most credible of the forest certification schemes emerging at the time and
- Being the most demanding scheme, it was considered that compliance with FSC standards would ensure that all environmental and social requirements expected from the company would be met, or exceeded.

Coillte has committed itself publicly to complying with the FSC Principles and Criteria and is an active participant in the Irish Forest Certification Initiative which aims to develop an FSC National Standard for Ireland. It is expected that this Standard will be completed in 2012.

---

67  http://www.coford.ie/media/coford/content/publications/projectreports/forecast_31Jan11.pdf
68  This is the forecast of potential net realisable volume production by assortment category for the island of Ireland in 2011 and 2020; http://www.coford.ie/media/coford/content/publications/projectreports/forecast_31Jan11.pdf
70  http://www.coford.ie/media/coford/content/publications/projectreports/forecast_31Jan11.pdf
71  http://www.woodenergy.ie/woodforest-basedbiomassresource/
72  www.fsc.org
73  www.pefc.org
In 2011, Coillte celebrated 10 years of FSC certification for its forests. These forests have been certified to the Forest Stewardship Council (FSC) scheme since May 2001. This third party certification demonstrates that Coillte’s forests are well managed in accordance with strict environmental, social and economic criteria. The certificate is issued for a period of five years. In 2006, Coillte successfully retained its FSC certificate following a full audit of its forests. In the interim years, strict audits were carried out on Coillte’s forests to ensure that FSC criteria were being met in Coillte’s forests.

In 2012, PEFC International announced the endorsement of the Ireland Scheme for Sustainable Forest Management. This has become the first Irish forest certification system to gain global recognition. ‘Irish stakeholders have for years been engaged in the development of requirements and criteria for responsible forestry, yet it has been difficult to find consensus between the different interests,’ explained William Merivale, Secretary General of PEFC Ireland. He stated that ‘this is why we are so proud to have been able to successfully establish a National Standard, drafted in a multi-stakeholder, participatory process and found to be in compliance with PEFC International’s globally recognised sustainability benchmarks.

To date, certification has not been a major issue for private forest owners. However, as the private forests’ contribution to the national yearly harvest increases, certification is likely to become a requirement.

Forest recreation

18 million people visit Irish forests for recreation purposes each year. This activity has been valued at €97 million, which in turn generates €268 million in economic activities in rural communities. In addition, Ireland’s forests create an opportunity to conserve and enhance bio-diversity at both local and national level.

---

74 A case study on Coillte FSC is shown on page 70.
75 http://www.coillte.ie/coillteforest/responsible_forest_management_and_certification/certification_introduction/
78 http://www.coford.ie/publications/forestry2030/irishforestryandtheeconomy/
Carbon savings

IFFPA supports a fully integrated framework to develop and implement policies and measures to meet Ireland’s climate change, energy efficiency and renewable energy targets79.

The forest sector is an important contributor to achieving Ireland’s climate change targets. For example, the annual amount of carbon dioxide (CO2) being removed from the atmosphere by Ireland’s forests exceeds 6 million tonnes (Mt) per annum, or some 2.4 million tonnes (Mt) net when harvesting is taken into account80.

By 2020, the amount of carbon dioxide (CO2) which will be sequestered annually by Irish forests is estimated to increase to over 4 million tonnes per annum81.

Over the five year period of the Kyoto Protocol (2008-2012)82, Irish forests established since 1990 will sequester 11 million tonnes (Mt) of carbon dioxide (CO2). This represents a total projected saving to the Irish taxpayer of €220 million.

In addition, the use of harvested wood products (HWP) to substitute materials used in construction and manufacturing processes has a triple benefit: acting as a further carbon store, reducing the use of energy intensive materials and adding to the financial incentive to plant and renew forests.

However, emissions and removals related to land use, land use change and forestry (LULUCF) are currently not included in the EU 2020 target83. The effort-sharing decision mandates the European Commission to consider legislation for carbon sinks to be included in meeting national targets for the non-ETS (Emissions Trading System) sector, regardless of the absence of an international agreement, with effect from 1st January 2011. On March 12th 2012 the Commission produced proposals to harmonise technical rules on accounting for LULUCF across the EU. The proposal is accompanied by an obligation for each Member State to adopt action plans on how they will increase removals of carbon and decrease emissions of greenhouse gases in forests and soils throughout the EU. However, the proposal does not set a target for emission reductions in the LULUCF sector. Current Commission proposals will not lead to Ireland being able to use LULUCF to narrow its gap to target for its 2013-2020 emission mitigation obligations.

IFFPA believes that Irish Government climate change policy should reflect the value of Irish forests in helping to reduce Irish greenhouse gas (GHG) emissions. The growing importance of the wood biomass energy sector as a supplier of renewable energy should also be recognised. Work undertaken by COFORD indicated that afforestation levels above 7,500 hectares per annum are required to maintain our forests as a net carbon sink and to capitalise on the potential of forestry to offset greenhouse gas (GHG) emissions84.

IFFPA believes that if current annual planting levels of 7,500 hectares continue, then there will be a loss of an opportunity to sequester 45 million tonnes of carbon dioxide (CO2) over the period 2035-2055. To ensure that carbon sequestration from Irish forests remains at a sustainable positive level in the future, IFFPA supports a planting programme of at least 15,000 hectares per annum.

Economic review and outlook85

The global economy continues to suffer from the fallout of the of 2008/09 recessionary period. Growth in the developed economies remains well below its long-term average, while emerging economies have also been affected by the escalation of the Eurozone crisis in autumn 2011. Nevertheless, many regions of the world economy continue to grow strongly and global trade will expand by about 4% in 2012. This presents many new market opportunities for Irish exporters. The domestic economy remains weak, however, and both consumer spending and construction activity are both set to contract further in 2012.

Following a strong recovery of over 5% in world economic output in 2010, advanced and emerging economies experienced slower growth in 2011, predominantly due to renewed concerns about the stability of the Eurozone. Global GDP grew by just under 4% last year, while global trade growth slowed sharply from 13% in 2010 to 5.8%
in 2011. The exceptionally strong increase in trade in 2010 was boosted by a significant catch-up factor following the sharp decline recorded in 2009. The advanced economies averaged economic growth of 1.6%. Germany significantly outperformed and recorded a GDP increase of 3.1%. The emerging economies grew by an average of 6.2%, with China (9.2%) and India (7.2%) leading the way. The volume of imports by advanced economies grew by over 4% last year, while imports by emerging economies increased by almost 9%.

The IMF expects global economic growth in 2012 to slow to 3.5% before recovering to about 4% next year. The advanced economies are forecast to achieve average growth of 1.4%, while the emerging economies will grow by 5.7%. Much of the Eurozone has now slipped back into recession, while the UK has also just recorded two successive negative quarters of growth. Germany and France are expected to avoid a technical recession this year but their fairly anaemic growth rates will not be sufficient to keep annual growth positive in the Eurozone. The US economy is performing relatively well, however, and will be the strongest performing large developed economy this year. The economy grew by over 2% in the first quarter and is expected to achieve growth of at least 2% for the year as a whole. The domestic economy in the US continues to show signs of recovery. Auto sales have improved steadily over recent months while the housing sector is also rebounding and is expected to make a contribution to growth this year.

While growth in most emerging economies will be a little slower in 2012, it remains comparatively strong. China, for example, is forecast to achieve GDP growth of 8.2% this year, just below the 9.2% growth achieved last year. Inflation pressures are also easing throughout the emerging economies and this has enabled a number of countries to ease monetary policy in response to the global economic uncertainty. The growth prospects for Ireland’s main export markets are, however, significantly weaker for this year than last. Our main market destinations remain mainland Europe; 46% of exports, the UK 17%, the US 17% and the rest of the world 21%. On a trade-weighted basis therefore GDP growth in our main markets will slow from 2.3% in 2011 to 1.8% this year. This suggests that unless there is either further significant growth in market share or an increase in exports to emerging markets, Irish export growth will be well below that recorded last year.

Despite the more challenging market environment, however, there are a number of factors which will continue to bolster the competitiveness of Irish exports in the short-term. Ireland’s cost base continues to improve steadily. Over the past four years unit labour costs in Ireland have fallen by almost 15% and the relative gain against Germany, which has seen cost increases in recent years, is almost 25%. A combination of cost reductions and strong productivity growth means that Ireland is therefore significantly more competitive than it was prior to the economic crisis. This bodes well for further gains in market share by Irish exporters. Exchange rates are also a vital determinant of the competitiveness of exports. The euro has weakened considerably against both the dollar and sterling over the past 12 months and this is helping Irish exporting companies. The euro-dollar exchange rate last year averaged $1.39. This year the average rate is likely to be under $1.30 – a gain of about 10% or so.

The domestic economy will remain difficult in 2012. Building and construction activity was down by 16% in 2011 and is expected to fall by over 10% in 2012. The repair and maintenance (RMI) sector is now a larger sector than new house building and it has held up comparatively better during the downturn. New housing activity is likely to fall by a further 25% this year, while non-housing construction will drop by 10%. It is possible, however, that Government stimulus measures either through the reinvestment of the proceeds from the sale of state assets or from alternative funding sources could support a pick-up in activity in the construction sector over the coming year or two.

**Irish construction outlook (2011/2012)**

The demand for forest products is closely related to the level of house building, to timber frame use and to demand in key export markets. The review of construction activity for 2009 and 2010 makes for very bleak reading. It shows that the contraction in the construction industry, which commenced in 2008 gathered momentum in 2009 and continued into 2010. Every sector of the construction industry, without exception, has been affected by the collapse of the construction bubble and by the challenging economic environment. All housing indicators are profoundly weak following a period of rapid contraction over almost four years. The fragile state of the private non-residential construction sector is
evident from the exceptional drop in private new building activity over the past two years. This reflects a range of adverse issues impacting on this sector. These include continuing high debt levels, difficulties securing finance, excess capacity, uncertainties surrounding the impact of the National Asset Management Agency (NAMA) and nervousness amongst consumers with regard to job losses, fears of further taxation increases in the forthcoming Budget and a more cautious view generally regarding the outlook for the economy.

A recent report has shown that the Irish construction sector remains in an exceptionally weak phase. Having peaked at close to €39 billion or almost 25% of GNP in 2006, the ensuing painful adjustment has led to the value of output falling to €8.7 billion in 2011, or 7% of GNP. The crisis in construction will see the value of output decline again this year to an estimated €7.5 billion or by 14.5% in volume terms over 2010. Thus construction will record its fifth year in a row of a contraction in output, reaching just 6% of GNP.

The housing market remains in an exceptionally weak position, having been through a sharp adjustment for the past five years. The number of planning permissions has plummeted since the peak with just 9,489 units granted planning permission in the first nine months of 2011, down 38.9% on the same period in 2010. The total number of units completed (measured in terms of dwellings connected for electricity) across the State was 10,480 in 2011, 28.2% below the corresponding level in 2010. Of the total of 10,480, 62% represented one-off/individual houses, 25% represent estate houses and 13% represented apartments.

However, there are some positive developments which are likely to create niche opportunities for construction. These include the energy sector, where the Semi-State companies have been encouraging capital investment plans; and the emerging green economy and associated opportunities for the retrofitting of homes. The Government has committed to achieving, by 2020, a 20% reduction in energy demand across the whole of the economy through energy efficiency measures. It is expected that the residential sector will contribute 35% of the targeted savings, thus generating opportunities for improving the energy efficiency of the residential building stock. Ireland has also committed to delivering 40% of electricity consumption from renewable sources by 2020, with wind generation expected to supply the majority of the renewable electricity. The foreign direct investment (FDI) sector is also a key growth area identified by quantity surveying practices, as a number of companies are proceeding with expansion plans. Finally the National Asset Management Agency (NAMA) is likely to create development opportunities as it releases finance and working capital to developers for the completion of selected unfinished estates or for the development of land.

---

Government support for forestry in Ireland

Government investment in the Irish forestry and forest products sector is necessary for the sector to expand, improve, innovate, export and employ.

Government support for forestry in Ireland

Government investment in the expansion of the forest sector remains low in relation to National capital expenditure. The annual premium payments reflect the competition between forestry and agricultural supports. Given the level of premium commitments (Table 3), any adjustment to annual expenditure has a significant impact on capacity for new activity; a small additional investment can yield significant results. A nominally small reduction (in expenditure on forestry supports) would have a major impact on activity levels and by extension, employment, and on roundwood supply. While the level of funding for 2012 is welcomed, IFFPA seeks an adequate level of multi-annual Government funding to support an ongoing afforestation programme with a planting target in excess of 10,000 hectares/annum. This would facilitate the ongoing sustainable development of the sector.

Government assistance can help the Irish forestry and forest products sector to improve, expand, export, innovate and employ. Support is required to:

- Optimise the use of wood biomass,
- Secure an adequate supply of wood fibre for the wood processing sector and
- Balance supports and subsidies for the wood energy sector to reflect the needs of this emerging sector while not disadvantaging the existing forest products sector.

Forest roads

Pat Delaney, Chairman, IFFPA states ‘that forest roads are the kingpin to increasing the mobilisation of wood fibre from Irish forests’. IFFPA seeks adequate funding for forest roads to ensure that the woodlands which were established under State/EU funding in the 1990s are brought into production.

By 2028, timber production from the private forest sector is forecast to increase eightfold, to nearly 3 million cubic metres\(^91\). However, the volume of timber currently being harvested from the private forest sector is still relatively small. Significant capital investment is required to construct forest road infrastructure to access and mobilise this resource.

The ongoing provision of adequate support measures is especially important for farm forests to add value to the forest’s growing stock and ensure that quality timber is produced and mobilised into the market place at an appropriate time. Such supports include grants for roading, tending and pruning. An adequate forest infrastructure is a crucial pre-condition for increased wood mobilisation. The provision of an efficient forest road network facilitates a well-functioning wood supply chain and can help to reduce costs.

There is strong on-going demand in the Republic of Ireland for roundwood for use in sawmills, panel mills and for the provision of wood biomass energy. However, the current level of funding for the Forest Service Road Scheme\(^92\) is severely hampering the development of timber harvesting in private forests. It is estimated that there are currently 15,000 hectares of the Irish private forest estate which cannot be thinned due to a lack of roading grants\(^93\).

Moreover IFFPA has concerns that the Miscellaneous Provisions Act 2011 (September 2011)\(^94\) could greatly reduce the mobilisation of roundwood from Irish forests.

\(^91\) http://www.coford.ie/media/coford/content/publications/projectreports/forecast_31Jan11.pdf
\(^92\) http://www.teagasc.ie/forestry/financial_info/fin_supp/roading_scheme.asp
\(^93\) http://www.agriculture.gov.ie/media/migration/forestry/forestryreview/submissionsreceived/IFA.doc
Further planning requirements for forest roads which may be introduced in the new Bill will lead to additional bureaucracy, time delays and the likely imposition of Local Authority charges for the construction of new forest roads. If implemented, this new Bill has the potential to significantly reduce the volume of roundwood which is harvested from Irish private woodlands\textsuperscript{95}. This is at a time where there is a strong demand for roundwood for the production of sawn timber, panel products and energy. It is also at a time when those forests that were established under the successful planting programme of the 1990s are entering their productive phase. A recent COFORD forecast has shown that by 2020, the demand for wood fibre on the island of Ireland will increase to 6.3 million cubic metres (Table 7) so it is clear that a vibrant market exists for the timber once it can be readily mobilised.

Work undertaken by IFFPA for this Review has shown that 82,787 hectares of forest was planted in Ireland from 1989-1993\textsuperscript{96}. These forests are now entering their productive phase. However, in Budget 2012, the Government reduced the road grant from €45 per linear metre to €35 and reduced the roading density from 25 metres to 20 metres per hectare. The overall reduction was 60%. This will have a significant impact on timber mobilisation from private forests.

State investment in the Irish forest products sector

Since 1990, the Irish Government has invested €107.26 million to aid the development of the Irish timber processing sector. Since 1980, a total of €82.94 million has been invested in the panel products sector with the balance invested in the Irish sawmilling sector\textsuperscript{97}.

Research investment

Investment in business-led and national forest research (including COFORD funding of €4 million) is €14 million per annum, just over 0.63% of overall output. As a comparison, the most recent figures available for investment in ocean and fisheries sciences in the Marine Institute's budget represented 1.1% of the overall output\textsuperscript{98}.

IFFPA believes that research priorities must be based on the industry led strategic research agenda model. It also believes that Ireland’s taxation regime must provide a framework to incentivise and enhance support for research and development in the Irish forestry and forest products sector.

---

\textsuperscript{95} \url{http://www.itga.ie/docs/ITGA%20submission%20on%20Forestry%20Review.pdf}

\textsuperscript{96} Department of Agriculture, Food and the Marine; \url{www.agriculture.goxie}

\textsuperscript{97} This data has been provided by Enterprise Ireland; \url{www.enterprise-ireland.com}

\textsuperscript{98} \url{http://www.coford.ie/publications/forestry2030/irishforestryandtheeconomy/}
Forest regulation

The regulatory framework for forestry in Ireland

There are concerns among the Irish forestry and forest products sector that the regulatory framework for forestry in Ireland is becoming increasingly complex. It is the view of those interviewed for this Review that ‘these regulations are changing on an almost annual basis’. Those interviewed further stated that ‘forestry development in Ireland is managed by multiple Agencies with little common strategic direction’.

To develop the sector to its full potential, it is the viewpoint of those interviewed for this Review that ‘the Irish forestry and forest products sector would strongly benefit from the development of a coherent forestry and forest products policy’. This policy should be adequately funded. It is the view of IFFPA that Irish forest policy should be driven by one Government Department, in essence ‘a forest and forest industry champion’.

However, in light of the current economic crisis and the subsequent lack of Government funding, it is important that new innovative funding measures be examined for the sector.

IFFPA states that the importance of cohesive joined up thinking for the Irish forestry and forest products industry must be recognised with integrated policy decisions made to ensure:

• optimum afforestation levels to maximise carbon sequestration and raw material supply for both timber processing and wood biomass energy,

• adequate and appropriate financial incentives and promotional schemes to encourage optimum planting levels,

• a suitable infrastructure to allow for optimum levels of wood fibre supply from Irish forests,

• support to grow the indigenous processing and biomass industry to supply both Irish and export markets and

• the adoption of appropriate policies and market analysis to identify demand and identify synergies between different demand streams.

Hen harrier

The IFFPA, on behalf of the timber sector in Ireland, would like to express its grave concern over the recently imposed restrictions on forestry operations in hen harrier Special Protection Areas. Hen harrier numbers have not declined in recent years and there is evidence that increased afforestation has led to an increase in the harrier population with conifer plantation proving to be useful nesting and hunting habitat. Research undertaken in 2010 on behalf of the National Parks and Wildlife Service (NPWS) shows that ‘the majority of confirmed pairs were located in plantation forest habitats (57%), primarily in second rotation crops (43.8%) compared to open moorland (heather) habitats (23.4%)’.

The existing system for monitoring and protecting the hen harrier was dissolved and a new unwieldy and restrictive system imposed for existing forestry operations. The industry felt there was inadequate consultation with forest owners and insufficient sound scientific evidence for the decisions made.
The Irish forest estate

In December 2011, the Irish forest estate\(^\text{103}\) covered an area of over 744,000 hectares\(^\text{104}\). This equates to just 10.6% of Ireland’s land area. Of this, privately owned forests account for 47%. The balance is owned and managed by Coillte\(^\text{105}\). By comparison, the average level of forest cover in the European Union (EU) is 38% with Finland having the highest forest cover at 73%\(^\text{106}\). In general, there has been a trend away from planting in western counties towards the better soils of the midlands and south west. This is accompanied by an increase in the level of planting of broadleaf species.

However, the Irish private sector forest estate is generally fragmented, thereby increasing both management overheads and harvesting costs\(^\text{107}\). The average size of private forest holdings is just 8 hectares (20 acres)\(^\text{108}\). Current planting recommendations require the inclusion of a minimum of 30% broadleaves and have a requirement that 15% of the area to be afforested is left unplanted for the enhancement of bio-diversity\(^\text{109}\). If these private forests are to be commercially viable, it is important that they are well managed. However, many of the agencies and organisations who were interviewed for this Review have stated that they have ‘serious concerns about the very poor quality of some of the broadleaf forests that have been established in Ireland’.

In addition, it is essential that the Irish afforestation programme, particularly its species composition, is designed to better mirror the market demand for roundwood. It is crucial that Ireland’s afforestation programme is linked to the forecasted demands for forest products. Irish forest policy should not unduly favour the growing of broadleaves. IFFPA believes that broadleaves should only be planted on sites which support the growing of good quality broadleaf forests which can be managed on a commercial basis. Furthermore, a review of those areas which are currently excluded from the provision of grant aid for forestry development should be undertaken.

Development potential of Irish private forests

In addition, the full potential of this farm forest resource for rural development in Ireland has not yet been fully realised. Currently, it is estimated that a potential harvest of 876,000 cubic metres of wood fibre is available from thinning operations in private/farm plantations that are at or have passed their first thinning age\(^\text{109}\). There is strong ongoing demand for roundwood and for sawmill residues both from the existing sawmilling and panel products sectors and from the emerging wood biomass energy sector. The potential to establish long term supply contracts between private growers and timber processors should be evaluated. This should include the evaluation of a co-operative approach which would deliver roundwood to timber processors while maximising the return to the grower.

Forwood Forestry, a subsidiary of Forestry Services Ltd. has recently established such a model. This has proved to be successful and to be acceptable by private forest owners.

---

\(^{103}\) http://www.forestryyearbook.ie/statistics/Total%20Forest%20cover.pdf
\(^{105}\) www.coillte.ie
\(^{106}\) http://www.teagasc.ie/forestry/docs/technical_info/articles/teagasc_outlook_forestry_0809.pdf
\(^{108}\) One hectare covers an area of 100m x 100m (10,000 m²). This is roughly 2.5 acres.
\(^{109}\) http://www.forest.joensuu.fi/silva/Main/DOCUMENTS/files/PDF/Ireland%20update.pdf
\(^{109}\) Scenario modelling suggests that if 50% of these plantations were suitable for thinning, then an estimated 876,000 cubic metres of wood fibre is currently available from these forests through removals from thinning operations.
Irish roundwood supply to 2028

Over the next 17 years, the supply of roundwood to be harvested from Irish forests will increase significantly. A recent COFORD report shows that over the period to 2028 the production capacity of Ireland’s forests will almost double to 7 million cubic metres, from the current 3.79 million. Almost all of the increase in supply is set to come from privately-owned forests in the Republic; those areas established over the past 25 years on foot of State/EU and private sector investment (Table 9). Considerable scope exists to expand wood energy production, and this is in addition to supplies for sawmilling and board manufacture.

However, realising this increase in potential production will entail significant capital investment in roads, harvesting equipment and in information technology (IT) systems by forest owners, contractors and by the State. An ongoing private sector national inventory of public and private woodlands is critical to getting a better understanding of the Irish forest resource.

Existing harvesting infrastructure

A recent report undertaken by the Waterford Institute of Technology (WIT) has shown that the timber harvesting sector in Ireland has the capacity to harvest 3 million cubic metres of roundwood per annum. 66% of this is from clearfelling, with the remainder from thinnings. A cut to length system is commonly used, the components of which are shown in Table 8.

Table 8: Components of the roundwood harvesting sector in Ireland (2011)\textsuperscript{112}.

<table>
<thead>
<tr>
<th></th>
<th>No in operation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Harvester</td>
<td>170</td>
</tr>
<tr>
<td>Forwarder</td>
<td>160</td>
</tr>
<tr>
<td>Timber trucks</td>
<td>380</td>
</tr>
</tbody>
</table>

The capacity of this sector is estimated at 3 million cubic metres per annum. In 2011, the sector operated at more than 97% of this capacity with 2.899 million cubic metres of roundwood being harvested in Irish forests\textsuperscript{113}. By 2028, the Irish private forestry sector has the capacity to increase its roundwood harvest eight-fold. To meet this requirement, considerable investment is required to develop new harvesting, transport and roading infrastructure in Irish forests and on associated public roads. To bring this resource to market, it is important that forest roads can be built in a cost effective and efficient manner.

\textsuperscript{111} http://www.coford.ie/media/coford/content/publications/projectreports/roundwood/Roundwood%20Forecast_web.pdf
\textsuperscript{112} http://www.ucd.ie/t4cms/tomkent.pdf
\textsuperscript{113} EUROSTAT Joint Forest Sector Questionnaire (JFSQ) for Ireland (2012)
Mobilising roundwood supply

The following challenges need to be overcome if the forecast roundwood harvest (Table 9) from the Irish private forest estate is to be realised114:

- Improving the accessibility (for timber harvesting) of the Irish private forest estate,
- Continuing Forest Service grant assistance for the development of forest roads,
- Developing a ‘standardised low cost’ roundwood sales system which facilitates roundwood sales in the Irish private forest estate,
- The combination of private woodlots into larger sales units which can be harvested more economically and
- The development of a private sector national inventory and forecast.

Forecast accuracy

Tight control of costs, allied to investment in innovation, is key to maintaining and increasing the competitiveness of the forest sector in Ireland. At the processing end, converting roundwood into increasingly sophisticated products and systems requires a close match between customer demand and what is available in the forest. Reliable information on the location and quantity of roundwood available to market is a vital component in planning not only day-to-day harvest schedules, but in longer term planning and in scaling innovation effort and capital investment115.

The Irish forest products sector uses roundwood forecast data as a key ingredient in the development of its strategy. It is important for the successful development of the Irish forestry and forest products sector that these forecasts are accurate116. Hence the need for an ongoing forest inventory and forecast. It is key that forest growers take the lead on this as they know what they want for their forests in terms of access and markets. Integrating and communicating with the processing sector will better focus growers on the needs of the processing sector.

Table 9: Forecast of potential net realisable volume production from private forests in the Republic of Ireland by assortment category (2011-2028)117.

<table>
<thead>
<tr>
<th>Year</th>
<th>7-13 cm</th>
<th>14-19 cm</th>
<th>20 cm+</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011</td>
<td>225</td>
<td>90</td>
<td>55</td>
<td>370</td>
</tr>
<tr>
<td>2012</td>
<td>225</td>
<td>102</td>
<td>57</td>
<td>384</td>
</tr>
<tr>
<td>2013</td>
<td>190</td>
<td>106</td>
<td>73</td>
<td>369</td>
</tr>
<tr>
<td>2014</td>
<td>229</td>
<td>150</td>
<td>45</td>
<td>424</td>
</tr>
<tr>
<td>2015</td>
<td>264</td>
<td>183</td>
<td>57</td>
<td>504</td>
</tr>
<tr>
<td>2016</td>
<td>297</td>
<td>196</td>
<td>72</td>
<td>565</td>
</tr>
<tr>
<td>2017</td>
<td>377</td>
<td>284</td>
<td>91</td>
<td>752</td>
</tr>
<tr>
<td>2018</td>
<td>317</td>
<td>191</td>
<td>122</td>
<td>630</td>
</tr>
<tr>
<td>2019</td>
<td>366</td>
<td>290</td>
<td>195</td>
<td>851</td>
</tr>
<tr>
<td>2020</td>
<td>492</td>
<td>486</td>
<td>262</td>
<td>1,240</td>
</tr>
<tr>
<td>2021</td>
<td>485</td>
<td>555</td>
<td>463</td>
<td>1,503</td>
</tr>
<tr>
<td>2022</td>
<td>483</td>
<td>528</td>
<td>404</td>
<td>1,415</td>
</tr>
<tr>
<td>2023</td>
<td>502</td>
<td>784</td>
<td>848</td>
<td>2,134</td>
</tr>
<tr>
<td>2024</td>
<td>490</td>
<td>657</td>
<td>617</td>
<td>1,764</td>
</tr>
<tr>
<td>2025</td>
<td>427</td>
<td>634</td>
<td>703</td>
<td>1,764</td>
</tr>
<tr>
<td>2026</td>
<td>441</td>
<td>715</td>
<td>886</td>
<td>2,042</td>
</tr>
<tr>
<td>2027</td>
<td>544</td>
<td>1,209</td>
<td>1,605</td>
<td>3,358</td>
</tr>
<tr>
<td>2028</td>
<td>519</td>
<td>1,090</td>
<td>1,620</td>
<td>3,229</td>
</tr>
</tbody>
</table>

115 http://www.coford.ie/media/coford/content/publications/projectreports/roundwood/Roundwood%20Forecast_web.pdf
117 http://www.coford.ie/media/coford/content/publications/projectreports/roundwood/Roundwood%20Forecast_web.pdf
Estimated demand for wood fibre in Ireland to 2020

The Irish forest products sector has historically utilised all roundwood which has been harvested from Irish forests. There is currently strong demand for roundwood from sawmills, panel mills and from the emerging wood energy sector.

In addition, there is a lot of scope for the private forest sector to supply wood for energy use\(^{118}\). The projected level of demand for roundwood on the island of Ireland in 2020 from both the conventional timber processing sectors\(^{119}\) and from the emerging wood biomass energy sector is shown in Table 10. By 2020, it is estimated that there will be a supply gap of 1.252 million cubic metres (Table 7). This will have to be supplied by imported roundwood.

<table>
<thead>
<tr>
<th></th>
<th>2011</th>
<th>2020</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Conventional demand</strong></td>
<td>3,456</td>
<td>3,830</td>
</tr>
<tr>
<td><strong>Wood biomass energy</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>demand</td>
<td>1,589</td>
<td>3,084</td>
</tr>
<tr>
<td><strong>Residues from</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>conventional</td>
<td>-750</td>
<td>-876</td>
</tr>
<tr>
<td>demand which are used to</td>
<td></td>
<td></td>
</tr>
<tr>
<td>meet energy demand</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>4,295</td>
<td>6,038</td>
</tr>
</tbody>
</table>


\(^{119}\) Conventional demand is defined as the demand for roundwood for processes drying and / or for wood biomass energy by the Irish forest products sector contained within the figures for wood biomass energy demand.

Grainger Sawmills at Enniskeane, Co. Cork produces sawn timber products for home and export markets. All of its products are FSC certified.
The Association of Irish Forestry Consultants (AIFC) represents the forest consultancy profession in Ireland with a membership that has a nationwide presence and a client base of over 1,500 forest owners.

AIFC members come from various backgrounds in forestry including the State forestry sector, private forestry companies and forest education and research. To become a member of the AIFC, applicants must satisfy strict criteria regarding qualifications, experience and professional indemnity insurance. In addition, in order to retain their AIFC membership, consultants must undertake Continued Professional Development (CPD) via courses, field days, lectures and study tours to attain a specified number of points annually.

AIFC members provide a full range of forestry services. They are responsible for 25% of the forest establishment market. An increasing number of plantation owners are engaging AIFC members at the post-maintenance grant stage, to manage their plantations right up to first thinning and beyond. AIFC members provide harvesting expertise/services at all stages of the rotation for both conifer and broadleaf crops.

Coillte was established in 1989 when it acquired ownership of the State's forests. Since then, it has developed into a more broadly based company operating in forestry and in related businesses. Today it is a commercial company operating in forestry, land based businesses, renewable energy and in the manufacture of panel products. It employs approximately 1,000 people in Ireland, the UK and Europe. It owns over 445,000 hectares of land, of which 390,000 hectares is under forest.

Coillte manages 7% of the land in Ireland in a sustainable and responsible way. Its role also includes the innovative use of this land estate for the development of renewable energy and telecommunications infrastructure to derive the maximum commercial benefit from the estate. Coillte is also Ireland’s leading provider of world class recreation facilities such as mountain bike trails and forest parks. In May 2011, a new 8 kilometre mountain bike trail in Ticknock Forest near Sandyford, Dublin was officially opened by Minister Leo Varadkar T.D., Minister for Transport, Tourism and Sport. This flagship project of the Dublin Mountains Partnership (DMP) is the first official, purpose built mountain bike trail in the Dublin Mountains.

Coillte’s forests are internationally recognised as responsibly and sustainably managed. In 2011, Coillte celebrated 10 years of Forest Stewardship Council (FSC) certification (see case study on page 70). This certification has become increasingly valuable as awareness has grown of the importance that timber and
timber based products are sourced from forests which are managed in accordance with strict environmental, social and economic criteria. Over 15% of the Coillte estate is actively managed for nature conservation.

As part of its continuous investment in the forests of Ireland, Coillte planted 15 million trees in Ireland in 2011. These cover an area of 6,000 hectares. These trees will play a vital role in Coillte’s forest products business and will also significantly enhance the Coillte estate for the benefit of all users.

In 2011, 2.4 million cubic metres of roundwood was harvested from Coillte forests. This was used by its customers in the sawmilling, wood-based panel and energy markets.

Medite Europe\(^{128}\), part of Coillte’s Panel Products Division, is the leading producer of medium density fibreboard (MDF). In 2011, it reached a significant production milestone with 7 million cubic metres of MDF being produced in its Clonmel factory since it was established in 1983. Over the period 2007 to 2010 Ireland was the largest exporter of medium density fibreboard (MDF) to the UK. In addition, SmartPly Europe\(^{129}\) near Waterford, also part of Coillte Panel Products, has manufactured over 4 million cubic metres of Oriented Strand Board (OSB), a structural panel board used in construction, since it was set up in 1996. This amounts to a total of 11 million cubic metres of wood-based panel products which have been produced in Ireland with an estimated value of €2.5 billion. Since 1983, 90% of these products have been exported to an estimated total value of €2.25 billion.

Coillte also supplies roundwood to the Irish sawmill sector which itself has become much more export focused. Over the period 2000 to 2010, the volume of sawn timber exported by the Irish sawmill sector increased by 227%.

Coillte Enterprise manages the Group’s interests in renewable energy, telecoms, nurseries, wood products and training services.

Coillte is committed to helping reduce Ireland’s carbon emissions and achieving the Irish Government’s renewable energy targets. It is a significant supplier of wind farm sites to third party developers, and has an extensive portfolio of quality site opportunities with excellent wind regimes. Approximately 20% of current installed wind farm capacity has been delivered on former Coillte lands. Coillte will continue to be a significant contributor to achieving Ireland’s renewable energy objectives and targets over the next decade. The Coillte forest estate has the potential to make a significant contribution to Ireland’s renewable energy targets through wind energy generation.

Since the early 1980’s, Coillte has played a key role in supporting the Irish communications and broadcast industry. With its large portfolio of towers and land locations Coillte is well positioned to support the requirements of communications and broadcast companies\(^{130}\). There are currently in excess of 400 telecommunications towers on Coillte land.

Coillte Nurseries\(^{131}\) provides a comprehensive range of forest seed and plants for the Irish market for re-stocking and afforestation projects. On average, 21 million plants are sold each year. Production also includes some 2.6 million vegetatively propagated Sitka spruce grown as part of the company’s investment in improved breeding stock.

In late 2009, the Department of Agriculture, Food and the Marine announced that it was undertaking a review of the role of Coillte. This review is with the Minister.

---


\(^{129}\) [http://www.smartply.com](http://www.smartply.com)

\(^{130}\) [http://www.coilltetelecoms.ie/services/](http://www.coilltetelecoms.ie/services/)

\(^{131}\) [http://www.coilltenurseries.ie/](http://www.coilltenurseries.ie/)
Forest Enterprises Limited (FEL) \(^{132}\) was founded in 1990. The company now manages €115 million of forestry assets in Ireland and Scotland. FEL’s vision is to create sustainable wealth through forestry. The services and management systems which FEL provides are geared towards attaining this vision. We offer establishment, roading/harvesting, management and forestry investment services to a wide range of clients from farmers to investors. We have invested heavily in state of the art information technology systems to help us manage a forest estate of over 14,000 hectares.

In order to meet the requirements of our clients, FEL has focused on purchasing high quality conifer plantations that are high yielding, larger than average in area and which are commercially oriented.

Our establishment service is similarly focused on creating high quality commercially focused plantations for our clients. FEL has over 22 years experience in plantation purchases so we have a keen insight into what forestry investors are looking for. We have incorporated this experience into the design of new plantations, maximising forest premium income, timber income and the value of the plantation. In order to maximise profits from forestry, FEL has designed our forest management service to be focused on our client’s requirements.

FEL manages a wide age range of forestry plantations and has a wide experience in the preparation of roundwood for sale. Our harvesting service is focused on adding value to the plantation. This provides income for our clients, while also encouraging much needed rural economic activity and employment. The forestry estate which is managed by FEL is young, but is already producing substantial amounts of timber for the Irish market from early thinnings. This will grow substantially in the coming years as the estate grows older.

Established in 1985, Forestry Services Ltd.\(^{133}\), is one of Ireland’s leading and largest forestry management companies. The company specialises in forest establishment and management. Clients include farmers, high net worth individuals, pension funds and Local Authorities. The company is also involved in international timberland investment and has recently sold 9,000 hectares of forest and agricultural land in Estonia to a large timber investment management organisation (TIMO).

Thinning of conifer and broadleaf crops is carried out for clients through a subsidiary; Forwood Forestry Ltd\(^{134}\).

Forestry Services Ltd. has previously been awarded the European Giovanni Marcara Award for best silvicultural and environmental practices in the establishment and management of broadleaf crops.

\(^{132}\) http://www.fel.ie/

\(^{133}\) www.forestryservices.ie/

\(^{134}\) www.forestthinning.ie/
In 2012, **Green Belt**\(^{135}\) celebrated its 30th Birthday. It was established in 1982 by Tim O’Brien and Mossie Ryan and has evolved into Ireland’s largest private forestry company, employing up to 600 people at peak season and managing more than 250,000 acres of privately owned woodland in both Ireland and the UK.

Green Belt has an average annual planting program of 3,000 hectares with clients ranging from farmers to large financial institutions and pension funds. A number of other companies operate under the Green Belt umbrella:

- **Green Belt Panama Ltd.** - provides management services to existing and planned teak plantations in Panama.

- **Imperative Energy Ltd.**\(^{136}\) - a leading supplier of bioenergy solutions to clients in the commercial, public and industrial sectors through purposely built biomass plant at the client’s site.

The company’s core business encompasses all aspects of forestry management, including:

- **Investors**; sourcing land (home and abroad) suitable for forestry investment and the planting and management of same until the forest is established (minimum of 4 years).

- **Farm forestry**; provide an all inclusive service from initial site assessment to dealing with all relevant paperwork to developing and managing the forest on behalf of the client until the forest is fully established (minimum of 4 years).

- **Forest management**; provide management services at all stages of forest maturity including provision of fire and reconstitution insurance, road building, valuation and timber marketing and sale.

- **Harvesting**; Green Belt are actively involved in both thinning and clear-felling forests under its management. Fees are based on a percentage of the revenue raised from timber sales.

Green Belt Ltd. has recently developed an innovative private sector harvesting contract. This gives the customer the ability to lock in to a minimum price per tonne for all timber harvested. The contract also facilitates the construction of suitable access points and ensures that all harvesting operations are professionally supervised and controlled.

---

\(^{135}\) [www.greenbelt.ie](http://www.greenbelt.ie)

Established in 1997, I.F.S. Asset Managers Limited represents the largest group of Irish stakeholders in the forestry industry in Ireland with over 19,000 individual and corporate investors and has been highly successful in marketing the attractiveness of forestry to the Irish general public. The company's primary focus is on the acquisition of quality forestry assets and innovative best-practice forestry asset management for its investors.

The company was unique in developing the concept of the Irish Forestry Funds, a group of 30 Irish public limited companies, which have invested directly in high quality Irish forestry on behalf of its numerous clients and have combined forestry assets in excess of €110 million.

This combined forest estate is fully diverse in terms of age profile and is located throughout Ireland. In 2011 it became continuously productive in terms of timber supply with all timber categories being harvested. This is creating positive returns to I.F.S.'s clients while at the same time contributing to the much needed domestic supply of timber.

I.F.S. Asset Managers Limited has been at the forefront of increasing the positive profile of Irish forestry to the general public for over a decade and also manages overseas forestry assets on behalf of its international institutional and corporate clients.

The company has invested significantly in developing financial forestry software and has been highly innovative in the application of advanced operational management techniques to the domestic and international forestry assets under its management.

Whilst delivering the positive message of Irish forestry through its international business development model the company has been successful in attracting foreign direct investment into the Irish forestry industry to protect and enhance employment in the sector while continuing to create wealth for its Irish and overseas clients.

None So Hardy (Forestry) Ltd.

None So Hardy (Forestry) [NsH] Ltd. is a privately owned Irish company. It specialises in the growing and in the supply of forestry planting stock. Its nurseries are located in Co. Wexford. Sales, administration and distribution are based in Shillelagh, Co. Wicklow. The company employs 80 people.

NsH is the largest supplier of forestry planting stock to the private forestry sector in Ireland. On an annual basis, it has the potential to supply 25 million trees. It produces a comprehensive range of tree species. These include the hardwoods; Ash, Oak, Sycamore, Alder, Beech, Birch, Mountain ash and Hawthorn. The conifer species which it supplies includes Sitka spruce, Norway spruce, Douglas fir, Noble fir, Scots pine, Lodgepole pine and the three larches namely; Japanese, European and Hybrid.

Two important investments have been vital for the successful development of NsH. In 1994, it erected a cold store at its Shillelagh base. This had the capacity to hold 3 million plants. In 2002, this facility was extended. It can now hold 8 million plants. The use of these cold stores ensures that the short Irish planting season can be extended by at least two months.

In 2002, NsH also established a new irrigation system at both of its forest nurseries. These are located in Ballymurn and in Donishall in Co. Wexford. The Ballymurn site produces hardwood planting stock; principally Ash, Oak, Beech, Sycamore, Alder, Birch and Mountain ash. NsH aims to supply the forest contractor with quality forest planting stock. These are grown from native seed sources. The installation of this irrigation system has been a crucial element in achieving this strategy.

Norway spruce seedlings being lifted for planting at None So Hardy’s forest nursery in Co. Wexford.

http://www.ifsam.ie/

http://www.nonesohardy.ie/
Western Forestry Co Op

In the early 1980’s Dairy Co-Operatives, the Irish Co-operative Organisation Society (ICOS)\(^{139}\), the Department of Agriculture\(^{140}\) and the Forest and Wildlife Service (now the Forest Service\(^{141}\)) collectively examined ways of encouraging farmers in the west of Ireland to afforest their marginal farmland. In 1990, this resulted in the establishment of the Western Forestry Co-Operative. Its role is to promote farmer afforestation and to provide the organisation and services which are required to facilitate farmer involvement in forestry. The Western Forestry Co-Op has also had an input in the development of forest policy regarding the issues of concern to private woodland owners.

From the start the Co-Op has been successful in encouraging neighbouring farmers to plant their marginal adjacent land. This has helped to overcome many of the problems which are associated with small plantations. Today, the society has over 3,000 members. These have planted 16,000 hectares of forest of which 60% are in group plantations.

The Western Forestry Co-Op was initially developed along the lines of the Danish model for small plantation owners. It has adopted a co-operative ethos under the protection of its parent dairy co-operatives. The services which it provides include technical support, representation and the provision of backup services. Many of the forests which were planted by the early members of the Co-Op are now approaching the harvesting stage. The Co-Op is currently involved in grouping small individual forest owners in order to improve the efficiency of timber harvesting and to improve the return to its members.

Woodland

Founded 33 years ago, Woodland Managers Ltd.\(^{142}\) is Ireland’s oldest private forestry management business providing professional woodland management services to woodland owners. The company manages portfolios throughout the country. Woodland introduced institutional investments to Irish forestry and continues to manage portfolios for these pension and insurance funds and other owners, all of whom show strong commitment to sustainable forest management (SFM).

Woodland believes that robust management requires independence from timber contracting, processing and wood energy businesses. It works closely with approved contractors and processors for improved standards. Woodland has a comprehensive harvesting site management system for traceability, sales and payments, health and safety, environmental controls and thinning standards. Woodland deals with all issues necessary to turn your resource into profit.

A related business, WoodlandCover\(^{143}\), manages the country’s biggest forestry insurance scheme. 2011 was another bad year for land and forest fires (as was 2010). Woodland continues to work with other woodland managers and with Coillte in raising the awareness of losses due to forest fires.

In December 2011, John Phelan, Managing Director, Woodland Managers Ltd. was appointed to the COFORD Council.

\(^{139}\) www.icos.ie  
\(^{140}\) http://www.agriculture.gov.ie/  
\(^{141}\) http://www.agriculture.gov.ie/forestservice/  
\(^{142}\) http://www.woodland.ie/  
\(^{143}\) www.forsure.ie/
The Irish sawmilling industry is modern, efficient and customer focused. Through innovation and marketing, along with high levels of customer care and responsiveness to end user demands; the Irish sawmilling sector is securing increased export market share, particularly in the UK market. It provides the primary outlet for the sawlog and stakewood which is harvested in Irish forests. The sector also supplies significant volumes of sawmill residues to the panel products and energy sectors. Nine companies form the core of the Irish sawmilling sector. These and the products and markets which they serve are detailed below.

In recent years, the sector has invested more than €200 million to create a modern, efficient and customer focused industry. The sector is made up of five large and four medium-size companies, representing more than 90% of the industry (Table 11). The sector employs more than 2,500 people; 1,600 directly and the remainder on an indirect basis.

Key Irish sawmills
Nine companies form the core of the Irish sawmilling sector, providing the main market for the sawlog and stakewood which is harvested from Irish forests. All major Irish sawmills are FSC certified. These companies are detailed in Table 11 overleaf.

---

144 These include bark, sawdust shavings and wood chip.
Use of roundwood by Irish sawmills (2007-2011)

In 2011, Irish sawmills utilised 1.696 million cubic metres of roundwood (Table 12)\(^\text{146}\). 80% of this roundwood was sold by Coillte, with the balance supplied by imports and by the private forest sector. The sawmilling sector used 100% of available logs. Due to a shortage of suitable roundwood for sawmill use; additional logs had to be imported from Scotland.

Table 12: Roundwood processed in the Republic of Ireland (2007-2011)\(^\text{147}\).

<table>
<thead>
<tr>
<th>Year</th>
<th>Log imports less exports</th>
<th>Coillte harvest</th>
<th>Private forest harvest</th>
<th>Roundwood available for processing</th>
<th>Of which</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007</td>
<td>57</td>
<td>2,556</td>
<td>390</td>
<td>3,003</td>
<td>Sawlog</td>
</tr>
<tr>
<td>2008</td>
<td>106</td>
<td>2,279</td>
<td>118</td>
<td>2,503</td>
<td>Stakewood</td>
</tr>
<tr>
<td>2009</td>
<td>-63</td>
<td>2,354</td>
<td>130</td>
<td>2,421</td>
<td></td>
</tr>
<tr>
<td>2010</td>
<td>28</td>
<td>2,217</td>
<td>463</td>
<td>2,708</td>
<td></td>
</tr>
<tr>
<td>2011</td>
<td>55</td>
<td>2,299</td>
<td>386</td>
<td>2,740</td>
<td></td>
</tr>
</tbody>
</table>

This roundwood is used as follows:

- Small sawlog:
  - 14-20 cm top diameter - these are used for the production of pallets, fencing, crates and for the production of small dimension structural timber products;

- Large sawlog:
  - > 20 cm top diameter - the primary product produced from this resource is structural sawn timber.

In 2011, the sawmill sector operating in the Republic of Ireland produced 0.864 million cubic metres of sawn timber products. This included the production of both sawn timber products\(^\text{148}\) and round stakes (Table 13).

Key products produced

The primary products produced by the Irish sawmill sector include construction/structural timber, pallet/packaging timber and fencing products. In recent years Irish produced structural timber was largely sold on the domestic market with pallet and fencing products making up the bulk of sawn timber exports. However, in recent years, Irish sawmillers have worked hard to develop new products and markets.
Such products include:

- Acoustic barriers[149],
- Planed all over (PAO)/eased edge timber studding[150] and
- Fencing products[151].

The development of new products for sawn timber has required considerable investment in both sawmill processing facilities and in marketing and sales development in key export markets.

Irish sawmill output (2007-2011)

The timber products which are produced by the Irish sawmill sector serve three main markets namely; construction structural use; pallet/packaging use and fencing use. The respective size of these markets for the period 2007 to 2011 is detailed in Table 13.

Table 13: Irish sawn timber output by product and year (2007-2011)[152].

<table>
<thead>
<tr>
<th>Year</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cubic metres</td>
<td>000</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Construction/structural</td>
<td>374</td>
<td>267</td>
<td>292</td>
<td>293</td>
<td>288</td>
</tr>
<tr>
<td>Pallet/packaging</td>
<td>325</td>
<td>232</td>
<td>254</td>
<td>255</td>
<td>252</td>
</tr>
<tr>
<td>Square edged fencing</td>
<td>266</td>
<td>190</td>
<td>208</td>
<td>209</td>
<td>206</td>
</tr>
<tr>
<td>Round stakes</td>
<td>164</td>
<td>51</td>
<td>80</td>
<td>107</td>
<td>106</td>
</tr>
<tr>
<td>Other</td>
<td>19</td>
<td>13</td>
<td>15</td>
<td>15</td>
<td>15</td>
</tr>
<tr>
<td>Total sawn timber output</td>
<td>1,148</td>
<td>753</td>
<td>849</td>
<td>879</td>
<td>867</td>
</tr>
</tbody>
</table>

Key export markets for the softwood sawn timber

The two key markets for the sawn softwood exported from the Republic of Ireland are Northern Ireland and the UK. However in recent years, Irish sawmillers have developed new export markets in France, the Netherlands and Turkey. Over the period 2000-2010, the volume of sawn softwood which has been exported by the sawmill sector in the Republic of Ireland has increased by 227% (Table 14).

Table 14: Annual exports of sawn softwood from the sawmills operating in the Republic of Ireland (2000-2010)[153]-[156].

<table>
<thead>
<tr>
<th>Year</th>
<th>Cubic metres</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>274</td>
</tr>
<tr>
<td>2001</td>
<td>336</td>
</tr>
<tr>
<td>2002</td>
<td>485</td>
</tr>
<tr>
<td>2003</td>
<td>502</td>
</tr>
<tr>
<td>2004</td>
<td>495</td>
</tr>
<tr>
<td>2005</td>
<td>428</td>
</tr>
<tr>
<td>2006</td>
<td>447</td>
</tr>
<tr>
<td>2007</td>
<td>374</td>
</tr>
<tr>
<td>2008</td>
<td>387</td>
</tr>
<tr>
<td>2009</td>
<td>564</td>
</tr>
<tr>
<td>2010</td>
<td>621</td>
</tr>
</tbody>
</table>

Certification of sawn timber products

The majority of the logs which are supplied to Irish sawmills are certified to FSC[157]-[166] or PEFC[167] standards. In addition, Irish sawmills have their own chain of custody (CoC) certification. This enables them to certify their products to FSC or PEFC standards. The end user (of Irish produced sawn timber products) can therefore be confident that the timber products which they source from Irish sawmillers meet strict environmental criteria. These criteria are independently verified.

Irish sawmills grow export markets

Irish construction output has declined significantly since 2007. This has greatly reduced the demand for sawn timber products in Ireland. However, Irish sawmillers have recently undertaken a major promotional campaign in the UK to promote the use of Irish forest products[168]. Initial reports show that this has lead Irish sawmillers to significantly increase their market share in the key UK market. The Irish sawmilling industry is modern, efficient and customer focused.

---

149 http://www.woodfabstructures.ie/acoustic.html
150 http://www.mtg.ie/construction_timber .html
151 http://www.glennonbrothers.ie/glenfence.html
152 This data is for the Republic of Ireland (RoI)
155 Source: EUROSTAT Joint Forest Sector Questionnaire (JFSQ)
156 Woodflow 2011
157 Source: Central Statistics Office (CSO); www.cso.ie
158 Data for 2011 was not available when this Review was being written
159 FSC: Forest Stewardship Council; www.fsc.org
160 The Forest Stewardship Council (FSC) is an independent, non Governmental, not for profit organisation established to promote the responsible management of the world’s forests; www.fsc.org
161 www.pefc.org
162 Reference: Coillte; www.coillte.ie
Through innovation and marketing, along with high levels of customer care and responsiveness to end user demands, it is securing increased export market share, particularly in the UK market.

• Irish sawn timber exports to the UK have increased from 387,000 cubic metres in 2008 to 621,000 cubic metres in 2010; an increase of 60%.
  o This was despite a 3.4% decline in the UK market for sawn timber over the same period.

• The Irish forestry and forest products sector employs close to 12,000 people; the majority of whom live and work in rural Ireland.

• Irish sawmillers are increasingly recognising that UK exports will be a significant part of their business, especially for sales of certified forest products.

Opportunities for Irish sawnwood products in the UK

The UK construction market is a key market for the forest products manufactured in Ireland. However, since late 2007, there has been a major change in market activity in the UK construction sector. New house building starts have slowed considerably. Conditions in early to mid 2008 deteriorated rapidly with housing starts and completions well down on 2007, followed by a series of increasingly pessimistic announcements from builders indicating severe problems in the sector\textsuperscript{163}. However, Irish sawmillers are working hard to gain new market share in the UK. This is being undertaken in the following ways\textsuperscript{164}:

• Irish sawmills are now producing 47 mm construction grade studding to target the UK construction marketplace. This is in addition to the 44 mm studding commonly used in Ireland.

• Glennon Brothers\textsuperscript{165} aims to provide ‘a one-stop timber solution for Irish and UK markets’. With its range of value-added products including fencing and decking (marketed under the Glenfence\textsuperscript{166} and Glendeck\textsuperscript{167} brands), tongued and grooved (T and G) flooring and specials. Its recent investment in two UK timber processing facilities shows its ongoing commitment to the UK marketplace.
  o Prior to the downturn in the Irish building sector, Glennon Brothers supplied two thirds of its output to the home market and exported one third. It now exports at least two thirds of its output.
  o It has developed new markets for sawn timber in the UK and in France.
  o This work was acknowledged in 2010 when Mike and Pat Glennon were presented with the top accolade in the industry category at the 2010 Ernst and Young Entrepreneur of the Year Awards\textsuperscript{168}.

• Murray Timber Group’s (MTG)\textsuperscript{169,170} new processing line has increased both yield and quality. With the UK market in mind, in 2008, a €4 million planing line was added to the MTG facility at Ballygar, Co. Galway. This compliments an existing high speed planing line which was installed in Murray’s Ballon plant in 2005.

• Prior to the current recession, Grainger Sawmills\textsuperscript{171}, based in Enniskane, Co. Cork, sold 95% of its construction timber in Ireland. Practically all its pallet and packaging was sold in the UK. This averaged 5,000 cubic metres of sawn timber per month. It is now sending around 2,500 cubic metres of construction timber a month to its customer base across the Irish Sea.

\textsuperscript{163} AMA Research’s report on the UK house building Market (2008-2018)
\textsuperscript{164} http://www.ttjonline.com/story.asp?storycode=60505
\textsuperscript{165} www.glennonbrothers.ie
\textsuperscript{166} http://www.glennonbrothers.ie/glenfence.html
\textsuperscript{167} http://www.glennonbrothers.ie/glendeck.html
\textsuperscript{168} http://www.irishtimes.com/newspaper/finance/2010/1022/1224281722297.html
\textsuperscript{169} www.mtg.ie
\textsuperscript{170} MTG: Murray Timber Group; www.mtg.ie
\textsuperscript{171} www.graingersawmills.com
Potential markets for sawn timber and wood-based panels

Details are provided below on the UK market for sawn timber and for wood-based panels.

UK imports of sawn timber and wood-based panels

The UK is a significant importer of sawn timber and wood-based panels. In 2011, 4.9 million cubic metres of sawn timber was imported into the UK. However, in volume terms, the size of this market has declined by 41% over the period 2005-2011. Over the same period, wood-based panel imports into the UK declined by 28% (Table 15).

Table 15: UK imports of sawn timber and wood-based panels (2005-2011)\(^{172,173,174}\)

<table>
<thead>
<tr>
<th>Year</th>
<th>Sawn timber imports</th>
<th>Wood-based panel imports</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005</td>
<td>8,341</td>
<td>3,939</td>
</tr>
<tr>
<td>2006</td>
<td>7,963</td>
<td>3,959</td>
</tr>
<tr>
<td>2007</td>
<td>8,469</td>
<td>3,858</td>
</tr>
<tr>
<td>2008</td>
<td>5,886</td>
<td>3,389</td>
</tr>
<tr>
<td>2009</td>
<td>5,240</td>
<td>2,500</td>
</tr>
<tr>
<td>2010</td>
<td>5,699</td>
<td>2,701</td>
</tr>
<tr>
<td>2011</td>
<td>4,923</td>
<td>2,827</td>
</tr>
</tbody>
</table>

An analysis of the consumption of forest product by type in the UK (2007-2011)

An analysis is provided in Tables 16-19 on the consumption of forest products in the UK for the period 2007-2011\(^{175}\). Over this period, the consumption of sawn softwood in the UK declined by 29%.

Table 16: Estimated consumption of sawn softwood in the UK (2007-2011)\(^{176}\)

<table>
<thead>
<tr>
<th>Year</th>
<th>Domestic production</th>
<th>Net imports</th>
<th>Consumption</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007</td>
<td>2,773</td>
<td>7,945</td>
<td>10,719</td>
</tr>
<tr>
<td>2008</td>
<td>2,566</td>
<td>4,876</td>
<td>8,053</td>
</tr>
<tr>
<td>2009</td>
<td>2,646</td>
<td>4,859</td>
<td>7,505</td>
</tr>
<tr>
<td>2010</td>
<td>2,868</td>
<td>5,230</td>
<td>8,098</td>
</tr>
<tr>
<td>2011</td>
<td>3,114</td>
<td>4,497</td>
<td>7,611</td>
</tr>
</tbody>
</table>

Table 17: Estimated consumption of sawn hardwood in the UK (2007-2011)\(^{177}\)

<table>
<thead>
<tr>
<th>Year</th>
<th>Production</th>
<th>Imports</th>
<th>Exports</th>
<th>Consumption</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007</td>
<td>44</td>
<td>523</td>
<td>19</td>
<td>548</td>
</tr>
<tr>
<td>2008</td>
<td>44</td>
<td>399</td>
<td>17</td>
<td>426</td>
</tr>
<tr>
<td>2009</td>
<td>48</td>
<td>381</td>
<td>25</td>
<td>404</td>
</tr>
<tr>
<td>2010</td>
<td>48</td>
<td>469</td>
<td>31</td>
<td>486</td>
</tr>
<tr>
<td>2011</td>
<td>52</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
</tr>
</tbody>
</table>

Table 18: Estimated consumption of particleboard\(^{178}\) in the UK (2007-2011)\(^{179}\)

<table>
<thead>
<tr>
<th>Year</th>
<th>Production</th>
<th>Imports</th>
<th>Exports</th>
<th>Consumption</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007</td>
<td>2,684</td>
<td>1,184</td>
<td>277</td>
<td>3,591</td>
</tr>
<tr>
<td>2008</td>
<td>2,431</td>
<td>995</td>
<td>289</td>
<td>3,137</td>
</tr>
<tr>
<td>2009</td>
<td>2,370</td>
<td>632</td>
<td>246</td>
<td>2,756</td>
</tr>
<tr>
<td>2010</td>
<td>2,594</td>
<td>649</td>
<td>278</td>
<td>2,965</td>
</tr>
<tr>
<td>2011</td>
<td>2,625</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
</tr>
</tbody>
</table>

Table 19: Estimated consumption of MDF in the UK (2007-2011)\(^{180}\)

<table>
<thead>
<tr>
<th>Year</th>
<th>Production</th>
<th>Imports</th>
<th>Exports</th>
<th>Consumption</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007</td>
<td>865</td>
<td>711</td>
<td>206</td>
<td>1,370</td>
</tr>
<tr>
<td>2008</td>
<td>709</td>
<td>697</td>
<td>130</td>
<td>1,276</td>
</tr>
<tr>
<td>2009</td>
<td>660</td>
<td>560</td>
<td>112</td>
<td>1,108</td>
</tr>
<tr>
<td>2010</td>
<td>776</td>
<td>597</td>
<td>137</td>
<td>1,236</td>
</tr>
<tr>
<td>2011</td>
<td>759</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
</tr>
</tbody>
</table>


\(^{175}\) All figures for 2011 are provisional. This is based on data available as of 17th May 2012.

\(^{176}\) UK Forestry Commission sawmill survey

\(^{177}\) UK Forestry Commission sawmill survey

\(^{178}\) OSB is included in this data

\(^{179}\) Source: Wood Panel Industries Federation; www.wpif.org.uk/

\(^{180}\) Source: Wood Panel Industries Federation; www.wpif.org.uk/
The UK market for sawn softwood

Key exporters of sawn softwood to the UK market are shown below for the period 2007-2011 (Table 20). It is important to note that in value terms, Ireland’s market share of the UK sawn softwood market grew from 4.23% in 2007 to 6.34% in 2010. This was an impressive increase of 50% over a four year period. Moreover, in 2010, the Republic of Ireland was the fifth largest exporter of sawn softwood to the UK marketplace. There are further opportunities for the Irish sawmilling sector to grow its market share in the UK.

Table 20: Key exporters of sawn softwood to the UK (2007-2011)\(^{181}\).

<table>
<thead>
<tr>
<th></th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>€ million</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sweden</td>
<td>706.15</td>
<td>501.79</td>
<td>483.97</td>
<td>524.76</td>
<td>NA</td>
</tr>
<tr>
<td>Finland</td>
<td>269.18</td>
<td>176.20</td>
<td>127.20</td>
<td>150.03</td>
<td>NA</td>
</tr>
<tr>
<td>Latvia</td>
<td>203.34</td>
<td>90.28</td>
<td>63.15</td>
<td>107.42</td>
<td>NA</td>
</tr>
<tr>
<td>Germany</td>
<td>167.00</td>
<td>81.68</td>
<td>48.18</td>
<td>87.44</td>
<td>NA</td>
</tr>
<tr>
<td>Ireland</td>
<td>68.20</td>
<td>51.47</td>
<td>49.88</td>
<td>63.25</td>
<td>NA</td>
</tr>
<tr>
<td>Austria</td>
<td>47.05</td>
<td>20.76</td>
<td>3.28</td>
<td>5.63</td>
<td>NA</td>
</tr>
<tr>
<td>Estonia</td>
<td>43.78</td>
<td>17.26</td>
<td>7.80</td>
<td>21.93</td>
<td>NA</td>
</tr>
<tr>
<td>Czech Republic</td>
<td>22.56</td>
<td>17.27</td>
<td>10.41</td>
<td>10.20</td>
<td>NA</td>
</tr>
<tr>
<td>Lithuania</td>
<td>22.52</td>
<td>6.72</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>Belgium and Luxembourg</td>
<td>21.41</td>
<td>7.26</td>
<td>5.80</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>Netherlands</td>
<td>3.99</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>Poland</td>
<td>3.08</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>Value of sawn timber which was supplied by the top ten exporters</td>
<td>1,571.19</td>
<td>967.96</td>
<td>802.75</td>
<td>983.32</td>
<td>NA</td>
</tr>
<tr>
<td>Total value of sawn softwood exported to the UK</td>
<td>1,611.11</td>
<td>980.22</td>
<td>810.17</td>
<td>997.88</td>
<td>NA</td>
</tr>
<tr>
<td>% of exports from top 10</td>
<td>97.52%</td>
<td>98.75%</td>
<td>99.08%</td>
<td>98.54%</td>
<td>NA</td>
</tr>
<tr>
<td>% supplied from Ireland</td>
<td>4.23%</td>
<td>5.25%</td>
<td>6.16%</td>
<td>6.34%</td>
<td>NA</td>
</tr>
</tbody>
</table>

The UK market for forest products by end use type\(^{183}\)

The UK is a key market for sawn softwood and for wood-based panels produced in Ireland. The analysis as shown in Tables 21 to 25 gives an overview of this important market. All 2011 data is estimated\(^{184}\).

\(^{181}\) Source: Eurostat; epp.eurostat.ec.europa.eu

\(^{182}\) NA : Data not available


\(^{184}\) UK forest products data for 2011 is estimated based on the best data available as of 17th May 2012.
Table 21: Share of sawn softwood consumption in the UK by main market (2010-2011).

<table>
<thead>
<tr>
<th></th>
<th>2010</th>
<th>2011e(^{185})</th>
</tr>
</thead>
<tbody>
<tr>
<td>% of annual consumption</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Construction</td>
<td>65</td>
<td>62</td>
</tr>
<tr>
<td>Pallets &amp; packaging</td>
<td>18</td>
<td>18</td>
</tr>
<tr>
<td>Fencing &amp; outdoor</td>
<td>14</td>
<td>17</td>
</tr>
<tr>
<td>Other</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 22: Use of sawn timber in new house construction and in repair, maintenance and improvement (RMI) markets in the UK indexed (2009-2011).

<table>
<thead>
<tr>
<th></th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2002 = 100</td>
<td></td>
<td></td>
</tr>
<tr>
<td>New housing</td>
<td>91</td>
<td>114</td>
<td>123</td>
</tr>
<tr>
<td>RMI housing</td>
<td>81</td>
<td>87</td>
<td>84</td>
</tr>
</tbody>
</table>


<table>
<thead>
<tr>
<th></th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2002 = 100</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pallet production</td>
<td>77.7</td>
<td>62.8</td>
<td>57.9</td>
<td>59.7</td>
</tr>
</tbody>
</table>

Over the period 2007-2011, the utilisation of sawn softwood in the UK has declined by 29%. The breakdown of the use of sawn softwood by market is shown in Table 24.

Table 24 UK sawn softwood utilisation by volume by market (2007-2011).

<table>
<thead>
<tr>
<th></th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>000 cubic metres</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Construction</td>
<td>7,088</td>
<td>5,116</td>
<td>4,842</td>
<td>5,303</td>
<td>4,749</td>
</tr>
<tr>
<td>Pallets &amp; packaging</td>
<td>2,119</td>
<td>1,595</td>
<td>1,431</td>
<td>1,427</td>
<td>1,400</td>
</tr>
<tr>
<td>Fencing &amp; outdoor</td>
<td>1,262</td>
<td>1,142</td>
<td>1,056</td>
<td>1,168</td>
<td>1,272</td>
</tr>
<tr>
<td>Other</td>
<td>250</td>
<td>200</td>
<td>175</td>
<td>200</td>
<td>190</td>
</tr>
<tr>
<td>Total</td>
<td>10,719</td>
<td>8,053</td>
<td>7,505</td>
<td>8,098</td>
<td>7,611</td>
</tr>
</tbody>
</table>

Table 25: UK sawn softwood market by end use by product source (2009-2011).

<table>
<thead>
<tr>
<th></th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>UK imports</td>
<td>UK imports</td>
<td>UK imports</td>
</tr>
<tr>
<td></td>
<td>% market size</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Construction</td>
<td>16</td>
<td>84</td>
<td>17</td>
</tr>
<tr>
<td>Pallets &amp; packaging</td>
<td>64</td>
<td>36</td>
<td>65</td>
</tr>
<tr>
<td>Fencing &amp; outdoor use</td>
<td>86</td>
<td>14</td>
<td>87</td>
</tr>
</tbody>
</table>

\(^{185}\) 2011 use is estimated
Glennon Brothers was established in Longford in 1913. Since then, it has established itself as a respected supplier of quality timber products in Ireland, Europe and in the UK. In 2010, Glennon Brothers won the industry category at the coveted Ernst and Young Entrepreneur (EOY) of the Year Awards. In 2012, it was shortlisted as a national finalist in the European Business Awards. It holds Forest Stewardship Council (FSC) certification for all of its timber processing sites. This guarantees that its timber products are sourced from sustainably managed forests. Until 1998, Glennon Brothers operated from a single site in Longford. A second sawmill operation was acquired in Fermoy, Co. Cork from the Smurfit Group. Since then, Glennon Brothers has embarked on a €25 million investment programme to create a world class timber processing facility at Fermoy. Today, Glennon Brothers employs 350 people directly with a further 175 involved in its timber harvesting and haulage operations. All these jobs are located in rural locations providing a significant boost to rural economies.

Glennon Brothers contributes €35 million annually to the Irish economy. It has invested more than €45 million in the Irish sawmilling industry, principally creating a world class manufacturing facility at its plant in Fermoy. Today, Glennon Brothers has plants in Longford, Fermoy and two in Scotland at Troon and Edinburgh. They operate two timber frame companies, Dempsey Timber Engineering, Arklow, and Alexander’s Timber Design, Troon, Scotland. Over the period 2009-2011, Glennon Brothers doubled its exports from Ireland. Exports reached €20 million compared with €10 million in 2009. In 2010, Mike and Pat Glennon (Joint Managing Directors, Glennon Brothers) won the industry category at the Ernst and Young EOY Awards. In 2011, group turnover at Glennon Brothers exceeded €90 million.

186 http://www.glennonbrothers.ie/index.html
188 These employment numbers are the total number of people who are directly employed by Glennon Brothers in its operations in Ireland and in Scotland
190 http://www.dte.ie
191 www.alexanderstimberdesign.com
Grainger Sawmills was founded in Enniskeane, Co. Cork in 1977. With a processing capacity of 250,000 cubic metres of roundwood per annum, its product range spans the construction, fencing, garden products, pallet and packaging markets. These are sold in both home and export markets. It has also developed long term export markets for forest residues and for sawmill by-products. It employs 92 people directly and a further 148 people indirectly. All of its products are FSC certified.

The majority of the logs which it processes are harvested from within a 120 kilometre radius of Enniskeane. In recent years, Grainger has invested in its kiln drying, combined heat and power (CHP), timber treatment and in its specialised timber finishing facilities.

The Murray Timber Group (MTG) was established in 1977. Today, it employs 135 people directly. Operating from two locations in Ballygar, Co. Galway and at Ballon, Co. Carlow, it operates two world class processing facilities capable of processing in excess of 1,000,000 cubic metres of roundwood on an annual basis.

After kiln drying, all of the structural timber which is produced by the MTG is then planed and graded to ensure that it meets customer quality requirements. All four edges are rounded to provide a construction product which is easy to use and to handle.

The sawn timber which is produced by the MTG is sold in the construction, fencing and packaging markets in Ireland and in the UK. The MTG has always exported pallet and fencing material to the UK market. However, it is now exporting 45% of its sawn structural grade timber to the UK. This is badged with its new SNR (Sustainable Natural Resource) brand.

All sawn timber products which are produced by the MTG are marketed under its SNR brand.
Woodfab Timber was established in 1974. It is a medium sized, Irish, timber processing company located in Aughrim, Co. Wicklow. It produces a wide range of fencing and decking products for both the domestic and UK markets. The main products which it produces include acoustic and farm fencing, D rail, weaves, feather edge boards and timber decking (including handrails and balustrades). In 2001, Woodfab formed a subsidiary company, Woodfab Structures Ltd to produce a new range of fencing and acoustic barriers. It is currently in the process of commissioning a biomass fuelled combined heat and power (CHP) plant.
In 2011, the Irish panel products sector had a combined output of 736,000 cubic metres. This was a 7.8% reduction over 2010 (Table 27). This was caused by the decision of Finsa Forest Products Ltd. to cease manufacturing chipboard in Scariff\(^{203}\). The sector is an active buyer of pulp wood; sawmill residues (i.e. sawdust, woodchip and bark) and post consumer recovered wood (PCRW). In 2011, the estimated annual wood fibre requirement\(^{204}\) (for process use) of the panel mills operating in the Irish Republic was 1.29 million cubic metres.

Table 27: Annual output of the wood-based panel sector in the Republic of Ireland (2007-2011)\(^{205}\).

<table>
<thead>
<tr>
<th>Year</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>Annual output</td>
<td>918</td>
<td>779</td>
<td>709</td>
<td>798</td>
<td>736</td>
</tr>
</tbody>
</table>

The sector is strongly export orientated. In 2011, more than 87% of the panel products which were produced in Ireland were sold in overseas markets.

**Panel products produced**

The products manufactured by the Irish panel products sector include Oriented Strand Board (OSB), Medium Density Fibreboard (MDF) and moulded door facings.

**The value and volume of Irish panel product exports (2008-2011)\(^{206}\)**

In 2011, 87% of the panel products manufactured in Ireland were exported. In total, 616,000 cubic metres of panel products were exported from Ireland to a value of €174 million (Table 28). These exports are dominated by export sales of Oriented Strand Board (OSB) and Medium Density Fibreboard (MDF) products. These products are manufactured by Masonite, Medite and SmartPly.

---

\(^{200}\) http://www.masonite.com/
\(^{201}\) Medite Europe Ltd was established in Clonmel by the Medford Corporation in 1983. In November 2006, Medite was acquired by Coillte; www.medite-europe.com
\(^{202}\) The OSB mill at Slieverue was first established as a joint venture between Coillte and Louisiana-Pacific in 1995. In May 2002, Coillte acquired full ownership of this business. It now trades as SmartPly; www.smartply.com
\(^{204}\) This includes pulpwod, wood chips, sawdust and post consumer recovered wood (PCRW).
\(^{205}\) Source: Woodflow in the Republic of Ireland (2009-2012); COFORD; www.coford.ie.
\(^{206}\) www.coford.ie/open24/pub/ccn-pp18.pdf
Table 28: The annual volume and value of wood-based panel product exports from the Republic of Ireland (2009-2011)\textsuperscript{207}.

<table>
<thead>
<tr>
<th>Exports</th>
<th>000 cubic metres</th>
<th>€ million</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>580</td>
<td>660</td>
</tr>
</tbody>
</table>

Key export markets for Irish panel products (2006-2008)

On average, over the three year period 2006 to 2008, Northern Ireland, the UK and Benelux markets were responsible for 76% of panel exports from the Republic of Ireland. Over the same period, 66% of the panel products which were exported from the Republic of Ireland were sold in the UK and in Northern Ireland (Table 29).

Table 29: Export of panel products from the Republic of Ireland (2006-2008)\textsuperscript{208}.

<table>
<thead>
<tr>
<th>% by market</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>3 year average</th>
</tr>
</thead>
<tbody>
<tr>
<td>% by market</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Great Britain</td>
<td>53.45</td>
<td>61.98</td>
<td>66.43</td>
<td>60.62</td>
</tr>
<tr>
<td>Netherlands</td>
<td>7.50</td>
<td>7.71</td>
<td>5.46</td>
<td>6.89</td>
</tr>
<tr>
<td>Belgium and Luxembourg</td>
<td>4.19</td>
<td>4.09</td>
<td>3.12</td>
<td>3.80</td>
</tr>
<tr>
<td>Northern Ireland</td>
<td>5.33</td>
<td>5.07</td>
<td>4.31</td>
<td>4.90</td>
</tr>
<tr>
<td>Norway</td>
<td>3.28</td>
<td>3.54</td>
<td>4.90</td>
<td>3.91</td>
</tr>
<tr>
<td>France</td>
<td>4.21</td>
<td>4.81</td>
<td>4.92</td>
<td>4.65</td>
</tr>
<tr>
<td>Italy</td>
<td>1.30</td>
<td>1.55</td>
<td>1.25</td>
<td>1.37</td>
</tr>
<tr>
<td>Sweden</td>
<td>1.04</td>
<td>1.92</td>
<td>2.45</td>
<td>1.80</td>
</tr>
<tr>
<td>Finland</td>
<td>3.35</td>
<td>0.07</td>
<td>0.14</td>
<td>1.19</td>
</tr>
<tr>
<td>Poland</td>
<td>0.64</td>
<td>0.37</td>
<td>0.34</td>
<td>0.45</td>
</tr>
<tr>
<td>Denmark</td>
<td>0.93</td>
<td>0.91</td>
<td>0.83</td>
<td>0.89</td>
</tr>
<tr>
<td>Spain</td>
<td>0.44</td>
<td>0.33</td>
<td>0.22</td>
<td>0.33</td>
</tr>
<tr>
<td>Germany</td>
<td>1.08</td>
<td>1.07</td>
<td>1.55</td>
<td>1.23</td>
</tr>
<tr>
<td>USA</td>
<td>2.12</td>
<td>0.02</td>
<td>0.02</td>
<td>0.72</td>
</tr>
<tr>
<td>Czech Republic</td>
<td>0.52</td>
<td>0.25</td>
<td>0.32</td>
<td>0.36</td>
</tr>
<tr>
<td>Israel</td>
<td>0.15</td>
<td>0.04</td>
<td>0.02</td>
<td>0.07</td>
</tr>
<tr>
<td>Russia</td>
<td>0.03</td>
<td>0.17</td>
<td>1.30</td>
<td>0.83</td>
</tr>
<tr>
<td>Georgia</td>
<td>4.47</td>
<td>0.00</td>
<td>0.00</td>
<td>1.49</td>
</tr>
<tr>
<td>Saudi Arabia</td>
<td>1.94</td>
<td>0.00</td>
<td>0.00</td>
<td>0.65</td>
</tr>
<tr>
<td>Turkey</td>
<td>0.00</td>
<td>2.37</td>
<td>0.82</td>
<td>1.06</td>
</tr>
<tr>
<td>Total</td>
<td>95.96</td>
<td>97.30</td>
<td>98.42</td>
<td>97.23</td>
</tr>
<tr>
<td>Great Britain and Northern Ireland</td>
<td>58.78</td>
<td>67.05</td>
<td>70.74</td>
<td>65.53</td>
</tr>
<tr>
<td>Great Britain, Belgium, Luxembourg, Netherlands and Northern Ireland</td>
<td>70.48%</td>
<td>78.85%</td>
<td>79.33%</td>
<td>76.22%</td>
</tr>
<tr>
<td>Panel exports from the Republic of Ireland (000 cubic metres/annum)</td>
<td>898</td>
<td>734</td>
<td>631</td>
<td>754</td>
</tr>
</tbody>
</table>

\textsuperscript{207} Source: Eurostat Joint Forest Sector Questionnaire for Ireland (JFSQ) [2009 and 2010].

\textsuperscript{208} Data source: Central Statistics Office; www.cso.ie
An overview of the Irish forestry and forest products sector 2012

UK imports of particleboard including OSB

In 2010, the Irish panel products sector was the second largest exporter of particleboard and OSB to the UK marketplace. This market share has grown by 271% over the three year period to 2010 (Table 30).

UK imports of MDF

Over the period 2007 to 2010, Ireland was the largest exporter of MDF to the UK marketplace. In addition, Ireland’s market share of the UK market grew from 33% in 2007 to 44% in 2010 (Table 31).


<table>
<thead>
<tr>
<th></th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>Germany</td>
<td>94.64</td>
<td>90.40</td>
<td>51.81</td>
<td>48.61</td>
<td>NA</td>
</tr>
<tr>
<td>Belgium</td>
<td>84.12</td>
<td>44.79</td>
<td>21.61</td>
<td>16.75</td>
<td>NA</td>
</tr>
<tr>
<td>Ireland</td>
<td>50.78</td>
<td>38.28</td>
<td>28.18</td>
<td>39.09</td>
<td>NA</td>
</tr>
<tr>
<td>France</td>
<td>29.94</td>
<td>23.16</td>
<td>9.81</td>
<td>9.87</td>
<td>NA</td>
</tr>
<tr>
<td>Finland</td>
<td>13.36</td>
<td>1.72</td>
<td>2.17</td>
<td>NA</td>
<td></td>
</tr>
<tr>
<td>Austria</td>
<td>12.43</td>
<td>8.18</td>
<td>4.56</td>
<td>4.67</td>
<td>NA</td>
</tr>
<tr>
<td>Netherlands</td>
<td>9.50</td>
<td>7.51</td>
<td>3.64</td>
<td>4.91</td>
<td>NA</td>
</tr>
<tr>
<td>Portugal</td>
<td>9.33</td>
<td>6.57</td>
<td>4.42</td>
<td>3.70</td>
<td>NA</td>
</tr>
<tr>
<td>Spain</td>
<td>5.62</td>
<td>2.95</td>
<td>2.77</td>
<td>NA</td>
<td></td>
</tr>
<tr>
<td>Latvia</td>
<td>1.75</td>
<td>0.78</td>
<td>NA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Italy</td>
<td>2.74</td>
<td>1.66</td>
<td>0.55</td>
<td>0.79</td>
<td>NA</td>
</tr>
<tr>
<td>Total top ten</td>
<td>312.45</td>
<td>225.21</td>
<td>129.09</td>
<td>131.35</td>
<td>NA</td>
</tr>
<tr>
<td>Total exports</td>
<td>314.86</td>
<td>208.55</td>
<td>175.00</td>
<td>171.22</td>
<td>NA</td>
</tr>
<tr>
<td>% top ten</td>
<td>99.23%</td>
<td>99.22%</td>
<td>99.41%</td>
<td>99.52%</td>
<td>NA</td>
</tr>
<tr>
<td>% Ireland</td>
<td>16.13%</td>
<td>16.86%</td>
<td>21.70%</td>
<td>43.79%</td>
<td>NA</td>
</tr>
</tbody>
</table>

209 Source: Eurostat; epp.eurostat.ec.europa.eu
210 The EUROSTAT database does not enable export data for particleboard and OSB to be separated.

Table 31: Top ten exporters of MDF to the UK (2007-2011)211.

<table>
<thead>
<tr>
<th></th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ireland</td>
<td>84.68</td>
<td>68.60</td>
<td>67.50</td>
<td>74.98</td>
<td>NA</td>
</tr>
<tr>
<td>Belgium</td>
<td>63.04</td>
<td>44.23</td>
<td>32.57</td>
<td>28.15</td>
<td>NA</td>
</tr>
<tr>
<td>Austria</td>
<td>8.34</td>
<td>4.06</td>
<td>2.23</td>
<td>2.69</td>
<td>NA</td>
</tr>
<tr>
<td>Germany</td>
<td>36.64</td>
<td>40.21</td>
<td>41.17</td>
<td>33.56</td>
<td>NA</td>
</tr>
<tr>
<td>Spain</td>
<td>35.45</td>
<td>31.74</td>
<td>20.85</td>
<td>17.03</td>
<td>NA</td>
</tr>
<tr>
<td>Poland</td>
<td>8.44</td>
<td>4.58</td>
<td>4.41</td>
<td>5.26</td>
<td>NA</td>
</tr>
<tr>
<td>Portugal</td>
<td>7.32</td>
<td>5.42</td>
<td>1.93</td>
<td>3.12</td>
<td>NA</td>
</tr>
<tr>
<td>Sweden</td>
<td>6.84</td>
<td>3.35</td>
<td>2.09</td>
<td>1.61</td>
<td>NA</td>
</tr>
<tr>
<td>Luxembourg</td>
<td>1.75</td>
<td>1.42</td>
<td>0.26</td>
<td>0.85</td>
<td>NA</td>
</tr>
<tr>
<td>France</td>
<td>1.74</td>
<td>0.70</td>
<td>0.33</td>
<td>0.98</td>
<td>NA</td>
</tr>
<tr>
<td>Total top ten</td>
<td>254.24</td>
<td>204.30</td>
<td>173.34</td>
<td>171.22</td>
<td>NA</td>
</tr>
<tr>
<td>Total</td>
<td>257.83</td>
<td>208.55</td>
<td>175.00</td>
<td>171.22</td>
<td>NA</td>
</tr>
<tr>
<td>% top ten</td>
<td>98.61%</td>
<td>97.96%</td>
<td>99.05%</td>
<td>98.25%</td>
<td>NA</td>
</tr>
<tr>
<td>% Ireland</td>
<td>32.84%</td>
<td>32.89%</td>
<td>38.57%</td>
<td>43.79%</td>
<td>NA</td>
</tr>
</tbody>
</table>

211 Source: Eurostat; epp.eurostat.ec.europa.eu
Coillte Panel Products Ltd. (CPP) was established in June 2007 as part of the Coillte Group. It is an international focused business which operates two wood-based panel facilities, i.e. SmartPly Europe Ltd. producing OSB and Medite Europe Ltd. producing MDF.

Coillte Panel Products’ sales volumes recovered strongly during 2010 and are now back to 2007 levels. The UK market has proved to be particularly resilient for both SmartPly and Medite, primarily due to a combination of excellent distribution channels, strong brands and plywood substitution successes. Overall sales volumes were up 8.4% on 2009.

SmartPly branded OSB is made near Waterford and Medite branded MDF is made in Clonmel. The business exports almost 90% of production and maintains sales and marketing teams in the UK, Ireland and the Netherlands to serve its core markets. An overview of both of these businesses is provided overleaf.
Medite Europe Ltd. has manufactured Medium Density Fibreboard (MDF) at its Clonmel facility since 1983. MDF was first manufactured in the USA in 1966. It is an engineered wood product which is manufactured from wood fibres. These are glued together with resin, heat and pressure. It is suitable for use in many household and industrial applications. These include the production of furniture, the manufacture of laminate flooring, shopfitting and the production of architectural mouldings. MDF is favoured by manufacturers and by end users as it is smooth, uniform and it is not prone to warping.

30 years ago Medite were pioneers in first introducing MDF to European markets. Today, Medite products are recognised as the benchmark for quality, consistency and performance in MDF. Medite has led the market in technical innovation, introducing such advances as extra-smooth, moisture resistant (MR), flame retardant (FR), exterior grade, zero-added formaldehyde and flooring quality MDF products. Medite Tricoya was introduced in 2011.

The quality of indoor air has long been a live issue for panel products throughout Europe. Now, as international retailers develop formaldehyde reduction strategies, regulations from the California Air Resources Board (CARB) will set the toughest production standard in the world. It's a step change. From January 2010, all Medite MDF is CARB 2 compliant. This was more than a year before the CARB 2 regulation became compulsory in the USA.

All of Medite's MDF products have chain of custody (CoC) certification from the Forest Stewardship Council (FSC).

SmartPly Europe is part of Coillte Panel Products (CPP). It manufactures SmartPly Oriented Strand Board (OSB) at its production facility in Slieverue, Co. Kilkenny. In 2010, Coillte Panel Products completed development of the proposed value added business model for SmartPly, which supports the case for renewal of the SmartPly facility. CPP has recently published a tender for the provision of a new continuous press for SmartPly. This will have a production capacity of 330,000 cubic metres per annum.

OSB is an innovative, environmentally sustainable, timber-based solution for structural and non-structural building applications. It was initially developed as an alternative to plywood. There are two grades of OSB.

OSB 3 is a strong, versatile, load-bearing panel for structural use in humid environments. It is ideally suited for use in timber frame housing, roofing applications, wall sheathing and flooring.

OSB 2 is a general purpose board making it ideal for applications such as hoarding, sheathing and temporary formwork.
SmartPly OSB is manufactured in Slieverue, Co. Kilkenny. It is largely used for wall sheathing, roofing and flooring applications in construction projects.

OSB has no structural defects, such as knot holes and core voids, and is easy to work with. It cuts easily and will not delaminate. It can be bored, routed and planed with consistent results.

SmartPly OSB is an FSC certified, environmentally friendly wood panel product which is suitable for a range of structural and non-structural applications. These include wall sheathing, roofing, flooring, hoarding, packaging, furniture, DIY and general building applications.

SmartPly is a good alternative to plywood because it does not delaminate, has no knotholes or other structural defects and is easy to work with. It is bonded with waterproof glue for exterior use and is ideal for a wide range of uses. It is widely available from builder’s merchants in the following grades:

**SmartPly 2** is a general purpose building panel manufactured to EN300 standard. It is recommended for general non-structural building purposes and structural applications in dry conditions. It is ideal for general hoarding, signboards, furniture and temporary framework.

**SmartPly 3** is a strong, versatile board suitable for structural use in humid conditions. It is ideal for use in a range of applications including roofing, flooring and hoarding. This product is also approved for structural use by the British Board of Agrément (BBA), Irish Agrément Board (IAB), Dutch Agrément Board (KOMO), National House Building Council (NHBC) and Local Authority Building Inspectors.

**SmartPly SiteProtect** is an innovative new product which was launched in January, 2009. It is a durable coated panel specifically designed for use as site hoarding and for security applications. The manufacture of SiteProtect uses the SmartPly OSB3 board as its substrate. This is then coated with a smooth heavy duty exterior surface treatment. As a result of this process, a hoarding which is built using SiteProtect does not need to be primed. This results in significant time and cost savings for the builder or contactor. In addition, logos can be fixed directly to SiteProtect. The smooth surface of SiteProtect requires fewer coats of paint than competing products to achieve a similar finish.

All SmartPly’s OSB products have chain of custody (CoC) certification from the Forest Stewardship Council (FSC).

---

**Finse Forest Products (FFP)** is a well-established particleboard manufacturer. Based in Scariff, Co Clare, it is a subsidiary of the Spanish company Financiera Maderera SA (Finsa). Finsa acquired the Scariff facility 1984. In early 2011, Finsa announced that they were ceasing producing chipboard at Scariff. However, Finsa will continue to sell wood-based panels in Ireland which are sourced from its sister plants in Spain and Portugal.
Masonite operates a state of the art production facility for the manufacture of mounded fibreboard door facings at Carrick-on-Shannon, Co. Leitrim. These are supplied to other door manufacturers within the Masonite Group and to other door manufacturers throughout Europe, North Africa and the Middle East.

Masonite commenced production in Carrick-on-Shannon in 1997 following a $138 million investment. The facility processes wood waste and sawmill residues to manufacture high quality moulded door facings. 99% of the output from this facility is exported.

Masonite is known worldwide for innovation, quality products, exceptional customer service and a commitment to excellence. Over 80 years of dedication to innovation, technical advancements and customers make Masonite the brand that builders, remodelers and consumers choose when creating homes of distinction.

Headquartered in Tampa, Florida, Masonite employs over seven thousand people worldwide. At Masonite, employees from all parts of the company understand that people love their homes. Masonite is continually creating new and innovative products that will make any home more beautiful, more valuable and more enjoyable. All Masonite Ireland’s products have chain of custody (CoC) certification from the Forest Stewardship Council (FSC)239.

237 http://www.masonite-europe.com/
238 www.masonite.com
239 www.fsc.org
Wood biomass energy sector\(^{240}\)

Energy produced from wood biomass is renewable, considered carbon neutral and is sustainable. Greenhouse gas emissions (GHG) from the sustainable combustion of wood are not counted under the Kyoto Protocol, as trees that are used for fuel are replaced in the forest\(^{241}\).

The Irish wood based energy sector is still in the early stages of its development. How this sector will develop and how it will contribute to the development of renewable energy output is currently a topic of debate. Renewable thermal energy use in Ireland is dominated by biomass, in particular the use of waste wood to produce thermal energy during the manufacture of panel products, in sawmills and at wood processing plants. Thermal biomass energy is also produced using meat and bone meal (MBM) and tallow. Both are produced in rendering plants. The emerging wood biomass sector in Ireland provides a new market for wood fibre. This demand can be supplied by roundwood and/or by the use of sawmill residues.

There is significant potential to develop Ireland’s bioenergy resources. This includes the potential for wood biomass to displace fossil fuel, particularly for the generation of heat. By 2015, the wood energy business in Ireland is capable of utilising over 1 million cubic metres of woodchip/pulpwood per annum\(^{242}\). The National Bioenergy Action Plan\(^{243}\) aims to increase the use of renewable energy in three key sectors: transport, heat and electricity. The main driver for same is the National Renewable Energy Action Plan (NREAP)\(^{244}\). This is outlined below.

**National Renewable Energy Action Plan (NREAP)**

Under the EU Renewable Energy Directive, Ireland’s target for 2020 is for renewable energy sources to provide 16% of final energy consumption\(^{245}\). By 2020, a third of all the electricity which will be consumed in Ireland will be generated from renewable sources. This target has since been increased to 40%. By 2020, all peat fired power generation stations will be 30% co-fired.

---

\(^{240}\) A case study on the economic contribution of the biomass sector is shown on page 70


\(^{242}\) http://www.agriculture.gov.ie/media/migration/forestry/forestryreview/submissionsreieved/Reps%20of%20the%20Private%20Forestry%20Sector.pdf


\(^{245}\) Source: Sustainable Energy Ireland (SEI); www.sei.ie; now SEAI; www.seai.ie
with wood biomass. Renewable heat will provide 12% of Ireland’s heat demand. These national renewable energy targets are shown in Table 32.

Table 32: Renewable energy targets to 2020 by type\textsuperscript{246}.

<table>
<thead>
<tr>
<th>Year</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Renewable heat (RES-H)</td>
<td>8</td>
<td>9</td>
<td>10</td>
<td>10</td>
<td>11</td>
<td>12</td>
</tr>
<tr>
<td>Renewable electricity (RES-E)</td>
<td>34</td>
<td>36</td>
<td>38</td>
<td>40</td>
<td>42</td>
<td>44</td>
</tr>
<tr>
<td>Renewable transport (RES-T)</td>
<td>7</td>
<td>7</td>
<td>9</td>
<td>9</td>
<td>10</td>
<td>11</td>
</tr>
<tr>
<td>Overall RES</td>
<td>12</td>
<td>12</td>
<td>13</td>
<td>14</td>
<td>15</td>
<td>16</td>
</tr>
</tbody>
</table>

The Irish Government’s ambitions for renewable energy and the related national targets are fully commensurate with the European Union’s energy policy objectives and the targets addressed to Ireland under the EU Renewable Energy Directive\textsuperscript{247}. Ireland’s energy efficiency ambitions (20% by 2020) as set out in the national Energy Efficiency Action Plan are duly reflected in the NREAP. The areas of NREAP which affect the wood biomass sector are renewable heat (RES-H) and renewable electricity (RES-E). These are outlined below.

**Renewable heat (RES-H)**

The Government has set a target of 12% renewable heat by 2020. The related programmes and supports are designed to support the achievement of this target. For historical, geographical and demographic reasons, renewable heat poses considerable challenges for Ireland, which the Government is determined to address.

**Renewable electricity (RES-E)**

The Government has set a target of 40% electricity consumption from renewable sources by 2020. In the last 5 years in particular, Ireland has made huge strides in accelerating renewable generation (RES-E). In the 2001 European RES-E Directive, Ireland was set a target of moving from 3.6% RES-E to 13.2% RES-E by 2010. Ireland achieved 14.4% RES-E in 2009 and was on track to exceed the national target of 15% in 2010.

The main support scheme for RES-E is REFIT (Renewable Energy Feed-In Tariff). This scheme currently covers onshore wind (large and small scale), small scale hydro, biomass landfill gas and other biomass. Subject to state aid clearance, REFIT will also be offered for Anaerobic Digestion/High Efficiency CHP, ocean (wave and tidal) energy and offshore wind.

**Renewable Energy Feed-In Tariff (REFIT)**

The REFIT\textsuperscript{248} scheme provides support to renewable energy projects over a 15 year period. The new support mechanism differs from the previous programme in that it operates as a fixed feed-in tariff mechanism rather than as a competitive tendering process. Applicants to REFIT must have planning permission and a grid connection offer for their project.

In May 2010, a revised set of REFIT tariffs for biomass combustion, anaerobic digestion (AD) and biomass fuelled combined heat and power (CHP) were announced by the Department of Communications, Energy and Natural Resources (DCENR). These REFIT tariffs will provide grant support to assist the deployment of CHP systems which are fuelled by biomass (Table 33). A REFIT tender for biomass generated electricity is currently being conducted for the period 2013-2015\textsuperscript{249}.

Table 33: REFIT tariffs under the new SEAI CHP/AD CHP schemes.

<table>
<thead>
<tr>
<th>Project Type</th>
<th>REFIT tariff (€/MWh)</th>
</tr>
</thead>
<tbody>
<tr>
<td>AD CHP ≤ 500 kW</td>
<td>150</td>
</tr>
<tr>
<td>AD CHP &gt; 500 kW</td>
<td>130</td>
</tr>
<tr>
<td>AD (non CHP) ≤ 500 kW</td>
<td>110</td>
</tr>
<tr>
<td>AD (non CHP) &gt; 500 kW</td>
<td>100</td>
</tr>
<tr>
<td>Biomass CHP ≤ 1,500 kW</td>
<td>140</td>
</tr>
<tr>
<td>Biomass CHP &gt; 1,500 kW</td>
<td>120</td>
</tr>
<tr>
<td>Biomass combustion using energy crops</td>
<td>95</td>
</tr>
<tr>
<td>Biomass combustion using all other biomass</td>
<td>85</td>
</tr>
</tbody>
</table>

Those who are considering investing in biomass technologies require certainty and appropriate pricing for supply. IFFPA believes that to produce an adequate level of return, those who are successful under REFIT would require a REFIT tariff of €140 to €150 per megawatt hour (MWh).

\textsuperscript{246} \url{http://www.mnag.ie/workshop_2010_7_2172276902.pdf}
\textsuperscript{247} \url{http://www.commission.europa.eu/energy/strategy/rde/index_en.htm}
\textsuperscript{248} \url{http://www.dcenr.gov.ie/Energy/Sustainable and Renewable Energy/REFIT.htm}
\textsuperscript{249} \url{http://www.dcenr.gov.ie/NR/rdonlyres/66F84902-6F06-49B8-8861-4AAE0664FFFD/0/BiomassREFITTermsandConditionsTransferring.pdf}
Demand for biomass to 2020

Overall demand for roundwood is forecast to increase from 4.295 million cubic metres in 2011 to 6.038 million cubic metres by 2020 (Table 34).

Table 34: Estimated roundwood demand on the island of Ireland in 2011 and 2020\(^{250}\).

<table>
<thead>
<tr>
<th></th>
<th>2011</th>
<th>2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>000 cubic metres overbark</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Conventional demand(^{251})</td>
<td>3,456</td>
<td>3,830</td>
</tr>
<tr>
<td>Demand for forest-based biomass for energy production</td>
<td>1,589</td>
<td>3,084</td>
</tr>
<tr>
<td>Residues from conventional demand which are used to meet energy demand(^{252,253})</td>
<td>-750</td>
<td>-876</td>
</tr>
<tr>
<td>Total</td>
<td>4,295</td>
<td>6,038</td>
</tr>
</tbody>
</table>

Based on scenario modelling\(^{254}\), the Sustainable Energy Authority of Ireland (SEAI) forecasts that by 2020, the demand for biomass for energy in the Republic of Ireland will be 53 million Gigajoules (GJ). Forest-based biomass and waste resources could deliver about 9 million GJ each, with agricultural residues having the potential to supply a further 8 million GJ. The balance of supply is likely to comprise indigenous purpose-grown energy crops and imported biomass.

The demand for forest-based biomass for energy in 2011 and in 2020 is an aggregate of the demand for combined heat and power (CHP), heat only and co-firing. The expected demand levels (for roundwood) in 2011 and 2020 are shown in Table 34. To meet the 2020 renewable energy targets, the demand for forest-based biomass for energy production will need to double over the period 2011 to 2020 (Table 35). This is a challenging target. However, experience in Scotland and in Austria has shown that biomass use can grow to meet challenging renewable energy targets.

Table 35: Estimated annual demand for forest-based biomass for energy production on the island of Ireland in 2011 and 2020\(^{255}\).

<table>
<thead>
<tr>
<th></th>
<th>2011</th>
<th>2020</th>
<th>2011</th>
<th>2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>000 cubic metres overbark</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CHP</td>
<td>388</td>
<td>1,550</td>
<td>24</td>
<td>50</td>
</tr>
<tr>
<td>Heat only</td>
<td>1,092</td>
<td>1,425</td>
<td>69</td>
<td>46</td>
</tr>
<tr>
<td>Co-firing</td>
<td>109</td>
<td>109</td>
<td>7</td>
<td>4</td>
</tr>
<tr>
<td>Total</td>
<td>1,589</td>
<td>3,084</td>
<td>100</td>
<td>100</td>
</tr>
</tbody>
</table>

Achieving renewable energy targets will require significant investment in biomass fuelled combined heat and power (CHP). Before becoming operational, such facilities have at least a 2-year lead-in period.

Wood biomass use in Ireland (2008-2010)

The use of wood biomass energy in Ireland is dominated by the forest products sector, which uses it for process drying and for energy purposes. However, since 2007, the use of wood energy by commercial and domestic users has risen considerably\(^{256}\). A case study on the economic benefits of wood biomass use is shown on page 69.

A recent study\(^{257}\) has shown that the Irish market for firewood has grown by 46% over the period 2006-2011. In 2010, 199,000 cubic metres of roundwood was sold in Ireland to a value of €28.80 million (Table 36). This harvest level is significantly above that which had been estimated for previous years and shows that the Irish firewood market is providing a steady and a growing market for farm forest thinnings.

\(^{250}\) http://www.coford.ie/media/coford/content/publications/projectreports/roundwooddemand2011/COFORD_demand01Mar11.pdf

\(^{251}\) Conventional demand is roundwood used (for processing) by the sawmilling and by the boardmill sectors.

\(^{252}\) A portion of sawmill and panel residues is used for process drying and for the production of energy. In 2011, it is estimated that 750,000 cubic metres overbark of such residues will be thus used on the island of Ireland. To avoid double counting, the demand for forest-based biomass (for energy production) is discounted by 750,000 cubic metres overbark. It is estimated that by 2020 the use of sawmill/panel residues for energy production will have increased to 876,000 cubic metres overbark

\(^{253}\) Post consumer recovered wood is excluded from this analysis

\(^{254}\) This is based on data available as of 2/11/2010.

\(^{255}\) http://www.coford.ie/media/coford/content/publications/projectreports/roundwooddemand2011/COFORD_demand01Mar11.pdf

\(^{256}\) Biomass data for 2011 was not available at the time of the writing of the IFFPA Review (2012)

\(^{257}\) EUROSTAT Joint Forest Sector Questionnaire (JFSQ) as undertaken by drima marketing on behalf of the Department of Agriculture, Food and the Marine.
Biomass supply streams

Not all biomass will be supplied from forest resources. Of the 53 million Gigajoules (GJ) of biomass that are expected to be required by 2020, forest-based biomass and waste resources could deliver about 9 million GJ each, with agricultural residues having the potential to supply a further 8 million GJ. The balance of supply would be made up of indigenous purpose-grown energy crops and imported biomass (Table 37)\(^{261}\).

Table 37: Estimated supply streams which will be available to meet the biomass demand for energy production in the Republic of Ireland in 2020\(^{262}\).

<table>
<thead>
<tr>
<th>Estimated annual supply</th>
<th>Million GJ</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biomass segregated from waste stream</td>
<td>9</td>
<td>17</td>
</tr>
<tr>
<td>Forest-based biomass</td>
<td>9</td>
<td>17</td>
</tr>
<tr>
<td>Agricultural residues</td>
<td>8</td>
<td>15</td>
</tr>
<tr>
<td>Indigenous purpose-grown energy crops and imported biomass</td>
<td>27</td>
<td>51</td>
</tr>
<tr>
<td>Total</td>
<td>53</td>
<td>100</td>
</tr>
<tr>
<td>Roundwood equivalent(^{263}) at 40-45% moisture content in million cubic metres</td>
<td>7.5</td>
<td></td>
</tr>
<tr>
<td>Roundwood equivalent at 4-45% moisture content in million tonnes</td>
<td>5.5</td>
<td></td>
</tr>
</tbody>
</table>

Co-firing of wood biomass

Over the period 2008 to 2010, the peat burning power station Edenderry Power\(^{264}\) increased its use of wood biomass fibre for use in co-firing by 579% (Table 38).

---

\(^{258}\) Source: EUROSTAT JWEE return for Ireland (2009-2011).

\(^{259}\) This includes co-firing of wood biomass at Edenderry Power; www.edenderrypower.ie

\(^{260}\) In 2008, the requirement for wood biomass use by this sector declined in line with the decline in Wood Based Panel (WBP) output.

\(^{261}\) This supply data is based on work which was undertaken by the COFORD Roundwood Supply Group (2010) http://www.coford.ie/media/coford/content/publications/projectreports/roundwood/Roundwood%20Prod%20Forecast%20LR%20June%202010.pdf

\(^{262}\) Data source: SEAI; www.seai.ie

\(^{263}\) http://www.teagasc.ie/forestry/docs/events/Roundwood_S_D_Eugene_Hendrick.pdf

\(^{264}\) www.edenderrypower.ie
### Table 38: Use of wood biomass energy at Edenderry Power (2008-2010)

<table>
<thead>
<tr>
<th>Biomass type</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Forest materials</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wood chip</td>
<td>10,193</td>
<td>42,845</td>
<td>51,832</td>
</tr>
<tr>
<td>Sawdust</td>
<td>6,688</td>
<td>9,286</td>
<td>9,273</td>
</tr>
<tr>
<td>Energy crops</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Willow chips</td>
<td>711</td>
<td>0</td>
<td>5,156</td>
</tr>
<tr>
<td>Miscanthus</td>
<td>296</td>
<td>231</td>
<td>1,979</td>
</tr>
<tr>
<td>Black oats</td>
<td>0</td>
<td>0</td>
<td>99</td>
</tr>
<tr>
<td>Dry materials</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wood pellets</td>
<td>1,025</td>
<td>14,034</td>
<td>20,391</td>
</tr>
<tr>
<td>Palm kernel shells</td>
<td>100</td>
<td>0</td>
<td>16,660</td>
</tr>
<tr>
<td>Almond shells</td>
<td>0</td>
<td>0</td>
<td>4,898</td>
</tr>
<tr>
<td>Other agri-residues</td>
<td>114</td>
<td>266</td>
<td>520</td>
</tr>
<tr>
<td>Total</td>
<td>19,127</td>
<td>66,662</td>
<td>110,808</td>
</tr>
<tr>
<td>Total sawmill residues used</td>
<td>16,881</td>
<td>52,131</td>
<td>61,105</td>
</tr>
<tr>
<td>Sawmill residues %</td>
<td>88.26</td>
<td>78.20</td>
<td>55.14</td>
</tr>
</tbody>
</table>

The forecast demand for wood biomass fibre for co-firing at Edenderry Power is shown in Table 39.

### Table 39: Estimated demand for wood fibre for co-firing at Edenderry Power (2010-2020)

| 000 tonnes/annum |
|-------------------|--------|--------|--------|
| 2010              | 110    |        |        |
| 2011              | 150    |        |        |
| 2012              | 180    |        |        |
| 2013              | 220    |        |        |
| 2014              | 260    |        |        |
| 2015              | 300    |        |        |
| 2020              | 500    |        |        |

### Efficiency of biomass energy systems

To generate the maximum level of return, it is important that the Irish wood biomass resource is used as efficiently and as cost effectively as possible. If wood fibre is to be used for the production of biomass energy, this means placing a greater emphasis on utilising this biomass resource in localised combined heat and power (CHP) and heat only plants where efficiencies are greater than 80%, rather than co-firing wood biomass with peat and/or with coal fired power stations where efficiency is less than 35%.

### Timber frame housing

A new timber frame house being constructed in Ireland, for which the timber frame kit was supplied by Dempsey Timber Engineering (DTE), a subsidiary of Glennon Brothers.

The timber frame sector has been a significant user of both construction timber and of wood based panels. Over the period 1992 to 2006, the use of timber frame housing in the Irish construction sector grew from a market share of 5% in 1992 to 30% in 2006. However, since 2006, the output of this sector has contracted in line with the overall fall in construction activity. In order to better match supply with demand, many timber frame manufacturers have closed or have taken short-time.

Glennon Brothers operate timber frame businesses in Ireland and Scotland. This has provided a second route to market for the sawn construction grade timber which Glennon Brothers produces in its Irish and Scottish sawmills.

---


266 Source: Bord na Móna; www.bordnamona.ie


268 i.e. market share is taken as the percentage of new house/apartment completions which are constructed using timber frame methods.

269 Source: Irish timber frame manufacturers association; www.itfma.ie
The environmental and recreational benefits of Irish forests are outlined below.

Bio-diversity

Bio-diversity describes the variability among living organisms and the ecosystems of which they are part. Three conceptual levels of bio-diversity are recognised i.e. ecosystem, species and genetic. Ireland's forests create an opportunity to conserve and enhance bio-diversity at both local and national levels.

Although little native woodland remains in Ireland today, the total forest cover has increased through afforestation programmes supported by both the Irish Government, and by the European Union (EU). The strategic aim for forestry in Ireland as outlined in ‘Growing for the Future’ is to increase Irish forest cover to 17% by 2030. These new plantations are managed principally for timber production and are dominated by non-native trees, particularly North American conifers such as Sitka spruce (Picea sitchensis) and Lodgepole pine (Pinus contorta), although in recent years there has been an increase in the planting of broadleaved species such as Oak (Quercus spp) and Ash (Fraxinus excelsior).

Careful management of Ireland’s forests is essential to ensure that the bio-diversity which they support is not threatened. While this goal is achievable, in order to promote forest bio-diversity and to fully practice sustainable forest management, it is necessary that we first have a comprehensive understanding of the biota associated with our forest plantations. COFORD, together with the Irish Environmental Protection Agency (EPA) funded the Bioforest research project. This project ran from 2001 to 2006 and brought together researchers from University College Cork (UCC), Trinity College Dublin (TCD) and Coillte in a multi-disciplinary study of bio-diversity in Irish plantations forests during their first rotation. This project studied more than 100 forest sites distributed around Ireland. Tree species composition and the age of the forest were both key elements of the site selection, as well as the nature of the soil, the previous land use or habitat and the surrounding landscape. Sitka spruce and Ash-dominated forests are the main forest types investigated by this the study, but Larch forests also formed a component of the study.

Key indicator organisms studied were:

- Animals - birds, hoverflies, spiders and to a lesser extent moths and beetles.
- Plants - higher plants, ferns, mosses, liverworts and lichens.

The results of the project were encouraging and it concluded that the promotion of bio-diversity in forestry requires the support of good policies and practices. Recommendations arising from the project addressed many aspects of forestry from strategic planning to localised planning and practice. Today, all grant-aided forest development in Ireland must conform to the Forest Service’s Forest Bio-diversity Guidelines. These focus on how best to conserve and enhance bio-diversity in Irish forests through appropriate planning, conservation and management.

Following the success of the Bioforest project, COFORD has recently pledged over €3 million to support the six year Planforbio research programme. This will focus on bio-diversity in plantation forests in their second rotation. More recent research has shown that Irish forests are home to a diversity of birds as well as nationally important populations of some rare or declining species. These include the hen harrier, nightjar and merlin. Irish forests may also provide opportunities for other bird species to colonise Ireland. In addition, conifer plantations in Ireland provide strongholds for the native red squirrel.
In recent years, the management of Ireland’s forests has changed from having a single goal of timber production to having a multiple use approach to forest management. This includes the production of a range of wood products, the promotion of forest biodiversity, acting as a carbon sink and facilitating widespread leisure use. Several policy measures support this multiple use approach. These include Ireland’s National Biodiversity Plan[280], the Forest Service’s Forest Biodiversity Guidelines[281], the Forest Service’s Native Woodland Scheme[282] and the Forestry Environment Protection (afforestation) Scheme (FEPS)[283].

Irish forests and carbon[284, 285]

Forests play a significant role in mitigating climate change by removing carbon dioxide from the atmosphere and converting it to carbon, which is then stored in the wood and vegetation of trees. This process is known as carbon sequestration. Ireland signed the Kyoto Protocol to the UN Framework Convention on Climate Change[286] in 1997. The agreement came into force in 2005. Under the terms of this agreement, Ireland is committed to limiting the growth in emissions of greenhouse gases (GHG) to 13% above the 1990 output[287].

The Irish forestry sector has a key role to play in addressing climate change, through carbon sequestration and through the development of renewable energy resources. Forest areas established as a result of grant aid under the State/European Union (EU) funded afforestation schemes since 1990 are expected to contribute an annual average emission reduction between 1.56 and 2.39 million tonnes of carbon dioxide (CO₂) over the first commitment period of the Kyoto Protocol (2008-2012). There is also a significant potential for wood fuel to displace fossil fuel, particularly in the generation of heat in industrial, commercial, domestic and institutional markets.

Estimates of the potential role of forests in avoiding excess emissions have been produced for Ireland. Recent research work has shown that the average rate of carbon storage in Irish forests is between 4 to 8 tonnes of carbon/hectare/annum[288]. Based on conservative estimates, this equates to the sequestration of 10 tonnes of carbon dioxide (CO₂)/hectare/annum[289]. Under the terms of the Kyoto Protocol[290], the impact of new forests planted since 1990 may be counted as net effects in terms of a country’s total greenhouse gas (GHG) emissions. If planting targets were achieved, carbon sequestration by new forests in Ireland would offset approximately 43% of Ireland’s projected surplus greenhouse gas emissions in 2012. It is estimated that over the first commitment period of the Kyoto Protocol (2008-2012) that these forests would sequester a total of 11 million tonnes of carbon. Based on an average price of €20 per tonne this represents a total projected annual saving to the Irish taxpayer of €220 million[291].

However, emissions and removals related to land use, land use change and forestry (LULUCF) are currently not included in the EU 2020 target. The effort-sharing decision mandates the European Commission to consider legislation for carbon sinks to be included in meeting national targets for the non-ETS (emission trading system) sector, regardless of the absence of an international agreement, with effect from 1st January 2011. On March 12th 2012, the Commission produced proposals to harmonise technical rules on accounting for LULUCF across the European Union (EU). The proposal is accompanied by an obligation for each Member State to adopt action plans on how they will increase removals of carbon and decrease emissions of greenhouse gases in forests and soils throughout the European Union (EU). However, the proposal does not set a target for emission reductions in the LULUCF sector. The Commission stated reasoning is that LULUCF accounting must prove robust before setting targets. It is now up to the European Parliament and the Council of the European Union to approve the decision through the ordinary legislative procedure. In Ireland, forest sinks are projected to provide a further removal of 4.8 million tonnes of carbon dioxide (CO₂) in 2020 (relative to 1990) i.e. LULUCF could in the right circumstances play a role in mitigation strategies for Ireland. However, the current Commission proposals will not lead to Ireland being able to use LULUCF to narrow its gap to target for its 2013-2020 emission mitigation obligations[292].

---

280 www.npws.ie/\en/\_\NationalBiodiversityPlan
281 www.agriculture.gov.ie/media/migration/forestry/\_\biodiversity.pdf
282 www.client.teagasc.ie/\_\Native\%20Woodland\%20Scheme.pdf
283 www.agriculture.gov.ie/\_\forestry/\_\schemes/FEPSSchemeDocUpdatedSept2009040210.doc
284 www.environ.ie/\en/\PublicationsDocuments/\File\Download186\en.pdf
285 Carbon sequestration and Irish forest ecosystems; Kevin G. Black and Edward P. Farrell; COFORD, 2006.
286 unfcc.int/kyoto_protocol/\items/2B30.php
287 220 million[291].
289 www.coford.ie
290 unfcc.int/kyoto_protocol/\items/2B30.php
IFFPA supports the inclusion of carbon sinks and LULUCF in meeting Ireland’s post-2020 emission targets or initiatives that support this objective, if economically beneficial.

IFFPA believes that if current annual planting levels of 7,500 hectares continue, then there will be a loss of an opportunity to sequester 45 million tonnes of carbon dioxide (CO₂) over the period 2035-2055. To ensure that carbon sequestration from Irish forests remains at a sustainable positive level in the future, IFFPA supports a planting programme of at least 15,000 hectares per annum. This is supported by the Irish Timber Growers Association (ITGA), which states that ‘an afforestation programme of 15,000 hectares per annum would be necessary for Ireland to meet its carbon sequestration obligations on a sustainable basis’.

Forest recreation in Ireland

While walking is the most popular activity, forest recreation embraces other specialised activities including orienteering, mountain biking, horse riding and fishing. Irish forests are well served with roads, tracks, rides, and increasingly with purpose built trail and cycle tracks in selected locations. The management, conservation and access to forests are essential to Irish tourism; both as a recreational asset for visitors as well as providing an opportunity to experience the uniqueness of Ireland’s bio-diversity. A report on forest recreation in Ireland undertaken by Fitzpatrick and Associates (2005) has estimated that 18 million people visit Irish forests per annum. Coillte and the National Parks and Wildlife Service (NPWS) provide access to 445,000 hectares of forest and to 66,000 hectares of National Parks.

Developed recreational trails and forest infrastructure are an integral part of both the walking and cycling tourism product in Ireland. The majority of visitors to forest areas and trails are not specialist users and are unlikely to stay for more than three hours or engage in active hiking or other specialist sports. The forest estate in Ireland is well distributed across the country and as such can provide recreational opportunities to an increasingly urbanised population.

Professional/managerial socio-economic groups are more likely to visit trails and forest areas, while people in older age groups were found to visit trails and forests more frequently; this indicates a likely increase in demand as Ireland’s population ages. Coillte is a major provider of walking trails, and has over 8,000 kilometres of forest roads which are available to walkers.

Walking and cycling tourism is a growth market for overseas visitors to Ireland. Walking tourism offers valuable business opportunities in remote rural areas, which attract less general traffic. Since 2006, €3 million has been invested by Coillte and by Fáilte Ireland in the upgrading and the development of walking and cycling trails.

Walking and mountain biking trails in Irish forests.
trails in key visitor locations around the country. This funding is supported by the National Development Plan (NDP). The potential for continued economic growth is significant. Walking in Ireland is very well regarded and is effective in terms of identifiable tourist segments. In 2008, 517,000 visitors participated in walking while holidaying in Ireland, spending an estimated €364 million. 120,000 visitors took part in cycling whilst holidaying in Ireland with an estimated spend of €103 million\(^{301}\).

A recent survey of private forest owners gave timber production as the main objective for their forest but 42% of those surveyed included recreation as an objective.

Fitzpatrick and Associates estimated that the annual 18 million visits to Irish forests provide a non-market value of €97 million or €5.40 per person. The total economic activity generated by domestic forest users is estimated at €268 million. Walking tourism, which is generally undertaken by overseas visitors, accounts for a further €138 million per annum.

In May 2008, the Dublin Mountains Partnership (DMP)\(^{302}\) was set up. This has the ultimate aim of improving the recreational experience for users of the Dublin Mountains, whilst recognising the objectives and constraints of the various landowners. The partner organisations involved are Coillte, South Dublin County Council, Dún Laoghaire Rathdown County Council, Dublin City Council, the National Parks and Wildlife Service (NPWS) and the Dublin Mountains Initiative, an umbrella group representing the recreation users of the Dublin Mountains. In October 2010, the Dublin Mountains Way (DMW) was officially opened. The entire 43 kilometre route which runs from Shankill to Tallaght is now fully waymarked\(^{303}\).

In 2008, 73% of all visitors to Ireland said that they were ‘very satisfied with their walking experience while holidaying in Ireland’. In order to continue to attract visitors who wish to partake in both walking and cycling activities while holidaying in Ireland, further development of forest parks and recreation sites as well as continued upgrading and maintenance of both looped and linear long distance trails in forests is essential\(^{304}\).

In June 2011, the Irish Sports Council and Coillte agreed an extension to the very successful trails and forest recreation programme that has been in operation for the last three years and supports active participation in outdoor activities and rural tourism.

This initiative, which supports a national technical trails advisor and three regional trail managers within Coillte has delivered many new trail and forest recreation projects throughout the country over the past three years and has also led to very successful initiatives like the National Trails Day, which was run for the fourth time on October 2\(^{nd}\) 2011. Funding of €260,000 has been put in place by the Irish Sports Council to fund this programme with Coillte for 2011/2012\(^{305}\).

---

\(^{301}\) Source: Fáilte Ireland ; www.failteireland.ie

\(^{302}\) http://www.dublinmountains.ie/home/

\(^{303}\) http://www.coillteoutdoors.ie/index.php?id=125

\(^{304}\) http://www.agriculture.gov.ie/media/migration/forestry/ forestryreview/submissionsreceived/Sub%2051%20Fai%20ireland.pdf

These case studies show how IFFPA members and other members of the Irish forestry sector can improve, expand, innovate, employ and export.

Forestry - the local perspective

As this document’s primary focus is to report on how the forestry and forest products sector has performed across the entire Irish economy, it can be missed that the sector also delivers strongly for local economies throughout the country. To demonstrate this, the authors have chosen to go to the county level with a view to identifying what the sector is delivering in terms of employment and local wealth at that level. Leitrim was chosen due to the presence of large tracts of forestry, harvesting and hauling contractors as well as having one of Ireland’s largest wood-based panel plants which exported 100% of its produce in 2011.

Setting the scene

After Wicklow, Leitrim is the county with the second highest level of afforestation in Ireland at 16.5%. In 2010, there was 25,152 hectares of forest in Leitrim, approximately 50% of which is privately owned. As is common throughout Ireland, the private forest estate is made up of numerous small forest holdings that are highly productive in terms of forest growth due to Leitrim’s inherent suitability for forestry.

Over the period 1998-2010, a total of 9,014 hectares of forest have been planted in Leitrim, 90% of which have been planted by farmers. Based on an average forest holding of 8 hectares, it is estimated that as of January 2011, there are 1,570 private forest owners in County Leitrim.

---

308  www.agriculture.gov.ie (2011)
Over the period 2011-2028, it is forecast that 3.7 million cubic metres of roundwood will be harvested from public and private forests in County Leitrim (Table 40). To put this into perspective, this volume is 27% above the volume of roundwood which was harvested from all forests in the Republic of Ireland in 2011\textsuperscript{309}.

Recent research by Teagasc has shown that over a 35 year rotation, that the average cumulative cash flow from these eight hectares of forest is forecast at €280,000, much of which is received at the time of clearfell. This represents a Net Present Value (NPV) of €7,881 per hectare. Using an interest rate of 5%, this return represents an annual equivalent value of €481 per hectare per annum\textsuperscript{310}.

At constant 2011 prices, it is forecast that €162 million of roundwood will be harvested from Leitrim forests over the period 2011-2028 (Table 40). Moreover, research undertaken by University College Dublin (UCD) shows that for every one million euro in expenditure in the forestry sector a further €780,000 in expenditure was generated in the rest of the economy\textsuperscript{311}. This will add a further €126 million to the Leitrim economy over the period to 2028. This brings the total value of this harvest to €288 million over the period 2011-2028.

Crucially however, IFFPA identifies two matters of relevance to this point of discussion:

1. The cumulative cashflow as identified above is heavily weighted to the clearfell revenues though small revenues are available earlier in the rotation so long as thinning operations take place in a timely manner and

2. Because of this, any obstacle to the timely thinning of forests in Leitrim interrupts the value chain and can have severe effects not just on the economic outcome of the forest itself but to the broader economic potential for the entire local economy.

Work undertaken by COFORD has shown that strong demand is forecast for roundwood from the traditional sawmill and wood-based panel markets and in the emerging wood energy markets\textsuperscript{312}. IFFPA has identified a need, therefore, for all Local Authorities to work to develop cost effective harvesting and road transport strategies to bring this import resource to market. In so doing, Local Authorities will expand their local economy and enrich their constituents by enabling the sector to contribute to its fullest extent.

<table>
<thead>
<tr>
<th>Total Coillte + private harvest for the period</th>
<th>2011-2028</th>
</tr>
</thead>
<tbody>
<tr>
<td>7-13 cm</td>
<td>3,663</td>
</tr>
<tr>
<td>14-19 cm</td>
<td>22.68</td>
</tr>
<tr>
<td>20 cm +</td>
<td>45.04</td>
</tr>
<tr>
<td>Tip – 7 cm</td>
<td>92.95</td>
</tr>
<tr>
<td>Total value at 2011 prices € million</td>
<td>162.04</td>
</tr>
<tr>
<td>Multiplier effect € million</td>
<td>126.39</td>
</tr>
<tr>
<td>Total harvest value at fixed 2011 prices € million</td>
<td>288.43</td>
</tr>
</tbody>
</table>

Masonite Ireland\textsuperscript{314} (see member’s profile on page 57 and case study on page 75) uses sawmill residues to produce a range of door facings. It employs 150 people in Carrick-on-Shannon, Co. Leitrim. 99% of its products are exported to its customers in Europe, North Africa and the Middle East. Despite the various challenges faced by the global economic circumstances, Masonite achieved growth in its export sales in 2011 over its 2010 performance.

As a company that exists at the very end of the value chain, Masonite, located in a rural part of Ireland, demonstrates what forestry as a sector can achieve at the local level as it processes timber nurtured and grown in Ireland, harvested and transported through Ireland and delivered locally to Leitrim for final processing.

\textsuperscript{309} 2011 volumes are taken from the UNECE Joint Forest Sector Questionnaire (JFSQ) for Ireland (2012).
\textsuperscript{310} http://www.teagasc.ie/publications/2012/1070/Forestry_Outlook__JohnCasey.pdf
\textsuperscript{311} Dr Áine Ní Dhubháin and Dr Richard Moloney, COFORD FORECON Project (2010 overview) http://www.coford.ie/media/coford/content/researchprogramme/projectreports/forecon2008.pdf
\textsuperscript{312} http://www.coford.ie/media/coford/content/publications/projectreports/roundwooddemand2011/COFORD_demand01Mar11.pdf
\textsuperscript{313} http://www.coford.ie/media/coford/content/publications/projectreports/forecast_31Jan11.pdf
\textsuperscript{314} http://www.masonite-europe.com/
The outcome is the export of a fully value-added product, that can be 100% produced here in Ireland and finished locally in Carrick-on-Shannon, providing much needed rural employment across the entire value chain and culminating in export led growth for the county and the country as a whole.

Economic potential of wood biomass energy

In 2012, a socio-economic study was carried out by DKM Economic Consultants on behalf of the Irish Bioenergy Association (IrBEA) regarding the economic benefits that can accrue from developing the bio-energy sector in Ireland over the period to 2020. This showed that if the 2020 bio-energy targets are met that the following benefits will accrue:

- The creation of over 3,600 jobs in the bio-energy sector.
- An investment of €1.5 billion in the sector would be needed to meet Ireland’s 2020 targets for renewable electricity (RES-E), renewable heat (RES-H) and renewable transport (RES-T). Of this it is estimated that 55% would be spent in Ireland.
- Almost 8,300 work years would be generated throughout the domestic economy during the construction phase.
- Permanent ongoing employment generated by the sector would grow to over 3,600 full time employees (FTE) by 2020. This includes employment in the facilities themselves, in supply industries and in the wider economy.
- Much of these benefits will accrue to rural Ireland.
- Sustain farm incomes.
- Reduce Ireland’s energy import bill by 7.5%.
- The use of bioenergy for heating can reduce costs for domestic and industrial users.
- Ireland is legally obliged to meet the targets outlined by the Renewable Energy Directive.
- The achievement of biomass energy targets will also have a major impact on the environment by reducing Ireland’s greenhouse gas emissions (GHG). It is estimated that the achievement of Ireland’s renewable energy targets will result in a saving of 3.14 million tonnes of carbon dioxide (CO₂) per annum by 2020.
- The value of the emission reduction could be €94 million by 2020. This estimate is based on the level of carbon tax envisaged in the Government’s National Recovery Plan 2011-2014.

315 http://www.irbea.ie/
316 http://www.seai.ie/Renewables/Bioenergy_Roadmap.pdf
Furthermore recent work\textsuperscript{319} undertaken by the Sustainable Energy Authority of Ireland (SEAI) has shown that:

\begin{itemize}
  \item Achieving 2020 bioenergy targets will create up to 8,000 net new jobs, mostly in rural locations.
  \item By 2050, bioenergy has the potential to be an indigenously derived cornerstone of national energy requirements to 2050 across transport, electricity generation and heat.
  \item Bioenergy is highly suitable for inclusion in a national distributed energy network.
  \item By 2050, over 3,500 kilotonnes of oil equivalent (ktoe) of indigenous resources are available for the bioenergy supply chain.
  \item The industry has a key role to play in sustainable rural development and employment.
  \item By 2050, over 11 million tonnes of carbon dioxide (CO$_2$) can be abated annually.
  \item Our available resource can rapidly increase through policies and actions across energy, waste, forestry, agriculture and research, development and demonstration (RD&D).
\end{itemize}

The heat used in our homes, public buildings, business and factories account for nearly 40\% of the energy consumed in Ireland. Biomass is ideally suited to provide a controllable and continuous supply of thermal energy, as an alternative to imported fuels such as oil and gas and is an important element in meeting our renewable energy targets.

There has been some progress in the renewable heat market; however the scale of deployment is not sufficient at a local level to offer farmers opportunities to diversify into bioenergy production, supplying biomass products such as firewood or woodchip to the local heat market. One of the main barriers to large-scale use of renewable heat is the cost of installation. Recently, the UK Government introduced the Renewable Heat Incentive (RHI) Scheme\textsuperscript{320} to address this barrier and to provide long-term support tariffs to stimulate development in the renewable heat sector. The scheme mirrors the feed-in tariff system operated in the renewable electricity market and has proven a successful policy mechanism to create a viable market.

\textbf{FSC turns 10}

In February 2012, Coillte, Ireland’s largest forestry and forest products company celebrated 10 years of the independent certification of its forests from the Forest Stewardship Council (FSC)\textsuperscript{321}.

David Gunning, Chief Executive, Coillte said: ‘securing and maintaining an internationally recognised certification such as FSC for our forestry management over the last 10 years is a clear demonstration of our commitment to the innovative and sustainable management of natural resources.’

Kevin McCloud presenter of Channel 4’s Grand Designs commented: ‘it’s great to share in Coillte’s celebration of 10 years of FSC certification. Timber is one of the most sustainable and environmentally friendly construction materials. It is vital that timber is managed and harvested in accordance with sustainable principles and Coillte’s FSC certification demonstrates their commitment to this approach – not just in theory but in practice.’

\begin{figure}
\includegraphics[width=\textwidth]{image.png}
\caption{Pictured (L to R) are David Gunning, Chief Executive, Coillte with Kevin McCloud, Presenter, Channel 4’s Grand Designs at the celebration of Coillte’s 10 year FSC certification which was held in the Aviva Stadium, Dublin in February 2012.}
\end{figure}

\textsuperscript{319} http://www.seai.ie/Renewables/Bioenergy_Roadmap.pdf
\textsuperscript{320} http://www.rhincentive.co.uk/
\textsuperscript{321} www.coillte.ie/coillteforest/responsible_forest_management_and_certification/fsc/
What FSC means to Coillte

- Independent endorsement by globally recognised organisation that Coillte manages 7% of the land of Ireland in a responsible and sustainable way delivering social, economic and environmental benefits.

- Growth in exports of certified sustainable timber and timber products from Ireland, supporting jobs and communities across the country.

- A positive outlook for the sector as certified timber and timber products play a key part in delivering sustainable buildings in the future.

- Recognition that our approach to managing all our businesses from forestry to renewable energy, panel product manufacture and telecommunications masts is built on solid sustainable values which deliver a range of benefits for all stakeholders.

The timber processing firm, Glennon Brothers322 was established in Longford, Ireland in 1913. The current Joint Managing Directors, Pat and Mike Glennon, joined the business in 1978 and 1985 respectively, and succeeded their father Paddy as Managing Director in the early 1990’s. The business, which is proudly family owned, was founded in 1913 by Pat and Mike’s grandfather. Since the 1990’s they have grown the turnover of their business from €8 million in 1990 to over €90 million in 2011. With facilities in Longford, Cork, Wicklow and in Scotland, the Glennon Brothers Group now employs over 350 people directly. A further 175 people are employed on a contract basis in timber harvesting and haulage. All of these are located in rural communities providing a significant boost to rural economies.

Through its plants in Ireland and Scotland, the firm offers a one-stop-shop solution, supplying the Irish and UK

322 http://glennonbrothers.ie/
markets with products for the construction, pallet wood and fencing industries, as well as quality timber frame homes and engineered roof trusses.

In the past number of years Glennon Brothers has undertaken a major strategic shift in its business. It has moved from selling two thirds of its output on the home market to exporting two thirds of its sawn timber output. As a result of this change, Glennon Brothers spent €35 million in the Irish economy in 2011, predominantly on raw materials, wages, and salaries. This was an increase of 54% or €12 million over 2009, despite the fact, that its sales in the Republic of Ireland market remain unchanged. This €12 million extra spend in Ireland in 2011, is a direct result of ongoing export growth. It shows that the Irish forestry and forest products sector can help Ireland’s export led recovery.

From the mid 1990’s, the Republic of Ireland experienced a major increase in domestic construction activity. This reached its peak in 2006, when over 93,000 new homes were built323. During this period, over 70% of the sawn timber produced in Irish sawmills was sold on the domestic market. However, the Irish property market has stagnated since 2008. This has left 43,000 houses and apartments, un-finished or vacant. In the past 2 years less than 10,000 new homes have been built in Ireland.

In 2009, Glennon Brothers responded to this market decline by having to lay off over 50 staff (15% of its workforce), undertaking extended periods of short time and introducing a pay cut for all staff.

To survive and to continue to grow in such a tough market meant that the Glennon Brothers’ business had to radically change its business strategy and to re-focus its sales efforts on international markets. A root and branch review of all costs was conducted, with an emphasis on making the business more nimble and flexible in order to succeed in export markets.

Thankfully, the changes brought about in the business and the success in developing new export sales, has allowed most of the laid off staff to be re-hired. Since the middle of 2010, Glennon Brothers has been operating on a full-time basis.

Through on-going market development activity and innovation in manufacturing, Glennon Brothers now produces carcassing timber for five distinct markets as well as a range of specialist value added products. This is a highly complex undertaking, requiring flexibility and adaptability from all parts of the business. As a result, annual export sales have doubled from €10 million in 2009 to €20 million in 2011.

The key market for sawn softwood exports from the Republic of Ireland has always been the UK. Having focused very strongly on this market in the last two years, Glennon Brothers achieved close to a 300% increase in sales to the UK in 2011 compared to 2009.

Furthermore, in an effort to cap its exposure to the UK market, Glennon Brothers set out to develop a new Euro market for its products. In 2009, it achieved a world first in the history of the Irish and UK sawmilling sector, when it sent shipments of home grown timber to France324. Over the period 2009-2011, Glennon Brothers have achieved a near 500% increase in their sales to France. In 2011, the French market represented over 10% of the output of Glennon Brothers sawmills in Ireland. Glennon Brothers remains the only timber processor in Ireland or in the UK to supply sawn timber into the French market.

Through a series of strategic acquisitions and robust organic growth, the brothers have grown the business from a turnover of €8 million in 1991 to over €90 million in 2011. In 2010 Pat and Mike Glennon, won the industry category at the Ernst and Young Entrepreneur of the Year (EOY) Awards325. In 2012, Glennon Brothers were short listed as a national finalist in the European Business Awards327.

All timber products which are supplied by Glennon Brothers are certified by the Forest Stewardship Council (FSC)328. This ensures that its forest products are independently certified to be sourced from sustainably managed forests.

---

323  www.cso.ie

324  http://www.glennonbrothers.ie/press/entrepreneuruchtml
327  http://www.businessawardseurope.com/National-finalist/2012
328  www.fsc.org
From Wicklow to France via Fermoy.
Medite goes Tricoya

Medite Europe Ltd. is a subsidiary of Coillte Panel Products (CPP). Medite products are recognised as the benchmark for quality, consistency and performance in MDF, as well as being FSC certified and CARB 2 compliant. Medite has led the market in technical innovation, introducing such advances as moisture resistant, flame retardant, exterior grade, zero-added formaldehyde, flooring quality and ultralite MDF varieties.

Commenting on a visit to the Medite Europe plant in Clonmel, Co. Tipperary, Minister of State at the Department of Agriculture, Food and the Marine with special responsibility for Food Safety, Forestry and Horticulture; Shane McEntee T.D., stated that he was impressed with the company's innovation in developing new MDF Products, adding that Medite 'is a real example of what can be achieved with consistent commitment to anticipating and meeting market requirements'.

In September 2011, Medite Europe and their partner Accsys Technologies launched Medite Tricoya, a major innovation in the wood panel industry. This unique, 'extreme durable' wood panel product has a life span of fifty years and is expected to lead to a new generation of wood based panel products for exterior and wet area applications.

Medite Tricoya has been jointly developed between Medite Europe and Accsys Technologies. Made using its patented acetylation technology, Accsys successfully developed and commercialised a revolutionary modified solid wood product marketed worldwide under the brand name Accoya Wood. Accoya Wood is characterised by its durability, dimensional stability and reliability properties which have now been replicated in the production of Tricoya wood elements which are used to manufacture Medite Tricoya.

Medite Tricoya’s high performance characteristics signify a real breakthrough for the industry. Medite Tricoya demonstrates outstanding durability and stability and can be used in the most extreme and challenging environments. It can be cut, coated, coloured, sanded, struck and fastened the same way as any other performing wood fibreboard. Its key applications include: exterior cladding, façades, signage, entrance doors, outdoor, interior, wet furniture, flooring and shipbuilding.

Medite Tricoya has been demonstrated to have superior dimensional stability and durability, even in changing weather conditions, meaning it can now be used in situations and applications where wood and wood-based products would not usually be considered.

Extensive performance testing which has been carried out by the Building Research Establishment (BRE) in the UK concluded that Medite Tricoya would carry a durability class (under EN350-2) of 1, or very durable; a durability equivalent to teak and more durable than oak. BRE concluded that Medite Tricoya could meet demands for a desired service life of 60 years when used in exterior applications. Such is the confidence of Medite with this new product that it carries a 50 year warranty.

---

329 www.medite-europe.com/
331 /www.accsysplc.com/
332 www.accsysplc.com/medite-tricoya-video.html
333 www.bre.co.uk/
Medite Tricoya uses the proprietary acetylation processes to produce a dimensionally stable and biologically durable MDF. BRE tests confirm that, this ground-breaking new wood composite panel product has an expected service life of 50 years when used in exterior applications. Such a service life represents a significant sustainability advantage over existing materials, particularly given its durability and dimensional stability in wet environments.

Medite Tricoya is being distributed and sold by Medite in the UK, Ireland and the Netherlands. The new design and application possibilities offered by the marriage of acetylated wood fibre with the manufacturing technology of Medite MDF is set to excite and stimulate composite product manufacturers, designers, architects and the construction industry alike, opening up new possibilities and solutions.

**Masonite Ireland celebrates 15 years**

Masonite Ireland334 is a subsidiary of Masonite International, one of the largests door producers in the world. Masonite was founded in 1925 when well-known researcher and engineer William H. Mason changed the building materials industry forever by inventing a way to convert wood chips into an economical and highly effective building material, high-density fibreboard (HDF). The company entered a period of rapid expansion in the 1930’s and 1940’s expanding globally into almost every corner of the world developing innovative new products in every decade.

In 1972, Masonite entered the door component market - developing high density interior moulded door facings. These new facings changed the door industry and allowed door manufacturers to develop in-expensive popular door designs on a large scale. The product quickly spread to all parts of the world and Masonite steadily developed the market in the UK and France from its manufacturing facilities in the US. With rapidly expanding sales in Europe, the decision was made in 2005 to build a door facing manufacturing facility in Ireland to serve the European market. With wood being the main raw material in door facings, its availability was a key factor in the decision to locate the plant in Ireland. The plant was strategically located in the north west and with the assistance of the State Agencies, Coillte and local sawmills, wood supply was secured before production commenced.

Masonite Ireland commenced production in June 1997 at its state of the art production facility at Derryoughter, Drumsna in Co. Leitrim. The company rapidly expanded and developed markets accross Europe, North Africa and the Middle East reaching full production in 2005 and becoming one of the main employers in County Leitrim and one of the largest users of wood chips and wood fuel in the region. Masonite Ireland also developed significant expertise in exporting and is now handling all of the logistics for its sister plants in Chile and Malaysia to their customers around the world.

Masonite Ireland, like all other companies in the construction industry suffered from the downturn and had to make adjustments to the business to reflect the new situation. Despite the continuing difficult market situation accross Europe, the company has made significant progress in the last few years - stabilised the operation, opened up new markets and developed new products. In the last two years, the company has introduced three new door designs - developed in

---

Drumsna by the research and development (R & D) team with some financial support from Enterprise Ireland. In 2011, the company expanded into India and is now sending regular monthly shipments to this market which now accounts for 5% of its business. While Western Europe remains Masonite’s core market, it is now exporting Irish forest products to 25 different countries. From Drumsna it serves its customers in countries such as Tunisia, Algeria, Morocco, Israel, South Africa, Russia, Turkey to name but a few. Truly a global reach all coming from a rural location in County Leitrim.

This year, Masonite Ireland celebrates 15 successful years in Ireland serving its customers throughout the world to whom it has shipped over 170 million door facings. That is a lot of doors and a lot of Irish wood sitting in homes throughout the world!

Innovative students

The Wood Marketing Federation is a non-profit making organisation, founded in 1989 to promote wood as a renewable, sustainable and versatile natural material. It organises the Third Level Wood Awards. These awards promote the use of wood in architecture, engineering and furniture.

In early 2012, Duncan Stewart, architect and RTE television presenter praised Irish students for incorporating wood in architecture, engineering and design projects at the 2011 Third Level Student Wood Awards in the RDS, Dublin. He said he was encouraged to see that almost all colleges were now taking part in the competition and urged the few remaining colleges to follow their example, because wood is a proven sustainable material with major environmental benefits.

The objective of the awards organised by the Wood Marketing Federation in association with Wood-NI is to encourage students to explore functional, aesthetic and design aspects of wood and wood products. The main sponsors are Coillte who also provide administrative support. Generous funding has been provided by COFORD, Department of Agriculture, Food and the Marine. The awards are also sponsored by the Society of Irish Foresters.

Nine students made it to the shortlist, representing universities and institutes of technology from Dublin, Limerick, Galway, Belfast, Lurgan, Bray and Limerick. University of Ulster and Queen's University Belfast won the architecture and engineering competitions, while the award for best design project went to Galway-Mayo Institute of Technology (GMIT), Letterfrack.

Caitríona Hickey of University of Ulster won the architecture section for an ambitious project: the ‘Big House in the City’. This was designed as a temporary residential complex to house homeless people. The winner of the engineering award, Neil Campbell, demonstrated the strength qualities of steel reinforced prestressed timber beams that could be applied to home-grown Sitka spruce. Letterfrack College, which is the furniture design centre of Galway-Mayo Institute of Technology (GMIT), has been a consistent winner of the national Student Wood Awards. Jens Kosak maintained the college’s winning streak with an easily assembled ‘Fixing Free Bed’ made from poplar plywood.

---

335  [http://www.wood.ie/](http://www.wood.ie/)
337  [http://www.letterfrack.net/](http://www.letterfrack.net/)
Seeing the wood from the trees

In 2005, two Irish foresters pioneered a way to estimate the timber production capacity of trees before they are felled. Treemetrics\(^{338}\), based in County Cork, uses three-dimensional laser technology to scan a sample of trees within a forest. The information is then used to calculate the production yield of those trees. Treemetrics is a provider of commercial forestry measurement systems. The innovative system being developed by Treemetrics allows for more accurate and cost effective measurement of trees prior to harvesting. This enables growers to sell their trees at the optimum representative price and for purchasers to improve their product recovery. Treemetrics provides solutions for foresters and forestry organisations large and small who want to maximize commercial and ecological returns, as well as sawmill buyers who want to be supplied with the best mix of value and suitability to their product requirements. The advantages of using the Treemetrics system include:

- Reduce measurement costs by up to 75%.
- Develop stem volume and taper data at forest level.
- Predetermine product assortment in the forest.
- Maximise product recovery both in the forest and in the sawmill.
- Simulate sawing patterns in the forest.
- Match the right forest to the right mill/order.
- Provide decision support tools on supply chain optimisation and growth models.
- Further assess quality attributes of standing trees e.g. straightness, sweep, branching, ovality, butt swell and lean i.e. compression and tension wood.
- Provide an independent transparent measurement system for all stakeholders.
- Monitor forest condition.

In 2005, Treemetrics won the Schweighofer award for forest innovation in conjunction with the University of Freiburg, Germany. It recently was a finalist in the IBM Smartcamp Awards. Treemetrics are now working with forest companies worldwide. These include the Austrian Forest Service (ÖBF)\(^{339}\). In 2012, Treemetrics’ technology is being used by some of the largest forestry companies in the world. It has clients in the United States, Ireland, Norway, Finland, the UK and Australia. Additionally, the Cork-based company announced that it has now indexed over 11 million trees, making it by far the largest forestry analytics database in the world.

In March 2012, Treemetrics, announced that it had signed a €600,000 contract with the European Space Agency, to develop a Real-Time Forest Intelligence (RTFI) service. For the first time, this brings live three dimension (3D) forestry data to mobile devices and harvesting machinery anywhere in the world.

\(^{338}\) http://www.treemetrics.com/
\(^{339}\) http://www.oebf.at/
The Irish Forestry and Forest Products Association (IFFPA) represent virtually all aspects of the forestry sector in Ireland. A brief overview of those companies who are members of IFFPA is given below. Where they exist, web links are also provided.

**Forestry development**

*Association of Irish Forestry Consultants*

The Association of Irish Forestry Consultants (AIFC) represents the forest consultancy profession in Ireland with a membership that has a nationwide presence and a client base of over 1,500 forest owners.

[http://www.aifc.ie/](http://www.aifc.ie/)

*Coillte*

Coillte is a commercial company operating in forestry, land based businesses, renewable energy and panel products. It employs approximately 1,000 people in Ireland, the UK and Europe. It was established in 1988. It owns over 445,000 hectares of land, about 7% of the land cover of Ireland.

[www.coillte.ie](http://www.coillte.ie)

*Forest Enterprises Limited (FEL)*

FEL specialises in forestry establishment, forestry investment, timber harvesting and forest management. It was founded in 1990 and now manages over 14,000 hectares of forests in Ireland and Scotland valued at over €115 million. Clients include high net worth investors, forestry funds and farmer clients.

[www.fel.ie](http://www.fel.ie)

*Forestry Services Ltd.*

Established in 1985, Forestry Services Ltd. is one of Ireland’s leading and largest forestry management companies. While forest establishment remains the core activity of the company, thinning and tending of both broadleaf and conifer crops for private forest owners has become a more important element in recent years. Thinning of crops is carried out for clients through a subsidiary, Forwood.

[www.forestryservices.ie](http://www.forestryservices.ie)
[www.forestthinning.ie](http://www.forestthinning.ie)

*Green Belt Ltd.*

Green Belt was formed in 1982. It is Ireland’s largest private forest management company. It also operates in the supply of wood biomass energy via its subsidiary Imperative Energy.

[www.greenbelt.ie](http://www.greenbelt.ie)

*I.F.S. Asset Managers Ltd.*

I.F.S. Asset Managers Limited is a leading Irish and international forestry asset management company. Established in 1997, it was unique in developing the concept of the Irish Forestry Funds, a group of 30 Irish public limited companies which have invested directly in Irish forestry as an asset class.

[http://www.ifsam.ie/](http://www.ifsam.ie/)

*None So Hardy (Forestry) Ltd.*

None So Hardy (Forestry) Ltd. specialises in the growing and the supply of planting stock. Its nurseries are located in Co. Wexford. The company currently employs 80 people. It is the largest private nursery in Ireland, with the capacity to produce 25 million trees per annum.

[www.nonesohardy.ie](http://www.nonesohardy.ie)

*Western Forestry Co-Op*

Western Forestry Co-operative is based on the forestry co-operative movement in Denmark. It provides support for farmers who are interested or who are involved in forestry. It provides advice regarding forestry issues. It also organises services for the farm forestry community. It provides assistance for grant applications and assists in the preparation of maps. It also assists in the sale of roundwood. The Co-op supports the development of farm forestry by means of information provision and by the organisation of publicity campaigns to promote afforestation by farmers.

*Woodland Managers Limited*

Founded in 1979, Woodland is Ireland’s oldest private forestry business providing professional woodland management services to woodland owners. Based in Galway, the company actively manages portfolios throughout the country. Woodland introduced Irish and European institutional investments to Irish forestry and continues to manage portfolios for these pension and insurance funds and for other owners, all of whom...
show a strong commitment to sustainable forest management. A related business, WoodlandCover, specialises in forestry insurance.

www.woodland.ie

Sawmills

Glennon Brothers Ltd.
Since 1913, Glennon Brothers have been manufacturing high-quality timber products. The company operates sawmills and timber production facilities in both Ireland and the UK. It supplies the construction, pallet wood and fencing industries. In 2011, 10% of the sawn timber which was produced by Glennon Brothers in Ireland was sold to customers in France.

www.glennonbrothers.ie

Grainger Sawmills Ltd.
Founded in 1977, Grainger Sawmills is based in Enniskeane, Co. Cork. With the capacity to process 250,000 cubic metres of roundwood per annum, it produces timber products for use in the construction, fencing, garden products, pallet and packaging markets. It also operates a wood biomass fuelled combined heat and power (CHP) plant.

www.graingersawmills.com

Murray Timber Group (MTG) Ltd.
The Murray Timber Group was established in 1977. Today, it employs 135 people directly. It operates two modern sawmills. These have the capacity to process in excess of 1,000,000 cubic metres of roundwood per annum. Its sawn timber output is sold in construction, fencing and packaging markets in Ireland and in the UK.

www.mtg.ie

Woodfab Timber Ltd.
Woodfab was established in 1974. It is a medium sized, Irish, timber processing company located in Aughrim, Co. Wicklow. It produces a wide range of fencing and decking products for both the domestic and UK markets.

www.woodfabtimber.ie

Panel manufacturers

Coillte Panel Products (CPP) Ltd.
Coillte Panel Products was established in June 2007 as part of the Coillte Group. CPP is an internationally focused business which operates two wood based panel facilities, i.e. SmartPly Europe Ltd. producing OSB and Medite Europe Ltd. producing MDF.

http://www.coillte.ie/coilltepanel_products/

Finsa Forest Products Ltd.
Finsa Forest Products is a subsidiary of the Spanish company Financiera Maderera S.A. (Finsa), which manufactured particleboard products in Scariff, Co. Clare. In 2011, Finsa ceased producing particleboard at Scariff. It continues to sell a range of imported products.

www.finsa.es

Masonite Ireland Ltd.
Masonite Ireland commenced production in July 1997. It processes wood waste and sawmill residues to manufacture moulded door facings for use in house construction. Based outside Carrick-on-Shannon, Co. Leitrim, Masonite manufactures door facings for use in both its own door fabrication plants and by independent door manufacturers. It primarily supplies markets in Europe and in the Middle East.

http://www.masonite-europe.com/

Medite Europe Ltd.
Medite Europe Ltd. is part of Coillte’s Panel Products Division. It produces Medium Density Fibreboard (MDF) at its production facility in Clonmel, Co. Tipperary. Medite MDF is an FSC certified, environmentally friendly wood product which are suitable for use in a range of applications. These include furniture, shop fittings, mouldings, wall/ceiling panels, shop fronts, external signs and flooring substrates.

www.medite-europe.com

SmartPly Europe Ltd.
SmartPly Europe Ltd. is part of Coillte’s Panel Products Division. It manufactures Oriented Strand Board (OSB) at its production facility at Belview Port, near Waterford. SmartPly OSB is an FSC certified, environmentally friendly wood product which is suitable for use in a wide range of structural and non-structural applications. These include wall sheathing, roofing, flooring, site hoarding, packaging, furniture manufacture, DIY and general building applications.

www.smartply.com
### Abbreviations

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AVE</td>
<td>Annual equivalent value</td>
</tr>
<tr>
<td>BRE</td>
<td>Building Research Establishment</td>
</tr>
<tr>
<td>CARB</td>
<td>California Air Resources Board</td>
</tr>
<tr>
<td>CHP</td>
<td>Combined heat and power</td>
</tr>
<tr>
<td>CoC</td>
<td>Chain of custody</td>
</tr>
<tr>
<td>CAP</td>
<td>Common Agricultural Policy</td>
</tr>
<tr>
<td>CPP</td>
<td>Coillte Panel Products Ltd.</td>
</tr>
<tr>
<td>DIY</td>
<td>Do it yourself</td>
</tr>
<tr>
<td>ESCO</td>
<td>Energy supply contract</td>
</tr>
<tr>
<td>ETS</td>
<td>Emissions trading system</td>
</tr>
<tr>
<td>EU</td>
<td>European Union</td>
</tr>
<tr>
<td>FFP</td>
<td>Finsa Forest Products Ltd.</td>
</tr>
<tr>
<td>FSC</td>
<td>Forest Stewardship Council</td>
</tr>
<tr>
<td>FR</td>
<td>Fire resistant</td>
</tr>
<tr>
<td>GDP</td>
<td>Gross domestic product</td>
</tr>
<tr>
<td>GJ</td>
<td>Gigajoule</td>
</tr>
<tr>
<td>GNP</td>
<td>Gross National product</td>
</tr>
<tr>
<td>IEL</td>
<td>Imperative Energy Ltd.</td>
</tr>
<tr>
<td>IrBEA</td>
<td>Irish Bioenergy Association</td>
</tr>
<tr>
<td>ktoe</td>
<td>Kilotonnes of oil equivalent</td>
</tr>
<tr>
<td>LULUCF</td>
<td>Land use, land-use change and forestry</td>
</tr>
<tr>
<td>m³</td>
<td>Cubic metre</td>
</tr>
<tr>
<td>MDF</td>
<td>Medium density fibreboard</td>
</tr>
<tr>
<td>MR</td>
<td>Moisture resistant</td>
</tr>
<tr>
<td>MTG</td>
<td>Murray Timber Group</td>
</tr>
<tr>
<td>NI</td>
<td>Northern Ireland</td>
</tr>
<tr>
<td>OB</td>
<td>Timber measurement overbark</td>
</tr>
<tr>
<td>OSB</td>
<td>Oriented strand board</td>
</tr>
<tr>
<td>PAO</td>
<td>Planed all over</td>
</tr>
<tr>
<td>PCRW</td>
<td>Post consumer recovered wood</td>
</tr>
<tr>
<td>RoI</td>
<td>Republic of Ireland</td>
</tr>
<tr>
<td>PEFC</td>
<td>Programme for the Endorsement of Forest Certification</td>
</tr>
<tr>
<td>PJ</td>
<td>Petajoule (unit of energy)</td>
</tr>
<tr>
<td>PPP</td>
<td>Public procurement policy</td>
</tr>
<tr>
<td>RD&amp;D</td>
<td>Research, development and demonstration</td>
</tr>
<tr>
<td>RHI</td>
<td>Renewable heat incentive</td>
</tr>
<tr>
<td>TCD</td>
<td>Trinity College Dublin</td>
</tr>
<tr>
<td>TIMO</td>
<td>Timber investment management organisation</td>
</tr>
<tr>
<td>T &amp; G</td>
<td>Tongued and grooved (flooring)</td>
</tr>
<tr>
<td>UB</td>
<td>Timber measurement underbark</td>
</tr>
<tr>
<td>UCC</td>
<td>University College Cork</td>
</tr>
<tr>
<td>UCD</td>
<td>University College Dublin</td>
</tr>
<tr>
<td>VOC</td>
<td>Volatile organic compounds</td>
</tr>
<tr>
<td>WBP</td>
<td>Wood-based panels</td>
</tr>
</tbody>
</table>
## Glossary

**Afforestation**

The establishment of a forest on land where the preceding vegetation or land use was not forest.

**Biota**

The total collection of organisms present within a geographic region or within a time period.

**Carbon dioxide (CO₂)**

A compound of carbon and oxygen formed when carbon is burned. Carbon dioxide is one of the main greenhouse gases (GHG).

**Carbon neutral**

This means achieving a zero net release of carbon. This can be achieved by calculating your total carbon emissions, reducing them where possible and balancing your remaining emissions with an equivalent amount sequestered (such as by planting trees) or offset (such as by using renewable energy) or with the purchase of carbon credits.

**Carbon offset**

The act of counterbalancing ('offsetting') greenhouse gas emissions produced by undertaking emission reduction projects. Common examples include the use of renewable energy.

**Carbon sequestration**

The uptake and storage of carbon. Trees and plants, for example, absorb carbon dioxide (CO₂), release the oxygen and store the carbon.

**Carbon sink**

A carbon sink is a natural or man-made reservoir that accumulates and stores some carbon-containing chemical compound for an indefinite period. The main natural sinks are: absorption of carbon dioxide by the oceans and photosynthesis by plants and algae.

**Chain of custody**

CoC certification provides documentation regarding the production of certified forest products. Chain-of-custody certifies the movement of materials from the forest to the end-user, including all successive operations of timber harvesting, processing, manufacturing and distribution of forest products.

**Clear-fell**

To cut all trees, usually of a uniform age and species in a stand or stands.

**Combined Heat and Power (CHP)**

Combined heat and power (CHP) refers to power plants which are designed to produce both heat and electricity.

**Common Agricultural Policy**

EU farm policy is implemented through the Common Agricultural Policy (CAP) which is a system of European Union agricultural subsidies and programmes. The aim of the CAP is to provide farmers with a reasonable standard of living, consumers with quality food at fair prices and to protect rural communities and the environment. It can have considerable impact on land utilisation.

**Cubic metre (cubic metres)**

The form of timber measurement commonly used in Ireland. It is used to calculate the volume of both roundwood and of forest products.
| **ESCO** | Energy Supply Contract; a long-term energy supply contract under which an energy provider covers design, fuel supply, equipment supply, finance, installation, operation and maintenance, and the client is invoiced for metered energy use on a monthly basis at a pre-agreed index-linked price. |
| **Forest certification** | A procedure whereby an independent third party inspects forest management and utilisation practices to assess compliance with a set of ecological, economic and social standards for sustainable forestry. |
| **Greenhouse gases (GHG)** | Gases in an atmosphere that absorb and emit radiation within the thermal infrared range. This process is the fundamental cause of the greenhouse effect. The main greenhouse gases in the earth's atmosphere are water vapour (H₂O), carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O) and ozone (O₃). |
| **Hectare** | A unit of land area equal to 10,000 square metres. |
| **Kyoto Protocol** | The Kyoto Protocol is an international agreement linked to the United Nations Framework Convention on Climate Change (UNFCCC). The major feature of the Kyoto Protocol is that it sets binding targets for 37 industrialised countries and for the European Community to reduce greenhouse gas (GHG) emissions. This amounts to an average reduction of 5% against 1990 levels over the five-year period of the Kyoto Protocol (2008-2012). |
| **LULUCF – Land use, Land-use Change and Forestry** | LULUCF is defined by the United Nations Framework Convention on Climate Change (UNFCCC) as a greenhouse gas inventory sector that covers emissions and removals of greenhouse gases resulting from direct human-induced land use, land-use change and forestry activities. |
| **Rotation** | The period of years required to establish and grow a timber crop to a specified condition of maturity, when it may be harvested and a new tree crop started. |
| **Silviculture** | The art and science of producing and tending a forest; the theory and practice of controlling forest establishment, composition, growth, and quality of forests to achieve the objectives of forest management. |
| **Sink** | Sinks are any natural or man-made systems that absorb and store greenhouse gases (GHG), primarily carbon dioxide (CO₂), from the atmosphere. |
| **Stand** | An aggregation of trees occupying a specific area and uniform enough in composition (species), age and arrangement to be distinguishable from the forest on adjoining areas. |
| **Thinning** | The selective removal of trees, primarily undertaken to improve the growth rate or health of the remaining trees. This may be done to make the stand more profitable in a final felling. Thinning may also be undertaken to increase the resistance of the stand to environmental stress such as drought or infestation. |
| **Tonne of Oil Equivalent (toe)** | A conventional standardised unit of energy which is defined on the basis of a tonne of oil having a net calorific value of 41,686 kilojoules per kilo (kJ/kg). |
| **Volatile Organic Compounds (VOC)** | Volatile organic compounds (VOCs) are emitted as gases from certain solids or liquids. VOCs include a variety of chemicals, some of which may have short and long-term adverse health effects. |
An overview of the Irish forestry and forest products sector 2012

IFFPA contact details

If you require further information regarding the Irish Forestry and Forest Products Association (IFFPA) please contact:

Marian Byron
Director IFFPA
Irish Business and Employers Confederation (IBEC)
Confederation House
84/86 Lower Baggot Street
Dublin 2

T: +353 1 605 1624
E: marian.byron@ibec.ie
W: www.iffpa.ie

Report author

This review was produced and edited on behalf of the IFFPA and IBEC by Eoin O’Driscoll, Drima Marketing. All members of IFFPA were interviewed for this review. The views which are expressed in this document reflect the views of IFFPA members.

Photo sources

Coillte, Coillte Panel Products Ltd., Dempsey Timber Engineering Ltd. (DTE), Drima Marketing, Entrepreneur of the Year Awards (EOY), Glennon Brothers Ltd., Green Belt Ltd., IFFPA, Irish Farmer’s Journal, Kingspan Century Homes Ltd., Masonite Ireland Ltd., Medite Europe Ltd., Murray Timber Group Ltd. (MTG) and SmartPly Europe Ltd..

Data sources

This IFFPA Review includes data valid as of 30th June 2012. All data sources are referenced.
IRISH FORESTRY AND FOREST PRODUCTS ASSOCIATION
Confederation House  84/86 Lower Baggot Street  Dublin 2
PHONE + 353 (0)1 605 1624  FAX + 353 (0)1 638 1624  
EMAIL marian.byron@ibec.ie  www.ibec.ie

Irish Forestry and Forest Products Association is a business sector within IBEC

www.ibec.ie