

UNECE Forestry & Timber Market Statement for Ireland 2015

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1.0 Irish economy-an overview

1.1 2014

The Irish economy saw significant growth in 2014 with improvements observable across a broad set of key indicators. Output growth (both GNP and GDP) increased by approximately 6% while unemployment fell to just over 11%. A key feature of economic developments in 2014 was the particularly strong performance of taxation receipts, with all major items reporting significant year-on-year increases. The net consequence of this is a fiscal deficit of approximately 3.5% for 2014. This is a full percentage point better than was expected a year previously¹.

In summary²:

- The Irish economy is strongly rebounding from the crisis, with GDP growth of 5.2% in 2014, the fastest in the OECD³.
- At market prices, Gross Domestic Product (GDP) was €189 billion and grew in volume by 5.8% over 2013.
- In 2014, Gross National Product (GNP), increased by 6.9% to €163 billion.
- Export growth has been strong, thanks partly to improved cost-competitiveness since 2009.
- In 2014, the volume of exports grew by 12.1% over 2013.
- At the end of 2014, unemployment stood at 11.3%.
- Inflation as measured by the Consumer Price Index (CPI) was 0.2% for 2014.
- Personal consumption, which accounts for nearly two thirds of domestic demand, grew by 2.0% while Government expenditure grew by 4.6% over 2013.
- In 2014, 11,016 homes were completed, an increase of 33% over 2013.

1.2 2015-2016

The economic recovery and strong output growth rates are expected to continue into 2015⁴. Unemployment is falling steadily, the budget deficit is declining, public debt has peaked and continues to fall and international credibility has been strengthened^{5,6}.

Following GDP growth of 5.8% in 2014, the strong recovery of the Irish economy has continued in the first half of 2015. While the initial strengthening of activity in 2014 was driven by net export growth, the recovery over the past year has become more balanced, with domestic drivers increasingly playing a more prominent role⁷.

- Economic growth is projected to be robust and broadly based in 2015 and 2016.
- GDP is forecast to grow by 6.0% in 2015 and 4.5% in 2016⁸.
- GNP is forecast to grow by 5.9% in 2015 and 4.0% in 2016⁸.
- Ireland remains fully committed to meeting fiscal targets and reducing the deficit to below 3% of GDP in 2015.
- Exports are expected to remain strong due to increasing demand in trading partners, notably from the United States and the United Kingdom and to the weaker euro. It is expected that the volume of exports of goods and services will increase by 11.1% in 2015 and by 7.0% in 2016.
- The actual and expected growth in the GDP of Ireland's export markets is shown in Table 1^{9,10}.
- The outlook for investment in the building and construction sectors is increasingly positive.
- A recent report from the Housing Agency on future housing supply requirements for the period 2014 to 2018 suggests a total requirement of just under 80,000 dwellings are required over this period.
- Unemployment is set to decline to 9.5% in 2015 and 8.4% in 2016.
- Further increases in employment, rising real disposable incomes and gradually strengthening consumer confidence are projected to support a pick-up in the growth of consumer spending over the remainder of 2015 and 2016. Private consumer expenditure is forecast to rise by 2.8% in 2015 and 3.0% in 2016.

¹ https://www.esri.ie/UserFiles/publications/QEC2014WIN_ES.pdf

² https://www.esri.ie/UserFiles/publications/QEC2015AUT_ES.pdf

³ <http://www.finance.gov.ie/sites/default/files/OECD%20Economic%20Survey%20of%20Ireland%202015.pdf>

⁴ https://www.esri.ie/UserFiles/publications/QEC2014WIN_ES.pdf

⁵ <http://www.oecd.org/eco/surveys/Ireland-2015-overview.pdf>

⁶ <https://www.centralbank.ie/polstats/econpolicy/Pages/forecast.aspx>

⁷ <http://www.centralbank.ie/press-area/press-releases/Pages/CentralBankofIrelandQuarterlyBulletinQ32015.aspx>

⁸ https://www.esri.ie/UserFiles/publications/QEC2015AUT_ES.pdf

⁹ <http://www.imf.org/external/pubs/ft/weo/2015/update/01/pdf/0115.pdf>

¹⁰ http://research.cibcwm.com/economic_public/download/fxmonthly.pdf

- Inflation as measured by the Consumer Price Index (CPI) is forecast to increase by 0.1% in 2015 and 1.0% in 2016.

Table 1: Actual and estimated GDP growth in key markets (2012-2016f).

| Region | 2012 | 2013 | 2014 | 2015f | 2016f |
|----------------------|----------------------|------|------|-------|-------|
| | Real annual growth % | | | | |
| World (excluding EU) | 3.9 | 3.3 | 3.3 | 3.5 | 3.7 |
| United States | 2.2 | 1.9 | 2.6 | 3.0 | 3.0 |
| Euro area | -0.6 | -0.5 | 0.8 | 1.2 | 1.4 |
| United Kingdom | 0.0 | 1.7 | 2.6 | 2.7 | 2.4 |

2.0 Market drivers

2.1 Construction activity

The demand for forest products is closely related to the level of house building, including timber frame and to demand in key export markets¹¹. The investment climate for building and construction is increasingly positive. Residential building is leading the recovery, followed by civil engineering and non-residential building.

- House completions grew by 33% in 2014 compared to the previous year (Table 2).
- In 2014, €4.5 billion was invested in the commercial construction sector, a substantial growth on the €1.9 billion recorded for 2013¹².
- In 2014, investment in the repair, maintenance and improvement sector (RMI) grew by 10% over 2013 (Table 3).

Moreover, building and construction activity is forecast to increase by 10.4% and 13.6% in 2015 and 2016, respectively. Housing completions of 13,000 and 15,000 are forecast for 2015 and 2016. Investment in non-residential construction is expected to gather pace this year and next with a healthy pipeline of projects and a positive outlook for incoming foreign direct investment¹³.

Recent analysis by the Economic and Social Research Institute (ESRI) has estimated that, in coming years, increases in population will result in the formation of at least 20,000 new households each year, each requiring a separate dwelling. In addition, a number of existing dwellings will disappear through redevelopment or dilapidation. The results suggest an ongoing need for at least 25,000 new dwellings a year over the coming fourteen years¹⁴.

In addition, 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.

In Q4, 2014, 115,800 persons were employed in the construction industry, representing an increase of 18,500 or 19% from the lowest point reached in Q1 2013. Including an estimate for indirect employment, 162,100 persons were employed in the sector, which represents 8.4% of total employment across the economy.

2.1.1 Irish housing output

Of the estimated requirement of 20,000 houses per annum, 11,016 houses were completed in 2014 (Table 2).

In May 2014, the Government launched its Construction 2020 Strategy to address constraints on housing supply¹⁵. This provides for measures which aim to resolve the constraints currently facing the construction sector¹⁶.

¹¹ <http://www.coillte.ie/fileadmin/templates/pdfs/BaconReport.pdf>

¹² https://www.scsi.ie/documents/get_lob?id=538&field=file

¹³ <http://www.centralbank.ie/publications/Documents/Quarterly%20Bulletin%20No.%203%202015.pdf>

¹⁴ <http://www.merriionstreet.ie/wp-content/uploads/2014/05/Construction-Strategy-14-May-20141.pdf>

¹⁵ <http://www.merriionstreet.ie/en/wp-content/uploads/2014/05/Construction-Strategy-14-May-20141.pdf>

¹⁶ http://www.taoiseach.gov.ie/eng/Publications/Publications_2014/Construction_Strategy_-_14_May_2014.pdf

Table 2: Actual and forecast house completions in the Republic of Ireland (2010-2016f).

| Year | House completions | Growth rate 1990 = 100 |
|-------|-------------------|---------------------------|
| 2010 | 14,602 | 74.73 |
| 2011 | 10,480 | 53.63 |
| 2012 | 8,488 | 43.44 |
| 2013 | 8,301 | 42.48 |
| 2014 | 11,016 | 56.38 |
| 2015f | 13,000 | 66.53 |
| 2016f | 15,000 | 76.77 |

2.1.2 Repair, Maintenance and Improvement (RMI)

In 2014, Irish expenditure on RMI grew by 7.3% over 2013 to reach €3.8 billion, with 77% being spent in the residential sector. Growth of 12.4% and 10.0% are forecast for 2015 and 2016 (Table 3)¹⁷.

Table 3: Output of the Repair, Maintenance and Improvement (RMI) sector (2012-2016f).

| Year | Residential | Private non residential | Social | Civil works | Total | % change year on year |
|-------|-------------|-------------------------|--------|-------------|-------|-----------------------|
| | € billion | | | | | |
| 2012 | 2.80 | 0.08 | 0.23 | 0.57 | 3.68 | |
| 2013 | 2.75 | 0.09 | 0.24 | 0.46 | 3.54 | -3.8 |
| 2014 | 2.94 | 0.10 | 0.26 | 0.50 | 3.80 | +7.3 |
| 2015f | 3.31 | 0.11 | 0.29 | 0.56 | 4.27 | +12.4 |
| 2016f | 3.66 | 0.12 | 0.31 | 0.61 | 4.70 | +10.0 |

2.1.3 Construction inflation

In 2014, the wholesale price index for building materials showed a 2.2% increase on 2013 (Table 4)^{18,19}.

Table 4: Wholesale price index for building materials (2010-2014).

| Item | 2010 | 2011 | 2012 | 2013 | 2014 |
|-----------------------|-------|-------|-------|-------|-------|
| Index (2005 = 100) | 116.6 | 119.6 | 122.6 | 123.6 | 126.3 |
| % change year on year | -17.7 | 2.6 | 2.5 | 0.8 | 2.2 |

2.2 UK construction market

The UK construction market is the key export outlet for forest products manufactured in Ireland. However, house building in the UK has been on a long term downward trend since 1970. The number of houses built across the UK fell from 378,000 in 1969/70 to 138,000 in 2013/14 (Table 5)²⁰.

Table 5: House starts and completions in the UK (2010-2014).

| Year | 000 starts | 1998 = 100 | 000 completions | 1998 = 100 |
|------|------------|------------|-----------------|------------|
| 2010 | 138 | 0.74 | 153 | 0.86 |
| 2011 | 135 | 0.72 | 137 | 0.77 |
| 2012 | 127 | 0.68 | 147 | 0.82 |
| 2013 | 187 | 1.00 | 136 | 0.76 |
| 2014 | 193 | 1.03 | 138 | 0.77 |

¹⁷ https://www.scsi.ie/documents/get_lob?id=538&field=file

¹⁸ <http://www.cso.ie/en/releasesandpublications/er/wpi/wholesalepriceindexmarch2015/>

¹⁹ <http://www.cso.ie/px/pxeirestat/Statire/SelectVarVal/Define.asp?maintable=WPM18&PLanguage=0>

²⁰ <https://www.gov.uk/government/statistical-data-sets/live-tables-on-house-building>

2.2.1 UK housing outlook

Despite the better performance in the private sector in 2014, there is much ground to recover if output is to return to the most recent peak year of 2006. In 2014, UK housing output was 36% below the 2006 level and in the larger housing repair, maintenance and improvement (RMI) sector volume remained 10% below 2006. Moreover, UK housing completions have been in decline since the 1970s (Table 6).

However, over the period 2015-2019, construction output in the UK is forecast to grow by 2.7% per annum²¹ (Table 7)²².

Table 6: Annual housing completions in the UK (1970-2014).

| 1970s | 1980s | 1990s | 2000s | 2010-2014 |
|------------------------|-------|-------|-------|-----------|
| 000 completions | | | | |
| 314 | 217 | 189 | 191 | 140 |

Table 7: Estimated construction output in the UK (2014-2019f).

| Item | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2015-2019 |
|-----------------------------|----------------------------|--------------------------|------|------|------|------|-------------------------------------|
| | £ million (2010 prices) | Forecast annual % change | | | | | Average forecast annual % change |
| Public housing | 5,635 | 5 | 0 | 2 | 3 | 2 | 2.4 |
| Private housing | 20,121 | 10 | 5 | 3 | 3 | 2 | 4.6 |
| Housing R & M ²³ | 21,862 | 3 | 1 | 3 | 2 | 1 | 2.0 |
| Non housing R & M | 23,621 | 2 | 3 | 2 | 1 | 1 | 1.7 |
| Total | 71,239 | | | | | | 2.7 |

2.2.2 Demand for timber packaging in the UK

The UK timber packaging market is also showing signs of recovery. In 2013, the quantity of both newly manufactured and repaired pallets increased by just over 1%, to 66.2 million; while the quantity of newly manufactured pallets rose from 30.0 million in 2012 to 31.4 million in 2013, an increase of 4.5%^{24,25}.

A report by the Timber Packaging and Pallet Confederation (Timcon)²⁶ showed that in 2013, home grown UK softwood had a 74% share of the UK pallet/packaging sector. Over the period 2012-2013 the exports of pallet/packaging timber from the Republic of Ireland grew by 60%, to reach a market penetration of 5.5%.

2.2.3 The UK market for forest products

The UK is a significant importer of sawn timber and panel products. In 2014, 6.43 million m³ of sawn timber products were imported by the UK (Table 8)²⁷. However, in volume terms, the size of the market has declined by 23% over the period 2005-2014. Over the same period, panel imports declined by 17%. In 2014, the main suppliers of forest products to the UK²⁸ were:

- Sweden (44%), Latvia (15%) and Finland (13%) provided the majority of imports of sawn softwood to the UK.
- Most of the particleboard imports²⁹ to the UK were from France (24%), Germany (21%), Ireland (13%) and Belgium (11%).
- Ireland (37%), Germany (21%) and Belgium (11%) were the principal sources of fibreboard imports.
- Most paper and paperboard imports came from Germany (19%), Sweden (16%) and Finland (15%).

Ireland's market share of the UK sawn softwood timber market has more than doubled from 3.3% in 2007 to 7.0% in 2014. Moreover, in 2014, the Republic of Ireland was the fourth largest exporter of sawn softwood timber to the UK. There are further opportunities for the Irish sawmilling sector to grow market share in the UK.

²¹ <https://www.citb.co.uk/documents/research/csn%20reports%202015-2019/construction-skills-network-uk-2015-2019.pdf>

²² <https://www.gov.uk/government/organisations/department-for-communities-and-local-government>

²³ R & M: repair and maintenance

²⁴ [http://www.forestry.gov.uk/pdf/WoodPackagingStudy2013.pdf/\\$FILE/WoodPackagingStudy2013.pdf](http://www.forestry.gov.uk/pdf/WoodPackagingStudy2013.pdf/$FILE/WoodPackagingStudy2013.pdf)

²⁵ At the time of writing, data for 2014 were not available.

²⁶ <https://www.timcon.org/>

²⁷ <http://www.forestry.gov.uk/forestry/infd-9hxecv>

²⁸ <http://www.forestry.gov.uk/website/forstats2014.nsf/LUCContents/45A4416DC7F75A9D8025735600334221>

²⁹ Particleboard data includes OSB.

In 2014, Ireland was the largest exporter of fibreboard, including medium density fibreboard (MDF), to the UK (Table 9)³⁰.

Table 8: UK imports of sawn timber and wood-based panel products (2010-2014).

| Year | Sawn timber | Wood-based panels | Total |
|------|--------------------|-------------------|-------|
| | 000 m ³ | | |
| 2010 | 5,699 | 2,701 | 8,400 |
| 2011 | 4,925 | 2,827 | 7,752 |
| 2012 | 5,100 | 2,700 | 7,800 |
| 2013 | 5,500 | 2,962 | 8,462 |
| 2014 | 6,425 | 3,260 | 9,685 |

Table 9: Ireland's share of the UK forest products market by product type (2011-2014).

| Product(s) | 2011 | 2012 | 2013 | 2014 |
|-----------------------------|--------------------------|------|------|------|
| | % market share by volume | | | |
| Sawn softwood | 6 | 7 | 7 | 7 |
| Particleboard including OSB | 24 | 20 | 15 | 13 |
| Fibreboard including MDF | 36 | 36 | 34 | 37 |

2.3 €/£ Exchange rate

Historic and forecasted movement in the €/£ exchange rate are shown in Table 10³¹.

Table 10: Historic & forecasted €/£ exchange rate by quarter (2014-2016f).

| Historic | €/£ | £/€ | Forecasted | €/£ | £/€ |
|----------|------|------|------------|------|------|
| 2014-Q1 | 0.83 | 1.21 | 2015-Q4 | 0.70 | 1.43 |
| 2014-Q2 | 0.81 | 1.23 | 2016-Q1 | 0.69 | 1.45 |
| 2014-Q3 | 0.79 | 1.26 | 2016-Q2 | 0.71 | 1.41 |
| 2014-Q4 | 0.79 | 1.27 | 2016-Q3 | 0.73 | 1.37 |
| 2015-Q1 | 0.74 | 1.34 | 2016-Q4 | 0.75 | 1.33 |
| 2015-Q2 | 0.72 | 1.39 | | | |
| 2015-Q3 | 0.71 | 1.41 | | | |

2.4 Demographics

Net outward migration in the year to April 2014 is estimated to have fallen to 21,400, a decrease of 11,700 on the previous year's figure of 33,100³².

3.0 Policy measures

The following policy measures influence the Irish forest & forest products sector.

3.1 Forest research

The Irish forest research programme is managed by the Research Division of the Department of Agriculture, Food and the Marine (DAFM). The COFORD Council (an advisory body consisting of representatives from the forest sector) advises the Department regarding the scope of forest research and provides input to DAFM on a range of other issues, including roundwood demand and supply.

In October 2014, the Department of Agriculture, Food and the Marine published a new Strategic Research Agenda for Forestry in Ireland *Forest Research Ireland (FORI) – meeting the needs of Ireland's forest sector to 2017 and beyond through research and innovation*^{33,34}.

³⁰ [http://www.forestry.gov.uk/pdf/Ch3_Trade_FS2015.pdf/\\$FILE/Ch3_Trade_FS2015.pdf](http://www.forestry.gov.uk/pdf/Ch3_Trade_FS2015.pdf/$FILE/Ch3_Trade_FS2015.pdf)

³¹ http://research.cibcwm.com/economic_public/download/fxmonthly.pdf

³² <http://www.cso.ie/en/releasesandpublications/er/pme/populationandmigrationestimatesapril2014/>

³³ <https://www.agriculture.gov.ie/media/migration/press/pressreleases/2014/october/PR14414091014.pdf>

The purpose of the FORI Report is to capture specific policy, knowledge and production focused research topics and ideas relevant to the needs of forest stakeholders. This process was initiated by the COFORD Council in 2012 and was facilitated by Research Division, DAFM, with wide stakeholder involvement.

Product and processing research and innovation within the forest products sector is supported by Enterprise Ireland³⁵.

3.2 Afforestation and forest expansion

Ireland's forest cover, at just over 11% of the land area, is among the lowest in Europe. In order to provide for a sustained wood harvest and to provide for climate change mitigation and other public goods, the policy aim is to increase forest cover to 18% by mid century³⁶.

€111 million in funding for capital and current expenditure was allocated for the overall forestry programme in 2015 (Table 11). This was to meet commitments under previous forestry programmes along with schemes approved under the Forestry Programme 2014-2020. The programme aims to plant 6,000 ha of new forests in 2015, increasing to 8,310 ha in 2020.

Over the period (1981-2014), over 255,000 ha of forest have been established by private growers in Ireland^{37,38}, of which 239,000 ha have been planted since 1990. 84% of private forest owners are farmers³⁹. Much of the forest area planted has entered or is entering the thinning phase, but 42% is still less than 25 years old⁴⁰. The level of afforestation over the period 2011-2014 is shown in Table 12.

Table 11: Annual expenditure on forest schemes (2011-2015).

| Forest scheme | 2011 | 2012 | 2013 | 2014 | 2015 |
|---------------------|-----------|-------|-------|-------|-------|
| | € million | | | | |
| Afforestation grant | 28.8 | 25.9 | 24.9 | 25.0 | 25.7 |
| Premium | 75.0 | 75.7 | 76.0 | 77.5 | 79.5 |
| Support schemes | 7.1 | 6.6 | 5.7 | 5.6 | 5.8 |
| Total | 110.9 | 108.2 | 106.6 | 108.1 | 111.0 |

Table 12: Afforestation in the Republic of Ireland by area and ownership (2010-2014).

| Year | State | Private | Total |
|------|-------|---------|-------|
| | ha | | |
| 2010 | 4 | 8,310 | 8,314 |
| 2011 | 62 | 6,591 | 6,653 |
| 2012 | 60 | 6,592 | 6,652 |
| 2013 | 3 | 6,249 | 6,252 |
| 2014 | 0 | 6,156 | 6,156 |

³⁴ <https://www.agriculture.gov.ie/media/migration/research/whatsnew/ForestResearchIreland20143Layout1091014.pdf>

³⁵ <http://www.enterprise-ireland.com/en/>

³⁶ See *Forests, products and people – a review of Ireland's forest policy* at: <https://www.agriculture.gov.ie/media/migration/forestry/forestpolicysurveyreviewforestsproductsandpeople/00487%20Forestry%20Review%20-%20web%2022.7.14.pdf>

³⁷ http://www.teagasc.ie/forestry/docs/technical_info/articles/Teagasc_forestry_situation_outlook_2010.pdf

³⁸ <http://www.agriculture.gov.ie/forests-service/forests-service-general-information/forest-statistics-and-mapping/afforestation-statistics/>

³⁹ www.teagasc.ie/forestry/docs/technical_info/articles/IUFRO%20The%20Farm%20Forest%20Resource%20and%20Rural%20Development%20in%20Ireland%202006.pdf

⁴⁰ http://www.teagasc.ie/publications/2012/1070/Forestry_Outlook_JohnCasey.pdf

3.2.1 Forestry Programme (2014-2020)

The programme is 100% funded from the Irish Exchequer and has been granted State Aid approval by the European Commission⁴¹. The programme provides for:

- An investment of €482 million in new forests over the programme period.
- The establishment of 44,000 ha of new forests by 2020.
- Building of 700 km of new forest roads by 2020.
- The introduction of new species.
- The promotion of the planting of native tree species.

Forest Roads Scheme

The forest roads scheme provides grant-aid to forest owners to improve access to forests and facilitate thinning. There is a once off payment of 80% of eligible costs to a maximum of €40/linear metre payable on satisfactory completion of the project⁴².

3.3 Sources & uses of wood fibre

Wood fibre sources for the processing and wood energy sectors and residue outturn are shown in Table 13; uses are in Table 14^{43,44}. Wood residues are primarily used as feedstock for sawmill kilns and for process heat in the manufacture of wood-based panels (WBP). Post-consumer recovered wood (PCRW) is increasingly being used for energy production and in the manufacture of wood-based panels⁴⁵. See 3.5 for use of forest-based biomass.

Table 13: Sources of wood fibre (2010-2014).

| Fibre source | 2010 | 2011 | 2012 | 2013 | 2014 |
|---|---|-------|-------|-------|-------|
| | 000 m ³ OB RWE ⁴⁶ | | | | |
| Roundwood | 2,708 | 2,740 | 2,594 | 2,851 | 2,949 |
| Sawmill residues | 842 | 829 | 853 | 897 | 925 |
| Wood-based panel residues ⁴⁷ | 101 | 115 | 104 | 110 | 114 |
| Residue imports | | | | 108 | 49 |
| Harvest residues | 0 | 40 | 30 | 30 | 60 |
| Post-consumer recovered wood (PCRW) | 280 | 270 | 250 | 250 | 300 |
| Total | 3,931 | 3,994 | 3,882 | 4,246 | 4,397 |

⁴¹ <http://www.agriculture.gov.ie/press/pressreleases/2015/february/title,81095.en.html>

⁴² <http://www.agriculture.gov.ie/press/pressreleases/2012/january/title,60877.en.html>

⁴³ UNECE Joint Wood Energy Enquiry (2011-2015) and EUROSTAT Joint Forest Sector Questionnaire (2011-2015).

⁴⁴ Wood fibre that is reused is counted twice in this model.

⁴⁵ UNECE Joint Wood Energy Enquiry (2011-2015) & EUROSTAT Joint Forest Sector Questionnaire (2011-2015).

⁴⁶ RWE: roundwood equivalent

⁴⁷ Includes bark (from the debarking lines at Medite & SmartPly) and sawdust from the sanding of wood-based panels.

Table 14: Uses of wood fibre (2010-2014).

| Fibre use | 2010 | 2011 | 2012 | 2013 | 2014 |
|---|---------------------------|-------|-------|-------|-------|
| | 000 m ³ OB RWE | | | | |
| Sawmilling | 1,603 | 1,580 | 1,622 | 1,710 | 1,815 |
| Round stake | 118 | 116 | 131 | 117 | 147 |
| Wood-based panels | 1,400 | 1,340 | 1,276 | 1,407 | 1,377 |
| Wood biomass used for energy production by the power generation and forest products sectors ⁴⁸ | 554 | 572 | 611 | 704 | 760 |
| Other uses | | | | | |
| Horticultural bark mulch | 27 | 34 | 40 | 50 | 40 |
| Wood chip for commercial biomass use ⁴⁹ | 39 | 41 | 30 | 100 | 100 |
| Export of forest product residues | 58 | 196 | 112 | 88 | 88 |
| Other uses ⁵⁰ | 132 | 115 | 60 | 70 | 70 |
| Total | 3,931 | 3,994 | 3,882 | 4,246 | 4,397 |

3.4 Energy policy and support measures

3.4.1 Draft Bioenergy Plan

In October 2014, the Department of Communications, Energy and Natural Resources (DCENR) published its *Draft Bioenergy Plan*⁵¹. This examines all aspects of the bioenergy sector so as to inform the actions required to optimise its contribution to achieving the 2020 targets under the Renewable Energy Directive. In early 2015, a Bioenergy Steering Group was formed by DCENR with the purpose of furthering the vision set out in the plan. Four working groups were established, aiming to develop measures on: electricity and heat, transport, supply, and research & development. Public and private sector stakeholders will contribute to each working group. The Department of Agriculture, Food and the Marine (DAFM) is working closely with DCENR in assessing the potential of bioenergy from the agriculture and forest sectors to contribute to the 2020 targets and is involved in the working groups. Any decisions in relation to future developments in the bioenergy sector will be taken in the context of this exercise⁵².

3.4.2 Energy Performance of Buildings Directive (EPBD)

Since January 2007, in line with the European Commission's Energy Performance of Buildings Directive⁵³ (Directive 2002/91/EC)⁵⁴, the energy efficiency of all new houses and apartments in the Republic of Ireland is assessed and certified by a registered building energy rating (BER) assessor. From 2009, this scheme has been extended to existing dwellings, when they are offered for sale or lease. The BER provides information on the dwelling's energy performance and can be used to demonstrate improvements in energy efficiency over time⁵⁵.

3.5 Use of forest-based biomass for energy generation (2014)

3.5.1 Existing use of forest-based biomass for energy generation

In 2014, 36% of the roundwood used in the Republic of Ireland was for energy generation, mainly within the forest products sector (Table 15). Since 2006, the use of wood biomass energy in Ireland has resulted in an estimated greenhouse gas (GHG) emission saving of 4.29 million tonnes of carbon dioxide (CO₂). Wood-biomass fuels used by the sector are shown in Table 15 while the output of the sector is shown in Table 16.

In 2014, the output of the forest-based biomass energy sector grew by 8% over 2013 (Table 15). In 2014, 235,000 m³ of firewood was used in the Republic of Ireland to a value of €34 million, showing that it is

⁴⁸ Wood biomass energy is used by the forest products sector for process drying, heating and for the generation of electricity. This includes the use of wood biomass energy for co-firing by Edenderry Power.

⁴⁹ Primarily used for the production of space or production heat.

⁵⁰ Other uses include the production of wood pellets.

⁵¹ <http://www.dcenr.gov.ie/energy/en-ie/Renewable-Energy/Pages/Bio-Energy.aspx>

⁵² <http://www.agriculture.gov.ie/media/migration/publications/2015/ARO201415230615.pdf>

⁵³ www.sei.ie/epbd/

⁵⁴ ec.europa.eu/energy/efficiency/buildings/buildings_en.htm

⁵⁵ http://www.dcenr.gov.ie/NR/rdonlyres/FC3D76AF-7FF1-483F-81CD-52DCB0C73097/0/NEEAP_full_launch_report.pdf

providing a steady and a growing market for first thinnings (Table 17). Firewood harvested by forest owners for their own use is not included in the firewood total.

Table 15: Use of forest-based biomass and as a proportion of total roundwood harvest (2010-2014).

| Item | 2010 | 2011 | 2012 | 2013 | 2014 |
|---|--------------------|-------|-------|-------|-------|
| | 000 m ³ | | | | |
| Wood-biomass use by the energy ⁵⁶ and forest products industry | 554 | 572 | 611 | 660 | 760 |
| Roundwood chipped for primary energy use ⁵⁷ | 39 | 41 | 30 | 100 | 100 |
| Domestic firewood use | 199 | 214 | 225 | 230 | 235 |
| Short rotation coppice (SRC) | 1 | 5 | 5 | 5 | 5 |
| Wood pellets and briquettes | 121 | 129 | 144 | 161 | 150 |
| Charcoal | 2 | 5 | 2 | 1 | 1 |
| Total | 916 | 966 | 1,017 | 1,157 | 1,251 |
| Of which supplied from domestic resources | 841 | 896 | 910 | 1,034 | 1,166 |
| Roundwood available for processing (excludes firewood) | 2,708 | 2,740 | 2,594 | 2,852 | 2,975 |
| Firewood used (including firewood imports) | 199 | 214 | 225 | 230 | 235 |
| Total roundwood use ⁵⁸ | 2,907 | 2,954 | 2,819 | 3,082 | 3,210 |
| Wood-biomass use as a % of roundwood used | 28.9 | 30.3 | 32.3 | 33.5 | 36.3 |

Table 16: Use of forest-based biomass and associated estimated greenhouse gas emissions mitigation (2010-2014).

| Energy sector | Unit | 2010 | 2011 | 2012 | 2013 | 2014 |
|------------------------|------------|--------|-------|-------|-------|-------|
| | | Output | | | | |
| Heat | TJ | 6,306 | 6,604 | 6,808 | 7,002 | 7,562 |
| Electricity | TJ | 372 | 378 | 477 | 491 | 530 |
| Total | TJ | 6,678 | 6,982 | 7,285 | 7,493 | 8,092 |
| CO ₂ abated | 000 tonnes | 511 | 534 | 557 | 573 | 619 |

Table 17: Volume and value of the domestic firewood market in the Republic of Ireland (2010-2014).

| Year | 000 m ³ OB | € million |
|------|-----------------------|-----------|
| 2010 | 199 | 28.80 |
| 2011 | 214 | 30.97 |
| 2012 | 225 | 32.56 |
| 2013 | 230 | 33.33 |
| 2014 | 235 | 34.05 |

3.5.2 Forest-based biomass - outlook to 2020

The COFORD report *Mobilising Ireland's forest resource* estimates that by 2020, the demand for roundwood in the Republic of Ireland is set to increase to 4.67 M m³ (Table 18)⁵⁹. Based on scenario modelling^{60,61}, 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 M GJ, equivalent to 1.87 M m³. The demand for forest-based biomass for energy in 2020 is an aggregate of the demand for combined heat & power (CHP), heat only and co-firing. Expected demand in 2020, by energy type, is shown in Table 18⁶². To meet the 2020 renewable energy target, the demand for forest-based biomass for energy production will need to double over the period 2011 to 2020.

⁵⁶ Includes co-firing of wood biomass at Edenderry Power; www.edenderrypower.ie

⁵⁷ Primarily used for space and process heating

⁵⁸ Roundwood use includes the use of domestically sourced and imported roundwood

⁵⁹ <http://www.coford.ie/media/coford/content/publications/projectreports/Mobilising%20Ireland's%20forest%20resources%20-%20Digital%20March2015.pdf>

⁶⁰ This is based on data available as of 2/11/2010.

⁶¹ http://www.coford.ie/media/coford/content/publications/projectreports/roundwooddemand2011/COFORD_demand01Mar11.pdf

⁶² The expected demand for forest-based biomass to 2020 is based on a scenario model which was developed by SEAI; www.seai.ie. This is based on data available as of 2/11/2010.

This is a challenging target. However, experience from Scotland and Austria has shown that biomass use can grow to meet challenging renewable energy targets.

The COFORD mobilisation report⁶³ outlines ways in which the roundwood harvest can be maximised (see Section 3.9).

Table 18: Estimated roundwood supply and demand in Ireland in 2014 and 2020.

| Item | 2014 | 2020 |
|---|-----------------------|--------------|
| | 000 m ³ OB | |
| Roundwood supply forecast (a) | 3,064 | 3,756 |
| Demand forecast and residue offset | | |
| Roundwood for sawmilling ⁶⁴ | 2,059 | 2,617 |
| Roundwood for boardmills | 730 | 880 |
| Residues for boardmills | 670 | 720 |
| Forest-based biomass ^{65,66} | 994 | 1,871 |
| Sawmill residue offset ⁶⁷ | -1,016 | -1,315 |
| Boardmill residue offset | -89 | -103 |
| Net demand⁶⁸ (b) | 3,348 | 4,670 |
| Supply position (a-b) | -284 | -914 |

3.6 Renewables and national renewable energy targets

3.6.1 Contribution of renewables to heat and electricity demand

Wind energy⁶⁹ dominates the renewable electricity sector (RES-E) sector. Over the period 1990-2013, the output of the renewable energy has grown eight-fold, from 697 GWh to 5,601 GWh. Most of the increase has taken place since 2000.

Renewable energy^{70,71} contributing to Ireland's thermal energy requirements is dominated by industrial biomass use, in particular as outlined to produce heat in the manufacture of wood-based panels, in sawmilling and as well in joineries and other wood processing plants, and the use of tallow from rendering plants for heat.

Over the period 2006-2013, the use of RES-H by the services sector grew strongly. This saw RES-E use by the sector grow by 388% to 442 GWh. This use of biomass was previously supported by the Renewable Energy Heat Deployment (ReHeat) grant scheme for the purchase of wood chip and pellet boilers, solar thermal and heat pump installations. The scheme closed in 2011. One proposal contained in the Draft Bioenergy Plan⁷² referred to in 3.3.1 is the introduction of a Renewable Heat Incentive scheme (RHI). A similar RHI scheme⁷³ operates in the UK.

It is proposed, subject to State Aid clearance, and the completion of an SEA/AA process, and further Government approval, that the RHI scheme will be introduced from 2016. The target will be larger non-ETS industrial and commercial renewable heating installations. It will be designed to reward users for each unit of renewable heat used from sustainable biomass, and to deliver the additional heat required in the context of meeting 12% of heat demand from renewable sources by 2020 (see following Section). The intention is that the scheme will be kept under review to assess its effectiveness⁷⁴.

⁶³ <http://www.coford.ie/media/coford/content/publications/projectreports/Mobilising%20Ireland's%20forest%20resources%20-%20Digital%20March2015.pdf>

⁶⁴ Source: A survey of the roundwood demand sawmills and boardmills as undertaken by drima marketing (April, 2014).

⁶⁵ The estimated demand for wood-based biomass energy in the Republic of Ireland was provided by the Sustainable Energy Authority of Ireland (SEAI); s based on the best available data available as of April 2014; www.seai.ie

⁶⁶ The estimated demand for wood-based biomass energy in Northern Ireland was provided by Action Renewables; (personal communication); This is based on the best available data available as of April 2014; <http://www.actionrenewables.co.uk/>

⁶⁷ The estimation of sawmill and boardmill residues is based on the analysis as used for Woodflow (2012); [http://www.coford.ie/media/coford/content/publications/projectreports/cofordconnects/Woodflow%20and%20forest-based%20biomass%20energy%20use%20on%20the%20island%20of%20Ireland%20\(2012\).pdf](http://www.coford.ie/media/coford/content/publications/projectreports/cofordconnects/Woodflow%20and%20forest-based%20biomass%20energy%20use%20on%20the%20island%20of%20Ireland%20(2012).pdf)

⁶⁸ Net demand is defined as the demand for wood fibre less (the supply of roundwood from Irish forests + the supply of wood residues from the sawmilling and boardmill sectors).

⁶⁹ http://www.seai.ie/Publications/Statistics_Publications/Renewable_Energy_in_Ireland/Renewable-Energy-in-Ireland-2012.pdf

⁷⁰ http://www.seai.ie/Publications/Statistics_Publications/Renewable_Energy_in_Ireland/Renewable-Energy-in-Ireland-2012.pdf

⁷¹ At the time of writing, data for 2014 was not available.

⁷² <http://www.dcenr.gov.ie/NR/rdonlyres/4B809564-5709-41C1-AB37-3CF772ECD693/0/BioenergyPlan.pdf>

⁷³ <http://www.rhincntive.co.uk/>

⁷⁴ <http://www.dcenr.gov.ie/NR/rdonlyres/4B809564-5709-41C1-AB37-3CF772ECD693/0/BioenergyPlan.pdf>

3.6.2 Renewable energy targets

Ireland's renewable energy targets to 2020 are shown in Table 19⁷⁵.

Table 19: Renewable energy targets to 2020 by type.

| RE ⁷⁶ type | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|--|------|------|------|------|------|------|
| | % | | | | | |
| Renewable heat (RES-H) | 8 | 9 | 10 | 10 | 11 | 12 |
| Renewable electricity (RES-E) | 34 | 36 | 38 | 40 | 42 | 44 |
| Renewable energy used in transport (RES-T) | 7 | 7 | 9 | 9 | 10 | 11 |
| Overall RES | 12 | 12 | 13 | 14 | 15 | 16 |

3.7 Meeting national renewable energy targets

Ireland's progress towards meeting its renewable energy targets is shown in Table 20⁷⁷.

Table 20: Progress towards meeting Ireland's renewable energy targets (2010-2020).

| RE type | 2010 | 2011 | 2013 | 2020 |
|------------------------|-------------|------|------|------|
| | % of target | | | |
| RES-E normalised | 14.9 | 17.6 | 20.9 | 40 |
| RES-T | 2.6 | 3.6 | 4.9 | 10 |
| RES-H | 4.3 | 4.7 | 5.7 | 12 |
| Directive (2009/29/EC) | 5.5 | 6.4 | 7.8 | 16 |

The expected demand for forest-based biomass energy by energy type in 2020 is shown in Table 21.

Table 21: Estimated demand for forest-based biomass for energy production by energy type in Ireland in 2020.

| Energy type | % of total demand |
|-----------------------------|-------------------|
| Combined heat & power (CHP) | 63 |
| Heat only | 31 |
| Co-firing | 6 |
| Total | 100 |

3.8 Forecast of roundwood supply

Over the next decade and a half, the projected roundwood harvest from Irish forests will increase significantly. The COFORD national roundwood production forecast (2011-2028) shows that over the period to 2028 the annual 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 of Ireland (those areas established over the past 30 years on foot of state/EU and private sector investment)⁷⁴. Considerable scope exists to expand wood energy production, and this is in addition to supplying the roundwood needs of sawmilling and board manufacture⁷⁸.

Realising this increase in production will entail significant capital investment in roads, harvesting equipment and in information technology (IT) systems by forest owners, contractors and by the State (see Section 3.9).

An updated roundwood forecast, covering the 20-year period 2016-2035, is in preparation, to issue by end of 2015.

⁷⁵ http://www.mnag.ie/workshop_2010_7_2172276902.pdf

⁷⁶ RE: Renewable energy

⁷⁷ www.seai.ie

⁷⁸

www.coford.ie/media/coford/content/publications/projectreports/roundwood/Roundwood%20Prod%20Forecast%20LR%20June%202011.pdf

3.9 Mobilising roundwood supply – the COFORD wood mobilisation report

The COFORD report on the mobilisation of roundwood issued in March 2015⁷⁹. It addresses ways to meet growing demands for wood fuel, wood-based panels and sawn timber. The report was authored by the COFORD wood mobilisation group which comprised growers and processors, Coillte, Teagasc, the Northern Ireland Forest Service and officials from the Forest Service.

The report analyses the issues impacting on the level of wood mobilisation including: current and projected roundwood supply/demand dynamics and measures, forest rotation length, forest roads and roading, provision of harvest information to growers, road haulage and transport technology, training, environmental designations and research and development. It addresses these and other topics through 40 specific recommendations.

Demand by indigenous industry for forest fibre on the island of Ireland already exceeds the capacity of state and private forests to meet it, as evidenced by roundwood imports. Current high levels of harvest and demand reflect well on the quality of roundwood that is coming to the market from Irish forests, as well as the level of investment in supply chain management, processing technology and marketing by the processing sector.

A tight supply has meant that large sawlog is being imported for further processing, while wood fuels such as firewood and pellets are also being imported to meet the increasing levels of demand. While a level of imports is likely to continue, from a national economic perspective, and to build the significant role that forests play in climate change mitigation, the best source of wood for sawn timber, panels, fuel and other products is from Irish forests.

In that regard, the report says that recommendations in the Government forest policy review (*Forests, products and people*)⁸⁰ to invest in increasing the forest resource from the current 11% of the land area, to 18% by mid century, with one of the main drivers being to provide for a sustainable level of increase in wood supply, need to be implemented.

It goes on to outline that despite relatively high stumpage prices in recent years there are parcels in the public and private estates that are not being harvested. The public sector forecasted volume (and in some years the private forecast) includes roundwood that is not coming to market. This presents a challenge for both forecasting and wood mobilisation.

The particular challenge for the private sector is to mobilise the forecasted near ten-fold increase in roundwood production between now and the end of the next decade.

A key issue that the COFORD Wood Mobilisation Group has addressed, in consultation with stakeholders, is how to remove barriers to wood mobilisation, in order to enable forecast levels of wood production to be met and exceeded. In this context, it is important to point out that increasing harvest levels over and above the net realisable volume levels in the All Ireland forecast would not be at the expense of a sustainable level of wood production. In fact, the second National Forest Inventory (NFI)⁸¹ has shown that the annual harvest in the Republic is less than half of the wood increment at a national level.

3.10 National climate change strategy

3.10.1 Climate change bill

In 2015, the government tabled a Climate Action and Low-Carbon Development Bill. The purpose of the Bill is to provide for the approval of plans by the Government in relation to climate change for the purpose of pursuing the transition to a low carbon, climate resilient and environmentally sustainable economy by the year 2050⁸².

The Bill sets out proposed statutory obligations in relation to the development of a National Mitigation Plan, incorporating measures relating to the four sectors responsible for the bulk of Ireland's CO₂ emissions – Transport, Agriculture, Electricity Generation, and the Built Environment. In anticipation of the planned legislation, work has already commenced on the process of developing the Plan, at both sectoral and national level.

The Bill formally obliges the State to adhere to EU targets such as a 20% reduction in emissions by 2020 over 2005 levels.

The other major feature of the Bill is the establishment of an expert advisory council which will advise and make recommendations to the Minister for the Environment. The council has recently taken office.

A National Climate Change Adaptation Framework⁸³ has been in place since 2012. The aim of this Framework is to ensure that an effective role is played by all stakeholders in putting in place an active and enduring adaptation policy regime.

⁷⁹ <http://www.coford.ie/media/coford/content/publications/projectreports/Mobilising%20Irelands%20forest%20resources%20-%20Digital%20March2015.pdf>

⁸⁰

<https://www.agriculture.gov.ie/media/migration/forestry/publicconsultation/forestpolicyreview/ForestPolicyReviewpublicconsult21Jun2013.pdf>

⁸¹ <http://www.agriculture.gov.ie/media/migration/forestry/nationalforestinventory/2012/Forest%20Inventory%20Main%20Findings.pdf>

⁸² <http://environ.ie/en/Legislation/Environment/Atmosphere/FileDownLoad.40047.en.pdf>

The first phase, which is already well underway, is focused on identifying national vulnerability to climate change, based on potential impacts relative to current adaptive capacity. The second phase involves the development and implementation of sectoral and local adaptation action plans which will form part of the comprehensive national response to the impacts of climate change.

3.10.2 Irish forests and climate change

According to the second national forest inventory NFI, Irish forests contained over 380 million tonnes of carbon in 2012. Put in perspective, this is equivalent to 24 times the greenhouse emissions that occurred in the same year. Due to the relatively young age of the forest estate the carbon store continues to accumulate. Latest estimates show that, after taking harvest into account, over 3.8 million tonnes of carbon dioxide (CO₂) were stored in 2013. When extended to 2030, recent projections submitted under the Greenhouse Gas Monitoring Mechanism Regulation of the EU (525/2013)⁸⁴ and the LULUCF Decision (529/2013)⁸⁵ show that with continued planting of new forests, more than 51 million tonnes of carbon dioxide (CO₂) can be removed in the period up to 2030. As forests increase in age and the level of harvest increases the level of carbon dioxide uptake is likely to begin to fall off by the end of the next decade. Continued afforestation can help to reduce this decline, as well as providing for sustained levels of wood production in the decades ahead. In this regard the use of forest-based biomass fuels and an increasing use of wood products in construction will assume greater significance in climate change mitigation in the future⁸⁶.

4.0 Developments in forest products markets

4.1 Irish roundwood harvest

In 2014, 3.11 million m³ of roundwood was harvested in the Republic of Ireland (Table 22)⁸⁷, while over the same period, 2.96 million m³ of roundwood was processed⁸⁸, a 4% increase on 2013 (Table 24). The 2014 harvest was the highest on record.

Table 22: Total roundwood harvest (including firewood) in the Republic of Ireland (2010-2014).

| Sector | 2010 | 2011 | 2012 | 2013 | 2014 |
|-------------------------------|-----------------------|-------|-------|-------|-------|
| | 000 m ³ OB | | | | |
| Coillte ⁸⁹ harvest | 2,517 | 2,492 | 2,485 | 2,588 | 2,517 |
| Private harvest | 387 | 460 | 354 | 448 | 597 |
| Total | 2,904 | 2,952 | 2,839 | 3,036 | 3,114 |

4.2 Sawn timber production, consumption, trade and promotion

4.2.1 Production

Eight companies supply over 90% of Irish sawmilling output and provide the main market for sawlog and stakewood harvested from Irish forests (Table 23)⁹⁰. The majority of the logs supplied to Irish sawmills are certified to the FSC^{91,92} and/or PEFC⁹³ standard. In addition, Irish sawmills have their own chain of custody (CoC) certification.

⁸³ <http://www.environ.ie/en/Publications/Environment/ClimateChange/FileDownload,32076.en.pdf>

⁸⁴ <http://rod.eionet.europa.eu/instruments/652>

⁸⁵ http://ec.europa.eu/clima/policies/forests/lulucf/documentation_en.htm

⁸⁶ <http://www.agriculture.gov.ie/media/migration/publications/2015/ARO201415230615.pdf>

⁸⁷ Historic harvest and trade data for the period 1961-2014 can be found on the FAOSTAT website:

<http://faostat.fao.org/site/626/default.aspx#ancor>

⁸⁸ Excluding firewood and hardwood

⁸⁹ Coillte is the State forestry company. It is a commercial company operating in forestry, land based businesses, renewable energy and panel products; www.coillte.ie

⁹⁰ Source: drima market research survey

⁹¹ FSC: Forest Stewardship Council; www.fsc.org

⁹² 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

⁹³ www.pefc.org

In 2014, sawmill roundwood intake was 1.95 million m³, which was converted to 0.90 million m³ of sawn timber⁹⁴ (Table 24). Coillte supplied 74% of the roundwood, with the balance supplied by the private forest sector, with some imports.

Over the period 2013-2014, consumption of sawn timber in the Republic of Ireland grew by 9.8%. In 2014, 52% of the Irish market for sawn softwood timber was supplied by domestic production with the balance being imported. Over the same period, only 6% of the Irish market for sawn hardwood was supplied domestically (Table 29).

Timber products from Irish sawmills serve three main markets: construction/structural, pallet/packaging and fencing/outdoor. Output from 2010-2014 is in Table 25⁹⁵.

Table 23: Large and medium sized sawmills on the island of Ireland by location.

| Size | Sawmill | Location(s) |
|--------|--|---|
| Large | Balcas Ltd. | Enniskillen, Co Fermanagh, Northern Ireland |
| Large | ECC Timber Products Ltd. | Corr na Móna, Co Galway |
| Large | Glennon Brothers Ltd. | Longford, Co Longford Fermoy, Co Cork |
| Large | GP Wood Ltd. | Enniskeane, Co Cork Macroom, Co Cork |
| Large | Murray Timber Group | Ballygar, Co Galway Ballon, Co Carlow |
| Medium | Coolrain Sawmills Ltd. | Coolrain, Co Laois |
| Medium | Laois Sawmills Ltd. | Portlaoise, Co Laois |
| Medium | Woodfab Timber Ltd. | Aughrim, Co Wicklow |

Table 24: Roundwood available for processing in the Republic of Ireland (2010-2014).

| Item | 2010 | 2011 | 2012 | 2013 | 2014 |
|---|-----------------------|--------------|--------------|--------------|--------------|
| | 000 m ³ OB | | | | |
| Commercial softwood | | | | | |
| Imports less exports | 28 | 55 | -18 | 49 | 68 |
| Coillte | 2,217 | 2,299 | 2,269 | 2,474 | 2,434 |
| Private sector | 463 | 386 | 343 | 328 | 447 |
| Commercial hardwood | | | | | |
| Imports less exports | 0 | 0 | 0 | -1 | 0 |
| Coillte | 0 | 1 | 1 | 2 | 6 |
| Private sector | 0 | 1 | 1 | 1 | 0 |
| Total | 2,708 | 2,742 | 2,596 | 2,853 | 2,955 |
| Of which | | | | | |
| Sawlog | 1,603 | 1,575 | 1,622 | 1,710 | 1,815 |
| Stakewood | 118 | 115 | 131 | 117 | 133 |
| Total use of roundwood by sawmills | 1,721 | 1,690 | 1,753 | 1,827 | 1,948 |

⁹⁴ Includes the production of round stake.

⁹⁵ COFORD Connects Woodflow Series: www.coford.ie

Table 25: Sawn timber and round stake output by product in the Republic of Ireland (2010-2014).

| Product(s) | 2010 | 2011 | 2012 | 2013 | 2014 |
|-------------------------|--------------------|------|------|------|-------|
| | 000 m ³ | | | | |
| Construction/structural | 293 | 289 | 297 | 313 | 477 |
| Pallet/packaging | 255 | 251 | 258 | 272 | 207 |
| Square edged fencing | 209 | 206 | 211 | 223 | 203 |
| Round stakes | 107 | 106 | 119 | 106 | 133 |
| Other | 15 | 15 | 15 | 16 | 17 |
| Total output | 879 | 867 | 900 | 930 | 1,037 |

4.2.2 Trade

In 2014, exports of forest products from the Republic of Ireland were valued at €370 million, a 9% increase on 2013. Wood-based panels (WBP) accounted for €198 million, the balance comprising paper and sawn timber exports (Table 26)⁹⁶.

In value terms, Ireland became a net exporter of sawn timber in 2010. This was the first time such a trade surplus was recorded, (trade data are available from 1961 from FAO⁹⁷) (Table 27). It marked the continuation of a trend apparent since 2008 (and more apparent in the case of export volumes) with the gap between the value of exports and imports closing due to the collapse of the domestic construction market and increased levels of exports, mainly to the UK.

In value terms, Ireland became a net exporter of sawn timber in 2010. This was for the first time since 1961, when global forest products statistics began to be compiled by FAO⁹⁸ (Table 27). It marked the continuation of a trend apparent since 2008 (and more apparent in the case of export volumes) with the gap between the value of exports and imports closing due to the collapse of the domestic construction market and increased levels of exports, mainly to the UK.

During 2014, consumption of sawn timber in the Republic of Ireland grew by 9%, driven by an improvement in construction markets. In 2014, 52% of the Irish market for sawn softwood timber was supplied by domestic production with the balance being imported. Over the same period, only 6% of the Irish market for sawn hardwood was supplied domestically (Table 28).

Table 26: Primary forest products trade, volume and value (2010-2014).

| Product(s) | Imports | | | | | | | | | |
|--------------------------------|--------------------|------|------|------|------|-----------|------|------|------|------|
| | 2010 | 2011 | 2012 | 2013 | 2014 | 2010 | 2011 | 2012 | 2013 | 2014 |
| | 000 m ³ | | | | | € million | | | | |
| Sawn timber | 242 | 201 | 145 | 134 | 205 | 74 | 64 | 54 | 51 | 74 |
| Wood-based panels | 166 | 195 | 204 | 194 | 235 | 65 | 68 | 75 | 78 | 98 |
| | 000 tonnes | | | | | | | | | |
| Pulp products | 41 | 54 | 47 | 50 | 46 | 31 | 45 | 45 | 41 | 42 |
| Paper and paper-board products | 370 | 383 | 415 | 428 | 404 | 313 | 333 | 339 | 340 | 340 |
| Total | | | | | | 483 | 510 | 513 | 510 | 554 |
| | Exports | | | | | | | | | |
| | 000 m ³ | | | | | € million | | | | |
| | | | | | | | | | | |
| Sawn timber ⁹⁹ | 658 | 619 | 534 | 601 | 718 | 85 | 83 | 73 | 81 | 122 |
| Wood-based panels | 660 | 616 | 630 | 665 | 662 | 179 | 173 | 179 | 199 | 198 |
| | 000 tonnes | | | | | | | | | |
| Pulp products | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Paper and paper-board products | 33 | 59 | 68 | 81 | 67 | 44 | 52 | 51 | 59 | 50 |
| Total | | | | | | 308 | 308 | 303 | 339 | 370 |

⁹⁶ Includes import/export figures for sawn timber, wood-based panels and pulp/paper products only. Data are taken from Ireland's EUROSTAT Joint Forest Sector Questionnaire (JFSQ) returns (2011-2015). 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

⁹⁷ <http://faostat.fao.org/site/626/default.aspx#ancor>

⁹⁸ <http://faostat.fao.org/site/626/default.aspx#ancor>

⁹⁹ In 2013-2014, the value of sawn timber exports grew by 51%, while volume grew 20%. The difference between value and volume may be due to a combination of changes in the euro/Sterling exchange rate and increases in product prices.

Table 27: Balance of trade in the value of forest products (2010-2014).

| Product(s) | 2010 | 2011 | 2012 | 2013 | 2014 |
|--------------------------------|-----------|------|------|------|------|
| | € million | | | | |
| Sawn timber | 11 | 19 | 19 | 30 | 48 |
| Wood-based panels | 114 | 105 | 104 | 121 | 100 |
| Pulp products | -31 | -45 | -45 | -41 | -42 |
| Paper and paper-board products | -269 | -281 | -288 | -281 | -290 |
| Total | -175 | -202 | -210 | -171 | -184 |

Table 28: Self-sufficiency in sawnwood (2010-2014)^{100,101}.

| Item | 2010 | 2011 | 2012 | 2013 | 2014 | 2010 | 2011 | 2012 | 2013 | 2014 |
|--|---------------|------|------|------|------|---------------|------|------|------|------|
| | Sawn softwood | | | | | Sawn hardwood | | | | |
| Domestic production | 772 | 760 | 782 | 824 | 904 | 0 | 1 | 1 | 1 | 3 |
| Exports | 658 | 619 | 534 | 601 | 718 | 1 | 1 | 0 | 0 | 1 |
| Imports | 205 | 169 | 116 | 108 | 175 | 37 | 32 | 28 | 26 | 30 |
| Total consumption ¹⁰² | 319 | 310 | 364 | 331 | 361 | 36 | 32 | 29 | 27 | 32 |
| % of sawn timber market which is supplied by domestic production | 36 | 45 | 68 | 67 | 52 | 0 | 3 | 3 | 4 | 6 |

4.2.3 Sawn softwood imports

The main softwood exporters to the Irish market for the period 2010-2014 are in Table 29¹⁰³.

Table 29: Main softwood exporters to Ireland (2010-2014).

| Exporter | 2010 | 2011 | 2012 | 2013 | 2014 |
|------------------------------|-----------------------|------|------|------|------|
| | 000 m ³ UB | | | | |
| Sweden | 42 | 34 | 26 | 28 | 32 |
| Latvia | 33 | 37 | 23 | 22 | 44 |
| Northern Ireland | 27 | 21 | 19 | 17 | 29 |
| Great Britain ¹⁰⁴ | 37 | 23 | 13 | 9 | 14 |
| Finland | 11 | 12 | 10 | 8 | 13 |
| Russian Federation | 18 | 9 | 8 | 7 | 17 |
| Germany | 26 | 19 | 7 | 6 | 10 |
| Netherlands | | | | 4 | 7 |
| Estonia | 4 | 4 | 3 | 3 | 3 |
| Canada | 1 | 2 | 1 | 1 | 1 |
| Belgium | 2 | 2 | | 1 | |
| Other | 2 | 6 | 6 | 2 | 5 |

4.2.4 Sawn hardwood imports

In 2014, Ireland imported 30,000 m³ of sawn hardwood to a value €23.9 million, an increase of 14.5% in volume on 2013 (Table 30). 13,150 m³ of tropical hardwoods were imported to a value of €10.1 million. This was a 60% increase on the volume imported in 2013. The main hardwood exporters to the Irish market for the period 2010-2014 are shown in Table 31¹⁰⁵.

¹⁰⁰ Central Statistics Office; www.cso.ie & EUROSTAT Joint Forest Sector Questionnaire (2011-2015)

¹⁰¹ Central Statistics Office; www.cso.ie & EUROSTAT Joint Forest Sector Questionnaire (2011-2015)

¹⁰² Total consumption is: domestic production + (imports-exports).

¹⁰³ Source: Central Statistics Office (CSO); www.cso.ie

¹⁰⁴ Data on sawn timber which is imported from Northern Ireland is treated separately from that which is imported from Great Britain.

¹⁰⁵ Sources: CSO Trade Statistics www.cso.ie & EUROSTAT JFSQ for Ireland (2011-2015)

Table 30: Imports of sawn hardwood to Ireland by origin (2010-2014).

| Sawn hardwood origin | 2010 | 2011 | 2012 | 2013 | 2014 |
|----------------------|--------------------|-------|-------|-------|-------|
| | 000 m ³ | | | | |
| Temperate | 23.00 | 19.62 | 16.38 | 20.64 | 16.49 |
| Tropical | 14.10 | 12.40 | 11.88 | 8.25 | 13.15 |
| Total | 37.10 | 32.02 | 28.26 | 28.89 | 29.64 |

Table 31: Main hardwood exporters to Ireland (2010-2014).

| Exporter | 2010 | 2011 | 2012 | 2013 | 2014 |
|------------------------------|-----------------------|------|------|------|------|
| | 000 m ³ UB | | | | |
| United States | 11 | 10 | 10 | 9 | 11 |
| Cameroon | 10 | 11 | 9 | 7 | 12 |
| Northern Ireland | 5 | 4 | 2 | 5 | 2 |
| China | 1 | | 1 | 1 | |
| Canada | 1 | 1 | 1 | 1 | 1 |
| Great Britain ¹⁰⁶ | 2 | 2 | 1 | 1 | 1 |
| Ivory Coast | 2 | 1 | 1 | | 1 |
| Congo | | | | | |
| Ghana | | | | | |
| Central African Republic | 1 | | | | |
| Germany | 1 | 1 | | | 1 |
| Other | 3 | 2 | 3 | 2 | 0 |

4.2.5 Promotion

In September 2014, Enterprise Ireland¹⁰⁷ hosted three Irish construction sawnwood exporters at Timber Expo¹⁰⁸ which took place at the NEC in Birmingham, UK: Glennon Brothers¹⁰⁹, GP Wood Ltd.¹¹⁰ and MTG (Murray Timber Group)¹¹¹. In conjunction with Enterprise Ireland and Coillte¹¹², the sawmills also attended Timber Expo 2015.

4.3 Value added products - wooden furniture

In 2014, wooden furniture to the value of €195 million was imported into the Republic of Ireland. Over the period 2013-2014, net imports for wooden furniture grew by 22% (Table 32)¹¹³.

Table 32: The value of wooden furniture imports & exports to/from the Republic of Ireland (2010-2014).

| Item | 2010 | 2011 | 2012 | 2013 | 2014 |
|-------------|-----------|------|------|------|------|
| | € million | | | | |
| Imports | 168 | 147 | 152 | 163 | 195 |
| Exports | 26 | 25 | 26 | 34 | 37 |
| Net imports | 142 | 122 | 126 | 129 | 158 |

¹⁰⁶ Data on sawn timber which is imported from Northern Ireland is treated separately from that which is imported from Great Britain.

¹⁰⁷ <http://www.enterprise-ireland.com/en/>

¹⁰⁸ <http://www.tjonline.com/features/irish-mills-make-a-stand-4386512/>

¹⁰⁹ <http://www.glennonbrothers.ie/>

¹¹⁰ www.gpwood.ie

¹¹¹ www.mtg.ie

¹¹² www.coillte.ie

¹¹³ Source: EUROSTAT JFSQ for Ireland (2011-2015).

4.4 Wood residues

Wood residues are primarily used as fuel for sawmill kilns and for process heat in the manufacture of wood-based panels (WBP). Post-consumer recovered wood (PCRW) is used for wood energy and in the manufacture of wood-based panels. The volume of wood residues used increased by 6.5% in 2014 over 2013 (Table 33).

Table 33: Use of wood residues (2010-2014).

| Residue type | 2010 | 2011 | 2012 | 2013 | 2014 |
|-------------------------------------|--------------------|-------|-------|-------|-------|
| | 000 m ³ | | | | |
| Bark | 222 | 236 | 232 | 243 | 219 |
| Wood chip | 517 | 510 | 524 | 552 | 244 |
| Sawdust | 204 | 198 | 201 | 212 | 576 |
| Post-consumer recovered wood (PCRW) | 280 | 270 | 250 | 250 | 300 |
| Total | 1,223 | 1,214 | 1,207 | 1,257 | 1,339 |

4.5 Wood-based panels (WBP)

Wood-based panel manufacturers and their products are outlined in Table 34¹¹⁴. In 2014, 773,000 m³ of wood-based panels (WBP) were produced from an intake of 1.38 million m³ of wood fibre¹¹⁵, a 4.6% increase over 2013. A very high proportion (86%) of WBP manufacture was exported; 662,000 m³, to a value of €198 million (Table 35)¹¹⁶. WBP exports comprised mainly oriented strand board (OSB) and medium density fibreboard (MDF), manufactured by Masonite, Medite and SmartPly. Key export markets were the UK and the Benelux countries.

Table 34: Wood-based panel manufacturers in the Republic of Ireland.

| Manufacturer | Established | Product(s) | Location |
|------------------|-------------|---------------------------------|------------------------|
| Masonite Ireland | 1997 | Thin MDF/moulded door facings | Drumsna, Co Leitrim |
| Medite-Europe | 1983 | Medium Density Fibreboard (MDF) | Clonmel, Co Tipperary |
| SmartPly Europe | 1995 | Oriented Strand Board (OSB) | Slieverue, Co Kilkenny |

Table 35: Production and exports of wood-based panels in the Republic of Ireland (2010-2014).

| Item | Unit | 2010 | 2011 | 2012 | 2013 | 2014 |
|---------------|--------------------|------|------|------|------|------|
| Production | 000 m ³ | 758 | 736 | 704 | 739 | 773 |
| Export volume | 000 m ³ | 660 | 616 | 630 | 665 | 662 |
| Export value | € million | 179 | 173 | 179 | 199 | 198 |

January 2015 marked the beginning of construction of a €59m upgrade to the Coillte Panel Products SmartPly manufacturing facility at Belview, Co Kilkenny. Contracts have been signed with the German equipment supplier Siempelkamp for the supply of state-of-the-art OSB panel manufacturing equipment¹¹⁷.

The project, which includes the development of a new Coillte Panel Products Innovation Centre, will secure the plant as one of the South East region's biggest exporters. Delivery of major components for the upgraded line commenced in August 2015¹¹⁸.

Siempelkamp will supply the materials handling equipment downstream from the resin application system, the cooling and stacking line, a high-stack storage system as well as the cut-to-size and packing line. The core of the plant is the continuous forming and press line including a ContiRoll press, which can be flexibly adjusted to manufacture boards of different widths.

¹¹⁴ EUROSTAT / FAO Joint Forest Sector Questionnaire (JFSQ) for Ireland (2011-2015)

¹¹⁵ Includes pulpwood, wood chips, sawdust and post-consumer recovered wood (PCRW).

¹¹⁶ EUROSTAT Joint Forest Sector Questionnaire (2011-2015)

¹¹⁷ <http://www.coillte.ie/aboutcoillte/news/article/view/construction-commences-on-EUR59m-smartply-facility/>

¹¹⁸ <http://www.ttjonline.com/news/machinery-for-new-smartply-facility-arrives-in-ireland-4652202>

4.6 Pulp & paper

All pulp and paper used in the Irish market is imported. In 2014, pulp & paper imports represented 61% of Irish forest product imports, some 450,000 metric tonnes, to a value of €382 million. This was a decrease of 5.9% on 2013.

4.7 Builders' merchanting

The reduction in Irish building output has had a significant knock on effect on the Irish builders' merchanting sector and on its suppliers. However, the sector is showing ongoing signs of recovery.

The Grafton Group is Ireland's largest builders merchant. Its 2014 annual report states that the market recovery that started in the second half of 2013 in the Greater Dublin area and provincial cities continued into the first quarter of 2014. The pace of growth accelerated sharply in the second quarter as the recovery extended across the Grafton branch network and the economy moved on to a firmer growth path. Overall like-for-like revenue growth for the year of 13.9% reflected strong growth in the residential repair, maintenance and improvement (RMI) segment of the market and the early stages of a recovery in house building from depressed levels¹¹⁹.

4.8 Voluntary forest certification

4.8.1 Schemes

In 2011, Coillte (the State forestry board)¹²⁰ completed 10 years of Forest Stewardship Council (FSC) certification of its forests. 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, audits were carried out on Coillte's forests to ensure that FSC criteria were being met in Coillte's forests¹²¹. In late 2012, a new FSC standard for Ireland was launched.

In 2012, the Programme for the Endorsement of Forest Certification (PEFC) announced the endorsement of the Ireland Scheme for Sustainable Forest Management^{122,123}. In 2014, Coillte certified to both FSC and PEFC¹²⁴.

To date, voluntary certification has not been a major issue for private forest owners. However, as the private forests' contribution to harvest increases, certification is likely to become an issue¹²⁵.

4.8.2 Certified forest products

All major sawmills and panel mills have chain-of-custody procedures associated with product certification. The demand for certified timber products in the Irish market is still relatively small and there is no strongly developed public procurement policy.

5.0 Irish forests and the environment

The Irish forest sector has strong environmental and non wood benefits. Sustainable forest management is implemented through national legislation, guidelines and procedures¹²⁶

Ireland's forests and afforestation programme (see Section 3.2) provide for the conservation and enhancement of biodiversity at both a local and a national level.

It has been estimated that 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 communities¹²⁷.

Ireland's afforestation programme, existing forests, and the use solid wood products jointly contributed to an estimated removal of 3.7 million tonnes of CO₂ from the atmosphere in 2014. A comprehensive outline of climate change mitigation actions and forest sink projections is contained in the submission made by Ireland on LULUCF actions to limit or reduce emissions and maintain or increase removals from activities defined

¹¹⁹ <http://www.graftonplc.com/~media/Files/G/Grafton/reports-and-presentations/annual-reports/ar-2014.pdf>

¹²⁰ www.coillte.ie

¹²¹ http://www.coillte.ie/coillteforest/responsible_forest_management_and_certification/certification_introduction/

¹²² <http://www.pefc.org/news-a-media/general-sfm-news/news-detail/item/904-the-future%E2%80%99s-looking-greener-in-ireland>

¹²³ http://www.itga.ie/Conference2013/PEFC_Certification_WilliamMerivale.pdf

¹²⁴ http://www.coillte.ie/coillteforest/responsible_forest_management_and_certification/certification_introduction/

¹²⁵ http://www.teagasc.ie/forestry/docs/advice/Teagasc_Situation_Outlook_Forestry_2012.pdf

¹²⁶ The Environmental Report on the Forest Policy Review can be found at:

<https://www.agriculture.gov.ie/media/migration/forestry/publicconsultation/forestpolicyreview/SEAForestPolicyReviewJune2013.pdf>

¹²⁷ <http://www.coford.ie/publications/forestry2030/irishforestryandtheeconomy/>

under Decision 529/2013/EU¹²⁸. Total emissions in the same year are likely to be in range 58-59 million tonnes CO₂ equivalent¹²⁹ (see section 3.10).

6.0 Recent developments

6.1 National Forest Policy Review

The national forest policy review *Forests, Products and People, Ireland's forest policy, a renewed vision* was published in July 2014¹³⁰. The strategic goal is stated as:

*'To develop an internationally competitive and sustainable forest sector that provides a full range of economic, environmental and social benefits to society and which accords with the Forest Europe definition of sustainable forest management'*¹³¹.

The review opens with a comprehensive overview of the Irish forest sector. There are 13 main chapters dealing with:

1. Expansion of the forest resource area,
2. Management of the resource,
3. Environment and public goods,
4. Supply chain,
5. Wood processing and wood-based panels sector,
6. Forest protection and health,
7. Support – education, training and research,
8. Quality, standards and certification,
9. Policy implementation and review,
10. Cost appraisal and funding,
11. Legislation,
12. Coillte (the state forestry board) and
13. Institutional arrangements.

Each chapter is accompanied by a number of recommendations. The Forest Service will monitor the review and its implementation. Six analytic appendices accompany the report, including a cost benefit analysis of afforestation.

¹²⁸ <http://www.agriculture.gov.ie/media/migration/ruralenvironment/climatechange/InfoonLULUCFactions180315.pdf>

¹²⁹ <http://www.epa.ie/pubs/reports/air/airemissions/EPA%202015%20GHG%20Projections%20Publication%20Fin>

¹³⁰ <http://www.agriculture.gov.ie/media/migration/forestry/forestpolicyreviewforestsproductsandpeople/00487%20Forestry%20Review%20-%20web%2022.7.14.pdf>

¹³¹ Forest Europe (The Ministerial Conference on the Protection of Forest in Europe) is the pan-European political process for the sustainable management of the continent's forests and defined SFM (Helsinki 1993) as the stewardship and use of forests and forest lands in a way, and at a rate, that maintains their biodiversity, productivity, regeneration capacity, vitality and their potential to fulfil, now and in the future, relevant ecological, economic and social functions, at local, national, and global levels, and that does not cause damage to other ecosystems.

6.2 National Forest Inventory (NFI)

The primary purpose of the NFI is to assess on an ongoing basis changes to the forest estate. The first phase of the NFI¹³², completed in 2006, was the starting point against which subsequent stages will be measured and compared. Field data collection for the second phase was completed in December 2012, followed by the publication of the results in 2013¹³³. Standing merchantable volume¹³⁴ was 97 million m³; gross annual volume increment between 2006 and 2012 was 7.7 million m³. The mean annual standing volume harvested within this period was 3.6 million m³¹³⁵.

The third NFI cycle will commence in 2015 and is expected to finish in 2018. It will facilitate the monitoring of the national forest estate, including the assessment of standing roundwood stocks and annual increment as an input to the assessment of sustainable forest management at the national level¹³⁶. Other important functions of the NFI include:

- Compliance with international and national reporting obligations, e.g. FAO; EUROSTAT, UNECE, UNFCCC and the EU LULUCF Decision;
- The national roundwood production forecast, which is a prerequisite for national forest industry planning and development.

6.3 Plant health

The Forest Service of the Department of Agriculture, Food and the Marine has regulatory responsibility for implementing the forestry aspects of the EU Plant Health Directive on protective measures against the introduction into the Community of organisms harmful to plants or plant products and against their spread within the Community. The Forest Service implements the provisions of the Directive relating to timber, wood packaging material (pallets, crates etc) and surveys of the national forest estate for quarantine pests and diseases¹³⁷.

During 2014, *Chalara fraxinea* (ash dieback disease) and *Phytophthora ramorum* disease outbreaks in Japanese larch continued to be of major concern. In relation to ash dieback, detection surveys were intensified following the first confirmed finding in October 2012. In addition to forest surveys, surveys were also conducted in horticultural nurseries, garden centres, private gardens, roadside landscaping and farm agri-environment scheme plantings, with findings in all categories. At the end of 2014, there was 54 confirmed findings of the disease in forest plantations and 89 findings in non-forestry settings. Significantly the disease was also detected for the first time on native hedgerow ash at two separate locations. At both locations the disease had previously been confirmed as present on in young plantations comprised of imported trees.

Following the introduction of national measures to regulate the disease in October 2012, an 'All Ireland Chalara Control Strategy' was published in July 2013. The strategy was developed jointly with Northern Ireland's Department of Agriculture and Rural Development. The Department also co-operated with the UK authorities in inputting to a 'Pest Risk Analysis for *Hymenoscyphus pseudoalbidus* [ash dieback] for the UK and Ireland'. Surveying for the disease will continue during 2015 and appropriate measures will be implemented.

Since the first finding in Ireland of *Phytophthora ramorum* in Japanese larch in 2010, the Forest Service has continued to conduct ground and aerial surveys of larch with the assistance of the Air Corps and Coillte. There was a significant increase in findings in 2014, with a total of 42 sites being confirmed. These are mainly in the southwest, south-east and east of the country. To date, approximately 300 ha have been affected. Other tree species affected at the Japanese larch sites include beech, noble fir and Spanish chestnut. Invasive wild rhododendron is a major source of inoculum. Surveying for *P. ramorum* in public and private forests will continue in 2015

Under the International Plant Protection Convention's international standard for the Regulation of Wood Packaging Material in International Trade (ISPM No. 15), the Forest Service is responsible for the scheme in Ireland. During 2014, implementation continued, thereby facilitating the export of goods worldwide from Ireland on compliant pallets and crates.

¹³² <http://www.agriculture.gov.ie/nfi/>

¹³³ <http://www.agriculture.gov.ie/nfi/nfisecondcycle2012/nationalforestinventoryresultsdata2012/>

¹³⁴ www.agriculture.gov.ie/media/migration/forestry/nationalforestinventory/2012/NFI%20Ireland%20Results_v12%20V%20Final.pdf

¹³⁵ The mean annual standing volume harvested is a gross volume. The actual volume harvested is as shown in Table 22.

¹³⁶ <http://www.agriculture.gov.ie/media/migration/publications/2015/ARO201415230615.pdf>

¹³⁷ <http://www.agriculture.gov.ie/media/migration/publications/2015/ARO201415230615.pdf>

6.4 Windthrow damage

Storm force winds occurred on 12 separate days between the 5 December 2013 and the 12 February 2014. These storms were accompanied by heavy rainfall on land that was already saturated. The most severe storm - 'Darwin' - occurred on the 12 February 2014¹³⁸.

Generally, storm events in Ireland do not give rise to large scale windthrow. However, the duration and strength of the storms of late 2013 and early 2014, compounded by waterlogged soils, led to extensive damage. While estimates put the area damaged at less than 1% of the total forest area, locally the damage has been severe, with significant volumes being windthrown (Table 36).

A Windblow Taskforce involving stakeholders and the Department of Agriculture, Food and the Marine has estimated the area, volume and extent of the damage nationally (Table 36)¹³⁹.

Table 36: Estimated area and volume of windthrow arising from storm Darwin.

| Sector | Area | Volume |
|----------------|-------|--------------------|
| | ha | 000 m ³ |
| Private forest | 2,198 | 483 |
| Public forest | 6,122 | 1,530 |
| Total | 8,320 | 2,043 |

7.0 Economic impact of the Irish forestry & forest products sector

7.1 Value of the Irish forestry and forest products sector

In 2012, the Irish forest sector generated approximately €2.29 billion in value to the Irish economy¹⁴⁰.

7.2 Employment

The Irish forestry and forest products sector employs over 12,000 people, the majority in rural Ireland (Table 37)^{141,142}. A study which carried out by University College Dublin (UCD) estimated that an annual afforestation programme of 15,000 ha would on average, create 490 direct jobs. 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 that an extra 70 full-time equivalent jobs are provided in other sectors of the economy¹⁴³.

Table 37: Employment in the forestry and forest products sector in the Republic of Ireland.

| Sector | No employed |
|------------------------------|-------------|
| Forestry development sector | 3,125 |
| Forest products sector | 3,907 |
| Indirect/contract employment | 4,907 |
| Total | 11,939 |

¹³⁸ <https://www.agriculture.gov.ie/forests-service/windblow/>

¹³⁹ <http://www.agriculture.gov.ie/media/migration/forestry/windblown/Rapid%20Assessment%20of%20Storm%20Damage.pdf>

¹⁴⁰ COFORD Forestry 2030 papers updated (www.coford.ie)

¹⁴¹ http://www.forestry.ie/forestry_economy.htm

¹⁴² Dr Áine Ní Dhubháin and Dr Richard Moloney, COFORD FORECON Project (2010 overview)

<http://www.coford.ie/media/coford/content/researchprogramme/projectreports/forecon2008.pdf>

¹⁴³ Dr Áine Ní Dhubháin and Dr Richard Moloney, COFORD FORECON Project (2010 overview)

<http://www.coford.ie/media/coford/content/researchprogramme/projectreports/forecon2008.pdf>

8.0 Research & innovation

8.1 Forest research report

In October 2014, the Minister for Agriculture, Food and the Marine, Simon Coveney, TD, launched a Strategic Research Agenda for Forestry in Ireland “Forest Research Ireland (FORI) – meeting the needs of Ireland’s forest sector to 2017 and beyond through research and innovation”¹⁴⁴.

Forest Research Ireland (FORI), which was developed under the auspices of the sector-led COFORD Council Forest Research Working Group, involving a wide diversity of stakeholders and coordinated by Research Division of the Department of Agriculture, Food and the Marine, captures specific policy, knowledge and production focused research topics and ideas relevant to the needs of forest stakeholders.

8.2 Innovation in forest products and markets

Irish timber processors have continued to invest in innovation in processing and products¹⁴⁵.

- In 2013/2014, Glennon Brothers invested €12 million in its new planing facility at its Fermoy sawmill¹⁴⁶.
- Over the past 4 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.
- In 2014, revenues from the sales of new product generating sales revenue of €20 million at Coillte Panel Products (CPP). This was a 40% increase on 2013.
 - Such products include Medite Vent¹⁴⁷ and SmartPly Drybacker¹⁴⁸.
 - In 2014, the wood-based panels manufactured by CPP were sold in 32 countries worldwide.
- Laois Sawmills has developed new markets for wood residues and wood pellets¹⁴⁹.
- Woodfab Timber¹⁵⁰ has installed a combined heat and power (CHP) plant at its facility in Aughrim, Co Wicklow, which will enable reduced energy costs and sale of electricity to the grid.

8.3 Wood awards

In December 2014, the inaugural Wood Awards were held by the Wood Marketing Federation of Ireland. This competition recognised the use of forest products in commercial and domestic buildings¹⁵¹.

8.4 Innovation in wood mobilisation/Teagasc *Talking Timber* events

In September 2015, Teagasc, (the Agriculture and Food Development Authority) in association with the Forest Service and the Irish timber industry, held two regional timber marketing events in counties Mayo and Carlow. More than five hundred forest owners, with forests coming up for thinning, attended the events. The forest and wood processing sector was strongly represented at both events enabling forest owners with roundwood for sale to contact buyers in their area¹⁵².

¹⁴⁴ <https://www.agriculture.gov.ie/media/migration/research/whatsnew/ForestResearchIreland20143Layout1091014.pdf>

¹⁴⁵ [http://www.ibec.ie/IBEC/Press/PressPublicationsdoelib3.nsf/vPages/Newsroom-forestry-sector-looks-to-export-market-for-growth-10-09-2012/\\$file/IFPPA+Report+2012+Final.pdf](http://www.ibec.ie/IBEC/Press/PressPublicationsdoelib3.nsf/vPages/Newsroom-forestry-sector-looks-to-export-market-for-growth-10-09-2012/$file/IFPPA+Report+2012+Final.pdf)

¹⁴⁶ http://www.kallfass-online.com/en/news/2013_HK51

¹⁴⁷ <http://www.meditate-europe.com/products/medite-vent>

¹⁴⁸ <http://www.smartply.com/products/drybacker>

¹⁴⁹ <http://www.laoissawmills.com/pellets1/wood-pellets/>

¹⁵⁰ <http://www.woodfabtimber.ie/>

¹⁵¹ <http://www.wood.ie/wood-awards-ireland/>

¹⁵² http://www.teagasc.ie/forestry/events/talking_timber_2015.asp

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