Annual Review and Outlook for Agriculture, Food and the Marine 2020
My Department’s Annual Review and Outlook provides up-to-date information and statistical analysis from a variety of sources, to give a detailed overview of Ireland’s agri-food sector and an outlook for the future.

The agri-food sector is Ireland’s most important indigenous exporting industry, playing a vital role in the economy. 137,000 farms produce over €8 billion in output; and we have over 770,000 hectares of forest and over 2,000 fishing vessels & aquaculture sites. The agri-food supply chain stretches from rural and coastal areas all across Ireland to the UK, Europe and further to markets in the Americas, Asia and Africa. In 2019 Ireland’s food and agri-foods products were exported to over 180 markets worldwide and valued at €14.5 billion, a 63% increase from €8.9 billion in 2010. The sector is thriving and continues to evolve and meet the needs of its customers, domestically and internationally.

The agri-food sector also makes a significant contribution to employment. The sector employed over 164,400 people or accounted for 7.1% of total employment in 2019. The agri-food sector makes a significant contribution to employment in rural and coastal areas. Outside of Dublin and the mid-east region, the sector provides between 10% and 14% of employment.

While the sector faces significant challenges such as COVID-19, Brexit and trade uncertainty in general, environmental concerns, and future CAP and CFP reform; the sector also has many opportunities to develop further and prosper. We have a strong international reputation as a supplier of safe, nutritious and sustainably produced food. International consumers seek out our food and beverage products in what is a very competitive international market. We should be proud of this and work to build and enhance that reputation for the benefit of our farmers, fishers and all other stakeholders within the sector.

The focus for me and the Department in the year ahead is to continue to support the agri-food sector and facilitate its ongoing development. A Committee of sector stakeholders has been working since late last year on a new agri-food strategy. Their terms of reference are to outline the vision and key objectives, with associated actions, required to ensure the economic, environmental and social sustainability of the agri-food sector in the decade ahead.

The information and analysis included in this year’s Annual Review and Outlook will inform the Agri-food 2030 process and assist in policy analysis and debate in the sector over the next year.
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Top 20 Agri-Food sector export destinations

Total: €14.5 Billion

1. UK €5,468 million
2. United States €1,233 million
3. Netherlands €1,150 million
4. France €938 million
5. China €918 million
6. Germany €788 million
7. Italy €403 million
8. Belgium €297 million
9. Spain €291 million
10. Poland €167 million
11. Nigeria €163 million
12. Sweden €152 million
13. Denmark €145 million
14. Japan €133 million
15. Canada €119 million
16. Saudi Arabia €86 million
17. United Arab Emirates €84 million
18. South Africa €83 million
19. Philippines €79 million
20. Australia €73 million

* rounding in operation
137,500 farms produced over €8 billion in output in 2019.

Over 52% of farm households had a source of off-farm employment income in 2019.

The sector employed over 164,400 people or 7.1% of total employment in 2019.

Average family farm income (FFI) for 2019 was €23,934, a 2% increase on 2018 figures.

Agri-food exports reached a high of €14.5 billion in 2019 an increase of 63% since 2010.

In 2019, the average per-acre price for agricultural land without a residential holding was €8,823.

The average farm size in the 2019 Teagasc NFS was 43 hectares, with average income per hectare coming in at €554.

67% of the farm population were either economically viable or sustainable in 2019.

The Food & Drink sector accounted for 35.6% of the sales in Irish-owned industry in 2018.

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Over 52% of farm households had a source of off-farm employment income in 2019.
Agricultural operating surplus increased by 4% to €3,055.2 m in 2019.

Ireland exports almost 90% of the food produced in the country.

The Agri-food sector accounted for 7.1% of total employment in 2019.

1.1 Overview

The Agri-Food sector is Ireland’s most important indigenous industry, playing a vital role in Ireland’s economy. The sector employed over 164,400 people or 7.1% of total employment in 2019. Some 137,500 farms producing over €8 billion in output, over 770,000 hectares of forest, and over 2,000 fishing vessels and aquaculture sites producing fish with an export value of €577 million underpin the sector. Outside of Dublin and the mid-east region, the sector provides between 10% and 14% of employment. The agri-food sector makes a significant contribution to employment in rural and coastal areas in particular.

Beyond direct employment, the sector plays a key role in the wider rural and local economy, with estimates for output multipliers ranging from around 2.5 for beef, 2.0 for dairy and food processing, compared with an average output multiplier of 1.4 for the rest of the economy and 1.2 for foreign owned firms. The Food & Drink sector accounted for 38% of all exports of Irish-owned client firms in 2018.
The Agri-Food sector is export-orientated, and we export almost ninety percent of the food we produce. In 2019 Irish food and drink was exported to over 180 markets worldwide. Exports of Agri-Food products in 2019 were valued at €14.5 billion, a 63% increase from €8.9 billion in 2010. In 2019 Agri-Food exports represented 9.5% of Irish merchandising exports.

The global food market of the future will be marked by increasing population growth and prosperity in developing countries. Consumers increasingly demand assurances of safety, nutritional value and sustainable production methods for the food they consume; as well as greater choice and convenience in food products. The Irish agri-food sector is well placed to meet these demands, but will need to remain focused on sustainability, competitiveness and innovation in order to grow existing and new markets.

### 1.2 Economic Outlook and Impact of SARS-CoV-2

The outbreak of the coronavirus pandemic has resulted in a major shock for all economies around the globe. Given the uncertainty around the future path of the virus outbreak it is not possible to undertake traditional economic forecasts. While the forecasts in table 1.1 reflect the Department of Finance position in April 2020, much has already changed. The Economic and Social Research Institute (ERSI) in their Summer Quarterly Economic Commentary released in late May presented an analysis for the future prospects for the Irish economy under three different scenarios. In their baseline scenario they projected that Ireland’s GDP would be down 12%, exports down 8%, unemployment averaging 17% and a general government deficit of €28 billion or 9% for 2020.

#### Table 1.1 Main economic and fiscal variables, per cent change (unless stated)

<table>
<thead>
<tr>
<th></th>
<th>2018</th>
<th>2019</th>
<th>2020 Forecast</th>
<th>2021 Forecast</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Economic Activity</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Real GDP</td>
<td>8.2</td>
<td>5.5</td>
<td>-10.5</td>
<td>6</td>
</tr>
<tr>
<td>Real GNP</td>
<td>6.5</td>
<td>3.3</td>
<td>-11.7</td>
<td>7.1</td>
</tr>
<tr>
<td><strong>Prices</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HICP</td>
<td>0.7</td>
<td>0.9</td>
<td>-0.6</td>
<td>0.4</td>
</tr>
<tr>
<td>Core HICP (*)</td>
<td>0.2</td>
<td>0.9</td>
<td>-0.2</td>
<td>0.5</td>
</tr>
<tr>
<td>GDP deflator</td>
<td>1.5</td>
<td>1.5</td>
<td>1.2</td>
<td>1.5</td>
</tr>
<tr>
<td><strong>Balance of Payments</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trade balance (per cent of GDP)</td>
<td>33.1</td>
<td>14.4</td>
<td>35.7</td>
<td>35.5</td>
</tr>
<tr>
<td>Current account (per cent of GDP)</td>
<td>10.6</td>
<td>-9.5</td>
<td>10.6</td>
<td>11.1</td>
</tr>
<tr>
<td><strong>Labour Market</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Employment ('000)</td>
<td>2,258</td>
<td>2,323</td>
<td>2,106</td>
<td>2,221</td>
</tr>
<tr>
<td>Employment</td>
<td>2.9</td>
<td>2.9</td>
<td>-9.3</td>
<td>5.5</td>
</tr>
<tr>
<td>Unemployment (per cent)</td>
<td>5.8</td>
<td>5.0</td>
<td>13.9</td>
<td>9.7</td>
</tr>
</tbody>
</table>

(*) core inflation excludes energy and unprocessed food from the index.

**Source:** Department of Finance | Ireland’s Stability Programme, April 2020 Update
The EU’s 2020 Economic Forecast released in early May 2020 projected that the EU economy is forecast to contract by 7.5% in 2020 and grow by around 6% in 2021. Growth projections for the EU and euro area had been revised down by around nine percentage points compared to the Autumn 2019 Economic Forecast. Each Member State’s economic recovery will depend not only on the evolution of the pandemic in that country, but also on the structure of their economies and their capacity to respond with stabilising policies.

The OECD Economic Outlook is the OECD’s twice-yearly analysis of the major economic trends and prospects for the next two years. The June Outlook focuses on two equally probable scenarios – one in which a second wave of infections, with renewed lock-downs, hits before the end of 2020, and one in which another major outbreak is avoided.

The OECDs Outlook for Ireland predicts that the economy is set to contract strongly in the first half of 2020 amid a strict lockdown. Supportive economic policies are cushioning workers and businesses from the full impact of the shock. However, depressed confidence and impaired household and business balance sheets will hold back the recovery as the economy further reopens.

---

2 European Commission: Spring 2020 Economic Forecast: A deep and uneven recession, an uncertain recovery
The EU Agricultural Outlook for Markets and Income 2019 - 2030 advises that despite labour outflow, agriculture remains a key part of the EU's rural communities and the primary use of land. Due to competition from other sectors of the economy, total agricultural land use in the EU is expected to decline, to approximately 174.4 million hectares by 2030. Although already high on average, EU yields will grow more slowly than in the past. Advances in seed selection, agricultural management and technology will improve farmers’ ability to integrate environmental policy requirements into production systems.

Most of the EU's produce is expected to be consumed domestically. Consumers in the EU and abroad will become more demanding about the food they consume, increasingly opting for local, organic or other certified products and shifting between food categories. With growing global demand and shifts in global trade flows, the EU will have opportunities to gain market shares in some export markets (e.g. dairy products) while facing increased competition in others (e.g. cereals).

EU food market developments are largely driven by consumer demands, whether that is related to perceived health benefits, environmental sustainability, climate change or animal welfare. In the short term, increasing demand for organic food is expected to boost EU supply. However, the challenges posed by the conversion to organic farming, as well as further market shifts towards other environmentally-friendly alternatives, could, slow the growth of organic production. Changing work patterns and busy lifestyles have also seen an increase in the sale of prepared and processed food, as well as snacks and on-the-go products. However, during the 'lockdown' imposed due to the Covid-19 virus, home cooking and preparing food in the home had a revival, although it is too early to say if it will be sustained in the longer term.

Changing global consumption trends and changes in production levels will affect global trade flows. With the increasing concentration of grain production in the main producing regions, global trade in this area is expected to continue to grow. Low per capita dairy consumption levels in Asia and Africa create a great opportunity for further growth of exports towards these regions. Diverging trends in meat consumption are also expected to result in shifts in trade flows.

Figure 1.1 highlights how the growth in demand for the key commodity groups is expected to slow over the next decade, sugar being the only exception where growth in demand is expected to be close to 1.5% compared to just over 1.0% in the last decade. Growth in demand for vegetable oil shows the largest drop over the next decade. Most of the growth in demand over the past and next decade is due to population growth.

Source: OECD Economic Outlook, June 2020

1.3 EU Agricultural economic outlook

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Note: The population growth component is calculated assuming per capita demand remains constant at the level of the year preceding the decade. Growth rates refer to total demand (for food, feed and other uses).


EU households are tending to spend less of their household budget on food while at the same time, spending on food services, including restaurants, cafés and canteens is increasing moderately. With the expansion of food delivery, how this trend will evolve remains to be seen. Due to these societal concerns, a further move towards more natural products could be expected. However, busy lifestyles favour sales of ready meals, prepared salads and processed foodstuffs, as well as food deliveries. In addition, snacks are also becoming popular. Therefore, big opportunities may arise for additional market differentiation towards convenient and ethical friendly food. Figure 1.2 shows how the major commodities are used whether they are used as food, feed for animals, fuel or other uses.
Note: Crushing of oilseeds is not reported as the uses of ‘vegetable oil’ and ‘protein meal’ are included in the total; Dairy refers to all dairy products in milk solid equivalent units; Sugar biofuel use refers to sugarcane and sugarbeet, converted into sugar equivalent units.


1.4 Contribution of the Agri-Food Sector to the Economy

Gross Value Added

The agri-food sector is Ireland’s most important indigenous industry, playing a vital role in Ireland’s economy. It is estimated that the agri-food sector which is classified as primary production (agriculture, fishing and forestry) along with food & beverages and the wood processing sector, accounted for over 4% of Gross Value Added at factor cost in 2019. This is the Gross Value Added at market prices less any indirect taxes plus any subsidies. The table below provides a further breakdown of these preliminary figures for 2019.

Table 1.2 Contribution of the Agri Food Sector to GVA, 2019 (Estimate)

<table>
<thead>
<tr>
<th>Preliminary Data 2019</th>
<th>€ million</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gross Value Added (GVA) at Factor Cost</td>
<td>€333,445</td>
</tr>
<tr>
<td>GVA in Primary Agriculture, Fisheries and Forestry at Factor Cost</td>
<td>€4,896</td>
</tr>
<tr>
<td>GVA in Food &amp; Beverages Sector</td>
<td>€9,189</td>
</tr>
<tr>
<td>GVA in Wood Processing (estimate)</td>
<td>€333</td>
</tr>
<tr>
<td>Total</td>
<td>€14,418</td>
</tr>
<tr>
<td>GVA in Primary Sector as a % of GVA</td>
<td>1.5%</td>
</tr>
<tr>
<td>GVA in overall Agri-Food Sector as % of GVA</td>
<td>4.3%</td>
</tr>
</tbody>
</table>

Source: Central Statistics Office, National Income and Expenditure, 2019
The Gross Value Added at Factor Cost in the primary sector has grown from €9.96 billion in 2010 to €14.42 billion in 2019. However, the relative value of Gross Value Added by the agri-food sector has been gradually dropping since the turn of the century as other sectors of the economy grow more quickly. In 2019 Gross Value Added in the overall agri-food sector represented 4.3% of total Gross Value Added at factor Cost. Modified GNI or GNI* is an indicator that was recommended by the Economic Statistics Review Group and is designed to exclude globalisation effects that are disproportionally impacting the measurement of the size of the Irish economy. In 2019 the agri-food sector accounted for 6.7% of GNI*.

Total expenditure by Department of Agriculture, Food and the Marine was just under €3 billion in 2019.

**Table 1.3 Total DAFM Expenditure 2019**

<table>
<thead>
<tr>
<th>Category</th>
<th>€m</th>
</tr>
</thead>
<tbody>
<tr>
<td>EAGGF Guarantee direct expenditure</td>
<td>€1,251</td>
</tr>
<tr>
<td>Basic Payment/Direct Payment Scheme</td>
<td>€1,204</td>
</tr>
<tr>
<td>Intervention/Aid to Private Storage(^1)</td>
<td>-€12</td>
</tr>
<tr>
<td>Other Market Supports</td>
<td>€62</td>
</tr>
<tr>
<td>Other</td>
<td>-€3</td>
</tr>
<tr>
<td>Voted Expenditure (excluding Administration)</td>
<td>€1,362</td>
</tr>
<tr>
<td>Rural Development(^2)</td>
<td>€611</td>
</tr>
<tr>
<td>Structural Measures(^2)</td>
<td>€85</td>
</tr>
<tr>
<td>State Bodies</td>
<td>€266</td>
</tr>
<tr>
<td>Horse and Greyhound Fund</td>
<td>€84</td>
</tr>
<tr>
<td>Animal Health</td>
<td>€93</td>
</tr>
<tr>
<td>Research Quality and Certification</td>
<td>€25</td>
</tr>
<tr>
<td>Market Support Costs</td>
<td>€8</td>
</tr>
<tr>
<td>Forestry and Bio-Fuels</td>
<td>€90</td>
</tr>
<tr>
<td>Fisheries</td>
<td>€42</td>
</tr>
<tr>
<td>Food Aid / World Food Programme</td>
<td>€25</td>
</tr>
<tr>
<td>Brexit Response Loan Scheme</td>
<td>€0</td>
</tr>
<tr>
<td>Other</td>
<td>€32</td>
</tr>
<tr>
<td>Administration</td>
<td>€280</td>
</tr>
<tr>
<td>Total Voted Expenditure (including Administration)</td>
<td>€1,641</td>
</tr>
<tr>
<td>Total DAFM Expenditure</td>
<td>€2,893</td>
</tr>
</tbody>
</table>

Note: (1) This is the amount paid by DAFM on product purchased into intervention in the year. The cost of Intervention purchases is fully recouped from the EU through depreciation of stock value during the year of purchase and at the time of sale of the product.

Note: (2) EAFRD Rural Development measures and certain Structural Development measures are part financed by the EU and the Exchequer. These figures are total expenditure on these measures in the calendar year. Expenditure in 2018 comprises GLAS, REPS, AEOS, Locally-led Environmental Schemes, Early retirement, Areas of Natural Constraint, Organic Farming, Beef Data & Genomics programme (BDGP), TAMS, Knowledge Transfer and Animal Welfare Scheme for Sheep.

**Source:** Department of Agriculture, Food and the Marine
1.5 Agricultural Accounts in Ireland

According to the CSO’s, Final Estimate on Output, Input and Income in Agriculture for 2019, agricultural operating surplus showed an annual increase of €110.7m (+4%), up from €2,944.5 million in 2018 to €3,055.2 million in 2019. This increase is in operating surplus is in line with the trends shown by other CSO short-term indicators in agriculture. The agricultural sectors experienced a mixed year, with some sectors performing well, while others experienced difficulty. The value of cattle production fell by €111.10 million (-5%) while pig producers experienced a very good year, with the value of their output up by €84 million (+18%).

A return to more typical weather in 2019 after the late cold spring and very hot and dry summer in 2018 resulted in a 14% fall in the volume of feeding stuffs consumed on Irish farms. Overall, intermediate consumption costs fell by €390.5 million (-6%) in 2019. See Table 1.4.

A year-on-year analysis of the 2019 results identified the following main changes:

■ 2019 saw an increase of 4% in the volume of goods produced; however falling prices resulted in the value of goods output at producer prices decreasing by €258.0 million (-3%), from €8,218.9 million in 2018 to €7,960.9 million in 2019.

■ The volume of crops produced by Irish farmers increased by 8%. However, lowered prices resulted in the value of crops falling by €228.9 million (-11%), from €2,126.0 million to €1,897.1 million. The main crops contributing to this decline in production were forage plants which, because of falling prices, decreased in value by €276.3 million (-21%).

■ Milk production increased by 5% in terms of volume, lower prices resulted in the value of milk increasing by just €45.2 million (+2%), from €2,556.7 million to €2,601.9 million.

■ The volume of cattle produced increased by 2%, lower prices resulted in the value of cattle decreasing by €111.1 million (-5%), from €2,262.2 million to €2,151.1 million.

■ There was very little change in the volume of pigs produced in 2019 (+0.4%), but large price increases resulted in the value of pig production increasing by €84.0 million (+18%), from €459.1 million to €543.0 million.

■ Total intermediate consumption fell by €390.5 million (-7%), decreasing from €6,038.2 million to €5,647.7 million. The volume of feedingstuffs consumed on Irish farms decreased by 14% and as a result, expenditure on feedingstuffs fell by €184.6 million (-11%) to €1,489.9 million. The volume of fertilisers consumed by Irish farmers fell by 8% in 2019 but price increases resulted in the cost of these fertilisers decreasing by just €3.8 million (-1%), from €582.1 million to €578.3 million.
### Figure 1.3 Trends in Operating Surplus, Goods Output and Intermediate Consumption, 2012 – 2019

![Bar chart showing trends in Operating Surplus, Goods Output and Intermediate Consumption from 2012 to 2019.](chart)

- Goods Output at Producer Prices
- Intermediate Consumption
- Operating Surplus

**Source:** Central Statistics Office, Output, Input & Income in Agriculture Final Estimates, 2019

### Table 1.4 Output, Input and Income in Agriculture, 2016 – 2019

<table>
<thead>
<tr>
<th></th>
<th>2016 Value €m</th>
<th>2017 Value €m</th>
<th>2018 Value €m</th>
<th>2019 Value €m</th>
<th>% Change 2018 - 2019</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Goods Output at Producer Prices</strong></td>
<td>€7,065</td>
<td>€8,086</td>
<td>€8,219</td>
<td>€7,961</td>
<td>-3%</td>
</tr>
<tr>
<td><strong>Contract Work</strong></td>
<td>€372</td>
<td>€380</td>
<td>€453</td>
<td>€461</td>
<td>2%</td>
</tr>
<tr>
<td><strong>Subsidies less Taxes on Products</strong></td>
<td>€7</td>
<td>€11</td>
<td>€14</td>
<td>€100</td>
<td></td>
</tr>
<tr>
<td><strong>Agricultural Output at Basic Prices</strong></td>
<td>€7,444</td>
<td>€8,476</td>
<td>€8,686</td>
<td>€8,522</td>
<td>-2%</td>
</tr>
<tr>
<td><strong>Intermediate Consumption</strong></td>
<td>€5,084</td>
<td>€5,318</td>
<td>€6,038</td>
<td>€5,648</td>
<td>-6%</td>
</tr>
<tr>
<td><strong>Gross Value Added at Basic Prices</strong></td>
<td>€2,360</td>
<td>€3,159</td>
<td>€2,648</td>
<td>€2,874</td>
<td>9%</td>
</tr>
<tr>
<td><strong>Fixed Capital Consumption</strong></td>
<td>€813</td>
<td>€849</td>
<td>€912</td>
<td>€970</td>
<td>6%</td>
</tr>
<tr>
<td><strong>Net Value Added at Basic Prices</strong></td>
<td>€1,547</td>
<td>€2,309</td>
<td>€1,736</td>
<td>€1,904</td>
<td>10%</td>
</tr>
<tr>
<td><strong>Other Subsidies Less Taxes on Production</strong></td>
<td>€1,594</td>
<td>€1,639</td>
<td>€1,776</td>
<td>€1,738</td>
<td>-2%</td>
</tr>
<tr>
<td><strong>Factor Income</strong></td>
<td>€3,141</td>
<td>€3,948</td>
<td>€3,512</td>
<td>€3,642</td>
<td>4%</td>
</tr>
<tr>
<td><strong>Compensation of Employees</strong></td>
<td>€513</td>
<td>€526</td>
<td>€568</td>
<td>€586</td>
<td>3%</td>
</tr>
<tr>
<td><strong>Operating Surplus</strong></td>
<td>€2,628</td>
<td>€3,422</td>
<td>€2,945</td>
<td>€3,055</td>
<td>4%</td>
</tr>
</tbody>
</table>

**Source:** Central Statistics Office, Output, Input & Income in Agriculture Final Estimates, 2019
1.6 Food and the consumer

The manufacture of food and drink products is widely recognised as Ireland’s most important indigenous industry. In 2016, the value of all Food and Beverages products was €24.2 billion, which represented 20.4% of all goods produced. The value of the Food and Beverages sectors increased to €26.0 billion in 2017 and the percentage share of total Net Selling Value (NSV) rose to 22.9%. In 2018, the value of such products remained at €26 billion but represented a lower percentage share of total NSV at 21.8%. In 2019, the value of all Food and Beverages products was €25.8 billion and represented a lower percentage share of total NSV at 19.2%, compared to the previous two years.

The impact of the Food and Beverages Sector is dispersed throughout the country and a strong driver of regional development accounting for 2.5% of total employment.

In addition to servicing the domestic grocery and food service markets, the industry is highly internationalised and exports to 180 countries. It maintains substantial market positions in the UK, in EU markets and in international markets.

Employment in the Food and Beverages Sector

According to the CSO Labour Force Survey, employment in the Food and Beverages sector averaged 34% of agri-food sector workers in 2019, and 2% of all those in employment. Food and Beverage manufacturing employment has increased by 11% between 2009 and 2019 from an average of 50,100 in 2008 to 55,700 in 2019.

**Figure 1.4 Employment in the Food and Beverages sector, 2009 – 2019**

![Employment in the Food and Beverages sector, 2009 – 2019](image)

**Source:** Central Statistics office, Labour Force Survey.
Contribution of the Food and Beverages Sector to the Irish Economy

The Annual Business Survey of Economic Impact is a survey of approximately 4,200 client companies of Enterprise Ireland, IDA Ireland and Údarás na Gaeltachta employing ten or more employees in Ireland and comprises the Manufacturing and Information, Communication and Other Internationally Traded Services sectors. This survey includes a number of Food and Beverage Manufacturers.

Key findings in this report include:

The largest sector for Irish-owned clients is the Food & Drink sector with sales of €15.9 billion in 2018. An increase of 2.4% over 2017 and of 2.8% per annum increase over the 2000 figure of €9.6 billion.

The Food & Drink sector dropped its share of sales over the period 2000 – 2018 from 41.6% of total Irish-owned sales to 35.6%.

While the Food & Drink sector accounted for 35.6% of the sales in Irish-owned industry in 2018, it accounts for 25.4% of the employment.

The Food & Drink sector accounted for 38.0% of all exports of Irish-owned client firms in 2018. This sector has increased exports from €4.6bn in 2000 to €8.7bn in 2018, a per annum increase of 3.6% in current prices.

Within the Food and Drink sector, Irish raw materials at €8.6 billion accounted for 78.6% of the total materials spend in that sector. Of all the Irish raw materials purchases by Irish-owned firms, the majority or 71.6% related to the Food and Drink sector in 2018.

The Food & Drink sector purchased the majority or 78.6% of its materials in Ireland in 2018. This represents a decline from the 2000 and 2009 figures of 82.6% and 81.8%. (Absolute value was €8,629m).

The Food and Drink sector’s share of Irish services purchases has decreased from 91% in 2000 to 75% in 2018. (Absolute value was €1,382m).
The Food and Drink sector maintained the highest share of direct expenditure as a percentage of sales at 74% in 2018 down from 82% in 2000.

The Food & Drink sector, with an 89% share of sales for export in 2018, increased its proportion of exports from 62% in 2000.

Food Prices
The Central Statistics Office gathers and publishes a Consumer Price Index on a monthly basis. The index measures changes in the average level of prices (inclusive of all indirect taxes) paid for consumer goods. Approximately 51,000 prices are collected for a representative basket consisting of 615 item headings in a fixed panel of retail and service outlets throughout the country. Goods represented in the survey include Meat, Dairy, Fish, Vegetable and Processed food products, along with alcoholic and non-alcoholic beverages.

Irish food costs reduced by 1% between 2018 and 2019. 2019 marked the 6th year in a row that food prices have reduced.

**Figure 1.5  Annual average percentage change in Consumer Price Index, 2009 - 2019**

![Graph showing annual average percentage change in Consumer Price Index from 2009 to 2019.](image)

**Source:** Central Statistics Office, Consumer Price Index
**Food and the EU**

**Eurostat Food Price Monitoring Tool**

The food supply chain (from farm to consumer) consists of a wide range of products and companies in different markets. The food supply chain connects 3 main sectors: agriculture, the food processing industry and the wholesale and retail sector. Imported agricultural products must also be taken into account.

*Figure 1.6 Diagram of the food supply chain*

Prices are established along the food chain through transactions between various actors in the chain (e.g. farmers, food processors, wholesalers, retailers and final consumers). The food supply chain may be short and simple for some food products or more complex for others. It may also differ between countries.

Following strong volatility of agricultural commodity and food prices towards the end of the last decade, the need was seen for higher transparency on price developments across the different stages of the food production chains. Consequently, the Food Price Monitoring Tool was developed.

The Food Price Monitoring Tool (FPMT) was developed by Eurostat in order to improve the accessibility of statistical data on prices in successive stages of a number of food supply chains. Today the tool reports on developments for agricultural commodity prices, producer prices, consumer prices and import prices.

A main goal of this project is to further enhance the Food Price Monitoring Tool. This will be accomplished by providing statistics and indicators for the assessment of the price transmission mechanism in the selected Food Monitoring Tool.

These statistics and indicators will provide information regarding:

- The magnitude (degree) of price transmission, i.e. how much of the price stage of the food supply chain will be transmitted to the next stage
- The speed of price transmission, i.e. the pace at which price changes in one stage of the food supply are transmitted to the next stage
- the asymmetry of price transmission, i.e. to what extent price increases and decreases from one stage of the chain to the next are transmitted differently in terms of magnitude and speed.
The food supply chain (from farm to consumer) consists of a wide range of products and companies in different markets.
Figure 1.7 Comparison of EU and Irish prices, 2010 – 2019 (2015 = 100)

Source: Eurostat – Food Price Monitoring tool
## Research Projects: Food Projects

### NANSII: Innovative Food Processing and New Technological Solutions for the Design of Novel Healthy Products for the Prepared Consumer Foods Sector

Lead Institution: Teagasc
Collaborating Institutions: University College Cork, Cork Institute of Technology
Funding: €968,038.40

As we live in an obesogenic world, foods that generate satiety sensations have benefits for weight management and improved health. InFoT ech aims to develop food and beverage formulations with increased satiety modulation for the prepared consumer foods sector, which also have extended shelf-life for exporting to far-reaching international markets. The structure, texture and sensory acceptability of the redesigned products will be fully characterised. Concurrently, microbial safety and in-vitro screening for satiety will be undertaken. Through innovative processing and analytical technologies, this project will build new scientific capability and transferable technologies to the food industry. The combined expertise of the project team will generate a project which goes beyond the current state of the art. This project will strengthen the existing knowledge base in food processing by directly addressing current industry needs and economic risks, which include Brexit, environmental sustainability and consumer health.

### PECTIPACK: Eco-friendly Compostable Pectin Based Packaging Material Derived from Waste Sources of Fruit Pulp and Its Validation in Bread Packaging

Lead Institution: University College Cork
Collaborating Institutions: Teagasc
Funding: €591,557.60

PECTIPACK: Eco-friendly compostable pectin based packaging material derived from waste sources of fruit pulp and its validation in bread packaging. Addressing packaging waste has become one of the most pressing environmental issues facing us globally today. Attempts to reduce, reuse and recycle packaging materials have not had the desired effect in controlling packaging wastes. Therefore, there is an urgent requirement to develop, novel, rapidly-compostable, eco-friendly packaging that is sustainable, but initially, fit-for-purpose for food packaging applications. Fruit processors in Ireland generate by-product wastes as fruit pulp and is usually discarded. A more sustainable use of such material would be to manufacture simple food packaging materials, suitable for fresh bread packaging, which could be subsequently composted for use as plant fertilizers. The Circular- and Bio-Economies have become key strategies for European economic growth, targeting reduction of CO2 emissions, utilizing sustainability conceptions of reusing materials and reducing wastes by utilizing them for new product manufacture. This project addresses these strategies by converting fruit pulp, to biodegradable packaging, to natural plant fertilizers.
Dr Richie Hackett
Teagasc

Lead Institution:
Teagasc

Collaborating Institutions:
Institute of Technology Carlow, Technological University Dublin

Funding:
€856,745.92

DABBING CAP: Distilling and Brewing – BuildING CAPacity. Substantial amounts of imported grain are used by the Irish drinks industry, particularly maize for whiskey production. Substituting imported maize with Irish wheat would provide an additional market for growers but could cause processing problems within the distilleries. In addition, many of the waste streams from the industry are used in relatively low value end uses such as animal feed. The project aims to develop the knowledge to produce and effectively utilise natively grown cereals, principally wheat but also rye and spelt, in Irish whiskey distilleries. The raw material requirements (grain and water) of the drinks industry and the waste streams and their potential for use in higher value end products will also be investigated. The results of the project will underpin greater utilisation of natively produced grain in the Irish drinks sector as well as identifying higher value end uses for the waste streams from the sector.

Dr Sinead McCarthy
Teagasc

Lead Institution:
Teagasc

Collaborating Institutions:
University College Dublin, University College Cork, Queens University Belfast

Funding:
€961,235.25*

SuHeGuide: Food based dietary guidelines for sustainable and healthy lifestyles. Substantial consumer behaviour changes are required to reduce the environmental impact of feeding the growing global population. SuHeGuide will undertake a range of consumer studies from food consumption to sustainable behaviours in the context of sustainable and healthy food lives. In a first-of-its-kind dietary intervention study, we will test the hypothesis that a sustainable diet, which is acceptable to consumers, can reduce greenhouse gas emissions, while simultaneously achieving nutritional requirements, thereby providing an effective solution to the sustainability and food challenge. SuHeGuide will develop food-based dietary guidelines for healthy and sustainable lifestyles that are acceptable to consumers and meet nutritional requirements, while simultaneously, reducing food related GHG emissions and respectful of biodiversity. These outputs will enable regulatory authorities to develop evidence based food and nutrition policies for both healthy and sustainable diets and provide critical information for the food industry to respond to the shift in sustainable food consumption practices. (* denotes project co-funded by DAERA)
1.8 Agri-Food Strategy

Food Wise 2025

Food Wise 2025 is the current ten year strategy for the agri-food sector and underlines the sector’s unique and special position within the Irish economy and illustrates the potential which exists for the sector to develop further. Food Wise contained a vision of thriving primary producers and agri-food businesses at the heart of vibrant communities across the country and was built upon five cross-cutting themes – environmental sustainability, market development, competitiveness, innovation and human capital as well as specific recommendation for key sectors. (www.agriculture.gov.ie/foodwise2025/)

Food Wise 2025 identifies ambitious and challenging growth projections for the industry over the next ten years including: 85% increase in exports to €19bn; and the creation of 23,000 additional jobs all along the supply chain from producer level to high end value-added product development.

Implementation process

The Implementation Process for Food Wise is driven by the High Level Implementation Committee (HLIC), chaired by the Minister for Agriculture, Food and the Marine, with participation from DAFM, other relevant Government Departments and State agencies. It ensures joined-up action by the Department and its state agencies and provides a platform to meet collectively with industry representatives. The HLIC also seeks to ensure that Food Wise implementation is a live and dynamic process. The HLIC met five times in 2019.

The Environmental Sustainability Committee established to monitor and drive the implementation of the sustainability actions continued to meet during 2019.

In 2019 of the 417 actions under Food Wise, 376 were due to commence or are ongoing actions. Of these 376 actions, 87% have been achieved or substantial action has been undertaken, and a further 13% have commenced and are progressing. A detailed report on the status of all the ongoing actions is available on the Department’s website in Steps to Success 2019.

Figure 1.8 Food Wise 2025 Update on Actions, 2019

376 Actions Commenced or Achieved Actions

- 87% Achieved or Substantial Action Undertaken
- 13% Commenced and Progressing

Source: Department of Agriculture, Food and the Marine

Agri-Food Strategy 2030

The series of ten-year industry-led strategies that the agri-food sector has developed, working with Government, over the last twenty years, have been crucial to the development of the sector. While the Food Wise 2025 strategy has been instrumental in guiding the sector in recent years, like all plans, it must evolve and respond to a rapidly changing context both within and outside the sector.

The process for developing the next ten-year strategy to replace Food Wise 2025 began in 2019 with a public consultation to ascertain the views of all stakeholders on the direction of the
sector to 2030. In order to facilitate further engagement and discussion on the future strategy, a national stakeholder consultation event was held at the Aviva Stadium in Dublin. This ‘Open Policy Debate’ saw almost 400 delegates coming together to hear from the Taoiseach, Minister for Agriculture, Food and the Marine and plenary speakers from across the globe on some of the key challenges and opportunities facing the sector in the decade ahead. Delegates then participated in a series of six parallel break-out sessions to consider some issues in more detail and this process of dialogue and discussion was a further important element in the development of the strategy.

In November 2019, the Minister established a committee representative of the sector and chaired by Tom Arnold. They have been tasked with developing the agri-food strategy to 2030, taking on board the input from the public consultation and the Open Policy Debate. Their terms of reference are to outline the vision and key objectives, with associated actions, required to ensure the economic, environmental and social sustainability of the agri-food sector in the decade ahead. The Committee’s report will be short, specific and cross-sectoral, with ambitious but realistic actions.

A Strategic Environmental Assessment and Appropriate Assessment will also be conducted in parallel with the work of the committee. This is to ensure that environmental considerations are fully integrated into the preparation of the strategy.

The 2030 stakeholder committee have met on five occasions up to June 2020 and it is anticipated that they will conclude their work towards the end of the year.
2.1 Overview

This chapter analyses data from the Central Statistics Office (CSO) including the Farm Structure Survey 2016, Teagasc’s National Farm Survey 2019 (NFS) and Eurostat data to show developments in farm income both at Irish and EU level. In addition, the impact of off-farm income and direct payments is examined. The viability of Irish farms is considered using NFS results and the support schemes for farmers. Investment and borrowings in the agri-food sector, the age profile of farmers and the role of women in agriculture are also examined.

The value of goods output at producer prices decreased by 3% to €7,960.9 million in 2019.

On Farm Investment was up 3% to €983 million.

Average family farm income (FFI) for 2019 was €23,934.
### National Farm Income (Operating Surplus), 2019

**Output Input and Income in Agriculture**

#### Operating Surplus (OS)

Operating surplus is defined and calculated by the CSO by subtracting compensation of employees from farm income accruing from farm output. The figure is comprised of the operating surplus earned by farmers and that earned by agricultural contractors. It is an estimate of income before deductions for interest payments on borrowed capital, land annuities and rent paid by farmers to landowners for the use of their land. It does not include income from non-farming sources and may not be equated to household income.

The CSOs publication, Output Input and Income in Agriculture shows that aggregate farm income or operating surplus has risen over the past decade from a low of €1.5 billion in 2009 to over €3 billion in 2019. Operating surplus in 2019 saw an increase of 4% or €110.7 million on the 2018 figure. The overall value of goods output at producer prices decreased by 3%, or €258 million, to €7,960.9 million in 2019.

A return to more typical weather in 2019 resulted in an overall fall in the costs of intermediate consumption. Intermediate consumption decreased by 6% in 2019, to €5,647.7 million. The foremost reason for this change was a decreased consumption of feeding stuffs and fertiliser. Expenditure on feeding stuffs decreased by €184.6 million (-11%) to €1,489.9 million, as improved weather conditions contributed to a 14% decline in the volume of feedingstuffs consumed on Irish farms. The volume of fertilisers consumed by Irish farmers fell by 8% in 2019, but price increases resulted in the cost of these fertilisers decreasing by just €3.8 million (-1%), from €582.1 million to €578.3 million.

Net subsidies, which remained relatively stable over the past decade, decreased from an average of 90% of operating surplus between 2008 and 2012 to 62% in 2019. With the operating surplus increasing over the years, and the value of subsidies remaining stable, the percentage contributed by subsidies to the operating surplus is decreasing slightly.

**Figure 2.1** CSO Operating Surplus and Net Subsidies, 2000 - 2019

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**Source:** Central Statistics Office, Output, Input & Income in Agriculture Final Estimates 2019

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**Annual Review and Outlook for Agriculture, Food and the Marine 2020**
Economic Accounts for Agriculture

The Economic Accounts for Agriculture (EAA) provides detailed European level information on income in the agricultural sector. The purpose of this data is to analyse the production process of the agricultural industry and the primary income generated by this production. The EAA are a satellite account of the European System of Accounts (ESA2010), providing complementary information and concepts adapted to the particular nature of the agricultural industry.

The EAA is an integral part of the European system of accounts and therefore for their compilation the Eurostat’s general classification of economic activities, NACE Rev. 2, is used. The list of activities which defines the agricultural industry corresponds to division 01 of that classification: Crop and animal production, hunting and related service activities.

The EAA measure the total output of the agricultural activity which includes:

- output sold (including trade in agricultural goods and services between agricultural units);
- changes in stocks;
- output for own final consumption and own-account gross-fixed capital formation;
- output produced for further processing by other agricultural producers;
- intra-unit consumption of livestock feed products.

The agricultural industry’s output equals the sum of the output of agricultural products plus goods and services produced in non-agricultural secondary activities. Figure 2.2 represents the real income factors of agriculture per annual work unit for the years 2015, 2017 and 2019. Looking at Ireland figure 2.2 shows that real income was higher in 2017 compared to 2015 and 2019 with 2019 also higher than 2015. The Index of real income per annual work unit in Ireland in 2019 was 140.19, and this compares to the EU 27 average of 124.50. Real income of factors in agriculture per annual work unit in Bulgaria have increased over each of the chosen years and, as 2010 is the base year for the index, the growth has been significant, with real income of factors in agriculture per annual work unit in 2019 almost two and a half times higher than it was in 2010. In Finland, Belgium and Malta the real income of factors in agriculture per annual work unit in the years 2015, 2017 and 2019 is less than it was in 2010. Real income of factors in agriculture per annual work unit in Ireland in 2019 was 1.4 times that in 2010.

**Figure 2.2 EAA - Index of the real income of factors in agriculture per annual work unit, 2015, 2017 & 2019**

![Index of real income per annual work unit (2010 = 100)](chart)

Source: Eurostat - Economic accounts for Agriculture
2.3 Agricultural Price Index

The agricultural output price index measure trends in the price of agricultural produce sold by farmers. The agricultural input price index is designed to measure trends in the price of farm inputs purchased for current consumption. Estimates of the agricultural price indices for 2019 show a 2.2% increase in input prices from 2018 levels, while output prices are estimated to decrease by 1.2%.

In respect to inputs, the Agricultural Price Index increase of 2.2% is due mainly to an increase in seeds (8.8%), fertilisers (5.2%), electricity (3.2%) and feeding stuffs (3.0%).

The projected decrease in the output price index of 1.2% is due mainly to decreases in cattle (-5.6%), in sheep (-5.7%) and milk (-4.9%).

Table 2.1 Agricultural Price Index – 2016 to 2019

<table>
<thead>
<tr>
<th></th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
<th>2019/2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agricultural output price index</td>
<td>95.1</td>
<td>106.5</td>
<td>104.4</td>
<td>103.2</td>
<td>-1.2%</td>
</tr>
<tr>
<td>Crop output</td>
<td>106.1</td>
<td>104.1</td>
<td>119.6</td>
<td>131.8</td>
<td>10.2%</td>
</tr>
<tr>
<td>Cattle</td>
<td>93.0</td>
<td>94.7</td>
<td>93.4</td>
<td>88.1</td>
<td>-5.6%</td>
</tr>
<tr>
<td>Pigs</td>
<td>102.6</td>
<td>110.4</td>
<td>96.5</td>
<td>114.3</td>
<td>18.5%</td>
</tr>
<tr>
<td>Sheep</td>
<td>99.9</td>
<td>99.6</td>
<td>105.1</td>
<td>99.0</td>
<td>-5.8%</td>
</tr>
<tr>
<td>Poultry</td>
<td>99.5</td>
<td>99.2</td>
<td>99.5</td>
<td>100.4</td>
<td>0.9%</td>
</tr>
<tr>
<td>Milk</td>
<td>91.0</td>
<td>121.3</td>
<td>114.3</td>
<td>108.7</td>
<td>-4.9%</td>
</tr>
<tr>
<td>Agricultural input price index</td>
<td>97.9</td>
<td>98.2</td>
<td>102.7</td>
<td>105.0</td>
<td>2.2%</td>
</tr>
<tr>
<td>Seeds</td>
<td>98.5</td>
<td>98.5</td>
<td>98.2</td>
<td>106.8</td>
<td>8.8%</td>
</tr>
<tr>
<td>Energy</td>
<td>91.9</td>
<td>97.8</td>
<td>106.5</td>
<td>106.5</td>
<td>0.0%</td>
</tr>
<tr>
<td>Electricity</td>
<td>96.5</td>
<td>95.5</td>
<td>102.2</td>
<td>105.5</td>
<td>3.2%</td>
</tr>
<tr>
<td>Motor fuel</td>
<td>90.1</td>
<td>98.3</td>
<td>108.0</td>
<td>106.9</td>
<td>-1.0%</td>
</tr>
<tr>
<td>Fertilisers</td>
<td>86.2</td>
<td>81.5</td>
<td>86.4</td>
<td>90.9</td>
<td>5.2%</td>
</tr>
<tr>
<td>Veterinary expenses</td>
<td>101.9</td>
<td>102.1</td>
<td>105.3</td>
<td>107.5</td>
<td>2.1%</td>
</tr>
<tr>
<td>Feeding stuffs</td>
<td>100.0</td>
<td>100.6</td>
<td>107.2</td>
<td>110.4</td>
<td>3.0%</td>
</tr>
</tbody>
</table>

Source: Central Statistics Office, Agricultural Price Index

Figure 2.3 Agriculture Input & Output Prices, Yearly Analysis

Source: Central Statistics Office, Agricultural Price Index
2.4 National Farm Survey – Preliminary results, 2019

The Teagasc National Farm Survey (NFS) has been conducted on an annual basis since 1972. The survey is operated as part of the Farm Accountancy Data Network (FADN) of the EU and fulfils Ireland’s statutory obligation to provide data on farm output, costs and income to the European Commission. A random, nationally representative sample is selected annually in conjunction with the Central Statistics Office (CSO) to represent those farms with greater than €8,000 of Standard Output. Each farm is assigned a weighting factor so that the results of the survey are representative of the national population of farms. These preliminary results are based on a sample of 825 farms which represents 92,000 farms nationally.

Farms are assigned to six farm systems on the basis of farm gross output, as calculated on a standard output basis. The NFS farms are categorised into one of six farm types: Dairy, Cattle Rearing, Cattle Other, Sheep, Tillage and Mixed Livestock. Given that individual farms typically have more than one farm enterprise, a rigorous basis for categorising farms into each system is required.

The method of classifying farms into farming systems is based on the EU farm typology as set out in Commission Decision 78/463 and its subsequent amendments. The approach is utilised by all members of the EU Farm Accountancy Data Network. The methodology assigns a standard output (SO) to each type of animal and each hectare of crop on the farm. Farms are then classified into groups, according to the proportion of total SO which comes from each enterprise. System titles refer to the dominant enterprise in each group. For example, the cattle rearing system refers to those farms where the greater proportion of the farm’s activity relates to suckler beef production. There are many other farms (including those in the dairy, sheep and tillage systems) that have a cattle enterprise. The mixed nature of Irish farms is reflected in the individual contribution of livestock and crop categories to gross output.

Farms below the €8,000 standard output threshold are not included in the annual survey sampling frame but data is collected on those through the Teagasc Small Farms Survey, the most recent of which was conducted in 2015.

National Farm Survey Preliminary Results, 2019

The preliminary results for the 2019 National Farm survey issued in June 2020 shows that the average family farm income (FFI) for 2019 was €23,934, a 2% increase on 2018 figures. Following a decline in the average income level in 2018, largely due to extreme weather, there was a recovery in average FFI in 2019. However, this recovery was uneven, with the average FFI concealing differences across the various farm types.

Family Farm Income per Farm (FFI)

FFI is defined and calculated by Teagasc by deducting all farm costs (direct and overhead) from the value of farm gross output. Unpaid family labour is not included as a cost. FFI therefore represents the financial reward to all members of the family, who work on the farm, for their labour, management and investment. It does not include income from non-farming sources and thus may not be equated to household income.
Table 2.2 Headline results from National Farm Survey

<table>
<thead>
<tr>
<th></th>
<th>Dairying</th>
<th>Cattle Rearing</th>
<th>Cattle Other</th>
<th>Sheep</th>
<th>Tillage</th>
<th>All Farms</th>
</tr>
</thead>
<tbody>
<tr>
<td>% of farms represented</td>
<td>17.4%</td>
<td>27.5%</td>
<td>30.8%</td>
<td>15.4%</td>
<td>7.4%</td>
<td>100%</td>
</tr>
<tr>
<td>Direct Payments</td>
<td>€20,387</td>
<td>€14,706</td>
<td>€17,930</td>
<td>€19,312</td>
<td>€25,349</td>
<td>€18,452</td>
</tr>
<tr>
<td>FFI</td>
<td>€66,570</td>
<td>€9,188</td>
<td>€13,893</td>
<td>€14,604</td>
<td>€34,437</td>
<td>€23,934</td>
</tr>
<tr>
<td>DPs as % of FFI</td>
<td>31%</td>
<td>160%</td>
<td>129%</td>
<td>132%</td>
<td>74%</td>
<td>77%</td>
</tr>
</tbody>
</table>

Source: Teagasc, National Farm Survey – Preliminary results 2019

Family Farm Income by System

Family Farm Income (FFI), the return from farming for farm family labour, land and capital, is the principal measure used in the Teagasc National Farm Survey. Average FFI conceals differences across the various farm types.

Average dairy farm income increased by 9% to €66,570 in 2019. The reversion to normal weather conditions in 2019, the related fall in feed expenditure and a further boost in milk production, offset the fall in the milk price in 2019 (down 3%).

In 2019 average Cattle Rearing income increased by 11% to €9,188. Suckler cow production is the dominant enterprise on these farms. Average gross output increased by 2% on 2018 figures, reaching €36,715 in 2019, with the average direct payment increasing by 12% to €14,706. The provision of additional support payments in the form of the Beef Exceptional Aid Measure (BEAM) added an average of €780 to the typical Cattle Rearing farm, while payments under the Beef Environmental Efficiency Programme (BEEP) were worth an average of €482 in 2019.

Average income on Cattle Other farms, decreased by 6% to €13,893 on 2018 figures. This is largely due to a decrease in 2019 finished cattle prices. Prices decreased due to adverse market conditions. Overall, the average gross output value per farm decreased by 4% in 2019, which was offset slightly by a 10% increase in direct payments. Direct payments to Cattle Other farms increased due to a special payment received under the Beef Exception Aid Measure (BEAM). Cattle Other farms received €1,548 per farm in 2019 from this scheme. The value of Gross Output was €50,470, with direct payments on average totalling €17,930.

There were 14,322 Sheep farms represented in the National Farm survey in 2019. In 2019 sheep farms had an average income of €14,604; this represents a 9% increase on 2018 figures. The main reason behind this increase in FFI was the fall in production costs. Direct costs fell by 6% to a farm average of €18,209, with purchased concentrate costs decreasing by 18% to €6,929. Direct payments increased slightly on 2018 figures, up to an average of almost €19,320. This increase was largely due to the Beef Exceptional Aid Measure (BEAM), which benefitted sheep farms that also have cattle.

Tillage farms had an average income of €34,437, which was a 15% decrease on 2018 figures. Although, harvest yields were up substantially in 2019, due to the favourable weather conditions, cereal prices fell and in combination, this resulted in a fall in tillage farm margins in 2019.

Family farm income varies considerably by farm system. Dairy farms are consistently the most profitable farms. However, it should be noted that almost all dairy farms are classified as full-time farms, with farms requiring 0.75 of a standard labour input being defined as full-time and those requiring less as part time. Most cattle farms and the majority of sheep farms are classified as part time in terms of labour input requirements, even though in many cases the farmers may not have off-farm employment.

Source: Teagasc, National Farm Survey – Preliminary results 2019

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Also drawing on the 2019 NFS data, table 2.2 shows that direct payments averaged €18,452 per farm in 2019, accounting for 77% of family farm income. Again, there are noticeable differences between farm types; estimates for dairy farms show that the direct payments account for only 31% of income, while cattle and sheep farms are very reliant on direct payments and would be operating at an economic loss without them.

Source: Teagasc, National Farm Survey – Preliminary results 2019
Family Farm Income by Farm Type per Hectare

Family farm income is significantly higher on dairy farms than on any other farm type, even when farm size is taken into account. Similarly, when distinguishing between full-time and part-time farms in terms of labour input, dairy farms again produce higher family farm income per hectare.

The average farm size included in the Teagasc National Farm Survey in 2019 was 43 hectares, with average income per hectare coming in at €554; up slightly on €541 in 2018. In 2019, the average dairy farm was 59 hectares in size and had an average FFI of €1,132 per hectare, this represents a 8% increase or €85 increase per hectare on 2018 figure. Tillage had the second highest economic return per hectare at €568, a decrease of €107 on 2018 figures. In 2019, the average income per hectare was lowest on Cattle Rearing farms, at €288, however this represents a 7% increase on 2018 figure or an additional €18 per hectare. Average FFI per hectare on Cattle Other farms was €384, a slight 2% decrease on 2018 figures, down from €391. The equivalent figure on sheep farms was €311, up from €276 in 2018.

**Figure 2.5 Family Farm Income per Hectare, 2018 -2019**

<table>
<thead>
<tr>
<th>Farm Type</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dairy</td>
<td>€1,200</td>
<td></td>
</tr>
<tr>
<td>Cattle rearing</td>
<td>€1,000</td>
<td></td>
</tr>
<tr>
<td>Cattle other</td>
<td>€800</td>
<td></td>
</tr>
<tr>
<td>Sheep</td>
<td>€600</td>
<td></td>
</tr>
<tr>
<td>Tillage</td>
<td>€400</td>
<td></td>
</tr>
<tr>
<td>All</td>
<td>€200</td>
<td></td>
</tr>
</tbody>
</table>

**Source:** Teagasc, National Farm Survey – Preliminary results 2019

Full and Part Time Farms, 2019

A comparison of financial data for full-time and part-time farms, drawn from the results of the 2019 National Farm Survey (latest data available) is highlighted in Table 2.3. In 2019 average farm income for the 32% of farms classified as full-time was €53,451, compared to €9,827 for part-time farms. Full-time farms are often the larger more viable farms with average utilisable agricultural area (U.A.A) of 69.8 hectares compared to 30.4 hectares for part-time farms. Almost half of the full-time farms are dairying while the majority of part-time farms are Cattle Rearing or Cattle Other farms.

The 67.6% of farms classified as part-time were particularly reliant on Subsidies and direct payments, averaging €13,604 to cover production costs. Without these direct payments, many part-time farms would be operating at an economic loss.
Table 2.3 Main results from National Farm Survey for Full-time and Part-time farms, 2019

<table>
<thead>
<tr>
<th>System</th>
<th>Dairying</th>
<th>Cattle Rearing</th>
<th>Cattle Other</th>
<th>Sheep</th>
<th>Tillage</th>
<th>All Sizes</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Full-time</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Per Cent of Population</td>
<td>15.4</td>
<td>3.1</td>
<td>5</td>
<td>4</td>
<td>3.4</td>
<td>32.3</td>
</tr>
<tr>
<td>U.A.A</td>
<td>62.9</td>
<td>59.7</td>
<td>71.4</td>
<td>71.3</td>
<td>97.6</td>
<td>69.8</td>
</tr>
<tr>
<td>Family Farm Income</td>
<td>€72,278</td>
<td>€24,479</td>
<td>€30,353</td>
<td>€32,429</td>
<td>€53,620</td>
<td>€53,451</td>
</tr>
<tr>
<td>Subsidies and Direct Payments</td>
<td>€21,775</td>
<td>€28,517</td>
<td>€36,312</td>
<td>€33,789</td>
<td>€39,530</td>
<td>€28,595</td>
</tr>
<tr>
<td>DPs % of FFI</td>
<td>30%</td>
<td>116%</td>
<td>120%</td>
<td>104%</td>
<td>74%</td>
<td>53%</td>
</tr>
<tr>
<td><strong>Part-time</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Per Cent of Population</td>
<td>2.0</td>
<td>24.3</td>
<td>25.8</td>
<td>11.4</td>
<td>4.0</td>
<td>67.6</td>
</tr>
<tr>
<td>U.A.A</td>
<td>27.6</td>
<td>28.3</td>
<td>29.3</td>
<td>38.5</td>
<td>29.1</td>
<td>30.4</td>
</tr>
<tr>
<td>Family Farm Income</td>
<td>€22,753</td>
<td>€7,203</td>
<td>€10,670</td>
<td>€8,350</td>
<td>€18,062</td>
<td>€9,827</td>
</tr>
<tr>
<td>Subsidies and Direct Payments</td>
<td>€9,728</td>
<td>€12,913</td>
<td>€14,331</td>
<td>€14,243</td>
<td>€13,244</td>
<td>€13,604</td>
</tr>
<tr>
<td>DPs % of FFI</td>
<td>43%</td>
<td>179%</td>
<td>134%</td>
<td>171%</td>
<td>73%</td>
<td>138%</td>
</tr>
</tbody>
</table>

Source: Teagasc, National Farm Survey – Preliminary results 2019

Off farm Employment Income, 2019

Over 52% of farm households had a source of off-farm employment income in 2019. This represents a slight 1% increase on the 2018 figures. The proportion of farm households where the spouse was employed off-farm rose slightly to 34% in 2019, while the proportion of farmers employed off-farm was slightly less, at 33%.

However, the levels of off-farm employment differs by system. Dairy farm households are more likely to have a source of off-farm income, within the household when compared to the other farm systems. The spouses of dairy farmers in particular are employed off-farm at a higher rate than for other systems. This reflects the younger demography of these Dairy households. The higher age profile of non-dairy farm households is reflected in the fact that they were, on average, more than twice as likely to be in receipt of pension income.

Cattle farmers more likely to work off-farm than in the case of other systems, 40% of Cattle Other farmers had an off-farm job in 2019. Off-farm employment in Cattle Rearing farms decreased by 3% compared to 2018 figures, totally 40%, in 2019. A lower proportion of Sheep and Tillage farmers worked off-farm in 2019, at 36% and 37% respectively, a slight increase in both cases relative to 2018 data. 11% of Dairy farmers were engaged in off-farm employment in 2019.
2.4 Farm Viability Analysis, 2019

While farm income is a useful measure, it does not account for the economic viability of the farm business nor does it make any allowance for the role of income earned outside of the farm in ensuring the sustainability of farm households. To help address this issue the NFS also provides a viability profile of its farms broken into three categories.

**Viable**

A farm is defined as economically viable if the farm income can remunerate family labour at the minimum agricultural wage and provide a 5% return on the capital invested in non-land assets.

**Sustainable**

If the farm business is not viable, the household is still considered sustainable if the farmer or spouse has an off-farm income.

**Vulnerable**

A farm is considered to be economically vulnerable if the farm business is not viable and if neither the farmer nor spouse works off the farm.

Teagasc’s National Farm Survey results found that 34% of the farm population were economically viable in 2019. The viability of Irish farms varies across system. In 2019, 75% of Dairy farms were found to be viable, up from 72% in 2018. 63% of Tillage farms were classed as viable in 2019, unchanged on the previous year. The proportion of viable Cattle Rearing farms decreased by 2% in 2019 to 13%.
43% of Cattle Rearing farms were classed as vulnerable in 2019, unchanged on 2018 figures. While 38% of Cattle Other farms were classed as vulnerable in 2019, an increase of 2% on 2018 figures. The proportion of Sheep farms deemed vulnerable in 2019 fell by 3% to 39%.

There was 2% decrease in the proportion of Cattle Rearing farms and Sheep farms deemed to be sustainable in 2019. The proportion of sustainable Cattle Other farms remained unchanged in 2019, relative to the previous year.

**Figure 2.7 Viability of National Farm Survey Farms, 2019**

The viability of farming varies quite considerably by farm system. In 2019, 75% of dairy farms were considered economically viable, in comparison to “Cattle Other” which had 24% of farms classified as economically viable and a further 37% classified as sustainable. The results of the Teagasc NFS indicate that there are about 30,300 viable farms comprising of 12,000 viable Dairy farms in Ireland in 2019, with almost 3,300 Cattle Rearing farms and 7,000 Cattle Other farms considered viable. The number of viable Sheep farms and Tillage farms were approximately 3,700 and 4,300 respectively.

**Figure 2.8 Viability of National Farm Survey Farms by Sector, 2019**

**Source:** Teagasc, National Farm Survey – Preliminary Results 2019
The South is the most economically viable region and contains the highest proportion of viable farms at 43% compared to only 19% in the Northern and Western region and 37% in Eastern and Midland region. The Northern and Western region at 37% have the highest proportion of vulnerable farms. This compares to 27% in the South and 33% in the Eastern and Midland region. The North and West region also has the largest proportion of sustainable farms at 43%. The proportions of sustainable farms found in the Southern region and Eastern and Midland region were similar at 29%. In general, these farms are sustainable due to the presence of an off-farm income source highlighting the importance of off-farm employment in the region.

**Figure 2.9 Viability of National Farm Survey Farms by Region, 2019**

Source: Teagasc, National Farm Survey – Preliminary results 2019
### 2.5 Impact of SARS-CoV-2

Teagasc issued a report COVID-19 Initial Economic Assessment of its Impact on Irish Agriculture in May examining the effect of price decreases on family farm incomes under a number of different scenarios. In the report Teagasc was not forecasting price decreases or their extent, but the impact on 2020 income across primary agriculture in Ireland in 3 scenarios. It compared the impact against the forecast outcome for 2020 assuming that the COVID-19 crisis had not emerged. Farming and food production have been able to continue during the Covid-19 lockdown. This has allowed Irish agriculture to maintain essential food supplies within the country and to export markets. However, there has been a steep drop in the demand for food in the food services sector owing to the fact that restaurants and other food serving industries were closed both in Ireland and in several other countries. The unanticipated reduction in food demand, led to a product surplus, which in turn resulted in reductions in commodity prices in 2020, which will persist into 2021, with an associated reduction in the prices paid to farmers.

Over the short-term, the ability of farmers to cut production in response to falling prices is very limited, as production decisions for the year have been in large part already made. The relatively fixed nature of supply will exacerbate the short run price reductions that will be experienced.

In relative terms, beef farming is projected to be the worst affected sector within agriculture, while in absolute terms the reduction in average farm incomes is projected to be largest on dairy farms. It is difficult to predict commodity prices, although some signs of stability emerged during the summer. The recovery of commodity prices largely depends on how successful global governments are at controlling the virus and the associated relaxing or strengthening of lockdown measures.

At the end of July 2020 when Teagasc published their SITUATION AND OUTLOOK for Irish Agriculture they projected that the fears of a sharp COVID-19 related drop in Irish farm incomes in 2020, seem to have been averted following a gradual recovery in commodity prices and the provision of additional government supports to the beef sector. There has been a more rapid emergence from the strict lockdown in Europe than initially expected, though the risk of a resurgence of the virus and possible return to restrictions on economic activity in Europe remains. Were a second wave of the virus to occur, then commodity prices could again come under pressure.

### 2.6 Direct Payments

**Irish Direct Payments**

Total direct payments made to farmers for the basic payment scheme, greening and the young farmers schemes were estimated to be over €1.17 billion in 2019. This figure is included in subsidies (defined by Eurostat) used by the Central Statistics Office in calculating operating surplus in agriculture (section 2.2) along with areas of natural constraint, GLAS and disease compensation payments. Other payments such as Forestry Premia, and the Targeted Agricultural Modernisation Scheme are not counted as direct payments by the Central Statistics Office.
## Table 2.4 Distribution of payments to farmers by region, 2019

<table>
<thead>
<tr>
<th>COUNTY</th>
<th>BPS amount</th>
<th>Greening amount</th>
<th>Young farmers scheme amount</th>
<th>Total amount paid</th>
</tr>
</thead>
<tbody>
<tr>
<td>CARLOW</td>
<td>€14,782,651.56</td>
<td>€6,478,869.52</td>
<td>€271,272.11</td>
<td>€21,532,793.19</td>
</tr>
<tr>
<td>CAVAN</td>
<td>€23,432,392.73</td>
<td>€10,266,734.49</td>
<td>€754,896.81</td>
<td>€34,454,024.03</td>
</tr>
<tr>
<td>CLARE</td>
<td>€31,761,077.90</td>
<td>€13,921,821.27</td>
<td>€858,281.04</td>
<td>€46,541,180.67</td>
</tr>
<tr>
<td>CORK</td>
<td>€102,846,586.12</td>
<td>€45,119,398.49</td>
<td>€2,499,058.05</td>
<td>€150,465,042.65</td>
</tr>
<tr>
<td>DONEGAL</td>
<td>€40,991,369.71</td>
<td>€17,959,431.32</td>
<td>€787,584.77</td>
<td>€59,738,385.80</td>
</tr>
<tr>
<td>DUBLIN</td>
<td>€6,020,444.50</td>
<td>€2,638,522.41</td>
<td>€77,926.47</td>
<td>€8,736,893.38</td>
</tr>
<tr>
<td>GALWAY</td>
<td>€58,190,924.45</td>
<td>€25,498,496.42</td>
<td>€1,715,678.00</td>
<td>€85,405,098.87</td>
</tr>
<tr>
<td>KERRY</td>
<td>€46,621,781.74</td>
<td>€20,440,493.27</td>
<td>€1,204,417.40</td>
<td>€68,266,692.41</td>
</tr>
<tr>
<td>KILDARE</td>
<td>€19,753,792.32</td>
<td>€8,647,486.01</td>
<td>€301,989.17</td>
<td>€28,703,267.50</td>
</tr>
<tr>
<td>KILKENNY</td>
<td>€32,449,297.19</td>
<td>€14,230,002.17</td>
<td>€849,097.95</td>
<td>€47,528,397.31</td>
</tr>
<tr>
<td>LAOIS</td>
<td>€24,289,186.40</td>
<td>€10,651,407.54</td>
<td>€637,724.01</td>
<td>€35,578,317.95</td>
</tr>
<tr>
<td>LEITRIM</td>
<td>€14,411,225.72</td>
<td>€6,306,995.32</td>
<td>€433,035.96</td>
<td>€21,151,257.00</td>
</tr>
<tr>
<td>LIMERICK</td>
<td>€33,354,609.09</td>
<td>€14,630,756.91</td>
<td>€895,687.54</td>
<td>€48,881,053.54</td>
</tr>
<tr>
<td>LONGFORD</td>
<td>€12,552,473.56</td>
<td>€5,501,651.55</td>
<td>€328,130.98</td>
<td>€18,382,256.09</td>
</tr>
<tr>
<td>LOUTH</td>
<td>€11,996,104.84</td>
<td>€5,194,546.78</td>
<td>€196,042.95</td>
<td>€17,386,694.57</td>
</tr>
<tr>
<td>MAYO</td>
<td>€49,973,412.92</td>
<td>€21,892,701.00</td>
<td>€1,639,073.95</td>
<td>€73,505,187.87</td>
</tr>
<tr>
<td>MEATH</td>
<td>€33,773,883.76</td>
<td>€14,817,464.73</td>
<td>€597,673.20</td>
<td>€49,189,021.69</td>
</tr>
<tr>
<td>MONAGHAN</td>
<td>€18,519,348.24</td>
<td>€8,113,972.47</td>
<td>€410,082.47</td>
<td>€27,034,403.02</td>
</tr>
<tr>
<td>OFFALY</td>
<td>€22,421,665.64</td>
<td>€9,835,004.44</td>
<td>€637,718.31</td>
<td>€32,894,388.39</td>
</tr>
<tr>
<td>ROSCOMMON</td>
<td>€27,328,033.78</td>
<td>€11,970,895.57</td>
<td>€729,433.04</td>
<td>€40,028,362.39</td>
</tr>
<tr>
<td>SLIGO</td>
<td>€17,350,367.41</td>
<td>€7,600,993.59</td>
<td>€426,445.17</td>
<td>€25,377,806.17</td>
</tr>
<tr>
<td>TIPPERARY</td>
<td>€60,999,975.85</td>
<td>€26,768,524.07</td>
<td>€1,241,407.87</td>
<td>€89,009,907.79</td>
</tr>
<tr>
<td>WATERFORD</td>
<td>€24,105,554.71</td>
<td>€10,581,418.86</td>
<td>€603,398.65</td>
<td>€35,290,372.22</td>
</tr>
<tr>
<td>WESTMEATH</td>
<td>€21,350,041.13</td>
<td>€9,363,397.63</td>
<td>€435,516.17</td>
<td>€31,148,954.93</td>
</tr>
<tr>
<td>WEXFORD</td>
<td>€36,996,158.43</td>
<td>€16,217,398.64</td>
<td>€887,800.13</td>
<td>€54,101,357.20</td>
</tr>
<tr>
<td>WICKLOW</td>
<td>€18,917,261.40</td>
<td>€8,303,017.72</td>
<td>€355,121.33</td>
<td>€27,575,400.45</td>
</tr>
<tr>
<td>TOTAL</td>
<td>€805,189,621.10</td>
<td>€352,951,402.53</td>
<td>€19,774,493.45</td>
<td>€1,177,915,517.08</td>
</tr>
</tbody>
</table>

**Source:** Department of Agriculture, Food and the Marine

### Basic Payment Scheme

In 2019 around 123,000 farmers received these payments. There is significant variation in the value of payment dependent on county, with the average BPS payment in Leitrim, Mayo, Sligo, Monaghan, Roscommon, Donegal, Galway and Cavan between €4,000 and €5,000. In contrast to an average BPS payment in Kildare, Kilkenny, Dublin and Waterford was between €9,500 and €10,000.

BPS, Greening and Young Farmer scheme payments totalled over €1.17 billion in 2019. The other significant payments were through Areas of Natural Constraint with some €249 million and GLAS payments amounting to €214 million. Forestry Premia are also a significant income source for many farmers with about €58 million paid in 2019.
Figure 2.10 Average BPS payment by farmer by County, 2019

Source: Department of Agriculture, Food and the Marine
European Union Direct Payments
Trend in the areas receiving direct payments

The Potentially Eligible Area (PEA) is the total area declared by beneficiaries and potentially eligible for payment of direct payments within the EU. It remained relatively stable between 2015 and 2017, increasing by +0.3%. PEA covers approximately 90% of the Utilised Agricultural Area (UAA) across the EU-28 Member States.

- In 2017, the determined area which corresponds to the total area declared by beneficiaries and for which all eligibility conditions are met decreased by 1% when compared to 2015 figures, however the determined area remains 3.4% higher than 2014.
- In 2017, the determined area is only 3.6% below the PEA. The gap between the determined area and the PEA reduced significantly from 2014 when it was 8.5%.
- The determined area is still 13.6% below the UAA, but it was 16% below in 2014.
- In Ireland the difference between the PEA of 4.63 million hectares and the determined area of 4.40 million hectares in 2017 was 5% while the UAA was 4.47 million hectares.

Direct payments expenditure per hectare by Member State in 2017

- In 2017, the average support per hectare of area, declared by farmers (PEA) totalled €257 EUR/ha.
- The average Direct Payment per hectare ranges from €132 EUR/ha to €645 EUR/ha across member states with Ireland at the average EU rate.
- Direct payments scheme differs depending on the initial financial allocation (fixed at EU level) and on decisions by the Member States.
- The basic payment (BPS or SAPS) represents on average 52% of the direct payments expenditure in 2017 (without national “top-ups”).

Figure 2.11 EU Direct Payments Per Hectare by Member State - 2017

*Source: European Commission, Report on the implementation of direct payments
Non-Agricultural Activities

The CSO carry out a national farm census every ten years in line with their EU colleagues and carry out a farm structure survey three years and six years after the census. A national farm census was due to be carried out in June 2020, but this has been delayed to September due to Covid-19. The 2016 Farm Structure Survey found that over 16,400 farms reported that they undertook gainful non-agricultural activity on the farm as a supplement to traditional farming, 56% of which were located in the Southern and Eastern region. Some 9,200 farms who engaged in gainful non-agricultural activity were located in the Southern and Eastern part of the country, 2,700 farms were located in the Border region, 1,700 in the Midlands and 2,900 located in the West of Ireland.

Figure 2.12 Farms engaged in gainful non-Agricultural Activity

Farms (Thousand) by Type of Gainful Non-Agricultural Activity, Region

Source: Central Statistics Office’s Farm Structure Survey 2016

Figure 2.13 Farms by type of gainful Non-Agricultural Activity and Region

Source: Central Statistics Office’s Farm Structure Survey 2016
2.7 Farm Numbers and Size

The CSO’s Farm Structure Survey (FSS) 2016, published in May 2018 provides data on Irish farm numbers and demographics. Table 2.5 below shows the total number of farms and average farms size. In 2016 it was estimated that there were 137,500 farms in Ireland. 72,500 of these were located in the Border, Midland and Western region. While 65,000 farmers were located in the Southern and Eastern region.

The average farm size in the state was 32.4 hectares. Farms located in the Southern and Eastern region were larger than those in the Border, Midland and West, with an average farm size of 38.3 hectares compared to 27.1 hectares. In 2016 the Average Standard Output of a farm in the Border, Midland and West region was €28,935, while the Average Standard Output of a farm in the Southern and Eastern region was €64,734.

Table 2.5 Number and Size of Farms, 2016

<table>
<thead>
<tr>
<th></th>
<th>State</th>
<th>Border Midland &amp; West</th>
<th>Southern &amp; Eastern</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Farms (‘000s)</td>
<td>137.5</td>
<td>72.5</td>
<td>65</td>
</tr>
<tr>
<td>Average Farm Size (ha)</td>
<td>32.4</td>
<td>27.1</td>
<td>38.3</td>
</tr>
<tr>
<td>Average Standard Output</td>
<td>€45,855</td>
<td>€28,935</td>
<td>€64,734</td>
</tr>
</tbody>
</table>

Source: Central Statistics Office, Farm Structure Survey 2016

Figure 2.14 Number of farms by category and region, 2016

Specialist Beef production was the most common farm type in Ireland in 2016, accounting for 53% of all farms (72,400). 43,200 of these farms were located in the Border, Midland and Western region. 29,200 Specialist Beef farms were located in the Southern and Eastern region.

Specialist Sheep Farms accounted for 11% of all farms (15,200). 10,400 (68%) of these farms were located in the Border, Midland and Western region. 4,800 Sheep farms were located in the Southern and Eastern region.

Specialist Dairying Farms accounted for 12% of all farms (16,700). 3,700 of these farms were located in the Border, Midland and Western region. While the majority of specialist dairying farms (12,900) were located in the Southern and Eastern region.
Specialist Tillage Farms accounted for 3% of all farms (4,700). 1,000 of these farms were located in the Border, Midland and Western region. 3,700 Specialist Tillage Farms were located in the Southern and Eastern region.

**Organic production**

At a global scale there was 69.8 million hectares of land (including area in conversion towards organic) was farmed organically in 2017. At an EU level 12.6 million hectares of land was classed as organic. This EU figure represents 18% of the world’s total organic area and 7% of the total area under agriculture in the EU.

There has been a substantial growth of 70% in organic production over the past eleven years, reflecting the growing importance of the sector. The organic area of the EU has increased at a rate of 5.6% per annum over the period 2007-2017. Over half of the EU’s total organic area is concentrated in four main countries: Spain, Italy, France and Germany. However, in terms of a country’s total share of organic land, Austria, Estonia and Sweden are the EU’s leaders in organic area with 23%, 20% and 19% of their area under organic respectively.

The area currently under organic conversion (20% of the 12.6 million ha in 2017) indicates that there is real potential for growth in the organic sector. It should be noted that eleven EU Member States had shares of areas under conversion of between 10% and 20% and eleven exceeded 20%. The EU Farm to Fork strategy announced in May 2020 has set a target of 25% of EU land to be farmed organically by 2030.

**Figure 2.15** Area under conversion to organic, 2017 share of total organic area (%), by country

**Source:** European Union - Organic farming in the EU – A fast growing sector
Organic sector in Ireland

While the organic sector is presently a small area of Ireland’s agri-food sector, it is experiencing considerable growth. The area of land under organic production has expanded significantly under the current Rural Development Programme.

There are currently 2,127 certified organic operators in Ireland, 1,700 of which are farmers, the remainder comprises of processors, retailers, distributors and importers. The 1,700 farmers are predominantly livestock producers with a relatively small number engaged in tillage and horticulture.

At present, there are 1,530 organic farmers participating in the Organic Farming Scheme and annual payments under the Scheme amount to approximately €10 million. This scheme is a key support measure that assists organic farmers in responding to the increasing consumer demand for organically produced food. Supporting the Organic sector has been a key strategy of this Government and our RDP organic farming scheme has resulted in a 50% increase in land farmed organically in Ireland. There is now over 74,000 hectares or almost 2% farmed organically and the 2019-2025 Strategy for the Organic Sector has ambitious plans for its future development.

Source: Department of Agriculture, Food and the Marine, Review of organic food sector and strategy for its development 2019 - 2025
2.8 Age Profile of Farmers

According to the CSO Farm Structure Survey 2016, more than half of farm holders were aged 55 or over. Farm holders over 65 years made up 30% of all farm holders, while 25% are in the 55 to 64 years age group. In 2013 the over 65 age group comprised 27% of all farmers. The number of young farmers under 35 years old was 5.4% in 2016, down slightly on the 2013 figure of 5.9%.

Table 2.6 Number of Farms\(^1\) by Age of Farm Holder, 2013 - 2016

<table>
<thead>
<tr>
<th></th>
<th>2013</th>
<th>2016</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number 000s</td>
<td>%</td>
</tr>
<tr>
<td>&lt; 35</td>
<td>8,200</td>
<td>6.2%</td>
</tr>
<tr>
<td>35-44</td>
<td>22,800</td>
<td>17.6%</td>
</tr>
<tr>
<td>45-54</td>
<td>34,800</td>
<td>24.8%</td>
</tr>
<tr>
<td>55-64</td>
<td>35,600</td>
<td>25.1%</td>
</tr>
<tr>
<td>&gt;65</td>
<td>37,700</td>
<td>26.3%</td>
</tr>
<tr>
<td>Total</td>
<td>139,100</td>
<td>100%</td>
</tr>
</tbody>
</table>

\(^1\) Family Farms only therefore lower total figure as Family farms account for 99.7% of all farms.


European Union - Farm managers by age

In 2016 almost one third of farm managers or 3.3 million farm managers in the EU-28 were aged 65 or over. On farms with only family working, the percentage of farm managers aged 65 or over (34%) was much higher than in farms without any family labour (9%). Farm managers aged between 55 and 64 accounted for around one quarter of the total managers in all types of farm.

In 2016 managers younger than 40 years old accounted for about 10% of all managers on farms with only family workers, although this share rose to 17% in non-family farms.

Young farm managers (aged under 40) of family farms was most common in Luxembourg (26%); Austria (22%) and Poland (20%). They were far fewer in Cyprus (3% of all family farm managers) and Portugal (3%), where family farm managers aged 65 or over were relatively common (44% and 50% respectively).
Figure 2.16 Distribution of managers by age class and type of farm labour, 2016 (% of total number of managers for the specified extent of the family labour force).

Source: Agriculture statistics - family farming in the EU
The age profile of farmers can be further assessed using data from an exercise undertaken on the Department’s Customer Client System. In total, 156,003 farmers (each in receipt of a basic payment) were captured in this analysis and results indicate that the largest cohort of farmers in receipt of payments are in the 55 - 59 age bracket. The proportion of farmers under 35 accounted for 4% of total farmers in 2019. It should be noted that this analysis excludes farms with herd numbers in joint names, many of which include a young trained farmer.

### 2.9 Young Farmers

11% of all farm holdings in the European Union are run by farmers under 40 and persuading more young people to begin farming is a significant challenge.

Faced with an ageing farming population, the EU has implemented a number of strategies to encourage young people into farming. These strategies include start-up grants, income support and other benefits such as additional training. Young farmers receive additional income support in the form of the young farmer payment (YFP).

**Figure 2.18 Age classes of Farm Managers (% of Farm Managers) in 2016**

**Source:** European Commission. Young people in Farming
The European Union’s Young farmer payment (YFP) applies to farmers who are 40 years of age or younger, who are for the first time the head of an agricultural holding, or who have already set up such a holding during the five years preceding the first application to the YFP. The payment, which is in addition to other direct payments (incl. the basic payment, greening...), is paid for a maximum 5 years following the setting-up.

In 2017, almost 410,000 young farmers, or 6.5% of the BPS/SAPS/SFS applicants, benefited from the YFP in the EU-28 Member States, an increase of 5% on 2015 figures. The Czech Republic, the Netherlands and the UK- Northern Ireland have the highest level of beneficiaries under the YFP. Accounting for 13.5%, 12% and 10.4% respectively. There is an upward trend in the take up of YFP across all member states and is above 6% in the majority of Member States. The countries with the lowest share of beneficiaries under the YFP is Cyprus, UK-England, Spain, Malta and Portugal, with each respective country share being below 3%. In 2017 more than 45,000 young farmers received allocations from the reserve in the form of new Payment Entitlements and increase in the value of existing Payment Entitlements.

Figure 2.19  Young farmer payments 2019

Source: Department of Agriculture, Food and the Marine

![Map of Ireland showing young farmer payments 2019](image)
### Figure 2.20  
**Average young farmer payment per hectare from 2015 to 2017**

- **Member states not implementing small farmer scheme**
- **Member states implementing small farmer scheme**

<table>
<thead>
<tr>
<th>Country</th>
<th>YFP amount per ha - avg 2015</th>
<th>YFP amount per ha - avg 2016</th>
<th>YFP amount per ha - avg 2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Belgium</td>
<td>8500</td>
<td>8000</td>
<td>7500</td>
</tr>
<tr>
<td>Denmark</td>
<td>7500</td>
<td>7000</td>
<td>6500</td>
</tr>
<tr>
<td>Estonia</td>
<td>5000</td>
<td>4500</td>
<td>4000</td>
</tr>
<tr>
<td>Greece</td>
<td>4500</td>
<td>4000</td>
<td>3500</td>
</tr>
<tr>
<td>Spain</td>
<td>4000</td>
<td>3500</td>
<td>3000</td>
</tr>
<tr>
<td>Croatia</td>
<td>3500</td>
<td>3000</td>
<td>2500</td>
</tr>
<tr>
<td>Italy</td>
<td>3000</td>
<td>2500</td>
<td>2000</td>
</tr>
<tr>
<td>Latvia</td>
<td>2500</td>
<td>2000</td>
<td>1500</td>
</tr>
<tr>
<td>Hungary</td>
<td>2000</td>
<td>1500</td>
<td>1000</td>
</tr>
<tr>
<td>Malta</td>
<td>1500</td>
<td>1000</td>
<td>500</td>
</tr>
<tr>
<td>Austria</td>
<td>1000</td>
<td>500</td>
<td>0</td>
</tr>
<tr>
<td>Poland</td>
<td>500</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Portugal</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Romania</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Slovenia</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

**Source:** European Commission, Report on the implementation of direct payments

### 2.10 Labour Input in Agriculture

According to the CSO Farm Structure Survey, the farming workforce had a total of 160,700 annual work units (AWU) in 2016, with an average of 1.17 AWU per farm. Of the 160,700 annual work units, 52% was provided by the farm holders, 41% by other family members and 7% by non-family members. This work was carried out by 137,100 farm holders and 109,800 family members along with 18,500 regular non-family workers.

Family members of the farm holder provided a combined total of 45,700 AWU, this accounted for approximately 30% of the total farming workforce labour input. 27% of family workers were female, providing 19% of the total AWUs, this contrasts the 12% of farm holders in receipt of farm payments.

76% of holders of farms which measured 50 hectares of more worked a full AWU in 2016. Of these farm holders, 74% considered farming to be their sole occupation. Specialist Dairying was the most labour intensive farm type in 2016, 81% of farm holders under this heading worked a full AWU in 2016, a further 94% worked at least a 0.75 AWU.

Farming was the sole occupation for 43% of holders of farms which measured under 20 hectares, but only 16% of these holders worked a full AWU in 2016, while 40% of these farm holders worked less than half an AWU.
Figure 2.21 Labour Input in Agriculture, 2016

Source: Central Statistics Office, Farm Structure Survey 2016

Table 2.7 Comparison of Actual Labour* versus Estimated Labour Requirement (Standard Man Days**), 2019 preliminary Results

<table>
<thead>
<tr>
<th></th>
<th>Dairy</th>
<th>Cattle Rearing</th>
<th>Cattle Other</th>
<th>Sheep</th>
<th>Tillage</th>
<th>Mixed Livestock</th>
<th>All Systems</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>All farms</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total actual labour units</td>
<td>1.64</td>
<td>0.99</td>
<td>0.93</td>
<td>1.07</td>
<td>1.22</td>
<td>1.35</td>
<td>1.12</td>
</tr>
<tr>
<td>SMD labour units</td>
<td>2.04</td>
<td>0.44</td>
<td>0.49</td>
<td>0.66</td>
<td>0.93</td>
<td>2.49</td>
<td>0.74</td>
</tr>
<tr>
<td>Total actual labour as % SMD</td>
<td>0.80</td>
<td>2.22</td>
<td>1.92</td>
<td>1.64</td>
<td>1.32</td>
<td>0.54</td>
<td>1.51</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Dairy</th>
<th>Cattle Rearing</th>
<th>Cattle Other</th>
<th>Sheep</th>
<th>Tillage</th>
<th>Mixed Livestock</th>
<th>All Systems</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Full-time farms</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total actual labour units</td>
<td>1.69</td>
<td>1.25</td>
<td>1.38</td>
<td>1.52</td>
<td>1.45</td>
<td>1.35</td>
<td>1.41</td>
</tr>
<tr>
<td>SMD labour units</td>
<td>2.25</td>
<td>1.04</td>
<td>1.38</td>
<td>1.39</td>
<td>1.57</td>
<td>2.49</td>
<td>1.68</td>
</tr>
<tr>
<td>Total actual labour as % SMD</td>
<td>0.75</td>
<td>1.20</td>
<td>1.00</td>
<td>1.10</td>
<td>0.93</td>
<td>0.54</td>
<td>0.84</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Dairy</th>
<th>Cattle Rearing</th>
<th>Cattle Other</th>
<th>Sheep</th>
<th>Tillage</th>
<th>Mixed Livestock</th>
<th>All Systems</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Part-time farms</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total actual labour units</td>
<td>1.20</td>
<td>0.95</td>
<td>0.85</td>
<td>0.92</td>
<td>1.02</td>
<td>-</td>
<td>0.88</td>
</tr>
<tr>
<td>SMD labour units</td>
<td>0.45</td>
<td>0.37</td>
<td>0.31</td>
<td>0.40</td>
<td>0.38</td>
<td>-</td>
<td>0.34</td>
</tr>
<tr>
<td>Total actual labour as % SMD</td>
<td>2.65</td>
<td>2.60</td>
<td>2.72</td>
<td>2.31</td>
<td>2.70</td>
<td>-</td>
<td>2.59</td>
</tr>
</tbody>
</table>

Source: Teagasc, National Farm Survey – Preliminary results 2019

*Actual labour unit is defined as 1,800 hours or more worked on a farm by a person over 18 years.

**Standard Man Days (SMD) Labour Unit eight hours of work supplied by a person over 18 years of age. The number of SMD required per hectare for the different crops and per head for various categories of livestock is used to calculate the total number of SMDs required to operate the farm.
2.11 Employment

In 2000 the Agri-Food sector employed 197,000 people, representing 11.1% of the total workforce in Ireland, which then stood at 1,772,900. Since then the numbers employed in the Agri-Food sector have reduced, while total employment across all sectors has risen. In 2018 the average number of people employed in the Agri-Food sector was 172,800 down 24,200 compared to the year 2000. The numbers continued to drop in 2019 to 164,400. At the same time total employment in Ireland increased to 2,309,600, an increase of 536,700. As Agri-Food sector employment dropped and overall employment increased, the percentage of people employed in Agri-Food sector dropped and it stands at 7.1% of total employment in 2019. Figure 2.22 shows details of Agri-Food sector employment and its components since 2000. The largest drop has been in crop and animal production.

**Figure 2.22 Employment in the Agri-Food Sector 2000 - 2019**

Employment in the Agri-Food sector is calculated based on detail in the quarterly Labour Force Survey. Due to the seasonal nature of Agri-Food sector employment the figures used here are an average of the four quarters for each year. Included are the numbers employed in the following 2 digit NACE codes, 01, 02, 03, 10, 11 and 16. These codes include: 01 crop and animal production, hunting and related service activities; 02 forestry and logging; 03 fishing and aquaculture; 10 manufacture of food products; 11 manufacture of beverages and 16 manufacture of wood and of products of wood and cork, except furniture; manufacture of articles of straw and plaiting materials.

**Source:** Central Statistics Office, Labour Force Survey.
Figure 2.23 plots Agri-Food sector employment against total employment in Ireland and shows the growth in total employment particularly since 2012 while Agri-Food sector employment has fallen slowly over this period resulting in a reduction in the percentage employed in the Agri-Food sector.

**Figure 2.23** Employment All Sectors and Agri-Food Sector 2000 to 2019

The upward trend in national employment and the downward trend in Agri-Food sector employment continued in quarters 1-3 2019 with the Agri-Food sector representing 7.1% of total employment. However as indicated earlier employment in this sector varies considerably from quarter to quarter sometimes by up to 7% so it is best to average employment over the four quarters each year to see trends in the sector.

Forestry & logging and fishing & aquaculture numbers employed in 2019 have fallen compared to 2000 however the CSO indicate that due to the low numbers that the estimates are considered to have a wider margin of error and should be treated with caution. The same warning applies to the numbers employed in manufacture of wood.

Numbers employed in the manufacture of food and beverages in 2018 are similar to 2000 although they did dip by up to 20% in 2010 compared to current numbers. This may reflect ongoing automation in the sector since 2000, followed by an overall expansion in output and exports.

Total employment in the Agri-Food sector has fallen by 21% since 2000 with a dip between 2009 and 2015. Total employment across almost all sectors has grown in recent years with agriculture one of the few sectors where growth has not occurred. The relative importance of the Agri-Food sector to total employment continues to slowly decrease.

**Table 2.9 Agri-food Employment, 2010-2019**

<table>
<thead>
<tr>
<th></th>
<th>2010</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>% of total</td>
</tr>
<tr>
<td></td>
<td>employed</td>
<td>employment</td>
</tr>
<tr>
<td>Primary Agriculture</td>
<td>101,775</td>
<td>5.3%</td>
</tr>
<tr>
<td>Primary Agriculture,</td>
<td>110,300</td>
<td>5.7%</td>
</tr>
<tr>
<td>Forestry &amp; Fishing</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Food &amp; Beverages</td>
<td>46,375</td>
<td>2.4%</td>
</tr>
<tr>
<td>Manufacturing</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wood &amp; Wood Processing</td>
<td>5,800</td>
<td>0.3%</td>
</tr>
<tr>
<td>Total Agri-Food Sector</td>
<td>162,475</td>
<td>8.4%</td>
</tr>
<tr>
<td>Total Persons in</td>
<td>1,925,575</td>
<td>2,322,500</td>
</tr>
<tr>
<td>Employment</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Source:** Central Statistics Office, Labour Force Survey.
2.12 Land Prices and Land Mobility

Society of Chartered Surveyors Ireland/Teagasc Land Market Review & Outlook 2020

The annual Society of Chartered Surveyors Ireland/Teagasc Land Market Review & Outlook 2020 provides an in-depth analysis of agricultural farmland market trends, providing data on agricultural land values, rents and views on anticipated agricultural land market activity over the next twelve months.

It reports that in the short term, weaker global economic growth rates, as a result of the Covid-19 crisis, would be expected to negatively affect the outlook for Irish agriculture, however the adverse impact on agriculture may be somewhat less than for many other economic sectors.

In 2019, the average per-acre price for agricultural land without a residential holding was €8,823. The average price for land with a residential holding was €9,638. The resultant average per-acre price for agricultural land in 2019 was €9,230. Nationally average land prices fell by 6% in 2019.

It also reports that while the short-term economic impact is likely to be quite negative, the agri-food sector should be one of the first to see the benefits of a return to normal activity. Long-term historical price studies show that land prices varied from €290 per acre in 1970 to over €20k at the height of the ‘Celtic Tiger’. However, it is important to note that the average varies considerably on a provincial basis.

**Connaught/Ulster**

Average value per acre for agricultural land without a residential holding in Connaught increased by 7% for parcels less than 50 acres to €7,480, parcels between 50 to 100 acres decreased by 3% to €6,376 and areas over 100 acres category decreased by 8% to € 5,721.

**Munster**

Average value per acre for agricultural land without a residential holding in Munster decreased by 11% for parcels less than 50 acres to € 10,000, parcels between 50 to 100 acres decreased by 3% to € 9,832 and areas over 100 acres category decreased by 11% to € 9,325.

**Leinster (Excl. Dublin)**

Year-on-year land values for sales of land less than 50 acres without a residence declined significantly in Leinster, (excluding Dublin), down 17% to €10,734. Sales between 50 and 100 acres remained static at €10,113 in 2019 while for sales over 100 acres the average value increased slightly (4%) to €9,826.
**Figure 2.24** Average price per acre of agricultural land (areas up to 50 acres), without entitlements or a residence, 2010 - 2019

**Source:** Society of Chartered Surveyors Ireland/Teagasc Land Market Review and Outlook 2020

**Figure 2.25** Average Price per acre of agricultural land (areas between 50-100 acres), without entitlements or a residence, 2010 v 2019

**Source:** Society of Chartered Surveyors Ireland/Teagasc Land Market Review and Outlook 2020
Figure 2.26 Average price per acre of agricultural land (areas over 100 acres), without entitlements or a residence, 2010 v 2019

Source: Society of Chartered Surveyors Ireland/Teagasc Land Market Review and Outlook 2020

The chart below presents an extract from the records of Smith Harrington, Chartered Surveyors and Estate Agents detailing sale 1970 to 2019:

Figure 2.27 Land Sales Price Database 1970-2019 (€ rate per acre)

Source: Society of Chartered Surveyors Ireland/Teagasc Land Market Review and Outlook 2020
Brexit
The effect of Brexit was assessed in the report with over 63% of respondents indicating it was acting as a deterrent to sellers of land while 74% reported it acted as a deterrent to buyers.

Leasing and rental data
In 2020 57% of respondents reported an increase in demand for long-term leases, while 60% reported demand for conacre (12 month lets) remained the same.

Similar to sales prices, rents widely fluctuated during 2019. The exact rent for a particular parcel of land varies depending on the quality of the land, the price of the crop grown and the availability of alternative land to rent. Rental values were up in most categories in 2019 – by up to 14% and 12% respectively in the case of potato and cereal crop land relative to 2018.

There were increased rents for potato, root crops/maize and pulses in all regions of the country. Rents for grazing, silage, and cereal crop land increased in Munster and Connaught/Ulster in 2019, however, they declined significantly in Leinster, falling back to 2016 levels. In 2019 rents of land for grazing/silage varied between €207 in Munster, €183 per acre in Leinster and €176 in Connaught/Ulster. Rents of land for potatoes varied between €268 in Munster and €378 per acre in Leinster. A breakdown of rent is listed in table 2.10.

Table 2.10 Rental values € per acre in 2019

<table>
<thead>
<tr>
<th></th>
<th>Connaught/Ulster</th>
<th>Munster</th>
<th>Leinster (Excl.Dublin)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grazing/ Silage</td>
<td>€176</td>
<td>€207</td>
<td>€183</td>
</tr>
<tr>
<td>Grazing only</td>
<td>€144</td>
<td>€200</td>
<td>€170</td>
</tr>
<tr>
<td>Cereal Crops</td>
<td>€203</td>
<td>€227</td>
<td>€210</td>
</tr>
<tr>
<td>Potato Crops</td>
<td>€273</td>
<td>€268</td>
<td>€378</td>
</tr>
<tr>
<td>Other crops</td>
<td>€186</td>
<td>€273</td>
<td>€256</td>
</tr>
</tbody>
</table>

Source: Society of Chartered Surveyors Ireland/Teagasc Land Market Review and Outlook 2020

The chart below presents an extract from the records of Smith Harrington, Chartered Surveyors and Estate Agents detailing rental transactions from 1970 to 2019:

**Figure 2. 28 Land Rental Price Database 1970-2019 (€ rate per acre)**

Source: Society of Chartered Surveyors Ireland/Teagasc Land Market Review and Outlook 2020

Irish Farmers Journal Land Price Report 2019
The latest Irish Farmers Journal Land Price Report published in March 2020 indicated that the average price for land in Ireland decreased slightly at €8,971 an acre in 2019 down from €9,072 in 2018 with prices remaining relatively steady over the past 3 years.
This figure varies considerably on a provincial basis, with Munster reporting an average per acre value of €9,985 (£24,672 per hectare), Leinster reporting €11,204 per acre (£27,685) while Connaught reported €6,050 (£14,949) and Ulster reported €6,375 per acre (£15,792).

Land prices are based on several key factors including quality of the land, intended use, size of the land parcel, whether there are entitlements attached or if there is a residence on the land parcel. In 2019, Dublin saw the highest price in Ireland, at almost €18,829 per acre (down 14% on 2018), followed by Kildare at €15,166 per acre and Meath at a notable 28% increase to €12,764 per acre. At the other end of the scale, the lowest average price by county was in Mayo at €4,809 per acre followed by Leitrim at €5,479 per acre, an improvement on recent years as forestry use has put a floor on prices here.

Supply of land
The amount of land brought to the market last year fell 13% to 61,206 acres compared with 70,246 acres in 2018.

In total 33,292 acres were sold last year, up 5% from the 31,687 acres sold in 2018, while the overall success rate at auction was 54.5%.

A total of 1,331 land parcels were offered to the market, down from 1,662 farms/land parcels in 2018.

It is expected that supply may be somewhat constricted by COVID 19 measures for 2020.

Land Mobility & Long-term leasing
A key policy objective of the Agri-taxation Review 2014 was to increase the mobility and the productive use of land. It recommended the retention and enhancement of the income tax relief for long-term leasing, which allows progressive farmers to enlarge their farm holdings and increase productivity. It also:

- Allows young farmers and new entrants to the sector gain access to land by providing a cheaper means of long-term access to land, as opposed to the relatively high cost of ownership.
- Provides security of tenure and the certainty required to encourage lessees to maintain and make an investment in improving land.
- Is especially important in accessing bank credit as financial institutions generally match loan terms to lease duration and longer duration means more manageable repayments.
- Provides a route to retirement for older farmers, assisting in generation renewal.

Over recent years, as a result of the changes brought about by the Review, there has been a significant shift from the short-term renting (conacre) system to long-term leasing. The main official source of data in this regard is from Revenue income tax returns, which show a doubling of long-term leases from 2012 to 2016.

Figure 2.29  Number of long-term leases and cost of associated tax-relief, 2012 to 2017

<table>
<thead>
<tr>
<th>Year</th>
<th>Number of Leases</th>
<th>Cost (£m)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011</td>
<td>6.3</td>
<td>3590</td>
</tr>
<tr>
<td>2012</td>
<td>7.3</td>
<td>3980</td>
</tr>
<tr>
<td>2013</td>
<td>7.3</td>
<td>4370</td>
</tr>
<tr>
<td>2014</td>
<td>9.2</td>
<td>5130</td>
</tr>
<tr>
<td>2015</td>
<td>13.9</td>
<td>6830</td>
</tr>
<tr>
<td>2016</td>
<td>19.4</td>
<td>8490</td>
</tr>
<tr>
<td>2017</td>
<td>23.7</td>
<td>9790</td>
</tr>
</tbody>
</table>

Source: Revenue: Farming Profile 2019
The change in demand for long term leases in 2019 relative to 2018 is shown in Figure 2.30.

**Figure 2.30**  Change in demand for long term leases, 2018 V's 2019, by Region

Conacre & long-term leases

A variety of factors affect the quantity of land rented as Conacre, (a short rental of less than twelve months duration). Farmers may wish to rent some extra land to obtain extra grazing, or for tillage. Their expectations in relation to cattle and crops will affect their desire to do this. Natural factors such as the weather may also come into play. Farmers may wish to rent land to provide fodder in a year of shortage or provide grazing for cattle they wish to keep to expand a herd or to sell later than planned.

The total area of land let in conacre (a short rental of less than twelve months duration) remained stable in 2019. 6% of agents nationwide experienced an increase in the overall letting of conacre activity in 2019 compared to the previous years. Nationally, 60% experienced no change in the volume of lettings, while 24% experienced a decline in conacre letting in 2019.

**Figure 2.31**  Change in Conacre letting in 2018 V's 2019, by Region
COVID 19 and Outlook for 2020

Anecdotal evidence suggests that trade in Agricultural land was brisk for January and February of 2020, however, with restrictions in place and the economic fallout from the current pandemic yet to be fully quantified in terms of land mobility and use, it is likely the overall economic shock coupled with less transactions for Q2 and Q3 which in turn could impact price for 2020.

2.13 Investments, Borrowings and Interest

Borrowing

Central Bank data shows that credit advanced to Primary Industries namely (i) agriculture, (ii) forestry, logging, mining and quarrying and (iii) fishing and aquaculture sectors in 2019 at €779 million continues to decline from €824m in 2018 and €863m in 2017 but remains greater per annum than during 2015 (€734m) and 2016 (€743m). Further analysis shows that new lending to primary agriculture accounts for 90% of this total, forestry, logging, mining and quarrying accounts for under 3% and fishing and aquaculture just under 7%.

Credit outstanding at the end of 2019 is €3.3 billion, down from €4.7 billion at the end of 2010 and down from a peak of €6.4 billion in September 2008. This is indicative of the deleveraging that has been occurring in the wider economy over roughly the same period where repayments have outstripped new lending. Primary Agriculture accounts for 15% of the €21.5 billion outstanding debt held by Irish SMEs or 24% when Financial Intermediation and Property Related Activities are excluded. This percentage has gone down year on year as the wider economy expanded. (credit advanced to Irish SME’s et al).
Gross new lending to core SMEs declined by €781 Million in Q1 2020 and is forecast to further decline in Q2 and Q3 as compared to 2019 due to the impact of Covid 19.

Investment

According to the 2019 National farm survey, gross new investment on Irish farms increased by approximately 4% on 2018 levels. This accounted for almost €980 million nationally. Investment on farms varies by system.

- Investment on Dairy farms accounted for more than half of total investment in 2019, at an average of €33,091 per farm. Investment on Dairy farms increased by 4% on 2018 levels.
- Investment on Tillage farms increased by up to 75% in 2019, to an average of €20,312 per farm.
- Investment across drystock systems decreased in 2019. Investment on Cattle Other farms decreased by approximately 15% in 2019 to €4,895. Investment in Cattle Rearing and Sheep farms decreased by 13% and 9% respectively in 2019.

Overall debt on Irish farms remained largely unchanged in 2019, with a 1% increase on 2018 levels. Similar to 2018 figures, approximately two-thirds of farms had no farm related debt. Levels of debt vary considerably by farm type. 64% of Dairy farms were recorded as having borrowings in 2019, this contrasts the 26% of Sheep, 31% of Cattle Rearing, 34% of Cattle Other and 35% of Tillage farms.
Table 2.11  Percentage of Farms with Borrowings and Average Debt, 2019

<table>
<thead>
<tr>
<th></th>
<th>Farms with Borrowings (%)</th>
<th>Average Debt (€)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dairy</td>
<td>64%</td>
<td>€112,377</td>
</tr>
<tr>
<td>Cattle Rearing</td>
<td>31%</td>
<td>€26,627</td>
</tr>
<tr>
<td>Cattle Other</td>
<td>34%</td>
<td>€34,632</td>
</tr>
<tr>
<td>Sheep</td>
<td>26%</td>
<td>€25,907</td>
</tr>
<tr>
<td>Tillage</td>
<td>35%</td>
<td>€63,661</td>
</tr>
<tr>
<td>All</td>
<td>38%</td>
<td>€59,598</td>
</tr>
</tbody>
</table>

Figure 2.34 presents the debt to income ratio for all farms by system, with the calculation shown for all farms (including farms with and without debt) and separately a calculation only for those farms that do have debt. Although approximately one-third of Cattle farms reported having debt in 2019, the debt to income ratio of those with borrowings remains relatively high at 2.54 for Cattle Rearing farms and 2.27 for Cattle Other farms. Dairy farms were more likely to have debt than other farm types and were also more likely to have higher levels of debt.
Interest Rates

Interest rates for the primary sector show a slight increase on 2018 and are higher than the average across all SME sectors. Central Bank figures show:

- The average rate on outstanding amounts in the sector at the end of 2019 was 4.44% (against 4.38% for 2018) while the average for all SMEs was 3.55%. Some of the difference may be attributable to the profile of the loans, as loans to the agriculture sector tend to be lower in value and higher in volume with fixed costs therefore spread over smaller amounts.
- The average rate for new lending in the primary sector at the end of 2019 was 4.71%, down from 4.97% in 2018.
Interest Rates – In comparison to other EU countries

The Central Bank of Ireland’s SME Market Report 2019 indicates that interest rates in Ireland are substantially above Euro area averages. The interest rate for Non-financial Corporation (NFC) loans of less than €0.25m is 5.7% as of Q1 2019, twice that of EA1 countries and EA2 countries, where the comparable interest rates stands currently at 2.5%. Over 90% of all SME lending comes from the top 3 lenders.

Interest rates on new NFC loans below €0.25 million (a proxy for SME lending) in Ireland, EA1 countries and EA2 countries are shown below. Interest rates for Irish small NFC loans have fluctuated over the last few years but remain substantially above euro area averages even as interest rates for EA2 fell to EA1 levels. The interest rate in Ireland in January 2019 was 5.7%, versus 2.5% in both EA1 and EA2 countries.

Note: The Central Bank compares Ireland to two groups of countries: EA1 which comprises Austria, Belgium, Germany, Finland, the Netherlands, and France and EA2 which is formed by Portugal, Italy, Spain and Greece.

Figure 2.36 Gross new lending to NFCs (loans up to and including €1 million) as a proportion of domestic demand, Q1 2003 - Q3 2018

![Graph showing interest rates for NFC loans in Ireland, EA1, and EA2 from 2010 to 2019.](source)

Source: Central Bank of Ireland’s SME Market Report 2019

The interest rate gap between small and large NFC loans in Ireland is higher than elsewhere in the euro area.

Gross new SME lending for Primary Industries in Q4 2018 was down 4.5 % similar to non-financial non-real estate sectors overall.
The Department of Finance’s SME Credit Demand Survey covering April to September 2018 reports a consistent decline in credit demand across SMEs of all sizes. Credit demand from banks has declined year-on-year, with 20% having applied for bank finance in the six months to September 2018 compared to 23% in September 2017.

Non-Performing loans
Central Bank figures show that in June 2018 the default rate for SMEs was 15.5%. The primary industries sector dominated by agriculture has the lowest share of outstanding balances in default at 12.9%.

Future Growth Loan Scheme
The Future Growth Loan Scheme supports strategic long-term capital investment by SMEs, farmers and fishermen. The Scheme was developed by DAFM and DBEI, in partnership with the Department of Finance, the Strategic Banking Corporation of Ireland (SBCI) and the European Investment Fund (EIF). It is being delivered through participating finance providers and makes up to €300 million of investment loans available to eligible Irish businesses, including farmers and the agri-food & seafood sectors. The loans are competitively priced (an initial maximum loan interest rate of 4.5% for loans less than €250,000), are for terms of 8-10 years and support strategic long-term investment in a post-Brexit environment. A minimum loan amount of €100,000 applies up to a maximum of €3,000,000 per applicant. Considering the needs of Irish farmers, a specific minimum of €50,000 has been secured for them.

This is a financial product that was previously unavailable in Ireland, hence the involvement of the various public bodies to bring it to market. The unique characteristic of the Scheme is that loans up to €500,000 are unsecured making it a viable source of finance for young and new entrant farmers, especially the cohort who do not have high levels of security. It will also serve smaller-scale farmers, who often do not have the leverage to negotiate for more favourable terms with their banking institution. Food companies, too, have identified long-term investment finance of up to ten years as a critical need which is currently unavailable in Ireland.
The effects of his product will be felt all along the food production chain from primary producer to processor. The Future Growth Loan Scheme has been open for loan eligibility applications through the SBCI website since April 2019. The scheme has been a success with very strong demand for investment loans.

As a result of the significant and sudden financial impact of the COVID-19 pandemic on businesses, a second tranche of €500 million, with up to 40% available to the agri-food sector, has now been launched.

**Brexit Loan Scheme**
The €300 million Brexit Loan Scheme was developed by the Department of Agriculture, Food & the Marine in cooperation with the Department of Business, Enterprise and Innovation (DBEI) and the Strategic Banking Corporation of Ireland (SBCI) to provide working capital support to enable eligible Irish businesses to implement the necessary changes to address the challenges posed by Brexit. The Scheme opened for applications on 28th March 2018 and has been extended pending the outcome of EU/UK trade negotiations.

It provides for loans of €25,000 to €1,500,000 per eligible enterprise at a maximum interest rate of 4%, ranging from 1 year to 3 years, with unsecured loans up to €500,000. The loans can be used for future working capital requirements or to fund innovation, change or adaptation of the business to mitigate the impact of Brexit.

**COVID 19 Working capital scheme**
As part of the Government’s response to counter the economic impact of the coronavirus, the BLS was repurposed as the €250 million [Covid-19 Working Capital Loan Scheme](#), which is open to SMEs and mid-caps (i.e. up to 500 employees). With similar conditions to the BLS, 40% (€100m) is ring-fenced for food businesses and other agri-food businesses outside the farm gate (due to technical considerations arising from the InnovFin guarantee, the Scheme is not available to primary producers).

An additional €125 million (bringing the total to €375 million) has been announced.

### 2.14 Women in Agriculture

**Women in Agriculture Ireland**
The CSO Labour Force Survey (LFS) (CSO, Labour Force Survey, 2019) showed that in 2019, 13% of workers in the primary agriculture, forestry and fishing sector were female. The trend since 2000 is increasing slightly, with the proportion rising from an average of 12% between 2000 to 2009 to 14% over the period 2010 to 2019.

At a European scale the number of women in farming has been slowly increasing. 2016 data suggests that, on average, around 30% of farms across the EU are managed by a woman. However, this masks some considerable differences between countries. In Lithuania and Latvia, nearly half of all farms are managed by a woman. By contrast, less than 10% of farm managers in Finland, Malta, Germany, Denmark and the Netherlands are female.
According to the Department’s client database 16% of the registered DAFM farmers in 2019 were women (25,400). 55% (13,849) of female farm owners were over 60 in 2019 with 14% of these aged over 80 year.

Source: Department of Agriculture, Food and the Marine
ACORNS (Accelerating the Creation of Rural Nascent Start-ups)

The report of the Commission for the Economic Development of Rural Areas (CEDRA) contained a recommendation that a Rural Innovation and Development Fund should be developed to support “innovative, small scale pilot initiatives that explore the diverse range of potential identified through the CEDRA process". At the time, national research also highlighted that female entrepreneurship rates were half that of their male counterparts.

To improve these gender statistics, and to encourage a stronger level of enterprise development in rural areas, the Department established a programme to support nascent rural female entrepreneurs under its Rural Innovation and Development Fund.

The programme known as ACORNS provides early stage rural female entrepreneurs with the knowledge, support and networking opportunities to advance the development of their businesses. Over 250 female entrepreneurs have taken part in ACORNS in the five cycles between 2015 and 2019. 175 participants were involved in the most recent cycle of ACORNS, including 128 previous participants who continue to be supported through the ACORNS Community.

Previous participants have testified to the difference this programme has made both to themselves and to their businesses with increased sales, exports and job creation, in addition to the valuable connections they have made through broadening their support network.

The last two months of the most recent cycle coincided with the COVID 19 restrictions and lockdown. This has had a significant negative effect on nearly all businesses, including those supported by ACORNS. In the end of cycle survey, 74% reported that they had pivoted their businesses in response to current circumstances, as they seek new ways to reach customers. Many have moved online. Support continued to ACORNS 5 and the ACORNS community through remote round table sessions and relevant topic-based webinars.

While most of the 47 participants who completed the fifth year of the programme in 2020 reported that COVID 19 has negatively impacted their business, 13 participants who are trading have had their sales positively impacted by the current restrictions (33% of those trading). 35 participants were trading at the start of the cycle. An additional four began to trade over the cycle.

- Attendance remained high: the average attendance rate across the whole cycle was 92%.
- 89% reported that through their participation in ACORNS, they made a decision for their business.
- 91% felt nearer to achieving their ambitions.
- 100% want to stay involved in the community.
- 100% would recommend participating in ACORNS to others.

ACORNS is based on a clear understanding that entrepreneurs learn best from each other and the initiative is focused on peer support and collaborative learning. Participants take part in interactive round table sessions facilitated by other female entrepreneurs who have successfully started and grown businesses in rural Ireland. Acting in a voluntary capacity, these ‘Lead Entrepreneurs’ share their insights and experience with the group, offering their support to the participants to examine and address the issues and challenges.
2.15 Small Farms

According to the CSO Farm Structures Survey 2016, 43,600 out of 137,500 farms in Ireland had a standard output of less than €8,000 and 23,000 (17%) had a standard output of less than €4,000. In terms of geographical spread, over 27,000 farms in the Border, Midland and Western region had a standard output of less than €8,000, compared to 16,400 in the Southern and Eastern region.

Figure 2.40  Percentage of farms with an income of less than €8,000, 2016.

CASE STUDY

Bó Rua Farm

The award-winning creamy milk that comes from the cows grazing on the lush grass of Bó Rua Farm is now being crafted into a range of award-winning farmhouse cheeses. The Dinneens have been farming at Bó Rua Farm in Ballynoe, Co. Cork, for generations. The farm’s name was inspired by their Montbeliarde cows, also affectionately called the red cows, or Bó Rua in Irish. The French breed is renowned for the quality of its milk and is linked to traditional cheese making.

Norma, an electrical engineer, took the entrepreneurial plunge after more than a decade working in multinational roles. With a bursary from the DAFM, Norma returned to UCC where she combined her passion for fine food with lessons learned whilst studying for a Diploma in Specialty Food Production. After completing professional farmhouse cheese training at Teagasc and at the School of Artisan Food, she set about developing Bó Rua Farm’s traditional but innovative cheese recipes. Norma has also qualified as a farmer, having completed the Teagasc graduate certificates in agriculture and farm management. Bó Rua Farm is one of the farms participating in the innovative BRIDE project, which through farmer led measures is increasing the natural biodiversity on their farm.

In 2018 with assistance from LEADER and the LEO a state-of-the-art cheese dairy was built and commissioned at Bó Rua Farm. In 2019, their first year of production, Tom & Norma were awarded the gold medal at the Blas na hÉireann Irish Food Awards for the best Irish hard cheese. They were also jointly awarded the Irish Independent ‘Farmer of The Year’ Rising Star award. Bó Rua Farm was named the best new business at the North Cork LEO Business Awards.

As an entrepreneur who returned to her farming roots to set up her new agri-food business, Norma finds that her participation in ACORNS continues to be very valuable through networking with fellow businesswomen who inspire and encourage. Sales of Bó Rua Farm cheese continue to go from strength to strength. The Dinneens have big ambitions for Bó Rua Farm and are on track to become one of Ireland’s best loved farmhouse cheese brands.

Source: Central Statistics Office, Farm Structure Survey 2016
Profile of Small Farms

According to the Teagasc Small Farm Survey 2015, small farms are classified as those with a standard output of less €8,000 per annum, the equivalent of 6 dairy cows, 6 hectares of wheat or 14 suckler cows.

Findings of this survey include:

- Three quarters of small farms recording an income of less than €5,000 per annum.
- 61% of Small Farms are Cattle farms, a further 14% are Sheep farms, just 1% are Tillage farms and the remainder are in mixed livestock and crop systems. There are no Dairy farms in the Small Farms category.
- The age distribution of Small Farms is not substantially different from larger farms with 33% of Small Farms being over 65 years of age compared to 23% of larger farms.
- 88% of respondents in 2015 reported having an off-farm income source, in terms of either an off-farm job, pension or social welfare payment.

Table 2.12 indicates that the average family farm income on small farms in 2015 was €2,917, or about 20% of the average income on larger cattle and sheep farms. The value of direct payments on small farms was €5,474, which was almost double the family farm income.

**Table 2.12 Average Family Farm Income on Cattle and Sheep Farms, Small Farm Survey 2015**

<table>
<thead>
<tr>
<th></th>
<th>Larger Farms</th>
<th>Small Farms</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gross Output</strong></td>
<td>€46,235</td>
<td>€11,351</td>
</tr>
<tr>
<td>(of which direct payments)</td>
<td>€15,217</td>
<td>€5,474</td>
</tr>
<tr>
<td><strong>Total Costs</strong></td>
<td>€31,265</td>
<td>€8,434</td>
</tr>
<tr>
<td>(of which direct costs)</td>
<td>€15,112</td>
<td>€3,304</td>
</tr>
<tr>
<td>(of which overheads)</td>
<td>€16,153</td>
<td>€5,131</td>
</tr>
<tr>
<td><strong>Family Farm Income</strong></td>
<td>€14,970</td>
<td>€2,917</td>
</tr>
</tbody>
</table>

**Source:** Teagasc, Small Farm Survey 2015
3.1 Overview

According to the Central Statistics Office Final Estimate of Output, Input and Income in Agriculture, Gross value added at basic prices in 2019 was approximately €2.9 billion, a 8.5% increase on 2018 figures. Gross output at producer prices totalled approximately €8 billion, with input (intermediate consumption) costs of just over €5.6 billion.

Cattle remained the largest livestock category responsible for 27% of gross output. The estimated value of cattle decreased by 4.9% in 2019 to approximately €2.15 billion. However the volume of output increased by 1.9%.

The estimated value of pigs increased by 18.3% in 2019 to approximately €543 million. The volume of output also increased slightly by 0.4%. The estimated value of sheep increased by 0.8% in 2019 to approximately €261 million. The volume of output increased by 5.8%.

Intermediate consumption decreased in value by -6.5% in 2019 versus 2018 figures, to €5,647.7 million. The main item giving rise to this decrease in intermediate consumption is feeding stuffs, which decreased by -€184.4 million (-11%).
### Table 3.1 Estimated Output, Input and Income in Agriculture, 2019

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>% Change 2019 over 2018</th>
<th>Share of GO/Inputs</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>€m</td>
<td>Value</td>
<td>Volume</td>
</tr>
<tr>
<td><strong>Gross output at producer prices</strong></td>
<td>7,960.9</td>
<td>-3.1</td>
<td>3.6</td>
</tr>
<tr>
<td><strong>Cattle and Calves</strong></td>
<td>2,151.1</td>
<td>-4.9</td>
<td>1.9</td>
</tr>
<tr>
<td><strong>Pigs</strong></td>
<td>543.0</td>
<td>18.3</td>
<td>0.4</td>
</tr>
<tr>
<td><strong>Sheep and Lambs</strong></td>
<td>260.8</td>
<td>0.8</td>
<td>5.8</td>
</tr>
<tr>
<td><strong>Poultry</strong></td>
<td>170.4</td>
<td>1.9</td>
<td>0.4</td>
</tr>
<tr>
<td><strong>Milk</strong></td>
<td>2,601.9</td>
<td>1.8</td>
<td>5.1</td>
</tr>
<tr>
<td><strong>Cereals</strong></td>
<td>314.7</td>
<td>9.1</td>
<td>40.5</td>
</tr>
<tr>
<td><strong>Potatoes</strong></td>
<td>156.5</td>
<td>12.3</td>
<td>17.8</td>
</tr>
<tr>
<td><strong>Fresh Vegetables and Fruit</strong></td>
<td>279.7</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td><strong>Forage Plants</strong></td>
<td>1,064.0</td>
<td>-20.6</td>
<td>1.8</td>
</tr>
<tr>
<td><strong>Other</strong></td>
<td>419.0</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td><strong>Intermediate Consumption (Inputs)</strong></td>
<td>5,647.7</td>
<td>-6.5</td>
<td>-4.2</td>
</tr>
<tr>
<td><strong>Animal Feed</strong></td>
<td>1,489.9</td>
<td>-11.0</td>
<td>-13.8</td>
</tr>
<tr>
<td><strong>Fertilisers</strong></td>
<td>578.3</td>
<td>-0.7</td>
<td>-7.6</td>
</tr>
<tr>
<td><strong>Energy and Lubricants</strong></td>
<td>439.6</td>
<td>3.7</td>
<td>3.7</td>
</tr>
<tr>
<td><strong>Maintenance and Repairs</strong></td>
<td>489.9</td>
<td>3.3</td>
<td>2.7</td>
</tr>
<tr>
<td><strong>Forage Plants</strong></td>
<td>1,058.4</td>
<td>-20.5</td>
<td>2.0</td>
</tr>
<tr>
<td><strong>Contract Work</strong></td>
<td>461.2</td>
<td>1.8</td>
<td>-0.6</td>
</tr>
<tr>
<td><strong>Others</strong></td>
<td>1,130.3</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td><strong>Gross value added at basic prices</strong></td>
<td>2874.0</td>
<td>8.5</td>
<td>25.2</td>
</tr>
</tbody>
</table>

**Source:** Central Statistics Office, Final Estimates on Output, Input and Income in Agriculture

### Table 3.2 Estimated Value (€m) and Volume¹ (000s) of Stock Changes on Farms 2018/2019

<table>
<thead>
<tr>
<th></th>
<th>2018 Value</th>
<th>2018 Volume</th>
<th>2019 Value</th>
<th>2019 Volume</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Cattle</strong></td>
<td>-31.6</td>
<td>-80.1</td>
<td>-15.3</td>
<td>-33.8</td>
</tr>
<tr>
<td><strong>Sheep</strong></td>
<td>-18.0</td>
<td>-183.3</td>
<td>0.9</td>
<td>10.9</td>
</tr>
<tr>
<td><strong>Pigs</strong></td>
<td>-3.2</td>
<td>-44.2</td>
<td>3.4</td>
<td>41.1</td>
</tr>
<tr>
<td><strong>Poultry</strong></td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td><strong>Crops</strong></td>
<td>-0.7</td>
<td>13.3</td>
<td>-1.2</td>
<td>-26.8</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>n/a</td>
<td>-294.3</td>
<td>n/a</td>
<td>-8.6</td>
</tr>
</tbody>
</table>

**Source:** Central Statistics Office, Final Estimates on Output, Input and Income in Agriculture

¹ Volume of Livestock is in heads (’000s), volume of crops is in tonnes (’000s)

² Final Estimate
The results of the December 2019 Livestock Survey indicates that the total number of cattle decreased by 0.5% to 6,559,700. The number of dairy cows increased by 56,700 (+4.1%) while other cows decreased by 2.6% or 25,500. The total number of cattle under 1 decreased by 37,500 (-1.9%) while cattle 2 years and over (excluding cows and bulls) increased by 23,000 (+5.2%). In 2013 the total number of both dairy cows and other cows was 1.08 million head. Since then the number of dairy cows has increased each year while the number of other cows has decreased over this period. In December 2019 there were 1.42 million dairy cows and 956,900 other cows.

Provisional estimates for the total number of sheep was 3,908,300 an increase of 3% on December 2018. The number of breeding sheep increased by 33,100 (+1.2%) while the number of Other sheep increased by 76,700 (+6.9). Sheep numbers have fallen from around five million head at the turn of the century to less than four million now.

Pig numbers increased by 2.6% to 1,613,300. Breeding pigs increased by 1.4% and non-breeding pigs increased by 2.7%.

**Figure 3.1 Cattle, Sheep and Pig Livestock numbers, 2000 – 2019**

According to Eurostat data, Ireland’s cattle herd was the 5th largest in the EU in 2019, behind France, Germany, the United Kingdom and Spain. The top 5 countires total 60% of the EUs total cattle herd. The Irish herd represents 8% of the total European Union’s bovine livestock.

**Figure 3.2 Comparison of Irish and EU Cattle livestock numbers, 2019**

**Source:**中央統計局，Livestock Survey

**Source:**Eurostat, Livestock Production
Eurostat data indicates that Ireland’s pig herd was the 15th largest in the EU in 2019. The top 5 countries (Spain, Germany, France, Denmark and the Netherlands) totalled 64% of the EU’s total pig herd. The Irish herd represents 1% of the total European Union’s pig livestock.

**Figure 3.3 Comparison of Irish and EU Pig livestock numbers, 2019**

![Pie chart showing pig herd distribution among EU countries with Ireland at 1%]

**Source:** Eurostat, Livestock Production

According to the latest available Eurostat data, Ireland’s sheep herd was the 7th largest in the EU in 2019. The top 5 countries (United Kingdom, Spain, Romania, Greece and France) totalled 77% of the EU’s total sheep herd. The Irish herd represents 5% of the total European Union’s sheep livestock.

**Figure 3.4 Comparison of Irish and EU Sheep livestock numbers, 2019**

![Pie chart showing sheep herd distribution among EU countries with Ireland at 5%]

**Source:** Eurostat, Livestock Production

**Terms of Trade**

The agricultural input price index increased by 2.2% in 2019 compared with 2018. The agricultural output price index was down 1.2% over the same period. Thus, the resulting terms of trade index decreased by 3.4% in 2019. Since 2014 the output index, which is based on the price the farmer receives, has fallen each year apart from 2017, while the input index has increased over the same period resulting in a lower margin for the farmer.
Table 3.3 Terms of Trade, 2014 – 2019  Base 2015 = 100

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Output</td>
<td>106.8</td>
<td>100.0</td>
<td>95.1</td>
<td>106.5</td>
<td>104.4</td>
<td>103.2</td>
<td>-1.20%</td>
</tr>
<tr>
<td>Input</td>
<td>103.6</td>
<td>100.0</td>
<td>97.9</td>
<td>98.2</td>
<td>102.7</td>
<td>105</td>
<td>2.20%</td>
</tr>
<tr>
<td>Terms of Trade</td>
<td>103.1</td>
<td>100.0</td>
<td>97.2</td>
<td>108.4</td>
<td>101.6</td>
<td>98.2</td>
<td>-3.40%</td>
</tr>
</tbody>
</table>

Source: Central Statistics Office, Agricultural Price Indices 2019

3.2 Impact of SARS-CoV-2

The lockdown associated with COVID-19 has had a limited impact on farm production in Ireland. However, there has been a sharp drop in the demand for food within the service sector, both here and internationally. This drop has been offset somewhat by increased household food consumption through retail sales.

This reduction in food demand has led to a production surplus, which has been reflected in lower commodity prices in 2020. Although there are signs of price stabilisation, lower prices are expected to persist into 2021, with an associated reduction in the prices paid to farmers.

In the short-term, the ability of farmers to cut production in response to falling prices is very limited, as production decisions for the year have largely been already made. The relatively fixed nature of supply will exacerbate the short-run price reductions, although, as with much forecasting related to the pandemic, this is difficult to forecast accurately.
3.3 Dairy

The average price paid to farmers in 2019 was 33.9c/l.

EU-27 account for 35% of the value of Irish dairy exports.

Milk deliveries in the EU increased by 0.4% from 2018 to 2019.

General Market Situation Ireland and EU 2020

Ireland:
The strong recovery in dairy markets experienced in 2018 continued in 2019 with strong global demand for dairy products underpinning a stable performance by the Irish dairy sector. Whilst the continuing long-term challenges of price volatility, market turbulence and the requirement of balancing product supply with demand remain, the overall performance of the Irish dairy sector in 2019 was strong in the face of competitive international markets. In 2019, Ireland exported dairy products to approximately 140 countries with a value exceeding €5 billion. CSO figures for the year indicate a +12% volume growth and +10% value growth compared to 2018.

Table 3.4 Top 5 Dairy export destinations

<table>
<thead>
<tr>
<th>Ind</th>
<th>Country</th>
<th>Jan-Dec 2019 Exports €000</th>
<th>Tonnes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dairy Produce</td>
<td>United Kingdom</td>
<td>€1,031,346</td>
<td>375,221</td>
</tr>
<tr>
<td></td>
<td>Netherlands</td>
<td>€700,328</td>
<td>248,337</td>
</tr>
<tr>
<td></td>
<td>China</td>
<td>€535,876</td>
<td>114,917</td>
</tr>
<tr>
<td></td>
<td>Germany</td>
<td>€372,684</td>
<td>107,381</td>
</tr>
<tr>
<td></td>
<td>United States</td>
<td>332,685</td>
<td>52,934</td>
</tr>
<tr>
<td>Top 5 total</td>
<td></td>
<td>€2,972,919</td>
<td>898,790</td>
</tr>
</tbody>
</table>

Source: Central Statistics Office, Trade statistics 2019
The EU-27 account for 35% of the value of Irish dairy exports in 2019 with 45% to international markets, while the UK accounted for 20%. Other significant export markets include, the Netherlands (14%), China (11%), Germany (7%) and the United States (7%).

Although the ongoing Russian Ban and the threat of global price volatility still remain, other positive international market developments including changing demographic and global demand trends indicate favourable long-term prospects for dairy markets.

EU:
Milk deliveries in the EU increased by 0.4% from 2018 to 2019 and in terms of the main product mix, butter and whole milk powder saw production increases of 1%, with a marginal 0.1% increase in cheese production and a 0.3% reduction in skim milk powder.

The key EU market development in 2019 was the continued sale of the remaining Skimmed Milk Powder (SMP) from EU intervention stocks which had been overhanging the EU SMP market for the last few years. This has allowed the SMP price to continue its evolution to a more market-driven basis than in the recent past. However, this position may worsen in 2020/21 with the introduction of an new EU Aid for Private Storage Scheme.

Production
2019 was a much more favourable year for grass growth and forage production which contributed to an increase in Irish milk production of 5.3% compared to 2018, with total deliveries exceeding 8.0 billion litres in 2019. Irish milk production represented approximately 5% of total EU milk production in 2019.

Figure 3.5 EU Milk intake by creameries and pasteurisers, 2019

Source: Central Statistics Office - Milk Statistics 2020
Table 3.5 Production of Dairy products (000 Tonnes), 2000 – 2019

<table>
<thead>
<tr>
<th>Year</th>
<th>Cheese</th>
<th>Butter</th>
<th>Skimmed Milk Powder</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>98.5</td>
<td>135.4</td>
<td>78.8</td>
</tr>
<tr>
<td>2001</td>
<td>122.8</td>
<td>129.3</td>
<td>86.3</td>
</tr>
<tr>
<td>2002</td>
<td>115.9</td>
<td>135.2</td>
<td>97.2</td>
</tr>
<tr>
<td>2003</td>
<td>112.0</td>
<td>140.1</td>
<td>78.4</td>
</tr>
<tr>
<td>2004</td>
<td>118.0</td>
<td>136.9</td>
<td>65.9</td>
</tr>
<tr>
<td>2005</td>
<td>118.8</td>
<td>143.0</td>
<td>..</td>
</tr>
<tr>
<td>2006</td>
<td>136.9</td>
<td>139.1</td>
<td>68.5</td>
</tr>
<tr>
<td>2007</td>
<td>140.4</td>
<td>141.4</td>
<td>82.6</td>
</tr>
<tr>
<td>2008</td>
<td>174.5</td>
<td>123.8</td>
<td>55.0</td>
</tr>
<tr>
<td>2009</td>
<td>162.6</td>
<td>120.3</td>
<td>74.7</td>
</tr>
<tr>
<td>2010</td>
<td>171.8</td>
<td>135.1</td>
<td>60.3</td>
</tr>
<tr>
<td>2011</td>
<td>179.9</td>
<td>145.9</td>
<td>66.5</td>
</tr>
<tr>
<td>2012</td>
<td>185.5</td>
<td>145.0</td>
<td>52.3</td>
</tr>
<tr>
<td>2013</td>
<td>182.8</td>
<td>152.1</td>
<td>49.5</td>
</tr>
<tr>
<td>2014</td>
<td>188.4</td>
<td>166.4</td>
<td>70.6</td>
</tr>
<tr>
<td>2015</td>
<td>207.1</td>
<td>187.5</td>
<td>99.1</td>
</tr>
<tr>
<td>2016</td>
<td>205.0</td>
<td>198.7</td>
<td>117.7</td>
</tr>
<tr>
<td>2017</td>
<td>259.4</td>
<td>223.7</td>
<td>119.8</td>
</tr>
<tr>
<td>2018</td>
<td>269.4</td>
<td>237.8</td>
<td>133.8</td>
</tr>
<tr>
<td>2019</td>
<td>278.4</td>
<td>250.8</td>
<td>142.5</td>
</tr>
</tbody>
</table>

Source: Central Statistics Office, Production of Dairy products, 2019

Prices, 2018
The average price paid to farmers in 2019 was 33.9c/l (yearly average including VAT and bonuses paid), down 3.2% from 35.04 in 2018.

Figure 3.6 Raw Milk Prices Ireland and the EU, 2008 – 2019 (Prices cent per litre)

Source: EU Commission, Milk Market Observatory (adjusted to cent per litre)
The EU-27 account for 35% of the value of Irish dairy exports in 2019 with 45% to international markets, while the UK accounted for 20%.
The United Kingdom including Northern Ireland represents Ireland’s biggest dairy export market by a considerable distance, accounting for 20% of export value (23% of volume) in 2019. An important issue in terms of the Northern Ireland dimension is that a de facto all-island milk market currently exists. Significant volumes of manufacturing milk or primary processed ingredients (such as skim milk, cream, buttermilk, skim concentrate and butter) are taken in from Northern Ireland for further processing. A number of processors also have significant cross border catchment areas in terms of their farmer suppliers.

Trade in certain individual dairy products is also highly dependent on the UK market, in particular cheddar cheese. Some 56% of the cheddar cheese produced in Ireland is exported to the UK, accounting for 80% of their cheddar cheese imports. A ‘hard’ Brexit and the imposition of WTO tariffs on cheddar exports would have a huge impact on current trade and based on tastes in continental Europe, there are very few alternative outlets for this cheddar cheese.
**New Markets, 2019**

Market access issues are not acute in the dairy sector, though the extension of the Russian Presidential ban on EU food imports to the end of 2020, the uncertainty of the shape of a trading relationship with the UK and NI post-Brexit, and the ongoing COVID-19 pandemic, pose further challenges to the sector.

At the beginning of October 2019, the Office of the United States Trade Representative (USTR) released a list of products to be subjected to additional duties of 25%, including some important and flagship European agriculture products. The additional duties took effect from the 18th October 2019. Irish butter and cheese fall under the categories of dairy products most affected and are subject to additional import duties of 25% ad valorem.

Irish dairy exports to US amounted to 52,934 tonnes worth some €332m in 2019. Some €194 million of Irish butter and approximately €44 million worth of cheese was exported in 2019 from Ireland to the US.

Ireland accounts for almost 90% of EU butter exports to the US.

**Sustainability**

In 2019 Teagasc issued a Sustainability Report across the main farming enterprises based on the results of the 2017 National Farm Survey (Teagasc National Farm Survey 2017 Sustainability Report). The report examines a range of sustainability matrices such as economic, environmental and different social sustainability indicators for 2017, as well as looking at developments across the 2012-2017 period. Looking at the 2012-2017 time series comparison, on a 3 year rolling average, the main economic indicator trends have been positive for dairying. Looking at the environmental indicators, due to the intensive nature of dairying when expressed on a per hectare basis, emissions have increased over the period. However, on a per Euro of output basis, emissions have remained relatively stable with a slight decline. Environmental emissions intensity has declined for dairying in this period with efficiency gains reducing the intensity of dairying across a range of environmental emissions measurements. Among social sustainability indicators, dairying performed the strongest of all production systems with the exception of hours worked, which showed dairying to have the highest number of average hours worked per annum across the main enterprises.
2018 saw a milestone development for the Irish dairy industry with Kerrygold exceeding €1 billion in retail sales for the first time. The strength of Kerrygold’s performance is demonstrated by the sale of 7.5 million packets of the iconic gold foil each week. It is the no. 1 butter brand in Ireland, the no. 1 butter & cheddar brand in Germany and no. 2 butter brand in the US. Kerrygold Butter is the fastest selling branded product on supermarket shelves in Germany.

The Kerrygold brand is owned by Ornua, a dairy co-operative which markets and sells dairy products on behalf of its members; Ireland’s dairy processors and, in turn, Irish dairy farmers. It is Ireland’s largest exporter of Irish dairy products, exporting to 110 countries worldwide.

Some of the well-known brands Ornua Foods is responsible for include Kerrygold, Kerrygold Dubliner, Pilgrims Choice, Forto and BEO milk powders.

The Kerrygold brand was created by Anthony O’Reilly, then CEO of what was at the time called An Bord Bainne in 1962. Kerrygold was initially launched in the UK in 1962 and has since grown in popularity around the world. The brand has a committed consumer following, including many well known celebrities who have shared their love of it.

The success of Kerrygold is a testament to the work and dedication of all those along the production chain from the dairy farmers of Ireland, who supply milk to their co-ops, to the sales and marketing teams Ornua have all over the world who have ensured that Kerrygold is one of the premium food products in the world.
**Highlights**

In 2019, Ireland exported dairy products to approximately 140 countries with a value exceeding €5 billion. CSO figures for 2019 indicate a +12% volume growth and a +10% value growth compared to the same period in 2018.

EU-27 accounts for 35% of the value of Irish dairy exports in 2019 with 45% to international markets. Looking at these figures in more depth, the UK accounts for 20% of the value of dairy exports followed by the Netherlands at 14% and China at just under 11%.

Sales of Butter exceeded the €1 billion mark for the second year in a row in 2019 and sales of cheese, whey and skim milk powder also saw significant growth in both volume and value in 2019.

**Challenges**

The long-term fundamentals of the global dairy market are strong, with growing global demand projected from fast developing countries with increasing middle classes and growing demand for protein. Whilst significant challenges (price volatility, market turbulence, balancing supply/demand and changing societal tastes and demands) have continued throughout recent years, there is confidence that the Irish and EU dairy sector is well placed to gain from the opportunity presented by expanding global demand. However, the need to be able to adapt and respond effectively to changing societal and consumer trends and concerns regarding sustainability, alternative protein sources, the environment and animal welfare, will be a constant challenge for the industry in the years ahead. Furthermore, the increase in the size of the Irish dairy herd in recent years, will, in the context of Ireland’s overall climate change obligations require on-going consideration into future.

The full impact of the Covid 19 pandemic on dairy markets will not be measurable for some time but it is likely that it will provide challenges across the full dairy supply chain as well as market demand for a significant period of 2020.

**Ireland Outlook for 2021-2022**

Opportunities, globally, for growth in butter, cheese and yogurt still remain positive and are largely being driven by innovation in new flavours, product varieties, portion sizes and pack formats to meet changing consumer demands. Increased focus on health issues will be a critical factor for the future.

The continued strong birth rates demonstrate potential for milk and dairy products, as does the growing ageing population and increased life expectancy.

Irish dairy exports should be able to build on their continued growth into international markets in the short to medium term, with the potential to increase the volume and value of exports into the over 140 countries worldwide which it exports Irish dairy produce to.

As already referenced, the full impact of the Covid 19 pandemic on dairy markets will not be measurable for some time, but it is likely that it will provide challenges across the full dairy supply chain, as well market demand for a significant period of 2020.
EU Outlook for 2021-2022

The EU’s most recent short-term outlook published in April 2020 reports that in 2019, EU milk collection grew by 0.4%, the lowest growth since 2012. The 2020 production growth is expected to be similar. The yearly spring peak for milk collection coincides with the current pandemic. Restrictive measures could challenge collection logistics as well as feed deliveries. In addition, labour force availability considerations may lead to favouring less labour-intensive dairy products.

The 2020 EU cheese consumption might slightly grow (0.3%) and exports could continue increasing, thanks to demand in Asian markets, leading to an overall cheese production increase. However, the closure of restaurants has impacted high-value cheeses, which are mostly consumed outside of home.

Decade review: 2010-2019

The 2010-2019 period has seen enormous change in the Irish dairy sector, with the removal of milk quotas in 2015 the single biggest event of the decade in terms of its impact. Irish milk production has grown from approx. 5.2 billion litres in 2010 to 8 billion litres in 2019, an increase of approx. 52%. In that same time period, based on December CSO livestock survey figures, the number of dairy cows in Ireland has increased from 1.15 million to 1.43 million, an increase of 24%. This has helped drive the value of Irish dairy exports by an additional 127% from €2.2 billion to €5 billion over the decade.
The output value of the cattle sector in 2019 was €2,151.08 million.

Live exports in 2019 reached over 301,000 head of cattle.

The average price for R3 Steers in 2019 was 365.19 c/kg.

General Market Situation Ireland and EU 2019

Beef worth over €2.3 billion or 528,231 tonnes was exported in 2019, a decrease in value of -4% on the previous year. Export volumes reduced by 1% in 2019 from 534,536 tonnes in 2018.

The latest global figures from the FAO indicate that Ireland was the 6th largest exporter of boneless beef and veal in the world in 2017. According to the Central Statistics Office (CSO), the national cattle herd decreased by -33,800 (-0.5%) to 6,559,700. The number of dairy cows increased by 56,700 (+4.1%) while other cows decreased by 25,500 (-2.6%). The total number of cattle under 1 year old decreased by 37,500 (-1.9%) while cattle aged 2 years and over (excluding cows and bulls) increased by 23,000.

In value terms 47% of beef products were exported to countries within the EU, 43% to the United Kingdom and 10% exported to Third Country markets. In terms of volume, 44% of beef products were exported to countries within the EU, 40% to the United Kingdom and 16% exported to Third Country Markets.

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1 FAO: Countries by commodity exports, 2017
2 Central Statistics Office, Livestock survey December 2019
Table 3.6 Top 5 Beef export destinations

<table>
<thead>
<tr>
<th>Ind</th>
<th>Country</th>
<th>Jan-Dec 2019 Exports €000</th>
<th>Tonnes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beef</td>
<td>United Kingdom</td>
<td>€1,009,525</td>
<td>234,291</td>
</tr>
<tr>
<td></td>
<td>France</td>
<td>€247,194</td>
<td>54,737</td>
</tr>
<tr>
<td></td>
<td>Netherlands</td>
<td>€200,091</td>
<td>44,541</td>
</tr>
<tr>
<td></td>
<td>Italy</td>
<td>€196,939</td>
<td>28,381</td>
</tr>
<tr>
<td></td>
<td>Germany</td>
<td>€145,183</td>
<td>19,989</td>
</tr>
<tr>
<td>Top 5 total</td>
<td></td>
<td>€1,798,932</td>
<td>381,938</td>
</tr>
</tbody>
</table>

Source: Central Statistics Office, Trade statistics 2019

Live exports in 2019 reached over 301,000 head of cattle, an increase of 22% on 2018 figures. The majority of live bovines’ exports during 2019 were within the EU, with Spain receiving the largest numbers at 90,828 head, followed by the Netherlands at 84,526 head. The single largest third country destination was Libya, with a total of 13,122 head exported during 2019.

According to the EU Commission’s ‘Short-Term Outlook for EU Agricultural Markets. In 2020’, beef production reduced across the EU by 0.9% in 2019. Imports increased by 3.9%, while exports decreased by 3%. Consumption across the EU remained stable in 2019.

The Output value of the cattle sector in 2019 was €2,151.08 million, a decrease of 5% on the previous year.

Table 3.7 Output Value (€m) and Numbers (’000s) of Cattle and Calves, 2018/2019

<table>
<thead>
<tr>
<th></th>
<th>2018</th>
<th>2019^4</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Value</td>
<td>Number</td>
</tr>
<tr>
<td>Live Exports</td>
<td>93.60</td>
<td>247</td>
</tr>
<tr>
<td>Export Slaughterings + Other from 2013</td>
<td>2193.54</td>
<td>1,896</td>
</tr>
<tr>
<td>Levies</td>
<td>17.40</td>
<td></td>
</tr>
<tr>
<td>Total Disposals</td>
<td>2304.54</td>
<td>2,143</td>
</tr>
<tr>
<td>Imports</td>
<td>10.74</td>
<td>11</td>
</tr>
<tr>
<td>Changes in Stocks</td>
<td>-31.64</td>
<td>-80</td>
</tr>
<tr>
<td>Total</td>
<td>2262.16</td>
<td>2,051</td>
</tr>
</tbody>
</table>

Source: Central Statistics Office, Final Estimates on Output, Input and Income in Agriculture

3 Values shown are after deductions for transport costs
4 Final Estimate
Prices, 2019
The average annual price for most categories of finished cattle decreased by approximately 6% relative to the average levels reported for 2018 with a more steep decrease of 9% reported for young bulls. The average price for R3 Steers in 2019 was 365.19 c/kg, which represented a 6% decrease on the previous year, with a high price of 389.13 c/kg recorded during May. The average 2018 price was 389c/kg.

Figure 3.8 Deadweight prices Steer (R3) Prices, 2015 – 2019 (€ per 100 kg)

Source: Department of Agriculture, Food and the Marine, Meat Market Report

Irish Average Price Vs. EU2019
Earlier in the year, up to the end of April, the average Irish price was lagging behind the EU average price. An increase in Irish price beef prices resulted in it increasingly outperforming its European counterparts price-wise (on an averaged basis) until late July. The Irish price, which had been falling since the end of May, continued this downward trend until it hit a floor of €3.40 c/kg at the end of August. The price levelled around this point until later in the year when it moved above the €3.50c/kg mark (in December) but it was still underperforming the European average price, which had also improved during this period.
Slaughterings, 2019
During 2019, an average of just over 33,000 cattle were slaughtered each week in Department-approved meat plants, as compared to 34,400 in 2018 and 33,500 in 2017. 1,723,284 cattle were slaughtered in DAFM approved plants in 2019, which is a 4.4% reduction on 2018 levels.

Figure 3.9 Cattle Slaughterings at Meat Export Premises, 2015 - 2019

Source: Department of Agriculture, Food and the Marine, Meat Market Report

Irish bovine slaughters accounted for approximately 7% of total EU 28 slaughterings in 2019. The top 5 countries, France, Germany, the United Kingdom, Italy and Spain accounted for 61%, of total EU slaughterings in 2019.

Figure 3.10 Bovine Slaughterings (Thousand Head) by EU Country, 2019

Source: Eurostat, Slaughtering in Slaughterhouses Annual Data

BREXIT
Given Ireland’s dependence on exports in the beef sector, with an average of 90% production exported, 43% of which goes to the UK, the risk posed by the remaining levels of uncertainty around Brexit, and the potential for market displacement from 3rd countries, is significant.
New Markets, 2019

Ukraine (April 2019): A new certificate was agreed which provides for the export of Beef and Beef Offals & Pork & Pork Offals.

Japan (May 2019): The 30-month age restriction for beef was removed. The revised certificate provides for the export of boneless beef derived from cattle of all ages. A new certificate providing for the exportation of Sheepmeat including offal was also agreed.

Barbados (July 2020): A new certificate was agreed which provides for the export of Fresh, Chilled or Frozen Beef and Beef Products. A new certificate has also been agreed for the exportation of Fresh, Frozen or Chilled Pork and Pork Products.

USA: The USDA’s Food Safety Inspection Service carried out a successful re-instatement audit in June 2019 on beef (& pigmeat).

China: A successful beef audit was conducted in late August/early September 2019 with the inspection of 14 applicant beef plants who were subsequently approved in October 2019.

Sustainability

Policy development over the last decade has aimed at improving the economic and environmentally efficiency of individual herds and the national beef herd overall. This is the core aim of the Beef Data and Genetics Programme (BDGP) and the Beef Environmental Efficiency Programmes (BEEP/BEEP-S), which were specifically designed to support and build on the BDGP.

Reviews of BDGP to date indicate that the objectives of the scheme, to improve the genetic merit of the suckler beef herd whilst mitigating GHG emissions, are being met. First, the genetic improvements in the suckler herd are contributing to reducing the GHG emissions intensity from output. Food Wise 2025 sets out targets for the Irish agri-food sector, which includes recognition of the complementary nature of economic prosperity and environmental sustainability. The BDGP scheme is a prime example of this ethos as increased efficiencies are sought in the beef system, which in turn lowers the negative externalities associated with GHG emissions. Second, non-participants are also benefitting from a spillover effect by utilising the
Euro star system and improved awareness of genetic performance, although with a lag effect compared to BDGP participants. These farmers are able to make better informed decisions on their breeding practices, and can also gain from increased efficiency and profitability available in the market. Third, the BDGP scheme is delivering improved performance for higher rated animals. Findings show that profitability increases with higher rated animals, and given the replacement strategies sought as part of the BDGP scheme, the implication is that this increase will be sustained with further improvements predicted.

The evaluation of BEEP Pilot conducted to date indicates that it has helped farmers recognise the benefits of weighing their animals and the data generated has improved genetic evaluations. BEEP shows that the higher replacement index cows have a lower liveweight (circa 20 kilos) than lower index cows but produce a heavier calf (circa 10 kilos) at weaning. The lower weight of the cow is particularly relevant as heavier cows require additional feed which incurs an additional cost for profitability, whereas a heavier calf will generate a higher value output. Overall the cow/calf pair shows a 30 kg swing.

**CASE STUDY**

**Beef Environmental Efficiency Pilot (2019)**

The Beef Environmental Efficiency pilot was launched in 2019 aimed at improving economic and environmental efficiencies on farm, through gathering performance metrics, thus facilitating more informed decision making.

The Scheme targeted the weaning efficiency of suckler cows by measuring the weight of their calves pre-weaning as a proportion of the dam’s weight. Cows that produce heavier calves at weaning as a proportion of their own live weight typically have a lower emissions intensity of production. The key factors being the cow’s lower feed requirement and the higher value output from the calf as well as the consequential option to slaughter at a younger age.

16,424 farmers carried out the required weighing and recording, and received payments totalling €15.3 million. The evaluation of BEEP Pilot conducted to date indicates that it has helped farmers recognise the benefits of weighing their animals and the data generated has improved genetic evaluations.

Based on this pilot, a further Beef Environmental Efficiency programme for sucklers (BEEP-S) was developed in 2020. BEEP-S provides support for weight recording, with additional optional measures aimed at improving animal welfare.

**Highlights**

- €85 million for targeted schemes in Budget 2020 to support sustainable beef farming.
- 14 further beef plants approved in October 2019 to export to the Chinese market bringing the total to 21 approved plants.
- The first two beef producer organisations were established and formally recognised in 2019.
- BeefTalks/Beef Taskforce: The Irish Beef Sector Agreement was reached between stakeholders on 15 September 2019. As part of this agreement, the Beef Taskforce was established to monitor the implementation of the commitments entered into and as a platform for strategic engagement with key stakeholders.
**Challenges**

The challenge of a low margin industry heavily dependent on export markets was acutely felt over the last two years. The low level of income and profitability in Irish beef farming in general, along with the long supply cycle, limits the potential of the sector to absorb shocks.

Increased DAFM supports for the beef sector in 2019 through BEEP and BEAM, as well as a reduction in input costs relative to the previous year, assisted farm incomes in 2019 following difficulties in 2017/8 but finished cattle prices decreased due to adverse market conditions. The average gross margin per hectare on cattle rearing enterprises increased by 4% and by 1% on cattle other (finishing) farms. While Family Farm Income increased by 11% on cattle rearing farms, it reduced by 6% on cattle other farms in 2019.

COVID-19: The full impact of the Covid 19 pandemic on beef markets will not be measurable for some time. However immediate challenges center around the significant demand shock already experienced as a result of widespread closures in food service and hospitality industry domestically and internationally. Irish beef exports are estimated to be split 40% retail, 31% food service and 29% manufacturing. A significant amount of manufacturing beef is also destined for food service. For high value steak cuts (previously represented circa 30% of the entire value of the carcase), the reliance on food service is much greater, estimated to be in the region of 60%. An ongoing impact in terms of beef prices and lower levels of slaughter is to be expected.

**Ireland Outlook for 2021-2022**

Short- and medium-term forecasts indicate that lower levels of price are likely to be the continuing reality. The global situation (for example predicted increased output from US, Brazil and Argentina) is likely to put pressure on producer prices throughout Europe but most especially in those Member States dependent on exports, such as Ireland. The challenges faced by Ireland as a major exporter of beef with a high degree of dependency on the UK market must also be acknowledged in the light of Brexit uncertainty.

**EU Outlook for 2021-2022**

EU beef production has recovered since 2015, after three years of reduced supply following the rebuilding of the dairy herd. However, production is expected to return to a downward trend. This is influenced by the reducing cow herd, low profitability, declining beef demand and strong export competition, despite the opening of niche markets. Prices are expected to fall slightly in the short term before stabilising in the longer term.
The latest global figures from the FAO indicate that Ireland was the 6th largest exporter of boneless beef and veal in the world in 2017.
**Decade review: 2010-2019**

Over the last decade the beef sector has changed structurally due to an increase in the dairy herd following the abolition of milk quotas in 2015 which saw the suckler herd decline, but not to the extent expected (a reduction of 9.1% since 2015 has occurred).

According to the Teagasc National Farm survey, the average Family farm income for cattle rearing farms in 2010 was €7,023 and €9,188 in 2019. Low levels of economic viability and continued dependence on direct payments remains a feature of the sector.

Fig 3.10. Shows the evolution of cattle slaughter in Ireland between 2010 and 2019, the weekly slaughter increased by roughly 10,000 head between 2012 and 2019.

**Figure 3.11 Bovine Slaughter 2010-2019**

![Bovine Slaughter 2010-2019](chart)

**Source:** Department of Agriculture, Food and the Marine, Meat Market Report

Fig 3.11 shows the evolution of the R3 Steer price over the period, which has varied substantially over the decade.
Fig. 3.13 shows the export volumes of beef from Ireland which have risen steadily over the decade but have been declining since 2017.

Source: Department of Agriculture, Food and the Marine, Meat Market Report
There is a broad acknowledgment of the value of the beef industry to the rural economy, however the challenge of a low margin industry heavily dependent on export markets was acutely felt in 2018-2019. The low level of income and profitability in Irish beef farming in general limits the potential of the sector to absorb shocks. The long supply cycle associated with suckler beef compared to other protein sources also means that there is no short-term mechanism to adjust supply in response to shocks.
The national average price in 2019 was €460.10/100Kg.

In July 2019, sheepmeat access to the Japanese market was finalised.

3.9 million sheep were kept in the country at the end of December 2019.

General Market Situation Ireland and EU 2019

Ireland
Sheepmeat export values were up by 1% to €318 million. Volumes increased by 3%. The number of sheep slaughtered decreased by 7% in 2019 to 2,781,661 head, comprising of 1,634,336 spring lambs, 1,635 light lambs, 739,027 Hoggets and 406,633 Ewes and Rams. The national average price in 2019 was €460.10/100Kg, which was a decrease of 4.5% on the previous year.

Sheepmeat exports worth approximately €318 million, or almost 62,000 tonnes were exported in 2019. In value terms over 71% of Sheepmeat products were exported to countries within the EU, 20% was exported to the UK and 9% exported to third country markets. In terms of volume, a total 40,000 tonnes of sheepmeat products were exported to EU countries, with France receiving the highest amount of 18,548 tonnes.
### Table 3.8 Top 5 Sheepmeat export destinations

<table>
<thead>
<tr>
<th>Ind</th>
<th>Country</th>
<th>Jan-Dec 2019 Exports €000</th>
<th>Tonnes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sheepmeat</td>
<td>France</td>
<td>€99,561</td>
<td>18,548</td>
</tr>
<tr>
<td></td>
<td>United Kingdom</td>
<td>€62,801</td>
<td>14,768</td>
</tr>
<tr>
<td></td>
<td>Germany</td>
<td>€36,252</td>
<td>6,018</td>
</tr>
<tr>
<td></td>
<td>Sweden</td>
<td>€27,993</td>
<td>5,567</td>
</tr>
<tr>
<td></td>
<td>Belgium</td>
<td>€25,332</td>
<td>3,522</td>
</tr>
<tr>
<td><strong>Top 5 total</strong></td>
<td></td>
<td>€251,938</td>
<td>48,423</td>
</tr>
</tbody>
</table>

*Source: Central Statistics Office, Trade statistics 2019*

In terms of the live sheep trade, a total of 461,507 animals were imported from Northern Ireland in 2019. Live sheep exports were considerably reduced in 2019, with a total of 7,161 animals exported, which is a reduction of 11,823 animals on the previous year or a decrease of 63%. The largest export market in 2019 was France, with 4,555 animals exported.

The output value of the Sheep and Lamb sector in 2019 was €260.77 million, a 1% increase on 2018 output figures.

### Table 3.9 Output Value\(^1\) (€m) and Numbers ('000s) of Sheep and Lambs, 2018/2019

<table>
<thead>
<tr>
<th></th>
<th>2018</th>
<th>2019(^2)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Value</td>
<td>Number</td>
</tr>
<tr>
<td><strong>Live Exports</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Export Slaughterings</td>
<td>2.05</td>
<td>21</td>
</tr>
<tr>
<td>+ Other from 2013</td>
<td>325.74</td>
<td>3,224</td>
</tr>
<tr>
<td><strong>Other Slaughterings</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total Disposals</strong></td>
<td>327.79</td>
<td>3,245</td>
</tr>
<tr>
<td><strong>Imports</strong></td>
<td>50.93</td>
<td>520</td>
</tr>
<tr>
<td><strong>Changes in Stocks</strong></td>
<td>-18.04</td>
<td>-183</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>258.81</td>
<td>2,542</td>
</tr>
</tbody>
</table>

*Source: Central Statistics Office, Final Estimate on Output, Input and Income in Agriculture*

\(^1\) Values shown are after deductions for transport costs
\(^2\) Final Estimate
EU and Worldwide Trends
Supply remains constrained in the global sheepmeat market, mainly as a result of flock reductions in Australia, and stagnant production in the United Kingdom. Global sheep meat production was expected to recover in 2020, however, it is not clear yet what impact the current Covid-19 outbreak will have on this into 2021.

Prices
The national average price in 2019 was €460.10/100Kg which was a decrease of 4.5% on the previous year.

Figure 3.14 Average Sheepmeat Prices, 2015 -2019 (€ per 100 kg)

Source: Department of Agriculture, Food and the Marine, Meat Market Report

Financial Assistance
Financial assistance of €100/farmer has been made available to support the transition to electronic tagging which commenced in June 2019. The Department paid a total of €2.2 million to eligible sheep farmers under the scheme.

Additionally, financial support of up to €15,000 was available towards hardware costs for marts to facilitate their establishment as Central Points of Recording (CPR) for sheep EID. In 2019, the Department approved grant applications for 30 marts to operate as CPRs and a total of €384,761 was paid in 2019.

In the first three years of the sheep welfare scheme (2017-2109), €50.3 million was paid to 18,594 farmers.

Production, 2019
Slaughtering decreased by 7% in 2019 on the previous year with just under 2.8 million head slaughtered.
New Markets, 2019

In July 2019, sheepmeat access to the Japanese market was finalised. Five Irish sheepmeat plants, producing over 90% of Irish sheepmeat, are now approved and listed as eligible for export to Japan.

Sustainability

It has been recognised that working towards improvements in animal welfare is compatible with sustainability in the context of the UN Sustainable development goals\(^3\).

The Sheep Welfare scheme provides support for farmers undertaking actions targeted at making a positive contribution to the welfare of their flock. 2019 was the third year of this initiative. The scheme allows for the collection and generation of valuable data on welfare statistics and practices in sheep farming in Ireland. The data generated by this scheme makes a significant contribution to the Irish sheep industry in terms of its ability to provide large scale data on welfare in Irish flocks. In the first three years of the sheep welfare scheme, €50.3 million was paid to 18,594 farmers.

Sheep farming contributes to both economic and environmental sustainability, in particular on more marginal land, with sheep grazing being an important land management tool in parts of the country where land usage options are relatively limited.

The 2019 National Farm Survey results published by Teagasc identified several sustainability issues across the sector with 30% of sheep farms having a Family Farm Income (FFI) below €5,000. The average FFI for sheep farms was €14,604 across the 14,322 national sheep farms in 2019.

On a per hectare basis, the average gross margin on sheep farms was €669 in 2019. This included a Basic Payment of €245. Additionally, it was reported that the average sized sheep farm was 47 hectares, with a flock size of 133 ewes. In the context of the future sustainability of income levels, small-scale sheep farming and demographics must be considered.

Challenges/ Brexit

Brexit uncertainty will remain a challenge and thereafter, the adaptation to the changing EU market. Increasing global competition generally will be a challenge in the longer-term as countries such as New Zealand and the Australia continue to hold the majority share in the market. According to Teagasc forecasts, other externalities with the potential to impact on sheep supply include weather events and grazing problems. A significant gap between the EU and world prices will remain as a result of higher production costs and the presence of tariffs. Increased diversification of markets remains a priority.

It is too early to assess the longer terms impact of the Covid19 crisis on the sheep sector.

Highlights

- 71% of sheep meat was exported to EU countries, worth €226 million in 2019.
- The value of sheep meat exports to third countries was million 30 million in 2019.
- France remained Ireland’s most important sheep meat export destination in 2019.
- In July 2019, sheepmeat access to the Japanese market was finalised.
- In the first three years of the sheep welfare scheme (2017-2019), €50.3 million was paid to 18,594 farmers.
**EU/Global Outlook for 2021-2022**

- Global production of sheep meat is expected to increase but at a slower rate when compared to the last decade.
- OECD-FAO Outlook expects real prices for sheepmeat to decline in the coming two years to their 2017 levels.
- For EU sheep meat exports, huge declines in exports to Hong Kong China is compensated by increased exports to other destinations so that EU exports for 2019/2020 are expected to stay relatively stable.
- With increased exports of sheep meat from New Zealand and Australia to China (ABARES 2019, Beef & New Zealand 2019), EU sheep meat imports have declined year-on-year to 2019.
- Production of sheep and goat meat is expected to grow by 5% across the EU by 2030.

**Ireland Outlook for 2021-2022**

- The outlook for Irish and EU lamb prices for 2019/2020 is stable with global sheep meat prices projected to remain relatively high.
- Sheep feed expenditure in Ireland is forecast to decrease with concentrate prices falling, while the resultant volume of feed use is forecast to remain relatively stable.
- The outlook for Irish lamb prices remains good for 2020, and with a decrease in the direct costs of production, the average gross margin earned from sheep farming is expected to increase in 2020.
- With increased output value forecast, net margin per hectare for the average sheep enterprise is expected to increase in 2020 to €118 per hectare.
- In general, it is forecast that 2020 Irish lamb prices and output will remain largely on a par with 2019 levels, with the caveat as per above that it is too early to assess the long term impact of Covid19.

**Decade Review 2010-2019**

- Data from the 2019 census showed a total of 3.81 million sheep were kept in the country at the end of December 2019 compared to 3.12 million (2010 census) in December 2010, an increase of circa 22%.
- Overall number of flock owners in 2010 that had sheep was 32,176 compared with 34,938 in December 2019, an increase of approximately 8.5%.
- According to the Teagasc National Farm Surveys average Family Farm Income on sheep farms was €14,604 in 2019, compared with €12,000 in 2010, an increase of about 22%.
- The national average sheepmeat price for the week commencing 23/12/2019 was €461.21 per 100Kg; the price at the beginning of 2010 was just below €340.
3.6 Pigmeat

Exports of pigmeat increased by 8% to reach a value of €890m in 2019.

Production stood at 304,000 tonnes Carcase Weight Equivalent, a rise of 0.5%.

The national average price for pigmeat at slaughter in 2019 was 164c/kg.

General Market Situation Ireland and EU 2019

Ireland

Pigmeat is the fourth most valuable export of the Irish agri-food industry after dairy, beef and beverages. The Pigmeat sector as a whole has shown remarkable growth in recent years. Exports grew by 8% in value terms in 2019 to an all-time high of €890 million according to Central Statistics Office figures. This equates to approximately 6% of overall food, drink and horticulture exports. While the UK accounts for a 52% share of exports by value, third country markets, which have been steadily expanding in recent years, rose to 31% of total share in 2019.

Table 3.10 Top 5 Pigmeat export destinations

<table>
<thead>
<tr>
<th>Ind</th>
<th>Country</th>
<th>Jan-Dec 2019 Exports €000</th>
<th>Tonnes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pigmeat</td>
<td>United Kingdom</td>
<td>€463,223</td>
<td>103,139</td>
</tr>
<tr>
<td></td>
<td>China</td>
<td>€177,066</td>
<td>86,776</td>
</tr>
<tr>
<td></td>
<td>Denmark</td>
<td>€38,730</td>
<td>13,512</td>
</tr>
<tr>
<td></td>
<td>Germany</td>
<td>€34,705</td>
<td>14,806</td>
</tr>
<tr>
<td></td>
<td>Japan</td>
<td>€31,721</td>
<td>9,803</td>
</tr>
<tr>
<td>Top 5 total</td>
<td></td>
<td>€745,446</td>
<td>228,036</td>
</tr>
</tbody>
</table>

Source: Central Statistics Office, Trade Statistics, 2019
This is illustrated by the significant expansion in Ireland’s pig meat exports to Asia, and to China in particular, where export values more than doubled from €79 million in 2018 to €177 million in 2019 on foot of increased export demand as a result of African Swine Fever (ASF). Domestic retail sales came in at €438 m for the year.

Figure 3.16 Value of Pig meat Exports, 2015-2019

![Graph showing pig meat exports from 2015 to 2019 with values in thousands of €].

Source: Central Statistics Office, Trade Statistics. 2019

The output value of the Pigmeat sector in 2019 was €543.01 million, an 18% increase on 2018 output figures.

Table 3.11 Output Value (€m) and Numbers ('000s) of Pigs 2018/2019

<table>
<thead>
<tr>
<th></th>
<th>2018</th>
<th>2019&lt;sup&gt;2&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Value</td>
<td>Number</td>
</tr>
<tr>
<td>Live Exports</td>
<td>53.58</td>
<td>479</td>
</tr>
<tr>
<td>Export Slaughterings</td>
<td>410.23</td>
<td>3,447</td>
</tr>
<tr>
<td><strong>Total disposals</strong></td>
<td>463.81</td>
<td>3,926</td>
</tr>
<tr>
<td>Imports</td>
<td>1.58</td>
<td>14</td>
</tr>
<tr>
<td>Changes in stock</td>
<td>-3.18</td>
<td>-44</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>459.05</td>
<td>3,867</td>
</tr>
</tbody>
</table>

Source: Central Statistics Office, Final Estimate on Output, Input and Income in Agriculture

<sup>1</sup> Values shown are after deductions for transport costs
<sup>2</sup> Final Estimate
EU pigmeat exports grew by 28% in volume terms to reach 2.8 million tonnes. This was largely driven by Chinese import demand due to African Swine Fever and can be expected to continue for the foreseeable future. However, the spread of ASF within the EU will be a major cause for concern throughout 2020, with the confirmation of the disease in Greece bringing the total number, as of May 2020, of Member states with the disease to 11 (Belgium, Bulgaria, Estonia, Greece, Hungary, Latvia, Lithuania, Poland, Romania, Italy (Sardinia only) and Slovakia. Western European exporters like Germany, Spain and Ireland have thus far remained ASF-free.

Pigmeat Prices, 2019
Following on from a poor year for prices in 2018, last year saw record highs reached throughout the second half of 2019. Slaughter prices for pigmeat started 2019 at €1.36/kg and finished the year at an all-time high of €1.90/kg, an increase of 40% during the year. Coupled with a favourable feed price, last year was a very good one for Irish pig producers. This situation is mirrored across the EU.

Figure 3.17 Grade E Pigmeat Prices, 2015 – 2019 (Price € per 100kg)

Source: Department of Agriculture, Food and the Marine, Meat Market Report
Financial Assistance
The pig sector does not receive conventional direct support; however, several programmes are in operation to assist the sector.

The TAMS scheme provides grant aid to the pig sector at a rate of 40% to facilitate investment centred upon improving animal health and welfare. Further development of the TAMS Pig & Poultry scheme is expected in 2020, as the intention to increase the investment ceiling for the Pig and Poultry Investment Scheme was announced.

The LEAN Programme, to increase efficiency, was rolled out in 2019 for the sector by DAFM in partnership with Bord Bia, Teagasc and Enterprise Ireland. This programme had a €500,000 budget and will continue to operate in 2020.

Production
In supply terms, Irish pig meat supplies in 2019 were up slightly on 2018, with 3.4 million head processed by export meat plants.

Live exports (almost entirely to Northern Ireland) dropped by 6% when compared to 2018, totalling just over 437,000 head in 2019. This can largely be attributed to the favourable price situation.

Figure 3.18 Pigmeat Slaughtering, 2015 – 2019

Source: Department of Agriculture, Food and the Marine, Meat Market Report

New Markets, 2019
During 2019 Ireland exported pigmeat to over 50 different countries. Ireland has access to a wide range of markets for its pigmeat, however DAFM continues to seek access to remaining markets. Priorities in this regard for 2020 include Mexico and Malaysia. An inspection of Irish pigmeat plants by the Mexican authorities took place in late 2018 and access achieved in May 2020.
Sustainability

Sustainability and the reduction of environmental impact plays a central role in the development of the sector and is a major consideration at all levels of the production chain.

The high level objective of the Teagasc Joint Pig Programme is to enhance the sustainability of Irish pig meat production, taking into consideration improvements in the economic, social and environmental standards spheres. The current research programme covers a broad range of commercially relevant topics, such as nutrition, performance, management, health and welfare.

Ammonia emissions are an environmental concern in the context of pig farming. Agricultural activities account for over 99% of the national ammonia emissions with pigs and poultry accounting for 9.7% (pigs 5.3%, poultry 4.4%). The highest emissions are from animal housing (31.1%), manure land-spreading (30.3%) and manure storage (14.4%).

Under the Industrial Emissions Directive 2010/75/EU, Best Available Technique (BAT) conclusions are mandatory for the Integrated Pollution, Prevention and Control (IPPC) licensing of pig enterprises. Examples of techniques outlined in the BAT conclusions that reduce ammonia emissions include; covering slurry or solid manure during storage; reducing the ratio between the emitting surface area and the volume of the solid manure/slurry store; slurry cooling; use of low emission slurry spreading for manure land-spreading; separation of urine from faeces and air cleaning systems.

The level of sustainability of the sector is becoming ever more important for the reputation of pig farming and as a key factor in consumer preferences and purchasing decisions. In assessing the sector’s performance in this area, it is useful to compare 1990 (Kyoto Protocol base year) with current productivity and input use. Irish pig producers produced 1,350kg of pigmeat per sow in 1990. This output has improved to 2,285 kg of pigmeat per sow in 2017, an output improvement of 70% at a constant efficiency rate for feed conversion efficiency. This was achieved by increased output/sow/year (i.e. 21.9 up to 27.0 pigs produced/sow/year) and increased slaughter weights (82 kg liveweight in 1990 up to 110.8kg liveweight in 2017).
As the figures above show, the Irish pig industry has in general terms prospered over the last decade. However, it has and will continue to face some significant challenges and there can be no room for complacency. One of the recommendations under the Food Wise Strategy was to bring together a group representing all stakeholders (producers, processors, specialist pig vets, Teagasc and DAFM) in the pig sector, with an independent chairperson, to examine sectoral challenges, informed by extensive consultations with additional experts.

The Pig Industry Stakeholder Group (PISG) was established by DAFM under the independent chair of Dr. Sean Brady in May 2015 and was comprised of pig processors, pig farmers, Teagasc, Bord Bia and DAFM. The group consulted widely and met with or received contributions from a wide range of bodies including DAFM, Bord Bia, Enterprise Ireland, Teagasc, Animal Health Ireland, Meat Industry Ireland, Hermitage Pigs, Irish Farmers Association, Irish Pig Society, processors and retailers, UCD, Veterinary Ireland, Yorkshire Farmers Livestock Marketing Ltd, and a number of pig farmers and private veterinary practitioners.

In 2016 a report on the pig industry prepared by the PISG set out over 60 recommendations to address the challenges facing the industry. The group’s remit was to address these challenges under themes such as biosecurity, animal welfare, quality assurance, antibiotic usage, animal health, Salmonella Control Programme, marketing, feed, the non-intensive sector and other production models.

The PISG Implementation Group met for the first time in late 2016 and began constructing a framework for the practical implementation of the report’s recommendations. The group has met 13 times since then and has become the main forum for the strategic development of the sector. Advances have been made across a range of issues, including the introduction of Animal Health Ireland to the pig sector, the further development of the TAMS scheme in the pig and poultry sector, LEAN processing on Irish pig farms and the reform of the Pig Salmonella Control Programme.

**CASE STUDY**

**The Pig Industry Stakeholder Group**

As the figures above show, the Irish pig industry has in general terms prospered over the last decade. However, it has and will continue to face some significant challenges and there can be no room for complacency. One of the recommendations under the Food Wise Strategy was to bring together a group representing all stakeholders (producers, processors, specialist pig vets, Teagasc and DAFM) in the pig sector, with an independent chairperson, to examine sectoral challenges, informed by extensive consultations with additional experts.

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**Highlights**

- Exports increased by 8% to reach a value of €890m in 2019;
- Production rose by 0.5% in weight terms and stayed steady in head terms;
- The UK remains the largest export destination for Irish pigmeat, but exports to China are growing rapidly.
Ireland Outlook for 2021-2022

The final outcome of talks on the post-Brexit trade environment will continue to determine the competitiveness of Irish pigmeat produce in the UK market. Prices are expected to remain relatively high on the back of continuing Chinese demand, benefitting all players in the sectoral supply chain. However, much will depend on the continuing ASF situation both within China and across the EU, trade relations between China and the US and competition from peer exporting nations. Expanding access into new markets such as Mexico and further penetration of lucrative Asian markets like China, Japan and South Korea will be among the primary expansion goals for Irish exporters this year. These and other factors such as farm viability, global market share, legislative changes at European Union level and a stable animal health situation will determine sectoral prosperity in the years to come.

The unprecedented nature of the Covid-19 outbreak creates difficulties in formulating a precise outlook for its effects on the pigmeat sector. However, it may reasonably be expected that export-driven growth will continue in the second half of the year.

EU Outlook for 2021-2022

In terms of outlook, the continuing African Swine Fever situation both within China and across the EU will be the single most important factor, whereby exporting EU nations which remain ASF-free will take a large commercial advantage of the upheaval in the Chinese pig sector and ensuing import demand. The importance of this factor cannot be overstated – before ASF spread to China, it produced almost half the world’s pork and some estimates (Rabobank) suggest that as much as 50% of the Chinese herd (equating to a third of the world’s pigs) may be culled, with the industry taking as long as five years to recover, a process which will also include substantial restructuring.

Decade review: 2010-2019

Over the course of the decade, the value of Irish pig exports rose in volume terms from 134,000 tonnes to 274,000 tonnes, and from a value of €317m to €890m. By any metric this represents a very successful decade for the industry. International markets have become more important (despite the loss of the Russian export market due to sanctions), with China now second only to the UK in terms of importance to Irish exporters. Annual kill has grown steadily over the decade from roughly 2.8 million in 2010 to just under 3.4 million in 2019. Though the price a farmer receives for their produce has been uneven, with some years better than others, overall there has been a rise from an annual average.
3.7 Poultry

In 2019 the output value of the poultry sector was €170.4 million.

Poultry production breaches 100m head mark for the first time.

Irish poultry exports totalled €293 million in 2019.

**General Market Situation Ireland and EU 2019**

**Ireland**

As a value-for-money source of protein-rich food, poultry meat has seen an increase in demand in recent years. Changes to global supply patterns saw a small decrease in the value of exports, and a small increase in the tonnage. However, poultry meat retains a positive perception amongst consumers.

According to CSO figures, the value of Irish poultry exports for the full year fell by 4% to just over €293 million, with the UK (€216m) accounting for 74% of that figure. South Africa was the second most important destination for poultry exports, accounting for 10% or €29 million by value and 22% or 30,900 tonnes by volume. France (€11m), The Netherlands (€10m), Denmark (€8m) and Finland (€5m) completed the top six destinations, accounting for 95% of poultry exports. Ireland exports poultry meat to over 30 countries worldwide. The volume of exports rose by just under 6% from 136,000 tonnes to 144,000 tonnes.
Table 3.12 Top 5 Poultry export destinations

<table>
<thead>
<tr>
<th>Ind</th>
<th>Country</th>
<th>Jan-Dec 2019 Exports €000</th>
<th>Tonnes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poultry</td>
<td>United Kingdom</td>
<td>€215,136</td>
<td>83,762</td>
</tr>
<tr>
<td></td>
<td>South Africa</td>
<td>€28,858</td>
<td>30,901</td>
</tr>
<tr>
<td></td>
<td>France</td>
<td>€11,263</td>
<td>5,566</td>
</tr>
<tr>
<td></td>
<td>Netherlands</td>
<td>€10,138</td>
<td>6,462</td>
</tr>
<tr>
<td></td>
<td>Denmark</td>
<td>€8,134</td>
<td>11,457</td>
</tr>
<tr>
<td>Top 5 total</td>
<td></td>
<td>€273,530</td>
<td>138,148</td>
</tr>
</tbody>
</table>

Source: Central Statistics Office, Trade Statistics. 2019

Figure 3.19 Poultry Export Value, 2015-2019

Source: Central Statistics Office, Trade Statistics. 2019

In 2019 the output value of the poultry sector was €170.4 million, a 2% increase on the previous year.

Table 3.13 Output Value (€m) and Numbers (million heads) of Poultry 2018/2019

<table>
<thead>
<tr>
<th></th>
<th>2018</th>
<th>2019&lt;sup&gt;1&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Value</td>
<td>Number</td>
</tr>
<tr>
<td>Poultry</td>
<td>167.3</td>
<td>92</td>
</tr>
</tbody>
</table>

Source: Central Statistics Office, Final Estimate on Output, Input and Income in Agriculture

<sup>1</sup> Final Estimate
EU
Poultry meat production in the EU continued to grow in 2019, this growth is in part due to a +1.6% increase in demand. In 2020 growth is expected to grow by a further +1.2% as customers replace more expensive meats with poultry. However the closure of foodservice businesses which came as a consequence of covid-19 lockdown protocols is expected to affect duck, guinea fowl and quail sales.

In 2019 the price of EU broiler hens remained close to the last 5-year average. At the start of 2020 prices were above 2019 levels due to a tight market supply, and these prices were pushed up further by Covid – 19 stockpiling in mid-March. Prices however fell quickly after March due to a steep drop in Polish prices.

Per capita consumption of poultry is expected to rise in 2020 up to 23.6kg, a 0.2kg increase on 2019 figures.

In 2019, EU poultry meat exports grew by 6.7% due to strong world demand (+2.3% to UK, +9% to other countries). Shipments increased to most of the main destinations, particularly to South Africa (+62%), the Philippines (+40%), Vietnam (+34%) and China (quadrupled).

Source: European commission short-term outlook spring 2020

Poultry Prices, 2019
Prices remained steady throughout 2019. Poultry is normally reared under contract to processors, for a pre-agreed price, and therefore poultry producers are not typically subject to the same price fluctuations as other farmers.

Production, 2019
Irish production hit record levels in 2019, with a total of 106 million birds slaughtered (90% of which were chickens) in Department -approved establishments last year, the first time the 100m mark has been breached.

Figure 3.20 Poultry Slaughtering, 2015 – 2019

Source: Department of Agriculture, Food and the Marine, Meat Market Report
New Markets, 2019
In 2019 Ireland exported poultrymeat to over 30 countries worldwide. Currently DAFM is in the process of applying for market access for a number of additional markets including South Korea and Japan.

Sustainability
The environmental consequences of the use of ammonia, greenhouse gas emissions and slow processing of planning permission applications for new facilities, are all potential issues for the Irish poultry and egg sector. As in other agricultural sectors, issues surrounding energy use will also be of major concern.

Two recently announced initiatives of the Sustainable Energy Authority of Ireland (SEAI): Support Scheme for Renewable Heat (SSRH) and the Renewable Electricity Support Scheme (RESS) provide opportunities for on-farm renewable energy projects in the poultry sector.

The Teagasc Poultry Advisory Service is predominantly a Knowledge Transfer programme that includes the provision of financial appraisal and assistance with the preparation of farm business plans. This service also provides energy audits and recommendations in terms of the most suitable biomass options available to individual poultry farmers.

Highlights
- Production breaches 100m head mark for the first time
- Exports showing strong growth to Thirds Country markets

Challenges
The threat of trade disruption arising from the post-Brexit trading environment is a key concern. Apart from the possibility of a decline in exports to Britain, by far and away the largest destination for Irish poultry exports, its status as a ‘land bridge’ for exports onwards to the continent means it functions as a vital artery for trade to European destinations.

Outbreaks of salmonella and avian influenza in 2019 were a reminder of the need for continuing vigilance against all disease outbreaks and the need for biosecurity to remain at the centre of the sector’s strategy.

Measures taken to control the Covid-19 pandemic such as the closure of restaurants, canteens and other food service outlets, as well as consequential disruption to logistical and production chains, impacted demand in the early part of 2020. The precise extent of the impact restrictions will have in future is uncertain.
Ireland Outlook for 2021-2022

Global trade conditions will continue to play a crucial role in determining the outlook for the Irish poultry sector in the near future. In addition to the challenges caused by Brexit, opportunities may arise should EU restrictions on imports from Brazil continue or expand. Developments such as the EU-Japan free trade agreement could lead to new opportunities in that area and looking to South East Asia, access for Irish poultry formed a key part of discussions on trade missions to Malaysia and Indonesia last year. The widespread public perception of poultry meat as a comparatively healthy and convenient form of animal protein also gives the sector an edge over peer meat sectors. CSO figures show that in 2018, Ireland was 89% self-sufficient in poultry meat, down slightly from 93% the previous year.

Uncertainties regarding the nature of Covid-19-related restrictions make it difficult to forecast the exact impact they will have upon the poultry industry.

EU Outlook for 2021-2022

The EU Outlook for 2018-2030 expects that growing global demand will support increased EU exports, with total EU production expected to rise from 14.2 million tonnes to 15.5 million tonnes in the same period. The continuing appetite of the growing middle class in Asia, and in China in particular, is expected to stimulate growth in poultry exports to those markets for the foreseeable future. In the medium term, all current projections show that global import demand for poultry meat is expected to remain strong.

Decade review: 2010-2019

The past decade saw ever increasing levels of Irish poultry meat production, with the annual slaughter figure rising by 20% to reach 106m head, and the tonnage of production rising by 20% to reach 160,800 tonnes in 2019. In the same period, the value of exports has expanded from €200m in 2010 to €293m last year, showing that by any metric, Irish poultry exports had a prosperous decade. Consolidation and modernisation were also a feature of the period, and the sector is now highly integrated when compared to other Irish meat sectors. The absence of major disease issues during the decade was also to be welcomed.
3.8 Cereals and Cereal Preparations

Ireland’s cereal area in 2019 was **266,700 hectares**.

Cereal production in Ireland stood at **2.4 million tonnes** in 2019.

The tillage sector is a low emission farming system, **2t of Agricultural GHG (CO2 equivalents)/ha**.

**General Market Situation Ireland and EU 2019**

**Ireland:**

The cereals sector in Ireland is a major contributor of high quality grain to the feed industry, providing grain for the food and drinks industry and is a key source of seed production. The overall cereal area in Ireland in 2019 was 266,700 hectares versus 261,000 hectares in 2018. Spring Barley remains the main cereal crop with 96,500 hectares in 2019, down from 127,400 the previous year. Overall the arable area continues to fall on an annual basis with the cereal area having reduced by 40,000 hectares since 2013.

In 2019, relative to 2018, weather conditions in Ireland were more favourable to cereal production. However market conditions were less favourable, resulting in a fall in cereal prices. Areas of non-cereal crops have remained at approximately the same level with areas slightly back for Beans & Peas, Beet, Maize and Oilseed Rape. Prices saw a significant drop from 2018, but similar to 2017, as a result of increased production right across the EU. Straw prices have also returned to normal levels following an increase of 50-100% in value in 2018 due to the shortage of supply, primarily as a result of poor straw yields in Spring crops.

The area sown to winter cereals in Ireland for harvest 2020 has fallen approximately 50% on 2018 winter sowings, due to the wet autumn/winter period.
Figure 3.21 Area and Yield per Hectare for Wheat, Barley and Oats, 2008 – 2019

Source: Central Statistics Office, Area, Yield and Production of Crops

Table 3.14 Output Value (€m) and Volume of Cereals (‘000 tonnes) 2018/2019

<table>
<thead>
<tr>
<th></th>
<th>2018</th>
<th></th>
<th>2019(^1)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Value</td>
<td>Number</td>
<td>Value</td>
<td>Number</td>
</tr>
<tr>
<td>Barley</td>
<td>197.2</td>
<td>960.8</td>
<td>210.5</td>
<td>1,328.2</td>
</tr>
<tr>
<td>Wheat</td>
<td>69.6</td>
<td>339.6</td>
<td>74.4</td>
<td>470.6</td>
</tr>
<tr>
<td>Oats</td>
<td>21.6</td>
<td>101.7</td>
<td>29.8</td>
<td>191.6</td>
</tr>
<tr>
<td>Total Cereals</td>
<td>288.4</td>
<td>1,402.2</td>
<td>314.7</td>
<td>1,990.4</td>
</tr>
</tbody>
</table>

Source: Central Statistics Office, Final Estimates on Output, Input and Income in Agriculture

Exports of Irish Cereals & Cereal Preparations totalled approximately €536 million in 2019. This represents a 22% increase on 2018 figures. Ireland’s top 5 export destinations in 2019 were the United Kingdom, the Netherlands, the United States, Australia and Denmark. Imports of Cereals & Cereal Preparations totalled €1.28 billion in 2019.

Figure 3.22 Cereal exports 2016-2019

Source: Central Statistics Office, Area, Yield and Production of Crops

\(^1\) Final Estimate
EU:
Ireland accounts for approximately 1% of EU cereal production. However, grain prices in Ireland are affected by global market price shifts and local weather conditions. The current Covid-19 pandemic is also likely to have an effect on prices here.

The cereals area in the EU28 in 2019 was approximately 56.3 million hectares, up from 55.1 million hectares in 2018, an increase of 2.2% year on year. Production of cereals in the marketing year 2019/20 was 319 million tonnes, up 10% from the previous year.

It is estimated that EU wheat yields in 2020 will be +2.1% and barley +2.8% ahead of the 5-year average. In contrast, important grain producing regions e.g. United Kingdom, France, Germany and Benelux, have had excessively wet conditions and field operations have been hampered. Spring sowings have also been delayed.

There has been significant volatility in all markets, which initially put downward pressure on futures markets for grain and other commodities. However, in recent times there have been upward price movements with consumer demand increasing for flour, pasta etc., in turn raising demands for wheat across Europe. Milling wheat is trading in the region of €190/tonne (@15% moisture) in June 2020.

In EU cereals trade for 2019/2020 the EU was a net cereal exporter of 9.6m tonnes. Exports reached 25.1m tonnes compared to 15.4m tonnes the previous year. Imports were 15.47m tonnes compared to 16.9m tonnes the previous year.

Prices:
The EU wide drought experienced in 2018 led to decreased grain output and increased prices. However, the situation in 2019 saw yields return to near normal levels but with an associated drop in the price of grain of 33% and feed barley ending up with a final price of approximately €140/tonne. Straw prices saw a significant reduction from the highs of 2018. Grain prices have displayed significant price volatility in recent years. The price volatility is primarily due to oversupply in the market place and weather. The decline in tillage area is driven primarily by the lower profitability of tillage farming relative to intensive livestock production and, as a result, land is being converted from tillage to a more profitable dairy sector.

A welcome development in relation to grain pricing was the forward contracts offered by the largest Irish maltster for the 2019 malting barley harvest. This company offered growers a premium price in two tranches for up to 40% of their contracted area. Growers who sold 40% of their contract at the prices available and the remaining 60% of their contract at the lower value of €174/tonne would have achieved an average price of €189.40/tonne which was a premium of almost €50/tonne over feed barley. This premium forward contract price helps to move growers away from the lower value feed markets and boosts the viability of growers within the sector.

<table>
<thead>
<tr>
<th>Commodity</th>
<th>EU</th>
<th>World</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Monthly Average - € per t</td>
<td>Annual % change</td>
</tr>
<tr>
<td>Soft Wheat</td>
<td>184.1</td>
<td>-9.6%</td>
</tr>
<tr>
<td>Durum Wheat</td>
<td>262.4</td>
<td>21.1%</td>
</tr>
<tr>
<td>Maize</td>
<td>165.6</td>
<td>-7.9%</td>
</tr>
<tr>
<td>Barley</td>
<td>166.4</td>
<td>-18.7%</td>
</tr>
</tbody>
</table>

Source: European Commission - Commodity Price Dashboard
Financial Assistance:
The tillage sector has received financial assistance from a number of sources:

- €96 million paid to growers categorised as being primarily tillage farmers from CAP Pillar I budget in 2019.
- The Tillage Capital Investment Scheme (TCIS) under TAMS II covering specific areas of investment for tillage farmers. €12 million has been paid to 813 farmers under the TCIS. In addition, some €5 million has been paid to 170 farmers for tillage investments under the Young Farmer’s Capital Investment Scheme as part of TAMS II, bringing the total expenditure to just over €17 million.
- The continuation of the coupled EU Protein Aid Scheme for 2019 and for the remainder of the current CAP. This coupled payment is worth approx. €3 million per annum to tillage farmers.
- Launch of a strategy for the development of the Organic Food Sector for the period 2019-2025, with provision for the arable sector.

Area, Yield and Production levels, 2019
Production in 2019 returned to near normal levels following the severe dip in 2018 grain output as a result of the extreme drought during that summer. Cereal production stood at 2.1 million tonnes in 2019, a 20% increase on 2018, when production stood at 1.85 million tonnes (Source: Teagasc Harvest Report 2019). However, 2019 production was some 200,000 tonnes below the 5-year average of 2.3 million tonnes. There was a slight increase in the area sown to cereals with, in excess of 267,700 hectares sown in 2019 and 261,600 hectares sown in 2018; this was the first increase in cereal area since 2012. The primary changes were a decrease in spring barley area of approximately 31,000 hectares to 94,636 hectares, an increase in winter barley area of approximately 30,000 hectares to 96,500 hectares, and an increase in winter oats of approximately 6,000 hectares to 16,600 hectares. (Source: CSO – Crops and Livestock Survey June Final Results)

The main drivers for the increase in production was the yield increase in Spring crops, which recovered significantly from a very low base in 2018, and an increase in winter cereal area which tend to result in higher yields per hectare than spring sown cereals. There was also a recovery in straw yields which again were particularly adversely affected in 2018 spring cereal crops.

The area sown to winter crops in the autumn/winter 2019 for harvest in 2020 is significantly lower than 2018, with approximately 50% of the 2018 area sown due to poor weather conditions.
The continued growth in demand for Irish whiskey led to increased demand for distilling grade malt in 2019. Construction works to expand the production capacity at the country’s largest maltings began in 2019 and an increased area of malting barley was grown under contract in 2019.

There may also be opportunities to produce Irish-only rations for the animal feed sector and a number of compound feed manufacturers have produced these rations for the first time in 2019. There are issues with having sufficient protein from native sources in some high protein rations and Irish production will not be able to negate the need for imported protein sources. However, for these rations to be successful they must deliver a premium price from the marketplace for tillage growers, which may be difficult to achieve from some low profitability sectors such as the beef sector.

There may be opportunities for expansion in the value-added food products, particularly in the demand for gluten free oats etc.

There have been developments in relation to proving terroir of whiskeys grown in different geographic areas, while there has also been progress in relation to the use of heritage Irish malting barleys bred in the last century. Specialist craft beers have already been marketed while specialist craft whiskey is undergoing the mandatory aging process.

**Sustainability**

For the tillage sector economic and environmental sustainability go hand in hand. Without economic sustainability you will not have environmental sustainability and these factors are being actively discussed in current negotiations for the next CAP post 2020. Family Farm Income (FFI) on tillage farms stands at €34,437 and is second, but significantly behind FFI on dairy farms which stands at €66,570 (Source: Teagasc NFS 2019). Cereal areas have dropped by 51,000 hectares (16%) since 2012 and stand at 267,700 hectares in 2019 and this is partly...
explained by more profitable sectors being able to afford to buy and lease land at a higher value than tillage farmers. Ireland only accounts for 1% of EU production and as such is competing with grain from lower cost production systems on the commodity markets, making Ireland a price taker.

Diversification into producing for higher-value markets is seen as essential for the sector to remain viable. These outlets include the food and beverage sector with barley for brewing and distilling and food grade wheat and oats along with an important seed production sector. Since the abolition of milk quotas in 2015, the more profitable dairy sector has been able to afford to pay more for land purchase/lease than the tillage sector which has also contributed to a reduction in land areas in tillage. Finally, tillage farmers are concerned that their sector is potentially one of the sectors most at risk from convergence and capping proposals in the next CAP with average payments standing at €25,349 and accounting for 74% of Family Farm Income. Reduction in direct payments may render some tillage farms moving from a viable to a non-viable status and could further reduce tillage area following a reduction of 50,000 hectares since 2012.

From an environmental sustainability point of view the tillage sector is a low emission farming system [2t of Agricultural GHG (CO2 equivalents)/ha] when compared to livestock farms 3.4-8.5t GHG/ha. Despite showing the lowest emissions of CO2 per hectare, the tillage industry may have opportunities to further reduce its carbon footprint.
A continuation of the Protein Aid Scheme in the CAP post 2020 would reduce but not eliminate the dependence on imported sources of protein that are mainly GMOs and thus further enhance Ireland’s sustainability credentials. There are added advantages of leguminous protein crops from the point of view that the crop does not require any form of nitrogenous fertilisers because they fix nitrogen from the atmosphere to meet their own requirements and also leave nitrogen in the soil, thus reducing the need for chemical N input in the subsequent crop. It has an added advantage of flowering at a different time to other crops so can provide an alternate food source for pollinators.

**Figure 3.24** Agricultural Greenhouse Gas Emissions per hectare: 3 year rolling average 2012-2017

![Agricultural Greenhouse Gas Emissions per hectare: 3 year rolling average 2012-2017](image)

**Source:** Teagasc National Farm Survey 2018 Sustainability Report 2018

One of the highlights for 2019 was a return to normal production following a significant drop in production as a result of the extreme drought encountered in 2018. There was a slight increase of 6,100 hectares in the total area of cereals sown, which is the first increase since 2012. Total cereal production for 2019 stood at 2.1 million tonnes, which was an increase of 250,000 tonnes over 2018 levels. However, the 2019 production was still 200,000 tonnes below the 5-year average of 2.3 million tonnes. Despite the area sown to cereals having dropped by over 50,000ha since 2012, overall output has by and large been maintained.

Positives in the sector in 2019 include the continued high demand for grain to service the high-value food and beverage markets and in particular the malting sector where it is estimated that 230,000 tonnes of barley are supplied annually. The largest maltster in the country has shown a significant commitment to the sector by investing heavily in new facilities to increase output by 30,000 tonnes annually to meet the continued demand for Irish malt from Irish grown barley.

Maize area in 2019 held at 16,600 hectares following a high in recent years of 17,800 hectares in 2018. In 2018, the 50% increase in area was due to sowing windows being missed for cereals and a demand from livestock farmers whose fodder reserves were severely depleted. These trading relationships between the livestock and tillage sectors are important for the sustainability of agriculture as a whole and there are opportunities to further build on these links in areas such as organic manure trading and the already strong trading links in straw.
Challenges

Ireland’s tillage sector only produces approximately 40% of the feed materials required by the feed industry to supply the livestock sector. Despite Ireland being a net importer of cereals, Teagasc have predicted that there are potentially significant negative effects on tillage income in the future as a result of Brexit. Brexit may result in a reduction in the CAP budget, which will mean a reduction in the level of farm payments for all farmers including tillage farmers.

Other challenges facing the sector are:

- General cost/price squeeze over time with an upward trend in the cost of production and stagnant output prices.
- Competition for land from more profitable sectors resulting in a downward pressure on the overall tillage area.
- Negotiating the next CAP while meeting Climate Change, soil/air/water quality and biodiversity ambitions.
- In the next CAP, tillage growers are potentially one of the sectors most at risk from convergence and capping with tillage farmers receiving the highest average Pillar I payment and accounts for 74% of FFI income. A further reduction through convergence and other measures may add additional pressure on the viability of some tillage farms.
- Continuous loss of Plant Protection Products (PPPs) to deal with various pests and diseases.

Ireland Outlook for 2021-2022

As the COVID-19 pandemic continues it is challenging to predict the outlook for 2021-2022 with any degree of accuracy. Consumer demand is currently negatively affected due to general economic uncertainty. It is anticipated that while demand may return to normal for basic food commodities once the pandemic ends, the demand for higher value premium food and beverage products may lag depending on the long-term economic impact.

In the short term as an importer of grain for mainly the feed sector, weaker currency particularly Sterling and the US dollar, will potentially have an adverse effect on grain price. Grain imports to Ireland in 2019 amounted to 3.4m tonnes, of which 2.4m tonnes came from outside the EU.

As a net importer of grain, the price paid to Irish growers is set based on the cost of imported grain, which is competitively priced from lower cost production countries, putting added pressure on the domestic tillage sector.
EU Outlook for 2021-2022

Like the Irish situation, the COVID-19 pandemic and the ongoing uncertainty coupled with the inevitable global economic downturn also makes it challenging to predict the outlook for the EU for 2021-2022. Latest data on global cereal production, which was compiled before the Covid-19 pandemic took hold, forecasts that total grain production for the next marketing year is anticipated to increase to a new record of 2,223m tonnes, an increase of 48m tonnes or +2.2% year on year. Consumption is also expected to reach a new peak at 2,226m tonnes, an increase of 34m tonnes or 1.6%. A modest decrease of ending stocks is anticipated reaching 605m tonnes, or −0.5% year on year. Thirty three % of production (733m tonnes) will be used for food, forty five % (997m tonnes) will be used for feed and seventeen % (380m tonnes) will be for industrial use.

In terms of the EU, production forecasts for the next marketing year show wheat production at 132.2m tonnes, down 5.4% year on year. This decline is due to overly wet conditions reducing both areas and yield. Barley production is forecast at 53.6m tonnes, down 2.8% year on year. Maize production is forecast at 68.2, up 0.3% year on year.
**Decade review: 2010-2019**

At the beginning of the decade there was an unusually low area of cereals with approximately 272,300 hectares sown in 2010. This followed a sharp reduction in cereal area sown from 2008 where area sown stood at just over 320,000 hectares. The area sown recovered to a level of 314,500 hectares by 2012, but since then the area has seen a contraction of 15% to the current level of 266,700 hectares. There was a decrease in area sown each year with the exception of 2019 where an increase of 5,700 hectares was observed. Tillage Family Farm Income (FFI) stands at €34,437 but is second to and significantly behind dairying at €66,570 according to Teagasc FFI figures for 2019. The sector continues to face a cost/price squeeze and this along with a move to more profitable systems of production has resulted in a general reduction in tillage areas over the last 10 years. Brexit will pose further challenges and may impact on the future CAP overall budget and other associated effects, not least from possible decreased demand for cereals from the livestock sector.

The diversification into high-value primarily food crops has been a positive and in particular the increase in demand for malting barley, driven from the increased sales of Irish whiskey, has been a welcome boost for the income of those tillage growers with malting barley contracts. While at a much earlier stage in its development than the malting barley industry, food grade oats is another high-value outlet which tillage farmers can avail of to improve their incomes.

There have been dramatic changes with regard to the introduction of regulations such as the Sustainable Use Directive (SUD) and there has been an increased emphasis on Integrated Pest Management (IPM) and other measures that will further improve the environment. There has been a significant change with regard to the number of Plant Protection Products (PPPs) available to growers and also with a limited number of new products coming on stream. To counteract this loss of chemicals to deal with plant diseases, there will continue to be a greater emphasis on plant breeding in order to breed resistance.

The decade saw extremes in terms of weather which will become the norm in the future as predicted in various climate change models. The heavy rainfall of 2012 and the winter of 2017/2018 caused significant problems to growers and especially when combined with the extreme drought experienced in the Summer of 2018, and again with the very wet winter/spring of 2019/2020.

The end of the decade has seen sustainability becoming more and more important with some growers moving towards practices that will aid soil, air and water quality and biodiversity, while reducing emissions contributing to Climate Change. It is likely that many of these actions will be focused on in the next CAP to fulfil the aim of improving agriculture's contribution to climate change, water/air/soil quality and biodiversity.
Between EU support and national grant aid over €10m was invested in the horticulture sector in 2019.

The Rooster potato was the most dominant variety planted in 2019 representing +60% of production.

The horticulture industry has seen a growth in output value of approx 30% in the 10 years since 2010.

3.9 Horticulture and Potatoes

General Market Situation Ireland 2019

The weather in 2019 provided for more favourable growing conditions compared to 2018’s drought, with generally improved yields for all crops. However the wet autumn did impact the harvesting date of some crops.

Market demand in Ireland for produce remained steady across each sub sector, with high demand for some commodities. However commodities such as field vegetables did experience downward price pressure in 2019 following price rises negotiated in 2018.

Whilst the continued recovery in the wider economy and increasing consumer demand for produce and plant-based diets has helped maintain output growth in the sector, labour availability and production costs continue to be challenges for the sector.

2019 saw continued strong investment by the sector with over €10m provided between EU support and national grant aid support, assisting the sector to improve resilience and support sustainable production.

Mushrooms

Strong productivity and yield gains within the industry helped to increase output in 2019. The industry continues to implement lean processes that are assisting to drive efficiency gains on farm. The continued uncertainty over Brexit, currency fluctuations and increased competition in the market place remained ongoing challenges for the industry.

The prospects for the mushroom industry in 2020 will be extremely challenging, in particular due to the impact of Covid-19 on the foodservice market.
Fruit and Vegetables

Protected Crop
Overall production and price remained steady, with the demand for both value and premium lines strong in the marketplace in 2019. Customer demands for more sustainable packaging became a critical issue, requiring the sector to invest in the replacement plastic trays in favour of cardboard trays.

Field Vegetables
Most field vegetable producers experienced good increases in yield due to favourable growing conditions in 2019. However the wet autumn did lead to difficult harvesting conditions and impacted harvesting dates. Having achieved price rises in 2018, the sector experienced price reductions for produce in 2019.

Soft Fruit and Top Fruit
The milder summer of 2019 led to better yield in the soft fruit production with better quality fruits commending a higher price. Top fruit also recorded a price increase, in part due to lower availability of culinary apples that were affected by late frost.

Challenges in 2020 will be rising labour cost and the impact of Covid-19 on seasonal labour availability and demand within the foodservice market.

Nursery Stock
The nursery sector continued to see improvement in 2019 and there is continued optimism within the sector. Increased construction activity from and improving consumer sentiment is increasing demand for amenity plants and landscaping. As the summer weather was disappointing, sales of hardy nursery stock and trees did better in 2019 than summer bedding.

The impact of Covid-19 during peak planting season will have a significantly negative impact on the output and profitability of the sector in 2020.

Potato sector
Potato yields recovered in 2019 following the low yields of 2018. Combined with a slight increase in production area, this contributed to an overall increase in output in 2019. Prices stayed strong until the start of 2019 crop harvest.

The “Rooster” variety is still by far the most dominant variety planted by Irish growers in 2019, representing over 60% of production followed by Kerr Pink and Queens, both around 6% of production.

Figure 3.25 Potatoes - Area Planted, and Yield per Hectare - 2008 – 2019

Source: Central Statistics Office, Area, Yield and Production of Crops
Exports of Irish Fruit and Vegetables totalled approximately €159 million in 2019. This represents a 9% increase on 2018 figures. Ireland’s top 5 export destinations in 2019 were the United Kingdom, Germany, Iceland, Spain and the Netherlands. Imports of Fruit and Vegetables totalled €863 million in 2019. Exports of Fruit and Vegetable based products totalled €158 million in 2019 while imports totalled €509 million.

**Figure 3.26 Fruit and Vegetable exports 2016-2019**

![Graph showing fruit and vegetable exports from 2016 to 2019]

**Source:** Central Statistics Office, Trade Statistics

**Prices & Financial Assistance, 2019**
Overall prices remained steady across the sub-sectors with the exception of field vegetable sector, where prices reduced on the back of price increases secured in 2018.

2019 saw continued strong investment by the sector, with over €10m provided between EU support and national grant aid support. This will help the sector to improve resilience and support sustainable production. These supports included €4.2m paid out through the EU producer organisation scheme and €5.8m paid out through the Commercial Horticulture grant aid scheme.

**Sustainability**
The horticulture industry has made significant investment in both infrastructure and equipment and new technology that supports more sustainable production systems.

The industry has invested significantly in climate action measures such as investments in renewable energy such as biomass and photovoltaic systems, reducing energy demand through increased insulation and reducing emissions by switching to cleaner fuels and more efficient boilers. As plant protection products have become limited over time, this has led the industry to develop and invest in innovative practices to combat pest, disease and weed problems. Robust Integrated Pest Management (IPM) strategies are being developed for many horticultural crops, such as the use of mesh covers to limit pest development and protect crops from pest damage, along with the increasing use of natural pest control predators over insecticides. The use of grafted plants to confer inherent disease resistance and use of disease resistant varieties is increasingly used within the sector.

On packaging, the sector is now investing in and using more sustainable forms of packaging.
Producer Organisations

The EU Producer Organisation Scheme continues to be a vital support for the fruit and vegetable sector. It provides an important mechanism for producers to achieve a more sustainable balance in the supply chain through collaboration and enhanced bargaining power by becoming part of a larger supply base.

In 2019, payments of over €4 million were paid out to Producer Organisations (PO) in the fruit and vegetable sector. These payments provided support to help increase competitiveness, improve market development, and support innovation and environment sustainability. Actions implemented by POs that supported competitiveness included, the implementation of lean processes and investments in new technology that assist improvement in productivity and labour efficiency, as well as provision of best technical advice. In the area of market development, actions included supporting specialist marketing staff to market produce on behalf of the PO, market research and insight data, the cost of quality assurance schemes, as well as the investments that help improve product quality.

On the innovation and environmental sustainability, support was provided to actions where POs collaborated with specialist research institutions to undertake research in areas such as waste valorisation and on sustainable production methods. POs engaged in further environmental actions that supported climate action such as investment in renewable energy in areas such as biomass and photovoltaic systems, as well as reducing usage of plant protection products through investment in more sophisticated environmental control technology.

In 2019 DAFM granted recognition status to a new Producer Organisation in the fruit and vegetable sector, Unigreen PO. This PO has a broad portfolio of crops from protected to field vegetables.
Highlights

- Overall quite a good growing year for the majority of crops with increased yields.
- Market demand for produce remained steady across each sub sector.
- Investment within the horticulture sector increased remained strong, with over €10M paid out between EU supports and national grant aid.

Challenges

- Downward price pressure was experienced by some commodities.
- The wet autumn impacted on the harvesting of crops.
- Availability and cost of labour continue to be a concern.

Decade review: 2010-2019

The horticultural industry is a very dynamic industry that has always operated in an open market. This market has become increasingly international and competitive, and ongoing development of the horticultural industry is dependent on its ability to maintain and extend its competitive advantages in this environment. In spite of these challenges the industry has seen a growth in output value of some 30% in the 10 years since 2010.

This growth has been assisted by the strong investment by the sector in new technologies, infrastructure and equipment that has helped to increase productivity and efficiency. Vital supports such as the EU Producer Organisation Scheme and Commercial Horticulture Grant aid scheme have been critically important to enable the industry sustain the level investment required. Further the innovation within the industry in areas such as new product development has benefited the industry in building export markets.

The changing consumer demands around providence, health, lifestyle and plant based diets has also led to increasing demand for produce both on the home and export markets.
3.10 Intermediate Consumption

Compound feed production in Ireland for 2019 was **5.1 million tonnes**.

Ground limestone usage was **down (-25%)** on the previous year to 762,865 tonnes.

The quantity of protected urea sold in 2019 was **21,409 tonnes**.

**General Market Situation Ireland 2019**

**Ireland:**

Industrial compound feed production in Ireland for 2019 was 5.1 million tonnes, which is 13.6% lower than in 2018. There was also a reduction (-23% in volume) in feed imports compared to 2018 levels. This reflects a return to more normal weather conditions compared to the exceptional weather events of 2018. Compound feed sales in 2019 were still above 2017 levels (+5%). Although weather conditions in 2019 were much more favourable than in 2018, there were some areas that experienced higher than average rainfall, requiring animals to be housed earlier than normal.
Table 3.16 Price Indices for Agricultural Inputs 2016-2018 (excluding VAT)

<table>
<thead>
<tr>
<th>Year</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Input Prices</td>
<td>-3.5%</td>
<td>-0.7%</td>
<td>4.6%</td>
<td>2.2%</td>
</tr>
<tr>
<td>Feedingstuffs</td>
<td>-1.6%</td>
<td>-1.5%</td>
<td>6.6%</td>
<td>3.0%</td>
</tr>
</tbody>
</table>

**Including**

|  |  |  |  |  |
|---|---|---|---|
| Straight | -4.4% | 2.3% | 11.2% | 3.1% |
| Cattle | 0.4% | -2.4% | 6.5% | 2.6% |
| Pig | -2.7% | -1.0% | 9.5% | 6.4% |
| Poultry | -3.7% | -1.2% | 2.6% | 0.8% |

|  | -14.9% | -5.7% | 6.0% | 5.2% |

**Including**

|  |  |  |  |  |
|---|---|---|---|
| Straight | -18.2% | -5.5% | 7.9% | 5.4% |
| NPK | -13.2% | -6.2% | 5.6% | 5.3% |
| PK | -5.3% | -7.3% | 1.0% | 5.8% |

**Source:** Central Statistics Office, Agricultural Price Indices

**EU:**
Industrial compound feed production for farmed animals in the EU for 2019 is estimated at 161.7 million tonnes (-0.9% lower than in 2018). As regards cattle feed, the poor stocks of forages resulting from the 2018 drought and heat waves induced a significant increase in the compound feed demand for cattle in the first quarter 2019. For the remainder of the year, the return to normal weather conditions together with increasing restrictions on phosphorous emissions in certain countries resulted in an annual fall in the demand for cattle feed by 2.3% for 2019 compared to 2018. The biggest decrease is reported in IE (-15%), followed by UK (-7%). (Source: EC (2019), EU agricultural outlook for markets and income, 2019-2030. European Commission, DG Agriculture and Rural Development, Brussels).

Table 3.17 Expenditure on Intermediate Consumption in Agriculture 2016-2019

<table>
<thead>
<tr>
<th>Year</th>
<th>2016 €m</th>
<th>2017 €m</th>
<th>2018 €m</th>
<th>2019 €m</th>
</tr>
</thead>
<tbody>
<tr>
<td>Feeding stuffs</td>
<td>1,229</td>
<td>1,324</td>
<td>1,680</td>
<td>1,496</td>
</tr>
<tr>
<td>Fertilisers</td>
<td>511</td>
<td>513</td>
<td>582</td>
<td>578</td>
</tr>
<tr>
<td>Energy and lubricants</td>
<td>378</td>
<td>390</td>
<td>424</td>
<td>424</td>
</tr>
<tr>
<td>Forage plants</td>
<td>1,046</td>
<td>1,102</td>
<td>1,299</td>
<td>1,254</td>
</tr>
<tr>
<td>Contract work</td>
<td>372</td>
<td>380</td>
<td>453</td>
<td>453</td>
</tr>
<tr>
<td>Other items of intermediate consumption</td>
<td>1,548</td>
<td>1,602</td>
<td>1,562</td>
<td>1,577</td>
</tr>
<tr>
<td>Total Intermediate consumption</td>
<td>5,084</td>
<td>5,311</td>
<td>6,001</td>
<td>5,783</td>
</tr>
</tbody>
</table>

**Source:** Central Statistics Office, Agricultural Price Indices
Table 3.18 Compound Feedingstuffs Production 2016-2019 (tonnes)

<table>
<thead>
<tr>
<th></th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cattle</td>
<td>2,573,113</td>
<td>2,919,301</td>
<td>3,807,225</td>
<td>3,115,864</td>
</tr>
<tr>
<td>Pigs</td>
<td>669,316</td>
<td>692,677</td>
<td>712,581</td>
<td>705,701</td>
</tr>
<tr>
<td>Poultry</td>
<td>655,368</td>
<td>640,562</td>
<td>632,965</td>
<td>630,838</td>
</tr>
<tr>
<td>Sheep</td>
<td>202,790</td>
<td>202,719</td>
<td>247,882</td>
<td>187,160</td>
</tr>
<tr>
<td>Other</td>
<td>415,116</td>
<td>444,103</td>
<td>484,775</td>
<td>459,831</td>
</tr>
<tr>
<td>Total</td>
<td>4,515,703</td>
<td>4,899,362</td>
<td>5,885,428</td>
<td>5,099,394</td>
</tr>
</tbody>
</table>

Source: Department of Agriculture, Food and the Marine

Animal Feed
The volume of compound feedingstuffs produced in 2019 decreased by 13.6% to 5.1 million tonnes, compared to 5.9 million tonnes produced in 2018. 2018 was an exceptional year production-wise, as the amount of feed produced had seen a significant 20% increases on the previous year, primarily as a result of weather conditions in 2018. Production levels in 2019 therefore reflect a more normalised year of feed consumption.

In value terms, CSO data indicates that in 2019 the intermediate value of consumption was €1.496 billion, down from the exceptional 2018 amount of €1.68 billion.

The overall cost of feedingstuffs decreased by 10.7%, from €1.68 million in 2018 to €1.50 million in 2019. The CSO release on Agricultural Price Indices indicates an overall increase in the price of feedingstuffs of 3% in 2019.

Fertiliser
The sale of fertiliser and lime in Ireland is regulated by both EU and Irish legislation. This legislation ensures that products are labelled accurately and meet minimum nutrient requirements. As part of the DAFM control programme for fertiliser and lime inspection in 2019, a total of 267 samples were taken at manufacturers’ premises (186 fertiliser samples and 81 lime samples). 641 individual analyses were carried out for fertilisers and an ‘out of tolerance’ was recorded for 7.2% of these. There were 243 individual lime analyses carried out and 8.2% of these were ‘out of tolerance’.

One new ground limestone quarry was licensed during 2019. There were a total of 46 active quarries in 2019.
Table 3.19 Fertiliser Production

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Nitrogen (tonnes)</td>
<td>1,365,762</td>
<td>1,359,511</td>
<td>1,377,754</td>
<td>1,510,972</td>
<td>1,670,799</td>
<td>1,500,701</td>
</tr>
<tr>
<td>Phosphorus (tonnes)</td>
<td>778,409</td>
<td>798,303</td>
<td>805,600</td>
<td>899,337</td>
<td>1,005,689</td>
<td>921,181</td>
</tr>
<tr>
<td>Potassium (tonnes)</td>
<td>795,158</td>
<td>807,175</td>
<td>815,204</td>
<td>911,933</td>
<td>1,019,805</td>
<td>941,501</td>
</tr>
<tr>
<td>TOTAL (tonnes)</td>
<td>1,402,878</td>
<td>1,395,399</td>
<td>1,411,913</td>
<td>1,552,809</td>
<td>1,714,729</td>
<td>1,547,082</td>
</tr>
</tbody>
</table>

Source: Department of Agriculture, Food and the Marine

Ground limestone usage was down (-25%) on the previous year to 762,865 tonnes, which reflects the increase in lime use in 2018.

Table 3.20 Ground Limestone Sales 2015-2019

<table>
<thead>
<tr>
<th>Year</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ground Limestone sales tonnes</td>
<td>893,730</td>
<td>967,281</td>
<td>737,118</td>
<td>1,020,502</td>
<td>762,865</td>
</tr>
<tr>
<td>% change</td>
<td>10%</td>
<td>8.20%</td>
<td>-24%</td>
<td>38%</td>
<td>-25%</td>
</tr>
</tbody>
</table>

Source: Department of Agriculture, Food and the Marine

Sustainability

DAFM is actively progressing the actions from the all of government Climate Action Plan relating to fertilisers and animal nutrition.

An Animal Nutrition Working Group has been established to review the environmental standards in all livestock rations and to ensure industry-wide engagement in the role of feed supplements and altered crude protein to reduce methane and ammonia emissions. This is a multi-stakeholder Working Group made up of representatives from the feed industry, DAFM, Teagasc and UCD. The Working Group will make recommendations that ensure opportunities for improved feeding practices and diet formulation that allow for environmental standards can be optimised, while ensuring that animal nutrition requirements and feed safety criteria are met. The Working Group is currently undertaking a survey on establishing current protein levels in all livestock rations and trends in protein levels overtime.

There is ongoing engagement with the fertiliser industry with regard to the adoption of protected urea products at farm level. The adoption of protected urea is an integral part of our National strategy for the reduction in GHG emissions from the agriculture sector. A measured approach is being taken by DAFM on this issue with a gradual shift to these products anticipated. The quantity of protected urea sold in 2019 was 21,409 tonnes.

FFGPD has also provided input into the broader DAFM policy areas of sustainability including CAP, environment policy and mechanisms to achieve 2030 climate change targets.
Challenges

The UK remains a significant market for Irish feed, in value and volume terms, for both imports and exports. Trade in animal feed between Ireland and the UK showed an increase in the volume of feed imported from the UK to Ireland. The continuing trend of increasing trade between the two islands is evident with a significant increase in cross-border trade. The effects of Brexit on trade, particularly on imports of feed ingredients and materials, may take some time to be fully reflected throughout the Irish feed sector.

Ireland Outlook for 2021-2022

The continued gradual upward trend in both consumption and prices is anticipated to continue based on current and projected growth patterns.

Decade review: 2010-2019

In terms of feed and fertiliser use in the period 2010 to 2019, the overall trends show an increase in cattle numbers and consequently an increase in compound feed sales, feed imports and fertiliser use. Cattle number increased by 13% in the period between 2010 – 2019, reflecting the increase in the size of the national dairy herd. While compound feed sales and feed imports are largely influenced by grass growth in the main, overall the level of feed imports increased by 12% in the period 2010 to 2019.
Forest based biomass energy saved 880,000 tonnes of carbon dioxide in 2018.

In 2019 €86.78 million of capital expenditure was invested in forestry development.

In 2019, exports of all forest products totalled €467 million, a decrease of 2% on 2018.

4.1 Overview
The area under forestry is estimated to be 770,020 hectares (ha) or 11% of the total land area of Ireland (National Forest Inventory 2017). Forest cover is estimated to be at its highest level in over 350 years. Of the total forest area, nearly 391,358 ha or 50.8% is in public ownership, mainly Coillte. The forest estate is comprised of three quarters conifers and one quarter broadleaves. Nearly half of the stocked forest area is less than 20 years of age. The promotion of afforestation and the mobilisation of the private timber resource continue to be key objectives of DAFM.

Source: Department of Agriculture, Food & the Marine Forest Statistics
4.2 General Forestry Situation in Ireland and EU, 2019

Ireland

The third National Forest Inventory, completed in 2017, has shown that the national forest estate is still expanding and has now reached 11% of the total land area. The total forest area has increased from 697,842 hectares (ha) in 2006 to 770,020 ha in 2017. This compares to a European (EU-28) average of 34%. The 4th National Forest Inventory commenced in 2020 and data will be collected over the next 2 years.

Source: Ireland’s National Forest Inventory 2017 Department of Agriculture, Food and the Marine and State of Europe’s Forests 2015 Report published by Forest Europe

Figure 4.1 Forest cover in Ireland 2017

Source: Forest Statistics Ireland 2020 Department of Agriculture, Food & the Marine
Long-term afforestation trends, including the change from state-led to private-led grant-aided afforestation in the 1980s and 1990s, are shown in Figure 4.3. Private afforestation came to the fore in the mid-1980s following the introduction of a grant and, particularly, an annual premium scheme for afforestation.

Key statistics from Forest Statistics - Ireland 2020

- In 2019, €89.9 million was spent by DAFM on forest activities including afforestation, maintenance grants, annual premium payments and grants for forest road infrastructure.
- During 2019, 3,550ha of new forests were created. Cork had the highest afforestation area at 423ha followed by Clare at 352ha.
- Nationally, conifer species are the dominant species present, representing 71.2% of forest area while broadleaved species accounted for 28.7%.
- The proportion of broadleaves in new forests created during 2019 was 25%, which was up from 21% in the previous year.
- Over half (50.8%) of forests are in public ownership, with the remainder in private ownership.
- Farmers have accounted for 81% of private lands afforested between 1980 and 2019.
Private afforestation came to the fore in the mid-1980s following the introduction of a grant and, particularly, an annual premium scheme for afforestation.
Since 1980, over 23,000 private landowners have received grant aid to establish forests. The average size of private grant-aided afforestation since 1980 is 8.6 ha.

Roundwood harvest (including firewood) in the Republic of Ireland in 2018 was 3.69 M m$^3$, the highest level since records began. The private forest harvest exceeded 1 M m$^3$ for the first time. 40% of the wood fibre available for use was used for energy generation, mainly within the forest products sector.

The construction of 94km of private forest roads was funded during 2019, an increase of 20km on the previous year. This reflects the projected increase in timber and wood to be harvested which is expected to double by 2030.

Felling licences were issued during 2019 for the thinning of 47,571 ha and the clear-felling of 9,626 ha.

Over half of Ireland’s forest estate is certified by international non-governmental organisations to promote good forest practice. The vast majority of this area is in the public forest estate, with 11,181 ha of private forest currently certified.

**Figure 4.3**  *Annual state and private afforestation 1922-2019*

Afforestation in 2019
Payments were made by the Department in 2019 in relation to the afforestation of 3,550 hectares of land. Broadleaf planting, which includes the planting of native woodlands, accounted for 25% of this figure. Counties Cork, Clare, Roscommon and Kerry had the highest levels of afforestation during 2019, with between 300 and 425 hectares afforested in each (Figure 4.4).
Figure 4.4 Afforestation by County in 2019

Source: Forest Statistics Ireland 2020 Department of Agriculture, Food & the Marine
Table 4.1 2019 Planting Grants per County

<table>
<thead>
<tr>
<th>County</th>
<th>Euros</th>
<th>Hectares GRANT-AIDED</th>
</tr>
</thead>
<tbody>
<tr>
<td>CARLOW</td>
<td>€73,506.95</td>
<td>21.75</td>
</tr>
<tr>
<td>CAVAN</td>
<td>€483,361.75</td>
<td>167.45</td>
</tr>
<tr>
<td>CLARE</td>
<td>€973,596.66</td>
<td>352.43</td>
</tr>
<tr>
<td>CORK</td>
<td>€1,244,127.82</td>
<td>423.40</td>
</tr>
<tr>
<td>DONEGAL</td>
<td>€165,381.73</td>
<td>44.52</td>
</tr>
<tr>
<td>DUBLIN</td>
<td>€100,914.30</td>
<td>35.10</td>
</tr>
<tr>
<td>GALWAY</td>
<td>€830,107.60</td>
<td>278.78</td>
</tr>
<tr>
<td>KERRY</td>
<td>€1,051,805.74</td>
<td>301.47</td>
</tr>
<tr>
<td>KILDARE</td>
<td>€97,890.25</td>
<td>24.88</td>
</tr>
<tr>
<td>KILKENNY</td>
<td>€270,172.08</td>
<td>89.06</td>
</tr>
<tr>
<td>LAOIS</td>
<td>€153,226.97</td>
<td>49.09</td>
</tr>
<tr>
<td>LEITRIM</td>
<td>€814,394.10</td>
<td>289.18</td>
</tr>
<tr>
<td>LIMERICK</td>
<td>€471,560.54</td>
<td>156.49</td>
</tr>
<tr>
<td>LONGFORD</td>
<td>€189,242.80</td>
<td>62.02</td>
</tr>
<tr>
<td>LOUTH</td>
<td>€5,207.00</td>
<td>1.27</td>
</tr>
<tr>
<td>MAYO</td>
<td>€727,761.46</td>
<td>239.07</td>
</tr>
<tr>
<td>MEATH</td>
<td>€172,635.80</td>
<td>51.33</td>
</tr>
<tr>
<td>MONAGHAN</td>
<td>€196,210.09</td>
<td>59.28</td>
</tr>
<tr>
<td>OFFALY</td>
<td>€259,114.62</td>
<td>76.24</td>
</tr>
<tr>
<td>ROSCOMMON</td>
<td>€921,615.60</td>
<td>315.09</td>
</tr>
<tr>
<td>SLIGO</td>
<td>€346,225.35</td>
<td>119.35</td>
</tr>
<tr>
<td>TIPPERARY</td>
<td>€467,992.90</td>
<td>157.84</td>
</tr>
<tr>
<td>WATERFORD</td>
<td>€141,989.15</td>
<td>49.45</td>
</tr>
<tr>
<td>WESTMEATH</td>
<td>€264,639.78</td>
<td>77.03</td>
</tr>
<tr>
<td>WEXFORD</td>
<td>€211,376.20</td>
<td>58.86</td>
</tr>
<tr>
<td>WICKLOW</td>
<td>€236,936.31</td>
<td>49.46</td>
</tr>
<tr>
<td></td>
<td>€10,870,993.55</td>
<td>3,549.89</td>
</tr>
</tbody>
</table>

Source: Forest Statistics Ireland 2020 Department of Agriculture, Food & the Marine

While cumulative total afforestation for the years 2015 – 2019 is some 26% less than the target for these years, interest in planting native woodlands has been increasing since a series of new measures were introduced following the Mid-term review of the Forestry Programme (2014-20). In 2018 payments issued in relation to the new planting of 374 hectares of native woodlands, an increase of 38% compared to 2017, while in 2019 the figure for new planting of native woodlands was 310 hectares. Although the percentage of broadleaf planting has decreased slightly as a percentage of total planting, from 27% in 2018 to 25% in 2019, the decrease follows a very strong increase in 2018 caused by the new measures, which targeted broadleaf afforestation in particular and included increased grant and premium rates for relevant planting categories. Additional measures such as support for tree guards and fencing to protect crops from deer damage, continuous cover forestry and additional supports for thinning of broadleaf forests were developed in 2018 and introduced in early 2019. These were important schemes for the support of the industry and contributed to maintaining a high level of broadleaf planting in 2019.
EU

At EU level, the State of Europe’s Forests 2015 Report states forest area amounts to 215 million hectares in Europe, accounting for 33% of total land area. In comparison to other regions in the world, only South America has a higher percentage of forest cover (49%) than Europe. 45% of European forests are predominantly coniferous, 36% are predominantly broadleaved, and the rest are mixed, while around 80% of the forest area is available for wood supply. The report adds that forest area has continuously increased since 1990, and the rate of increase is fairly stable at the European level and within the regions that are analysed in the report. The forest area is expanding according to the defined targets in the countries with low forest cover. Policies on forest carbon and carbon balance have gradually shifted from a focus on sequestration capacity to a more integrated approach to sustainable forest management. The emphasis is on the full chain of sequestration, the production of wood and wood products, and especially, on renewable bioenergy. As a result of climate change impacts, other important aspects are the adaptation of forests to these changes and the capacity of forests to mitigate climate change.

4.3 Trade

In 2018 (the most recent year for which figures are available at the time of publication):

- Roundwood harvest (including firewood) in the Republic of Ireland was 3.69 million cubic metres (m³), the highest since records began. The private forest harvest exceeded 1 million m³ for the first time.
- Coillte is still the largest supplier of roundwood. Total harvested in the Coillte estate was approximately 2,658,000 m³, over 72% of the harvest. This percentage figure will reduce significantly as more private timber becomes available.
- Strong demand experienced for wood fibre across all product assortments as detailed below:
  - 1,012,000 m³ of sawnwood softwood
  - 150,000 m³ of roundwood stakes
  - 808,000 m³ of wood-based panels
- 40% of the wood fibre available for use for use in the Republic of Ireland was used for energy purposes. This material was mainly used within the forest products sector, which includes production of heat to dry timber prior to sale.
- The output of the forest-based biomass energy sector declined by 11.1% over 2017.
- 243,000 m³ of firewood was used in the Republic of Ireland to a value of €35 million which provides a good market for forest thinnings.
- The output from the forest based biomass energy sector resulted in greenhouse gas emission saving of 880,000 tonnes of carbon dioxide.

In 2019, exports of forestry products from the Republic of Ireland was €430 million, an increase of 1% on 2018 figures. Wood Based Product exports were €36 million in 2019, a decrease of 31% on 2018 figures.
### Table 4.2 Roundwood available for processing 2014-2018

<table>
<thead>
<tr>
<th>Item</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>000 m³ OB</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Commercial softwood</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Imports less exports</td>
<td>68</td>
<td>40</td>
<td>-16</td>
<td>-65</td>
<td>-205</td>
</tr>
<tr>
<td>Coillte</td>
<td>2,434</td>
<td>2,377</td>
<td>2,600</td>
<td>2,613</td>
<td>2,591</td>
</tr>
<tr>
<td>Private sector</td>
<td>447</td>
<td>646</td>
<td>518</td>
<td>676</td>
<td></td>
</tr>
<tr>
<td><strong>Commercial hardwood</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Imports less exports</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Coillte</td>
<td>6</td>
<td>3</td>
<td>5</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>Private sector</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>11</td>
<td>5</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>2,955</td>
<td>3,066</td>
<td>3,108</td>
<td>3,242</td>
<td>3,248</td>
</tr>
</tbody>
</table>

**Source:** Council for Forest Research and Development (COFORD)

### Table 4.3 Sources of softwood fibre 2014-2018

<table>
<thead>
<tr>
<th>Fibre source</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>000 m³ OB RWE¹</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Roundwood</strong></td>
<td>2,949</td>
<td>3,063</td>
<td>3,102</td>
<td>3,224</td>
<td>3,243</td>
</tr>
<tr>
<td>Sawmill residues</td>
<td>925</td>
<td>949</td>
<td>1,007</td>
<td>1,142</td>
<td>1,098</td>
</tr>
<tr>
<td>Wood-based panel residues³</td>
<td>114</td>
<td>114</td>
<td>115</td>
<td>124</td>
<td>120</td>
</tr>
<tr>
<td>Residue imports</td>
<td>49</td>
<td>47</td>
<td>144</td>
<td>144</td>
<td>98</td>
</tr>
<tr>
<td>Harvest residues</td>
<td>60</td>
<td>60</td>
<td>60</td>
<td>60</td>
<td>90</td>
</tr>
<tr>
<td>Post-consumer recovered wood (PCRW)</td>
<td>300</td>
<td>300</td>
<td>300</td>
<td>300</td>
<td>300</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>4,397</td>
<td>4,533</td>
<td>4,728</td>
<td>4,994</td>
<td>4,949</td>
</tr>
</tbody>
</table>

**Source:** Council for Forest Research and Development (COFORD)

---

¹ RWE: roundwood equivalent
² Data are from Table 2.
³ Includes bark (from the debarking lines at MEDITE & SMARTPLY and sawdust from the sanding of wood-based panels).
### Table 4.4 Uses of softwood fibre 2014–2018

<table>
<thead>
<tr>
<th>Fibre source</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>000 m³ OB RWE</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sawmilling</td>
<td>1,815</td>
<td>1,867</td>
<td>1,977</td>
<td>2,178</td>
<td>2,084</td>
</tr>
<tr>
<td>Round stake</td>
<td>147</td>
<td>169</td>
<td>164</td>
<td>148</td>
<td>165</td>
</tr>
<tr>
<td>Wood-based panels</td>
<td>1,377</td>
<td>1,370</td>
<td>1,395</td>
<td>1,505</td>
<td>1,430</td>
</tr>
<tr>
<td>Wood for energy use by the power generation and forest products sector⁴</td>
<td>760</td>
<td>796</td>
<td>844</td>
<td>883</td>
<td>966</td>
</tr>
<tr>
<td>Other uses</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Horticultural bark mulch</td>
<td>40</td>
<td>30</td>
<td>30</td>
<td>30</td>
<td>40</td>
</tr>
<tr>
<td>Wood chip for heating⁵</td>
<td>100</td>
<td>114</td>
<td>117</td>
<td>49</td>
<td>42</td>
</tr>
<tr>
<td>Export of forest product residues</td>
<td>88</td>
<td>36</td>
<td>44</td>
<td>44</td>
<td>139</td>
</tr>
<tr>
<td>Pellet manufacture</td>
<td>70</td>
<td>151</td>
<td>106</td>
<td>106</td>
<td>83</td>
</tr>
<tr>
<td>Other uses including shavings and animal bedding</td>
<td>51</td>
<td>51</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td>4,397</td>
<td>4,533</td>
<td>4,728</td>
<td>4,994</td>
<td>4,949</td>
</tr>
</tbody>
</table>

**Source:** Council for Forest Research and Development (COFORD)

---

⁴ Wood biomass is used by the forest products sector for process drying, heating and for the generation of electricity (including the use of wood biomass for co-firing by Bord na Móna at Edenderry).

⁵ Primarily used for the production of space or production heat.
Exports of Forestry products increased for the fourth year in a row, with forestry exports reaching a high of over €430 million in 2019, a 1% increase in value terms on 2018 figures and an increase of 13% in volume terms.
Figure 4.5 Woodflow for the Republic of Ireland in 2018 (000 m³)

Log Imports Less Exports - 205

Coilte Output 2,591

Private Forest Output 857

Total Roundwood 3,243

Residue Imports Chip: 33 Sawdust: 65

Round stake production 150

Sawn timber production 1,012

Sawmill residues 1,087

Bark 205

Sawdust 294

Woodchip 687

WBP mills
Pulp: 952
Chip: 300
Sawdust: 78
RWF: 100

Woodpulp/Residue exports
Sawdust: 123
Chip: 16
Pulpwood: 179

Other Uses
Bark Mulch: 40
Pulp Chipped for biomass use: 42
Pellet manufacture: 34
Woodchip for pellets: 49

CHP/Boiler fuel
Sawdust: 60
WBP sawdust: 39
Bark: 164
WBP bark: 81
RWF: 200
Chip: 322
Log and Top: 90

Sawmill residues 1,087

Sawdust 294

Woodchip 687

WBP Production 808

Masonite Moulded doorskins + MEDITE MDF + SMARTOLY OSB

Home market 45% - 68 Export market 55% - 82

Home market 20% - 83 Export market 80% - 470

Home market 20% - 48 Export market 80% - 193

Home market 24% - 53 Export market 76% - 167

Home market 100% - 17 Export market 0% - 0

WBP Production 808

Masonite Moulded doorskins + MEDITE MDF + SMARTOLY OSB

Home market 14% - 117 Export market 86% - 691

Source: Council for Forest Research and Development (COFORD)

Breakdown of 2018 wood products (000 m³)
An approximation of the full economic value of the forest sector in 2012 was €2.3 billion, when both indirect and induced effects were taken into account. In 2019, according to the CSO, Forestry products were exported to over 50 countries worldwide. Exports of Forestry products increased for the fourth year in a row, with forestry exports reaching a high of over €430 million in 2019, a 1% increase in value terms on 2018 figures and an increase of 13% in volume terms. In 2019 81% of Irish forestry exports were to the United Kingdom. The other export destinations completing the top 5 destinations for Forestry products were, the Netherlands, Belgium, Germany and France. Forestry imports increased by 10% (+€32 million) on 2018 figures to €352 million.

**Figure 4.6** Top export destinations for Forestry exports in 2019

- United Kingdom 81%
- Netherlands 6%
- Belgium 3%
- Germany 2%
- France 2%
- Sweden 1%
- United States 1%
- Other 4%

*Source: Central Statistics Office, Trade Statistics 2019*
Exports of Wood Based Produce totalled €36 million in 2019, a 31% decrease in value on 2018 figures. This decline is largely due to a 93% decrease in the exports of Wood Articles. Ireland’s top 5 export destinations for Wood Based Produce in 2019 were; the United Kingdom, the Netherlands, Cuba, Norway and Germany. Ireland’s top 5 export destinations accounted for 93% of total Wood Based Produce exports. Imports of wood-based products totalled almost €253 million with 23% coming from the United Kingdom, 15% coming from the United States and 15% from China.

**Figure 4.7 Top export destinations for Wood Based Products exports in 2019**

![Pie chart showing export destinations]

- United Kingdom 79%
- Netherlands 11%
- United States 1%
- Germany 1%
- Norway 1%
- Cuba 1%
- Other 6%

**Source:** Central Statistics Office, Trade Statistics 2019

### 4.4 Financial Supports 2019

Financial support schemes are provided by the Department to assist in the management of the current forest estate and for the creation of new forests.

In 2019 €86.78 million of capital expenditure was invested in forestry development, 92% of which went towards afforestation grants and premiums. An additional €6.63 million was spent on other forestry support schemes for forestry and woodland reconstitution and development projects.

**Table 4.5 Annual capital expenditure on forestry schemes 2012 – 2019**

<table>
<thead>
<tr>
<th>Year</th>
<th>Total Expenditure €m</th>
<th>Total Afforestation Programme €m</th>
<th>Forestry Support Schemes €m</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
<td>108.2</td>
<td>101.6</td>
<td>6.6</td>
</tr>
<tr>
<td>2013</td>
<td>106.5</td>
<td>100.8</td>
<td>5.7</td>
</tr>
<tr>
<td>2014</td>
<td>108.1</td>
<td>102.5</td>
<td>5.6</td>
</tr>
<tr>
<td>2015</td>
<td>102.7</td>
<td>98.7</td>
<td>4</td>
</tr>
<tr>
<td>2016</td>
<td>102.2</td>
<td>98</td>
<td>4.2</td>
</tr>
<tr>
<td>2017</td>
<td>99.6</td>
<td>93.6</td>
<td>5.9</td>
</tr>
<tr>
<td>2018</td>
<td>92.8</td>
<td>86.4</td>
<td>6.4</td>
</tr>
<tr>
<td>2019</td>
<td>86.8</td>
<td>80.2</td>
<td>6.6</td>
</tr>
</tbody>
</table>

**Source:** Department of Agriculture, Food and the Marine
Schemes under the Forestry Programme 2014-2020
Under the current programme, the Afforestation Scheme pays forest owners a guaranteed annual premium for 15 years for new planting. These payments are up to €680/ha per year, depending on the species and area planted. The cost of planting and maintaining the trees is covered by a grant paid by the Department. Supplementary support measures under the Programme include:

- Woodland Improvement Scheme which provides support for thinning and tending of broadleaves
- Native Woodland Conservation Scheme
- Continuous Cover Forestry Scheme for existing woodlands
- Forest road construction
- Forestry Knowledge Transfer groups
- Reconstitution schemes (Ash Dieback, Windblow, Drought)
- Neighbourwood Scheme, which supports recreational community forests
- Support for the development of wood products and increasing the use of timber.

Some of these support measures and recent changes made are described in more detail below.

Forest Roads
The Forest Road Scheme provides an important support for timber mobilisation with grants paid in 2019 in respect of the construction of 93 kilometres of new forest roads. In addition, 37km of non-grant aided roads were built in 2019 bringing the total to 130km, slightly above the annual target set in the Climate Action Plan for 2019 of 125km.
**Promoting greater species and habitat diversity**

Certain measures and schemes within the Forestry Programme were amended in early 2018 following the completion of the Mid-term Review. For example, higher grant and premium rates have been introduced to encourage more broadleaf and diverse conifer planting. The minimum mandatory requirement per site has been increased from 10% to 15% broadleaves, with additional support for broadleaf management in the form of a second thinning grant. Tree guards and deer fencing grants have been introduced as part of a new “Forest Fencing and Tree Shelter Scheme” to reduce the risk of deer damage for existing broadleaf forests. A continuous cover forestry measure has been included as part of the Woodland Improvement Scheme which will generate more diverse habitats for wildlife by creating forests with a more varied age structure. A higher grant rate is being offered to publicly-owned native woodlands to initiate the participation of this sector in the Native Woodland Conservation Scheme which will enhance biodiversity and generate wider ecosystem services in these forest types.

**Knowledge Transfer**

In line with recommendation from the COFORD Mobilisation Working Group, measures are being introduced to support private forest owners to help manage their forests in a productive and sustainable manner. As well as support for forestry groups that may want to amalgamate to create larger groups, the Forestry Knowledge Transfer Group Scheme was launched in 2018. This scheme aims to increase the level of forestry management activity amongst participating forest owners through peer-to-peer learning at group meetings and outdoor events.

**Encouraging farmers to consider forestry as part of the farming mix**

Improved grant and premium rates for Agro-forestry and Forestry for Fibre have been introduced which may encourage farmers to consider forestry as a possible option on their farm alongside other farming activities.

**Figure 4.8 Estimate of Employment in the Forest Sector by County**

![Map of Ireland showing employment estimates by county in the forest sector](image-url)

**Source:** Annual Forest Sector Statistics 2019, Department of Agriculture, Food & the Marine
Figure 4.9 Labour Force Survey estimates (1998-2017).

Source: Annual Forest Sector Statistics 2020, Department of Agriculture, Food & the Marine
4.5 Forestry Health & Afforestation Programme

Forest Health

The Plant Health Regulation EU 2016/2031 and Official Controls Regulation EU 2017/625

The Plant Health Regulation EU 2016/2031 and Official Controls Regulation EU 2017/625 came into effect from the 14th December 2019. Regulation EU 2016/2031 replaces Council Directive 2000/29/EC (commonly referred to as the Plant Health Directive) and modernises the EU plant health regime while providing more effective measures for the protection of the European Union’s territory and its plants from destructive pests. The new regime adopts a more co-ordinated, risk-based approach to plant health and requires greater stakeholder engagement on the part of national plant protection organisations (NPPOs). Ireland’s NPPO is the Department of Agriculture, Food and the Marine (DAFM).

It is the responsibility of DAFM’s Forestry Inspectorate to implement the forestry aspects of these new Regulations which include:

- Import controls to prevent the entry & spread of non-indigenous quarantine pests and to control regulated pest outbreaks through enactment of containment or eradication measures.
- Requirements for the implementation of traceability systems (Plant Passporting Systems), for example the movement of coniferous wood with bark from forest to place of processing. Other commodities which require a Plant Passport include wood chip, bark and coniferous plants for planting.
- Mandatory EU wide forest health surveys and contingency planning for listed organisms and the compilation of yearly survey results and reports for the European Commission.
- New requirements arising in relation to the operation & implementation of the production of Wood Packaging Material (WPM) to ISPM 15 Standard.

The new Plant Health Regulation has a very wide-ranging scope and brings with it a variety of changes and responsibilities across the forest industry.

Forest Health Status

Ireland’s forest health status overall is relatively good. Ireland does not have the range of forest pests and diseases that is endemic on the Continent and further afield and which have in recent years caused enormous damage.

However, a number of outbreaks of organisms harmful to trees and forests have been identified in recent years. *Hymenoscyphus fraxineus* (Ash Dieback disease), *Phytophthora ramorum* disease outbreaks in Japanese larch, *Dothistroma septosporum* (Dothistroma Needle Blight DNB) and *Lecanosticta acicola* (Brown Spot Needle Blight BSNB) on pine species continue to be monitored by DAFM.

DAFM also continues to monitor developments following the finding in the wider environment of the eight-toothed spruce bark beetle *Ips typographus* in Kent in England. As the presence of the pest in England increases the level of risk of its introduction into Ireland, DAFM continues to carry-out additional risk based surveys in Ireland to provide added assurance that the pest is not present or introduced.

Forest Health – Activities and Events

The Forestry Inspectorate was centrally involved in the development of DAFM’s newly launched Plant Health Strategy, incorporating the ‘Don’t Risk It!’ campaign. The Plant Health Strategy was identified as a priority action in DAFM’s Statement of Strategy 2016-2019.

The United Nation’s Food and Agriculture Organisation (FAO) has nominated 2020 as the International Year of Plant Health (IYPH) to raise global awareness around plant health and how crucial plants, trees and forests are to our existence.
On the 15th of January 2020, President Michael D. Higgins planted a native sessile oak (Quercus petraea) in the Phoenix Park to launch the IYPH in Ireland. The protection of Ireland’s native species of flora & fauna and biodiversity is essential to the quality of life for the citizens of this island and for future generations.

**Forest Reproductive Material**
The Forestry Inspectorate is also responsible for implementing Council Directive 1999/105/EC on the marketing of forest reproductive material. Forest reproductive material is a collective term to describe seeds, plants and cuttings, which are important for forestry purposes. The aim of the legislation is to ensure that forest reproductive material is from approved suitable sources and is clearly labelled and identified throughout the entire process from tree seed collection to processing, storage, forest nursery production and delivery to the final forest user.

### 4.6 Biodiversity

EU forests are diverse and comprise a wide range of different species providing many different types of habitats. Over 42% of the EU land area is forest and they provide a range of ecosystem services which includes carbon sequestration, water protection and recreation. Forests act as key reservoirs of biodiversity and make up over half the area of the Natura 2000 network across the EU. The most recent national forest inventory found that native and mixed forests comprise 31.7% of Ireland’s forest area. Ireland is committed to maintaining biodiversity and to the principles of sustainable forestry management.

DAFM has published a range of guidelines targeted at protecting the environment when new forests are created and when existing forests are harvested. The Forestry Programme 2014-2020 remains a major contributor to forest policy and continues to make a number of important contributions to the economy, environment and society in Ireland. An Environmental Report and Strategic Environmental Assessment were undertaken to evaluate the environmental consequences of the Programmes to ensure environmental issues were fully integrated and addressed at the planning stage, with a view to promoting sustainable development.

Ireland’s forests are important and must be carefully managed to ensure that they have a positive contribution to the environment. In 2018, DAFM published “Forests and Water” setting out how the forest sector will help to achieve the objectives of the Water Framework Directive and Ireland’s River Basin Management Plan for 2018-2021. Associated financial support through the Woodland for Water measure, explores how new native woodland can be used to deliver meaningful ecosystem services that protect and enhance water quality and aquatic ecosystems.

In 2019/20 DAFM further strengthened its processes and revised its Appropriate Assessment procedures under the EU Natural Habitats and Birds Regulations (2011). This enables a more rigorous assessment of potential impacts of forestry licence applications on protected habitats and species in designated conservation areas (Natura 2000 sites) and the implementation of appropriate mitigation measures to avoid any such impacts. The planting of new native woodlands continues to increase and encouraging a range of species in commercial plantation will improve forest resilience to climate change and adaptation.

DAFM continues to work closely with a range of project partners such as KerryLife, the EIP Pearl Mussel project and the Local Authorities Water Programme (LAWPRO) to share information and expertise and ensure forests contribute to biodiversity within the wider landscape.
## 4.7 Sustainability

<table>
<thead>
<tr>
<th>SDG goal</th>
<th>Role of Forests</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>3. Good health and well being</strong></td>
<td>Forests provide the ideal 'venue' for outdoor recreation, with a beneficial impact regarding physical health and mental well-being.</td>
</tr>
<tr>
<td><strong>6. Clean water and sanitation</strong></td>
<td>Well-sited, designed and managed woodlands and forests benefit water quality and aquatic ecosystems significantly, by delivering a range of ‘ecosystem services’ such as the prevention of sediment and nutrient runoff, the protection of banks from erosion, ‘food drop’ of insects and leaf litter into the aquatic ecosystem, the shading and cooling of water, the overall restoration of riparian habitats, and helping floodwater control. Ireland’s approach to using forests to improve water quality is set out in the “Forests &amp; Water Achieving Objectives under Ireland’s River Basin Management Plan 2018-2021”. Through combining tree planting with their other farming activities, farmers can actively create buffer zones to protect water streams from farm pollutants and riparian erosion. The Agricultural Sustainability Support and Advice Programme (ASSAP) is an important targeted measure in the second River Basin Management Plan published in April 2018. This joint Government/Industry initiative, running from 2018 to 2021, is a well-structured collaborative programme involving all stakeholders to facilitate improvements in water quality. The ASSAP involves a resource of 30 Agricultural Sustainability Advisors, 20 of whom are funded by Government and 10 by the Dairy Industry. These Advisors will promote on-farm best practice to farmers in 190 ‘Areas for Action’, which have been identified by the EPA, where the status of water quality is at risk of regressing. The planting of native woodlands is one option in the toolbox of measures that has been promoted by the Department in these vulnerable areas.</td>
</tr>
<tr>
<td><strong>7. Affordable and clean energy</strong></td>
<td>Firewood and biomass can be used for domestic fuel or can be sold into the local market.</td>
</tr>
<tr>
<td><strong>8. Decent work and economic growth</strong></td>
<td>Forests provide multiple opportunities for value added products and services, supporting local employment and economic development. These include sawnwood and panel boards for construction, high-value timber products from rustic craftwork to bespoke furniture, and non-timber products such as mushrooms and foliage. Forests enhance the landscape while also providing the venues for visitor centres, holiday accommodation and adventure sports, thus contributing to our domestic and international tourism economy.</td>
</tr>
<tr>
<td><strong>13. Climate action</strong></td>
<td>Forests and the wider woodland ecosystem, including the soil, sequester carbon from the atmosphere to provide carbon sinks while wood products continue to store carbon after harvesting.</td>
</tr>
<tr>
<td><strong>15. Life on land</strong></td>
<td>Forests provide a semi-natural environment that provides a home for a wide range of plants and animals, including woodland specialists, woodland generalists and ‘ruderals’ (or opportunists). Native woodlands in particular can be used strategically to augment existing ancient woodland and to create linkage throughout the landscape between other semi-natural habitats, including rivers, species-rich grasslands and upland heaths. These biodiversity functions, further explored in the publication ‘Management Guidelines for Ireland’s Native Woodlands (2017)’; contribute in a meaningful way to the overall richness of wildlife in our countryside.</td>
</tr>
</tbody>
</table>
4.8 Forests and Climate Change

Forests are important sinks and stores of carbon and are recognised internationally as being central to meeting the goals of the Paris Agreement. Forests generally sequester more carbon dioxide than other land uses thereby directly reducing greenhouse gases in the atmosphere. When they are managed sustainably for wood production, carbon continues to be stored in the harvested wood and forests will continue to remove carbon dioxide when the trees are replanted. This ensures that the level of carbon storage is maintained over the long term.

The role of forestry in climate change mitigation is well recognised in the Government’s Climate Action Plan 2019 and as a pathway to reducing greenhouse gas emissions in the land use sector. The Climate Action Plan highlights a number of key high-level actions which include;

- Afforestation target of 8,000 ha/year
- 125 km of new forest roads constructed/year
- Progress Mid-Term Review/CAP
- Increase number of Knowledge Transfer Groups (KTGs)
- Identify barriers to afforestation and timber mobilisation
- Promote forestry generally through DAFM/Teagasc/Industry initiatives
- Assess potential of state-owned land for afforestation
- Continue tree breeding programmes improving resilience and adaptation
- Monitoring and protecting the forest estate
- Promotion of timber products and renewable energy.

The Land Use and Land Use Change and Forestry (LULUCF) Regulation and Ireland’s national forestry accounting plan

The importance of forest and their role in climate change mitigation and adaptation has been recognised in the Paris Agreement and Ireland’s forests are accountable in the national inventory of greenhouse gases. In recognition of the historic investment in forestry and the low mitigation potential in agriculture, Ireland has been provided flexibility under the Effort Sharing Regulation to mobilise carbon credits to a limit of 2.68 Mt CO2 equivalent per annum over the 2021 to 2030 period (or 26.8 million tonnes over 10 years). It is expected that the majority of existing forests already established will provide up to 20 million tonnes of CO2 on a rolling 30-yr basis (net of deforestation) over the 10-year period 2021-2030. The balance of the flexibility is expected to come from cropland and grassland and soil carbon increases relative to a reference period. It is important to note that afforestation levels now, from 2019 onwards, will have a significant impact on carbon sequestration rates post 2030 but relatively little impact during the 2021-2030 period. However, it is essential to continue to increase afforestation now to ensure that the national forest estate continues to be an important carbon sink.

Member States are required to submit national forestry accounting plans (NFAP), including forest reference levels (FRL), to the European Commission. The FRL represents an estimate of the average annual net emissions and removals resulting from managed forest land (MFL) within the territory of a Member State in the periods from 2021 to 2025, based on the continuation of sustainable forest management practice, as documented in the period from 2000 to 2009, with regard to dynamic age-related forest characteristics, using the best available data. The MFL area includes all forest lands established before 1990 and afforested land which will transition to the FRL area following a transition period of 30 years. The MFL area represents 54% of the total forest area in 2017, increasing to 66% by 2025.

Long term projections up to 2050 show that net removals (including Harvested Wood Products) of the total forest area declines from 5.5 MtCO2 in 2017 to 0.62 MtCO2 by 2034. This trend is reversed over the period 2036 to 2050, where the forest net removals increase to 3.17 MtCO2eq by the middle of the century. The total forest estate remains a net forest sink.
Case Study

**Woodland Environmental Fund**

Coordinator – Kevin Collins and Karl Coggins  
Collaborating Institutions – Greenbelt and Natural Capital Partners  
Corporate Finance Raised so far – €53,000  
Duration – Land remains under forest cover in perpetuity

The Woodland Environmental Fund (WEF) is unique in terms of schemes run by the Department. Instead of distributing exchequer and EU funding to farmers, the WEF creates a third source of finance to support their farming enterprise. Under this initiative, funding from the business community is given directly to farmers to establish native woodlands. Native woodlands are an integral part of Ireland’s natural heritage, history and culture, and are unique in terms of their biodiversity. These forests are home to a host of specialised woodland animals and plants, including red squirrel, pine marten, great spotted woodpecker, narrow-leaved helleborine and wood millet, to name but a few. They provide numerous ecosystem services, including the protection and enhancement of water quality, wider habitat linkage, landscape enhancement, opportunities for outdoor recreation and interpretation, and carbon capture. Thousands of years ago Ireland’s landscape was covered in oak, birch, ash, alder and Scots pine and over time as a result of climatic and political upheaval these forests largely disappeared. By participating in the WEF businesses are helping to recreate the landscape that once existed throughout Ireland.

The WEF ties in with DAFM’s existing Afforestation Scheme which covers 100% of the cost of establishing native woodlands and also pays an annual premium to the landowner of up to €680 per hectare payable each year for 15 years. The WEF involves an additional top up of €1,000 per hectare by the business as a once-off payment for farmers and other private landowners. Businesses taking part in the WEF are able to demonstrate their corporate social responsibilities by funding projects that are good for the environment and society as a whole.
Companies participating so far in WEF include Lidl, Aldi, Microsoft, Accenture, An Post and KBI Global Investment. While carbon neutrality is one driver for participation in the scheme, DAFM sees huge interest amongst the business community in general to get involved in projects that address the fall in biodiversity. While the WEF is only up and running two years, it is encouraging to see businesses embracing the potential of the WEF; An Post are planning to establish hives on their native woodland to produce honey and several companies have organised planting days for their staff. You can imagine how these staff will enjoy bringing their families out to see the forest as it grows in the years ahead. Since DAFM’s WEF Breakfast briefing in November 2019, the business appetite for WEF has jumped significantly and a strong pipeline of businesses interest in now in place for the foreseeable future as more and more businesses move towards multi-annual commitments to WEF.

Since the introduction of the WEF in 2018, the amount of native woodlands planted as a percentage of total planting has increased from 2% to almost 10%, while figures so far in 2020 are also very positive. While significant announcements are expected later in 2020 and demand for native woodland projects is exceeding supply, it is likely that the COVID 19 crisis will impact on take-up as businesses shore up their finances and focus on more pressing matters, in the short term at least.
Forestry Promotion

DAFM announced, in April 2019, support to the value of €830,000 for 15 innovative forestry promotional projects, to be run by various stakeholder organisations throughout 2019 and 2020. They include a woodland festival, open days for native woodland establishment, promotion of hardwood in the bio-economy and numerous school-based initiatives; these take school children out of the classroom and into local forests to learn about nature and trees.

Other promotion activities undertaken during 2019 included the Teagasc Forestry Department’s promotional campaign operated by a team of advisors through: events and publications; the broadcasting of forestry videos at marts and shows; advertisements and articles in both the national and regional press; as well as trade publications and increased engagement through social media. There were also a number of Forestry stakeholder groups facilitated through COFORD and DAFM including the Forestry Programme Implementation Group and Forestry Promotion Group, both established following the Mid-term review and chaired by at Minister level, comprising representatives of the forestry sector, state organisations and the Environmental Pillar.

Knowledge Transfer Scheme

The Knowledge Transfer Scheme re-opened in 2019. There was considerable interest amongst private forest owners who wish to learn how to better manage and mobilise their forest asset, in a group setting, led by a professional forester. DAFM funded 35 such groups catering for 614 participants. The operation of the Scheme was reviewed in order to gauge the effect of participation on decision-making by owners. The results were very encouraging and showed that almost all participants are now managing their forest differently as a direct result of experience gained from their group meetings. The review also highlighted some improvements that have been included in the 2020 Scheme. In view of Covid-19 restrictions, the Scheme is open to applicants on a conditional basis in 2020, and will be conducted in accordance with Government recommendations on health and safety.

Single Consent for Forest Roads

Forestry (Amendment) (No. 2) Regulations (S.I. No. 39 of 2020) were signed on 7th February 2020 and provide for DAFM to act as the single consent authority for applications for forest road works licences, where the forest road provides access to a public road (other than a national road) or there is material widening of an existing entrance. Forest road projects that provide access to a national road still require planning permission from the relevant Roads Authority.
Mackinnon Review

In July 2019, Mr. James Mackinnon CBE (former Chief Planner with the Scottish Government) was commissioned to review the forestry licensing process. During the review, Mr. Mackinnon met with various industry stakeholders, administrative and technical personnel of DAFM, other State agencies, landowners and interest groups. The results of the review, linked here, was published on DAFM’s website on 29 November, 2019. The report made various recommendations or “Ways forward”, aimed at improving the efficiency and effectiveness of the licensing approval process, as well as dealing with broader issues relating to encouraging woodland creation. A comprehensive Implementation Plan, outlining actions which give effect to the recommendations in the report, is under development and will be monitored by the Forestry Programme Implementation Group.

4.11 Challenges

BREXIT
The Irish timber industry is uniquely exposed to BREXIT, with almost 80% of its output, and 100% of future growth, seen as dependent on ongoing access to the UK market. Over 89% of the output from the panel board sector in Ireland along with almost 60% of Irish sawmill output is exported. There is, in effect, an all-island market for industrial roundwood. Cross-border supply chains have been established by large and small-scale sawmills on both sides of the Border and down to the Midlands Region.

EU Timber Regulation/FLEGT (Forest Law Enforcement, Governance and Trade)
There are potential impacts to industries involved with import of timber or timber products if, following the BREXIT transition period, full regulatory alignment of the Timber Regulation and FLEGT-licensing no longer applies.

- Irish importers’ Due Diligence obligations will extend to imports of timber/timber products from the UK.
- UK buyers may seek more extensive supply chain information from Irish exporters if a UK timber regulation comes into force.

Covid-19
The current pandemic sweeping across Europe and the subsequent country-wide lock downs will impact on construction activity with a consequential impact on supply and demand for timber products. This is particularly the case in the UK which is experiencing reduced activity in house constructions, which will impact on sawmill activity in Ireland. Potential impacts on the supply of sawmill residues also has the potential to impact on biomass supplies to facilities which use biomass feedstock for heat and electricity. Coupled with an oversupply of logs from Europe due to bark beetle damage, sawmills will experience challenging market conditions in the short to medium term.

Falling Afforestation levels
The target for afforestation now contained in the Climate Action Plan 2019 is 8,000 hectares of new planting per annum. This represents a significant challenge as afforestation levels over the last number of years have steadily decreased.

This emphasis on planting targets is vital to the further development of the forest processing and wood fuel industry in order to maintain a level of roundwood production which is forecast to reach close to 8 million cubic metres by 2035, about double the current level.
The target for afforestation now contained in the Climate Action Plan 2019 is 8,000 hectares of new planting per annum.
Tackling falling afforestation levels will require re-engagement by private land-owners, particularly farmers, as well as engagement from public bodies with land-banks suitable for afforestation. DAFM is looking at ways of convincing farmers that farm forestry represents a valuable and complementary income stream to an active farming enterprise. Improved alignment between agricultural support schemes and afforestation, to remove any barriers to planting, is also a focus.

**Forestry licensing and changes to Appropriate Assessment Procedure (AAP)**

2019 was a record year for the issuing of felling licences with 4,100 tree felling licences being issued, up 16% from 2018 levels. However, from the latter months of 2019 onwards, the issuing of licences for afforestation and felling have been experiencing delays and these delays are posing difficulties for forest owners and sawmills.

The current licensing difficulties have arisen because of unavoidable changes to the DAFM’s internal Appropriate Assessment Procedures in relation to impacts on sensitive sites. These changes are substantial and were introduced in response to important Court of Justice of the European Union (CJEU) decisions and their subsequent interpretation by the Forestry Appeals Committee and others. Since 2017 all licences are subject to a statutory public notification system and anyone dissatisfied with a decision to approve a forestry operation may appeal to the independent Forestry Appeals Committee.

DAFM is taking decisive steps to implement and resource this new assessment system, by means of the following:

- 11 more Forestry Inspectors will be recruited in 2020.
- A total of 6 additional staff to be assigned to the Ecology Unit.
- External ecological expertise has been recruited to deal with the file backlog. Four ecologists have been contracted to provide extra support while, in addition, 5 full-time ecologists have been contracted to work on licensing files.
- Additional administrative staff have been assigned to the Agriculture Appeals Office to assist with the increased workload of the Forestry Appeals Committee.
- Three planning officers have been contracted to work with the Forestry Appeals Committee.
- A specialist mapping expert has been assigned to forestry issues.

A project plan, to maximise the effectiveness of these additional resources and deliver on targets set out, is now in place. This will take advantage of identified efficiencies and will provide for the distribution of work and the tracking of progress. In addition, there is ongoing and intensive consultation with stakeholders to discuss the progress being made and to identify solutions to any issues arising.

### 4.12 Ireland & EU Outlook

**Irish Outlook for 2021-2022**

Irish forests continue to supply increasing amounts of wood fibre for sawmilling, panel board mills and the wood energy markets. Significant increases in potential timber supply are forecast over the medium term to 2025 which will exclusively come from private forests. The doubling of roundwood output forecasted by 2035 will create many opportunities for forest owners. The Irish sawmilling sector is well placed to process this increased production in supply with the majority of products exported to markets in the UK and further afield.

This increased production will require increased mobilisation of timber with significant increases required in the construction of forest roads. The lack of independent forest certification within the private forest estate needs to be addressed if timber supply is to access existing markets, both home and abroad. Initiatives by DAFM such as Knowledge Transfer groups and forest road grants will facilitate the mobilisation of timber.
**EU Outlook for 2021-2022**

The European Commission’s publication of the European Green Deal in December 2019 set out aims regarding several forest-relevant initiatives. Already the European Climate Law proposal has been submitted the European Council to be considered by Member States and to the European Parliament. The European Commission will also prepare a new EU Forest Strategy. Building on last year’s 'Communication on Stepping up EU Action to Protect and Restore the World’s Forests’, the Commission has announced that it will investigate potential measures to promote products and value chains not involved in deforestation and forest degradation.

DAFM continues to participate at international level and is active in global forest policy development at both the United Nations Forum on Forests and at the UN Food and Agriculture Organisation’s (FAO) Committee on Forestry. The UN’s Sustainable Development Goals are central to discussions in these fora.

Ireland is a signatory to the pan-European political process Forest Europe and contributes to its development of common strategies for the protection and sustainable management of forests.

DAFM is the competent authority for the implementation of the EU Timber Regulation and the FLEGT Regulation (Forest Law Enforcement, Governance and Trade). These measures tackle the issue of illegal logging by prohibiting first placement of illegally harvested timber on the EU market (and mandating due diligence) and by establishing import licensing schemes (FLEGT) with exporting partner countries to ensure legality. Currently, imports of timber and timber products into the EU from Indonesia are subject to this FLEGT border control, with work ongoing between the EU and other partner countries to also reach licensing stage.
4.13 Decade review: 2010-2019

The last decade has seen significant increases in production from Ireland’s forest estate in line with forecasted projections. In 2018 the private forest harvest exceeded 1 million cubic metres for the first time, representing an increasing trend that is set to continue in the decades ahead. Irish forests continue to supply increasing amounts of wood for the sawmilling, panel board mills and the wood energy markets. Significant increases in potential timber supply are forecast over the medium term, which will exclusively come from private forests. It is estimated that there will be a doubling of round wood output on an all-Ireland basis from approximately 4 million m³ in 2018 to nearly 8 million m³ by 2035. During the last decade the development of the forest sector was underpinned by significant government supports. In 2015 DAFM announced Government funding for the Forestry Programme 2014 – 2020 of almost €0.5 billion. Achievements so far under this programme include the establishment of 26,000ha of new forests, the construction of 380km of new forests roads and the introduction of a new knowledge Transfer Group Scheme for private forest owners. Other initiatives such as the launch of applications such as the Felling Decision Tool, tree volume calculators and the Geospatial Forecast tool help forest owners in the management of their forests.

The biggest impact in this decade was the financial crisis in the national economy in 2008 which saw a significant collapse in construction activity and left Irish sawmillers and panelboard manufacturers without a domestic market. While panelboard producers could rely to a certain extent on exports, sawmillers relied almost exclusively on the local market to sell their product. By 2010 the domestic market for sawnwood had fallen by 46%. However, 2010 saw a significant turnaround for the Irish timber industry as Ireland became a net exporter of sawnwood for the first time since 1961, the first year in which forest products statistics were kept by the FAO. This was achieved by sawmills investing heavily in new equipment and producing new products lines and increased penetration of the UK market. This was a highly successful strategy with the
latest figures available showing that of the €430 million exported in 2019, €350m went to the UK. Even with BREXIT the UK is likely to remain the principle market for Ireland’s sawn wood into the future.

Significant legislative changes also took place in this period with a particular focus on forests. In Ireland the Forestry Act 1946 was revised and now provides for regulations which will facilitate the development of the sector which is consistent with the objectives of environmental protection. The Forestry Act 2014 came into force on the 24th May 2017. Other developments in the EU had a particular focus on reducing deforestation globally including the introduction of the European Union Timber Regulation (EUTR), which came into force in the EU in 2013. Changes to planning legislation to provide a single consent system for the construction of forest roads and entrances was also enacted in 2019.

From a plant health perspective disease such *Hymenoscyphus fraxineus* (Ash Dieback disease) and *Phytophthora ramorum* in Japanese larch has had significant impacts on Irish forests. Ash dieback disease was first identified in Ireland in 2012 and is now present in all counties. Breeding for tolerance to Ash dieback disease is ongoing.

The Climate Action Plan was published in 2019 setting out an all-of-Government approach to delivering changes across all sectors. Reducing greenhouse gases and transitioning to a low carbon economy will require significant actions in the way we go about our daily lives. The important role that forests play in climate change mitigation and adaptation is recognised in the plan and a series of actions are in the process of implementation.

The last decade has seen the importance of long-term investment by the State in forestry and the 22,000 landowners who have planted since the 1990s. These forests will continue to deliver multiple benefits in the form of timber, employment and ecosystems services now and into the future.
Irish seafood exports totalled €577 million in 2019.

195,000 tonnes or €275 million worth of Total Allowable Catch was secured for Ireland for 2020.

Over 16,150 people are directly and indirectly employed in the Irish seafood sector.

5.1 Overview

The seas around Ireland are among the most productive and biologically sensitive areas in EU waters. As an island nation fishing has always been economically and socially important to Ireland. The natural, clean water around Ireland’s 7,500km of coastline has provided exceptionally good seafood for thousands of years and it is important to protect this resource for future generations. Most of the fisheries resources within the area come under the remit of the Common Fisheries Policy (CFP).

The Common Fisheries Policy (CFP) that is currently in place came into force on the 1st January 2014. This policy is reviewed every 10 years with the next review scheduled for completion by the end of 2022. The overarching goal of this policy is to ensure that fishing and aquaculture are environmentally, economically and socially sustainable, thus resulting in a competitive and viable seafood sector for all.
Over 16,150 people are directly and indirectly employed in the Irish seafood sector, many of them based in Ireland’s remote coastal communities where alternative employment options are limited. The success of the Irish seafood industry is vital to the economies of these regions, where it provides employment on fishing vessels, fish farms, in processing operations and in the distribution of seafood.

### 5.2 General Fisheries Situation in Ireland and the EU in 2019

**Ireland:**
According to the CSO the value of Irish seafood exports in 2019 was estimated to be in the region of €577 million, a slight increase on the value attained in 2018. The value of exports of salmon and mackerel, Ireland’s most valuable seafood exports, both increased in 2019 after challenging conditions in 2018. Salmon increased by 28% in value with a volume increase of 22%, while mackerel exports increased in value by 7% despite an 8% drop in volume.

**EU:**
The main EU markets, France, Spain, Italy, Poland and Germany account for approximately 55% (€315m) of total exports by value.

**International:**
The International market accounted for approximately 36% (€206 million) of total exports in 2019. Exports to the three main Asian markets (China, Republic of Korea and Japan) were stable in value terms in 2019 compared to 2018. These markets accounted for 14% (€81 million) of total seafood export values. The wider South East Asian markets (China, Republic of Korea, Japan, Taiwan, Vietnam, Singapore, Malaysia and Thailand) accounted for over 15% (€86m) of total export values in 2019. Nigeria is also an important market for Irish fish with exports of 33,660 tonnes in 2019, mostly of frozen mackerel and frozen blue whiting. While 17% of our fish exports by weight went to Nigeria the value was closer to 5%. In contrast almost 15% of our fish exports by weight went to France with the value representing 25% of total fish exports.
5.3 Seafood Exports

Trade:

In the pelagic sector, where the main commercial pelagic species caught by Irish vessels include mackerel, herring, horse mackerel and blue whiting, a reduction of 20% in Ireland’s total allowable catch for mackerel had a direct impact on the volumes exported in 2019. However, prices and demand for Irish mackerel were strong particularly in Asia, where there was a shortage of stocks. The best performing pelagic markets in 2019 were in Asia and in Europe, while significant growth was seen in the UK and Middle East. Demand for Irish mackerel in China increased by around 61% in value during 2019.

The African markets performed well earlier in the year but struggled to match the new price levels resulting in an annual reduction in both value and volume of about 26%. Core markets in Europe saw an increase in export values of 4% yet volumes declined 5%. Spain remains our main market for whitefish followed by the UK and France. The Irish whitefish total allowable catch remained relatively stable in 2019 compared to 2018.

Export values and volumes of Irish shellfish fell in 2019 after a number of challenges affected production throughout the year.

The Irish oyster sector had a bad year with export values and volumes decreasing by 14%. Exports of oysters to France and China declined significantly in 2019 with growth only seen in exports to the Netherlands and the United Kingdom; however these markets are relatively small.

In 2019, salmon export values increased by 28% driven by a 22% increase in volume and further price increases. The volume of fresh or chilled Atlantic salmon exported in 2019 increased by 33%. The French market continued to dominate Irish salmon exports, accounting for 40% of the total value in 2019. Exports to Poland doubled in 2019 from 1,000 tonnes to over 2,000 with value increasing from €9m to €21m year on year.

Source: Central Statistics Office, Trade Statistics 2019
Brexit

Fisheries is one of the areas which will be most impacted by Brexit. For Ireland and the EU27 the position on fisheries is agreed and set down in the EU negotiating mandate, which states at paragraph 89 that:

- ‘The provisions on fisheries should uphold existing reciprocal access conditions, quota shares and the traditional activity of the Union fleet, and therefore:
- uphold continued reciprocal access, for all relevant species, by Union and United Kingdom vessels to the waters of the Union and the United Kingdom;
- uphold stable quota shares, which can only be adjusted with the consent of both Parties.’

The EU negotiating mandate commits that any fisheries agreement can only be agreed in the overall context of the future relationship in paragraphs 17, 86 and 90. It is also provided for in paragraph 73 of the Political Declaration.

The Programme for Government 2020 commits to ‘defending the interests of Irish agriculture, fisheries, export businesses and the wider economy’ and prioritises ‘achieving the best possible deal for the Irish fishing industry in relation to access conditions, quota shares and the traditional activity of the EU fleet, while insisting that fisheries issues are dealt with as part of an overall trade deal.’ By working closely with stakeholders and other concerned EU Member States, Ireland has ensured that Irish and EU fisheries interests and concerns remain high on the EU agenda and that fisheries have not been isolated in the overall Brexit negotiations.

Source: Central Statistics Office, Trade Statistics 2019
Ireland has been working intensively in the European preparations for the UK’s exit from the EU. All impacted Member States, in particular the Group of 8 Member States whose fishing industries would be most impacted by Brexit, including Ireland, France, Germany, Spain, Denmark, Sweden, the Netherlands and Belgium, are striving to mitigate the potential impacts of Brexit on fisheries. There have been intense interactions including with the Chief Negotiator Mr Michael Barnier and the EU Commissioner for Environment, Oceans and Fisheries, Virginijus Sinkevičius. The Group of 8 continue to reiterate their full commitment to the EU negotiating mandate and delivering an outcome that upholds our existing access and quota shares.

More than 70% of the total Irish fishing fleet, greater than 12 metres in length, operating in both whitefish and pelagic fisheries, would be impacted by loss of access to UK waters. Six fisheries including the high value prawn and mackerel fisheries, involving 173 of the largest Irish fishing trawlers would be most reliant on UK waters. Over a third of Irish landings come from the UK waters and for our most important stocks (mackerel and prawns) the figures are higher. Our fishing fleet is strongly dependent on access to fishing grounds in the Irish Sea, Celtic Sea and West of Scotland, which are wholly or partly within UK waters. The EU Member States most dependent upon landings from the UK zone are Belgium (50%), Ireland (34%), Denmark (30%), Netherlands (28%), France (19%) and Germany (18%). In absolute financial terms, France would be the biggest loser.

The UK demand is that quota shares are established on the basis of ‘zonal attachment’ and each year access to the UK fishing grounds are ‘purchased’ using the transfer of EU quota to the UK as recompense for this access. If the UK zonal attachment demand was applied, it would have huge negative consequences on Irish fisheries because the UK could claim a much higher proportion of the available fishing quotas for each stock each year. The UK ‘zonal attachment’ claim is based on the level of catches taken from UK waters. If this criterion was used, it would result in Irish fish quotas being cut by 35% in value. The displacement of the EU fleet from the Irish exclusive economic zone (EEZ) and/or the reduction in EU quota shares, if remedial measures are not taken, is likely to:

- lead to serious over-exploitation of stocks in our own EEZ;
- deliver substantial cuts to many of our quotas;
- cause a substantial control challenge for the Irish navy, and potentially conflict at sea.
The value of exports of salmon and mackerel, Ireland’s most valuable seafood exports, both increased in 2019 after challenging conditions in 2018.
The Programme for Government provides that it will:

- Ensure protection of the interests of the Irish Fishing industry, by insisting that a Fisheries Agreement with the UK is concluded as an integral part of an overall EU Free Trade Agreement with the UK.
- Recognise that the critical issue in these negotiations for the Irish industry is continued access to UK waters and quota share and the danger of displacement of the EU fleet into Irish territorial waters.

The UK Landbridge is a commonly used trade route for the transport of fishery products landed to Irish ports by vessels of various EU Flag States. The Programme for Government 2020 assures to ‘continue to underline the importance of the UK Landbridge with the European Commission negotiating team and engage with our partners in France, the Netherlands, Belgium and Germany, to ensure the UK Landbridge remains a viable and efficient route to market.’ DAFM continues to work closely with the Department of Foreign Affairs and Trade, and our European colleagues on this important issue.

The implementation of the Northern Ireland Protocol is also highlighted as a key priority in the Programme for Government 2020. The practical application of the withdrawal arrangements under the Northern Ireland Protocol in respect of a fisheries is under consideration. The Voisinage arrangement, which gives access to fish in Irish waters from the baselines to six nautical miles for Northern Ireland owned and operated vessels, and gives Irish fishing vessels access to Northern Ireland waters from the baselines to six nautical miles, may also need to be provided for in a new Fisheries agreement.

The Programme for Government 2020 commits that the new Government ‘will work to ensure that Ireland is Brexit-ready for all possible outcomes.’ The focus now will be to continue to work to ensure the best possible outcome for the seafood sector.

5.5 Common Fisheries Policy

One of the main objectives of the Common Fisheries Policy (CFP) is to allow for the rebuilding of fish stocks in European waters over time, which will support the viability of the European fishing industry through long term management of stocks, reducing and eliminating discards and rebuilding stocks to Maximum Sustainable Yield (MSY).

Implementation of the key elements of the CFP continued throughout 2019 at both EU and national level. Some of the key features are:

**Maximum Sustainable Yield** - Maximum Sustainable Yield (MSY) is the level which allows the highest catch of fish while keeping stocks sustainable in the long term. 2019 marked the deadline under the Common Fisheries Policy (CFP) to end overfishing by setting Total Allowable Catches (TAC) in accordance with the scientific advice. This means that for most stocks, where sufficient advice is available, quotas have been set at levels that ensure long-term sustainability, in line with the MSY principle.

At the December 2019 Agriculture and Fisheries Council, fishing opportunities or TACs were negotiated and fixed in line with the MSY objective. 195,000 tonnes of quotas worth €275 million was secured for Irish fishermen for 2020.

**Phased ending of discards** – The discard ban or landing obligation, which is a key element of the Common Fisheries Policy (CFP), was phased in over a number of years and was fully implemented in 2019. The ending of the wasteful practice of discarding fish is a key tool for the long-term conservation and sustainability of fish stocks around our shores and the long term sustainability of fishing in Ireland and throughout EU waters. The phased implementation period allowed the fishing industry to adjust and implement changes to avoid non-target species.
Multi-annual fisheries plans - The aim of multi-annual fisheries plans is to restore and maintain fish stocks at sustainable levels while ensuring the social and economic viability for fishermen operating in certain regions. In March 2019, the European Council adopted the multiannual plan for management of fisheries in Western Waters, which is extremely important from an Irish perspective. The regulation sets out a comprehensive management plan including all relevant fish stocks and sets fishing objectives for the key target species. It ensures these stocks are fished in line with the MSY principle while by-catches are managed accordingly to the precautionary approach.

Regionalisation - The last reform of the CFP changed the way in which the Common Fisheries Policy is managed, giving EU Countries with mutual interests greater control at national and regional level. The North West Waters Regional Group of Member States (Ireland, Belgium, France, Netherlands, Spain and, formerly, the UK) meet regularly, to agree discard plans and other fisheries measures in consultation with the relevant stakeholders. The North Western Waters (NWW) Group consults the relevant Advisory Councils on a regular basis. The Advisory Councils comprise stakeholders from the fishing industry, environmental NGOs, consumers representatives, recreational anglers and civil society. The NWW Group met throughout 2019 to discuss various implementation issues and to work on additional measures following the full implementation of the landing obligation.

5.6 Fish Quota Management

In 2019, DAFM was responsible for managing over 193,606 tonnes of fish quotas. The management arrangements for quotas differ from species to species and are determined by the Minister for Agriculture, Food and the Marine following regular formal consultation with Industry representatives. A key objective of whitefish quota management is the avoidance of very early closure of fisheries through rapid exhaustion of the quota. This is important because our whitefish fisheries are mixed and an early closure may lead to discarding of fish and would undermine the effective implementation of the landing obligation which prohibits discarding of fish at sea.

There are 9 principal managed pelagic stocks (Mackerel, Irish Sea Herring, Celtic Sea Herring, North West Herring, Atlanto-Scandian Herring, Horse Mackerel, Blue Whiting, Boarfish and Albacore Tuna) and the particular management of each is further subdivided between various sectors of the fleet. The fishing of pelagic species is generally confined to the spring and the autumn. Since 1 January 2015 pelagic stocks have been subject to the landing obligation.

To align the principles of the landing obligation to Ireland’s quota management system, in December 2017 a conservation measure (a Pilot Quota Balancing Policy for Pelagic Stocks) was put in place at the request of and in cooperation with Industry representatives. This was expanded to cover 5 key Demersal (whitefish) stocks in policy set down in April 2019.

The Quota Balancing system is a management conservation and rational exploitation measure to aid matching catch limit to actual catch to support landing obligation requirements. The landing obligation as provided for under Article 15 of Regulation (EC) No.1380/2013 (CFP) relates to conservation. Quota balancing means that when a catch allocation to a vessel is exceeded, a balancing adjustment will be made from future allocations of fishing opportunities and will operate independently of any action being considered or taken by the control authorities.

Quota Balancing is being implemented on a phased basis. Pelagic stocks were quota balanced for the years 2018 and 2019. Quota Balancing for the five key Demersal (Whitefish) Stocks will be implemented in 2020.
5.7 The Irish Fishing Fleet

The Irish fishing fleet can be broken down into five categories:

**Specific**
This category covers vessels permitted to fish for bivalve mollusc and aquaculture species. There were 151 vessels registered under this category at year end 2019.

**Polyvalent**
Polyvalent vessels totalling 1,723 made up the majority of the Irish fishing fleet in 2019. These vessels are multi-purpose and include both smaller inshore vessels and medium or large offshore vessels used to land whitefish, pelagic fish and bivalve molluscs.

**Beam Trawler Segment**
This category contained 10 vessels dedicated to beam trawling, a simple trawling method used predominantly in Irish inshore waters (except in the southeast), where it is used to catch flatfish such as sole and plaice.

**Refrigerated Seawater (RSW) Pelagic Segment**
This segment contained 23 vessels engaged predominantly in fishing for pelagic species (primarily herring, mackerel, horse mackerel and blue whiting).

**Aquaculture Segment**
The 97 vessels in this category must be exclusively used in the management, development and servicing of aquaculture areas and can collect mussel seed subject to an authorisation for that purpose under section 13 of the Sea-Fisheries and Maritime Jurisdiction Act 2006, as part of a service to aquaculture installations.

### Table 5.1 The Irish Fishing Fleet 31 December 2019

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<tr>
<th>Segment</th>
<th>Number of vessels</th>
<th>Gross Tonnes</th>
<th>Kilowatts (KW)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Polyvalent</td>
<td>1,723</td>
<td>32,918</td>
<td>117,177</td>
</tr>
<tr>
<td>Pelagic</td>
<td>23</td>
<td>24,876</td>
<td>47,109</td>
</tr>
<tr>
<td>Beam Trawl</td>
<td>10</td>
<td>1,139</td>
<td>2,818</td>
</tr>
<tr>
<td>Specific</td>
<td>151</td>
<td>2,267</td>
<td>12,240</td>
</tr>
<tr>
<td>Total</td>
<td>1,907</td>
<td>61,200</td>
<td>179,344</td>
</tr>
<tr>
<td>Aquaculture</td>
<td>97</td>
<td>4,280</td>
<td>11,673</td>
</tr>
</tbody>
</table>

Source: Licensing Authority for Sea Fishing Board
5.8 Employment

With over 16,000 direct and indirect jobs across fisheries, aquaculture, processing and ancillary sectors, the seafood industry plays a vital role in the sustainable economic viability of many coastal communities across Ireland.

Table 5.2 Employment in the Seafood Industry, 2018 and 2019

<table>
<thead>
<tr>
<th></th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Full Time</td>
<td>Part Time</td>
</tr>
<tr>
<td>Fisheries</td>
<td>2,603</td>
<td>628</td>
</tr>
<tr>
<td>Aquaculture</td>
<td>1,064</td>
<td>861</td>
</tr>
<tr>
<td>Processing</td>
<td>2,904</td>
<td>988</td>
</tr>
<tr>
<td>Ancillary</td>
<td>5,311</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td><strong>14,359</strong></td>
<td></td>
</tr>
</tbody>
</table>

Source: Bord Iascaigh Mhara

5.9 Aquaculture

In December 2016, an independent Aquaculture Licensing Review Group was appointed by the Minister to review the process of licensing for aquaculture and its associated legal framework. The report of the Licensing Review Group was submitted to the Minister in May 2017.

The Review Group carried out a detailed investigation of the existing aquaculture licensing process, undertook comprehensive stakeholder consultation and examined comparative national and international consent systems to determine best practice for managing a complex licensing process in a transparent, environmentally appropriate and legally robust manner.

Since receiving the Report of the Review Group, DAFM has engaged in detailed consideration of the recommendations set out in the Report with a view to their implementation, having regard to the legislative, environmental, technical and public interest issues that arise. DAFM has also engaged closely with industry representatives and relevant State Agencies.
5.10 Aquaculture Licensing

In 2017 DFAM put in place a two-year programme to eliminate the backlog of shellfish licensing applications. This resulted in 305 and 324 licence determinations achieved in 2018 and 2019 respectively.

Figure 5.3: Aquaculture Licence Determinations 2012-2019

![Aquaculture Licence Determinations 2012-2019](image)

**Source:** Department of Agriculture, Food and the Marine

Approximately 1200 licence determinations have been made since 2012, with 305 and 324 licence determinations achieved in 2018 and 2019 respectively. This eliminates the shellfish licensing backlog as an issue affecting the aquaculture industry. The elimination of the shellfish licensing backlog is a significant development for the industry and provides the solid footing for the future.

The processing of applications for finfish licences in the marine environment is significantly more complex than the situation in relation to shellfish aquaculture, due to the requirement for operators to produce Environmental Impact Statements/Environmental Impact Assessment Reports and for DAFM and relevant Agencies to analyse these reports in detail. DAFM must then produce an Environmental Impact Assessment in relation to each application.

DAFM currently has seven new/renewal applications for finfish licences on hand for which recent Environmental Impact Statements/Environmental Impact Assessment Reports were submitted. These applications and environmental reports are being examined with a view to progressing to the public and statutory consultation phases of the licensing process.

DAFM has formally requested finfish operators to submit Environmental Impact Statements for the remainder of the licence renewal applications held. This request issued to all operators in December 2018 and it specified the deadline for submission of the necessary documentation to be 30th September 2019. The deadline for submission of the Environmental Impact Statements has been extended on two occasions, the most recent to 31st December 2020 in response to indications from industry that meeting such deadlines has proven and continues to be challenging. As of now, the initiative lies with the finfish operators to respond to the DAFM’s request. The current COVID-19 crisis may have an impact on this.

Currently the operators in question continue to operate their salmon farms under the provisions of Section 19A (4) of the 1997 Fisheries (Amendment) Act. This effectively allows them to continue to operate (after the expiry of their aquaculture licences) subject to the terms and conditions of their original aquaculture licences pending the determination of their renewal applications.
5.11 Inshore Fisheries and Natura 2000 Management

Developing Sustainable Inshore Fisheries

The National Inshore Fisheries Forum (NIFF) met on four occasions during 2019 to discuss and develop proposals concerning inshore fisheries and their interactions with Natura 2000 sites. The NIFF and the supporting network of six Regional Inshore Fisheries Forums (RIFFs) were established to facilitate development and implementation of policies and initiatives relating to the sustainable management of inshore fisheries. Since their inception, the Forums have developed initiatives seeking to protect the future of a sector which is extremely important for Irish coastal communities. The Irish inshore sector comprises fishing boats of less than 12 metres in overall length, which are predominately active within six nautical miles of the Irish shore. The RIFFs cover six regions around the coast: North East, South East, South West, West, North West and North. The Forums involve representation from inshore fishermen, environmental interests, marine leisure, marine tourism and other marine stakeholders. A dedicated website provides information on the work of the Forums: www.inshoreforums.ie.

In January 2019, the NIFF finalised a strategy for the Irish inshore fisheries sector. The Strategy for the Irish Inshore Fisheries Sector 2019-2023, which was launched in February, is the first industry-led blueprint for the sector. The NIFF first identified the development of a strategy for the sector as a priority in 2017. The strategy was developed through an extensive process involving the NIFF and the RIFFs, and an inclusive approach was taken to identifying key issues and priorities for the sector, including a steering group with industry and State partners, a dedicated workshop and public consultation. The development process was co-funded by the Government of Ireland and the European Union under Ireland’s European Maritime and Fisheries Fund Operational Programme. The strategy identifies objectives and actions that will shape the work of the Forums over the next few years. Bord Iascaigh Mhara (BIM) is leading implementation of the strategy, which will seek to target funding support available under the European Maritime and Fisheries Fund to where it can be most effectively used. A strategy implementation group, which includes DAFM, BIM, the Marine Institute, the Sea-Fisheries Protection Authority and industry representatives, has identified priority actions under the strategy and is monitoring and driving implementation progress.

An industry proposal recommended by the NIFF to increase the Minimum Conservation Reference Size (MCRS) for landings of brown crab was approved in January 2019. This conservation measure raised the MCRS to 140mm for brown crab taken by Irish sea-fishing boats in waters around Ireland (ICES areas VI and VII), an increase on the 130mm MCRS set out in EU legislation. The proposal was initiated by members of the fishing industry in the South East, and brought forward by the South East RIFF, to support the sustainability of the brown crab fishery by allowing brown crab more time to reproduce. The introduction of the measure followed an extensive consultation process involving the NIFF and RIFFs. Also, a three-week public consultation on the proposal was held in 2018, with 27 of the 28 submissions received supporting the increase. The measure was given legal effect through a statutory instrument (S.I. No. 26 of 2019).

Another industry initiative, to provide legal protection for v-notched crawfish, was approved in May. This conservation measure prohibits v-notched crawfish from being landed by or retained onboard Irish sea-fishing boats or being offered for sale. Such crawfish need to be returned alive to the sea. The measure stemmed from a proposal developed by members of the fishing industry in the southwest in consultation with the Marine Institute. Industry members sought legal protection for crawfish v-notched under a Marine Institute research project in that region. The protection should enable the multiple recapture and release of v-notched crawfish that will provide information on migration, growth and reproduction and promote an increase in the spawning potential of crawfish. The proposal was brought forward through the South West RIFF and, with unanimous support from the RIFFs, was recommended by the NIFF and this conservation measure was given legal effect through a statutory instrument (S.I. No. 289 of 2019).
In January 2019, the NIFF finalised a strategy for the Irish inshore fisheries sector.

The Strategy for the Irish Inshore Fisheries Sector 2019-2023, which was launched in February, is the first industry-led blueprint for the sector.
Management of the all-island mussel seed fishery continued in 2019, with the autumn fishing season commencing in the Irish Sea in late September and starting in Castlemaine Harbour, Co. Kerry, in early October (see Natura 2000 section below). The fishery continues to be certified by the Marine Stewardship Council (MSC). The current certification, which was issued in 2018 and is valid for five years, says the fishery has been found to comply with the MSC requirements and is well-managed and sustainable. This follows a previous conditional certification received in 2013. At the end of 2019, a six-week public consultation took place to seek the views of those with an interest in the Irish Sea mussel seed fishery regarding the management arrangements in place for the fishery. The consultation concluded on 31 December with 86 submissions received. The information received during the public consultation will inform policy decisions on the management arrangements for the fishery. The aim is to examine the current management arrangements for the fishery and consider changes that could better support productivity and sustainability.

**CASE STUDY**

**Strategy for the Irish Inshore Fisheries Sector 2019-2023**

The Irish inshore sector comprises fishing boats of less than 12 metres in overall length, makes up approximately 80% of the Irish fishing fleet, operates from communities all around the Irish coast, and supports an estimated 2,500 to 3,000 jobs. In 2017, the National Inshore Fisheries Forum (NIFF) set out to develop the first industry-led strategy for the sector.

A Steering Group was made up of industry members from NIFF and State partners, including DAFM and the marine agencies. An inclusive approach was taken to identify key issues and priorities for the sector, including a dedicated workshop with industry stakeholders, as well as a public consultation. The development process was co-funded by the Government of Ireland and the European Union under Ireland’s European Maritime and Fisheries Fund Operational Programme.

The NIFF finalised the Strategy for the Irish Inshore Fisheries Sector 2019-2023 at the start of 2019, and it was launched that February. The strategy identifies a number of objectives linked to specific actions that will shape the work of the Inshore Fisheries Forums over the next few years. Bord Iascaigh Mhara (BIM) is leading implementation of the strategy, in partnership with the NIFF and the inshore sector. The implementation process will seek to target funding support available under the European Maritime and Fisheries Fund to where it can be most effective.

A strategy implementation group, which includes the DAFM, BIM, the Marine Institute, the Sea-Fisheries Protection Authority and industry representatives, is monitoring and driving implementation progress. Priority actions under the strategy have been identified by the implementation group, and it has set up three working groups to address these, focusing initially on the development of an inshore sector profile, building the capacity of the sector to engage with policy development and increasing the sector’s understanding of inshore fisheries management.
Implementation of Natura 2000 Directives
Natura 2000 is an EU network of core breeding and resting sites for rare and threatened species, and some rare natural habitat types which are protected in their own right. The Marine Institute (the state agency responsible for marine research, technology development and innovation in Ireland) previously prepared a risk assessment of sea-fisheries interactions with Natura 2000 protected species and habitats along the South and West coasts of Ireland. It expects to complete a similar assessment for protected bird species in 2020. These assessments are being made under Article 6.2 of the European Union’s Habitats Directive. A similar risk assessment was completed by the Institute in 2013 for fishing activities in Natura 2000 sites in the Irish Sea (East coast). Working with the National and Regional Inshore Fisheries Forums, the Government has commenced actions to address risks posed by sea-fisheries activities on a priority basis.

A request to amend the fisheries Natura plan for the mussel seed fishery in Castlemaine Harbour, Co. Kerry, was made in September 2019 by Bord Iascaigh Mhara (BIM) on behalf of industry members in the harbour. BIM provides the Secretariat for the Bottom Grown Mussel Consultative Forum. On screening, the requested amendment was not found to be a material change to the plan that would require appropriate assessment, and amendment was approved at the start of October 2019. Also, a fisheries Natura declaration was issued in October to extend the boundaries of an area around Dalkey Island where fishing for mussels is prohibited, accepting a recommendation from the Marine Institute to close the area on a precautionary basis due to the presence of protected reef habitat.

Clean Oceans Initiative
The Clean Oceans Initiative was launched in January 2019 to address the issue of marine plastic pollution. During the first 12 months of the Clean Oceans Initiative, 96% of Irish trawlers signed up to the initiative. BIM and the Harbour Masters of the 6 Fishery Harbour Centres owned and managed by DAFM, have been working with the fishing industry in relation to the pollution in our marine environment and marine litter. DAFM and BIM will continue to work with the fishing industry in 2020 to gain 100% participation to the initiative.

There are two EU Directives that will be a key driver in relation to marine litter in 2020.

Single Use Plastics Directive
Directive (EU) 2019/904, published on 12 June 2019, forms part of the European Commission’s plastics strategy which commits the EU to tackling litter, boosting recycling rates and improving the design of plastic products. The directive must be transposed by 3 July 2021. BIM has been working with the fishing industry for a number of years to tackle the pollution in our marine environment and is the lead agency in relation to matters of marine litter.

The objectives of this directive, which apply to fishing gear containing plastic include:

- Reducing the impact of fishing gear containing plastic on the environment and human health;
- Promoting the transition to a circular economy; and
- Fostering innovative business models, products and materials.

DAFM is actively engaged with the Department of Communications, Climate Action and Environment to support the transposition of the Single Use Plastics Legislation into Irish law.

Port Reception Facilities Directive
Directive (EU) 2019/883 of the European Parliament and of the Council of 17 April 2019 on port reception facilities for the delivery of waste from ships, amending Directive 2010/65/EU and repealing Directive 2000/59/EC requires that vessels land waste they produce during voyages to and between EU ports to Port Reception Facilities. It also requires ports to develop waste handling plans and provide Port Reception Facilities to the ships using their ports. It builds on existing international arrangements, principally MARPOL 73/78. These regulations apply to all ships (including fishing vessels and recreational craft) and all ports within the State visited by such ships.
Local competent authorities (in most cases the port in question) must develop and implement an appropriate waste reception and handling plan for their respective ports. The plan should be available for public inspection and also available to all port users at the port. DAFM is working with the Department of Transport, Tourism and Sport to support the transposition of the Port Reception Facilities Legislation into Irish law before the 28 June 2021 deadline.

5.12 Sustainability in the sector

Common Fisheries Policy-Maximum sustainable yield (MSY)
The Common Fisheries Policy stipulates that fishing will be progressively managed at maximum sustainable yield (MSY) levels where possible by 2015 and by 2020 at the latest. In practice this means taking the highest possible amounts of catches from the sea, while keeping fish stocks healthy. In the North-East Atlantic and adjacent waters (North Sea, Baltic Sea, Skagerrak, Kattegat, West of Scotland Sea, Irish Sea and Celtic Sea), EU fisheries ministers set overall catch limits based on scientific advice. These total allowable catches (TACs) are then divided into national quotas, which set limits on the amount of fish that can be caught.

The catch limits set for the species in the waters around Ireland have seen over-exploitation decline significantly over the last number of years. In the northeast Atlantic, the pressure on fish stocks from fishing has decreased steadily since 2003 with biomass (the measure of a quantity – usually weight – of stocks) increasing since 2007.

Marine Strategy Framework Directive (MSFD)
Under the Marine Strategy Framework Directive, Ireland is required to take measures towards achieving and maintaining Good Environmental Status (GES) for its waters by 2020. The criteria for determining GES includes areas such as: integrity of the seabed, the status of commercial fish and shellfish stocks, and by-catch impacts on non-commercial fish and other marine fauna.

From mid-2019 to early-2020, work was undertaken on compiling data for the second cycle of the Marine Strategy Framework Directive (MSFD) and is being led by the Department of Housing, Planning and Local Government. This resulted in a report for the European Commission on whether GES is being achieved for different areas. This process will eventually result in a new Programme of Measures which will take into account any developments in the GES observed since the last cycle of environmental status allocation. The Sea-Fisheries Policy and Management Division (SFPMD) sits on both the working group and the National Steering Group for MSFD.
5.13 Research Projects: Fisheries & Aquaculture

**ToxVib: Genomics to Investigate Risks of Toxin-Producing Vibrio in Irish Shellfish.** The marine bacteria Vibrio cause gastroenteritis after consumption of infected shellfish. Due to climate change and warmer marine waters, these bacteria have now extended into Europe, leading the EU to classify Vibrio as emerging pathogens posing a serious threat to human health. Dr Aoife Boyd (NUIG) and Dr Fiona Walsh (MU) will investigate potential risks to shellfish aquaculture and human health in Ireland from pathogenic Vibrio. We will assess environmental effects on presence of toxigenic Vibrio in oysters and mussels. Genomic analysis will identify disease-causing genes of Irish Vibrios. Genes for TTX, a potentially fatal neurotoxin recently discovered in European shellfish, will be targeted for developing novel DNA detection methods. This project will help sustain and grow Irish shellfish production, by assessing current and forthcoming risks of pathogenic Vibrio. This knowledge will minimise contaminated shellfish reaching the market and table, reduce cases of seafood-borne gastroenteritis and increase human wellbeing.

**SarcoBlu: Blue whiting protein hydrolysates for management of sarcopenia.** This project focuses on the development of blue whiting protein digestion products (hydrolysates) for application in the management of sarcopenia. Consumption of high quality protein/protein hydrolysates has the potential to reduce the extent of sarcopenia, a condition linked with the loss of muscle mass and strength in the elderly. The specific objectives of this project are: to generate and fully characterise blue whiting protein hydrolysates, to determine the potential of specific hydrolysates to promote cell regeneration and protein synthesis in muscle cells, and to perform a human trial to assess the ability the protein hydrolysates to beneficially alter parameters associated with the risk of developing sarcopenia. In developing scientific evidence of the ability of hydrolysates to protect against the development of sarcopenia, the project will impact public health by improving the quality of life for elderly populations resulting in reduced healthcare costs while adding value to the marine processing sector.
5.14 Highlights

Inshore Fisheries and Natura 2000 Management

The National Inshore Fisheries Forum (NIFF) finalised the first industry-led strategy for the Irish inshore fisheries sector in January 2019. The Strategy for the Irish Inshore Fisheries Sector 2019-2023 was launched at the end of February 2019. It identifies objectives and actions that will shape the work of the Inshore Fisheries Forums over the next few years. Bord Iascaigh Mhara is leading the strategy’s implementation, and a strategy implementation group (which includes representatives from DAFM, State agencies and industry) is monitoring and driving implementation progress.

Total Allowable Catches (TACs)

The 2020 fishing opportunities or TACs (Total Allowable Catches) secured for Ireland at the December 2019 Agriculture and Fisheries Council amounts to 195,000 tonnes of quotas worth €275million for the Irish Fishing Industry for 2020. This was a balanced outcome, delivering on sustainability objectives and ensuring a strong result against the challenging backdrop of Brexit.

Quotas were first introduced into European fisheries in 1982. Since their introduction Ireland’s has fluctuated quite significantly. These peaks and troughs have largely been driven by variability in pelagic quotas such as blue whiting, horse mackerel and boarfish. Ireland’s 2020 share of the total allowable catch (TAC) for all stocks represents a marginal increase on 2019 but in overall terms is well above the average allocation received over the 1982-2019 period.

Seafest 2019

SeaFest 2019 attracted over 90,000 visitors to Cork City Docklands during the three-day event from 7-9 June 2019. As Ireland’s national maritime festival, SeaFest aims to strengthen our maritime identity, increasing participation and engagement with the sea in accordance with Goal 3 of Harnessing Our Ocean Wealth, Ireland’s Integrated Marine Plan. Working together with Cork City Council and a wide range of partner agencies and organisations, the Marine Institute co-ordinated SeaFest on behalf of the cross-government Marine Coordination Group, which is chaired by the Minister for Agriculture, Food and the Marine. DAFM’s marine agencies, BIM, SFPA and Bord Bia were central to the event.

The associated sixth ‘Our Ocean Wealth Summit’ also took place as part of Seafest. The 750 delegates attending the event on the 10th June at Cork’s City Hall heard from leading national and international speakers including former US Secretary of State John Kerry. The principal discussions focussed on climate change impacts on the health of our shared oceans resources. Minister Michael Creed TD addressed delegates at the Summit, welcoming continuing positive growth trends in Ireland’s Blue Economy and sharing Ireland’s recent experiences with sustainable blue growth initiatives. The Minister also launched, on behalf of Government, the annual Harnessing Our Ocean Wealth Review of Progress.

At a local level in the host city of Cork, it is estimated that SeaFest and associated events in 2019 generated €4.1 million in direct income for the city’s tourism industry. SeaFest also received a national award for ‘Best Cultural Event’ at the 2019 Event Industry Awards and was described by judges as “a great celebration of Ireland’s maritime heritage that serves an important cultural purpose”.


5.15 Ireland and EU Outlook 2021-2022

The EU faces an unprecedented challenge over the next number of years as it adapts to managing fish stocks shared with the UK. At this point, it is not clear how the UK’s withdrawal from the EU will be effectively managed from a fisheries perspective. It is likely that the UK, in the short term at least, will follow the same policy as the EU in terms of setting TACs in line with MSY. However, there is no clarity on how the UK will address issues such as the discards ban, technical measures and by-catch only stocks.

A review of the current Common Fisheries Policy (CFP) is expected to be completed by the end of 2022. The European Commission has indicated that it will commence the review process when there is clarity on the future relationship of the EU and the UK. The review of the CFP is a detailed process involving extensive consultation with stakeholders across the EU.

The fishing industry, like all sectors of the economy, has been impacted by the COVID-19 Pandemic. Nonetheless, in spite of the difficulties, the fishing industry has continued to keep food in our shops and on our tables during this extraordinary time. This has highlighted the vital role that the fishing industry plays in the food chain. This, in turn, underscores the importance of ensuring the sustainability of our fish stocks. Due to the closure of the food service sector around the world during the pandemic and transportation issues, exports of fish from Ireland were down around 20% in value during the first four months of 2020.

The need for a sustainable and resilient food chain to ensure food security is central to the EU’s Farm to Fork Strategy published in May 2020. This aim of this strategy is to accelerate the EU’s transition to a sustainable food system.

These strategies will help us to continue to build on the progress that has been made to date – build and maintain healthy fish stocks, protect vulnerable species and protect the marine ecosystem upon which our fishing industry, and the communities it supports, depends.
5.16 Fisheries & Aquaculture decade review

The Common Fisheries Policy

The Common Fisheries Policy (CFP) which is currently in place came into force on the 1st January 2014. This was one of the key achievements of the Irish Presidency in 2013 and was secured after many months of complex negotiations with the European Parliament. This policy is reviewed every 10 years with the next review scheduled for completion by the end of 2022. This radical reform placed the concept of long-term sustainability at the core of fisheries policy with the aim of ushering in a new era of more sustainable fishing.

Some of the key features of the CFP which have been delivered over the period from 2014 include:-

- **Fishing at Maximum Sustainable Yield by 2020**: At the December 2019 Agriculture and Fisheries Council, fishing opportunities or TACs (Total Allowable Catches) were negotiated and fixed in line with the MSY objective. For 32 of the 47 stocks of particular interest to Ireland, the quotas for 2020 were set at or below the scientific advice where available, meeting MSY criteria. For other stocks, the Council agreed restrictive or precautionary quotas to allow for unavoidable by-catches or the collection of scientific data.

- **Landing Obligation implemented by 1 January 2019**: The objective of the Landing Obligation (also referred to as the ‘discards ban’) is to eliminate the wasteful and unsustainable practice of discarding. Since October 2014 the European Commission has adopted several discard plans, within the parameters laid down in Article 15 of the Common Fisheries Policy, in the waters of interest to Irish fishermen in preparation for the full implementation of the landing obligation in 2019.

- **Regionalisation**: This was one of the most significant changes introduced by the revised CFP in 2014. Regionalisation gives EU countries greater control at national and regional level on issues such as implementation of the Landing Obligation and technical and conservation measures to protect juvenile fish and vulnerable fish species. Ireland is part of the North Western Waters (NWW) Regional Group of Member States along with France, Spain, Belgium and the Netherlands. The UK was also a member of the NWW group before its withdrawal from the EU. Stakeholders, through Advisory Councils, including the fishing industry, are fully consulted on all options and input into the regular meetings of the North West Waters Group. The EU Commission implements such agreed policies at EU level applicable to the region.

Harnessing Our Ocean Wealth – Developing Ireland’s Blue Economy

Ireland’s Integrated Marine Plan (IMP), Harnessing Our Ocean Wealth was published in 2012 and set out the Government’s Vision, High-Level Goals, and Key ‘Enabling’ Actions to put in place the appropriate policy, governance and business climate to enable our marine potential to be realised.

The cross Departmental Marine Coordination Group (MCG) chaired by the Minister for Agriculture Food and the Marine, continues to review and report on progress in implementing Ireland’s Integrated Marine Plan. This is carried out on an ongoing basis through:

- regular meetings of the MCG and other inter-departmental/agency forums,
- publishing an annual Review of Progress,
- holding an annual Our Ocean Wealth Conference/SeaFest Events, and
- publishing Status Reports/news items on specifications.

The sixth Annual Review of Progress published in June 2019 provides an overview of the main activities across a range of actions undertaken by Government Departments and their State bodies in 2018 in relation to the Marine. A copy of the annual review is available at the following link; https://www.ouroceanwealth.ie/publications.

A review of the first IMP is currently underway and will help to inform future policy in relation to the marine economy.

The first Cycle of the MSFD ran from 2012 to 2018. This involved the setting of initial objectives and indicators as well as the initial assessments. Following this, Monitoring Programmes were put in place and a Programme of Measures (PoMs) was written. The current MSFD PoMs was submitted to the European Commission in July 2016. The main purpose of the PoMs is to put in place actions and measures which will support the meeting of the environmental targets set out under Article 10 of the Directive (Establishment of Environmental Targets), leading to the achievement and maintenance of GES.

Measures DAFM have been involved in implementing include:-

- the inside 6 nautical mile trawling ban from 2020 for vessels over 18m in length overall,
- implementation of the Landing Obligation and Multi-Annual Plans (Sea-Fisheries Policy and Management Division), and
- the Clean Ocean Initiative to remove plastics from the waters (BIM and Marine Programme Agencies Division).

The process for MSFD is cyclical and the second cycle began in 2018.
The value of agri-food exports for 2019 totalled €14.5 billion.

The UK is our largest trading partner with 38% (€5.5 billion) of agri-food products exported in 2019.

The Prepared Consumer Foods sector accounted for over €2.7 billion in agri-food sector exports in 2019.

6.1 Overview

Agriculture is Ireland’s largest indigenous industry. Irish food and agricultural products are produced by thousands of farmers, fishermen and agri-food companies from the four corners of the island. This locally produced food is exported to over 180 countries around the world, with agri-food exports totalling €14.5 billion in 2019. This supply chain stretches from rural and coastal areas all across Ireland to distant markets in Asia, America and Africa, underlining the sector’s pivotal role in the Irish economy.

The value and volume of agri-food products continued to grow steadily in 2019. The value of agri-food exports for 2019 totalled €14.5 billion, up 6% on 2018 figures and up 63% on 2010 values. This growth in exports was driven by an increase of €453m (+10%) in dairy exports, €269m (+19%) in beverages, €96m (+22%) in cereal and cereal preparations, €63m in pigmeat (+8%) and €53m in Miscellaneous Edible Products & Preparations (+20%).
Ireland is an open economy which exports the vast majority of its agricultural products. Irish exports of all goods for 2019 totalled approximately €153 billion in value, a 9% increase on 2018, and a 68% increase since 2010. Merchandising imports totalled just under €90 billion, a 3% decrease on the previous year. Irish exports of agricultural products accounted for 9.5% of total merchandising exports, and 11% of imports in 2019.

**Figure 6.1**  
*Merchandising exports by value, 2009 - 2019*

![Graph showing merchandising exports by value, 2009-2019.](image)

**Source:** Central Statistics Office, Goods Exports and Imports Statistics 2019

This chapter examines agri-food sector exports worldwide, in terms of both traditional agri-food products, like beef, dairy produce and prepared consumer food products. Further information on trade can be found in the Department of Agriculture, Food and the Marine Trade Factsheet on the Department’s website.

**Source:** Department of Agriculture, Food & the Marine Factsheet

### 6.2 Agri-food sector trade

Agri-food sector trade is broken down into 26 categories identified and agreed upon by the Department of Agriculture, Food and the Marine and the Central Statistics Office. Products and Raw Goods are categorised using combined nomenclature (CN) codes, a European harmonised system used to classify goods for customs and trade reasons. These categories include non-edible Agri-food items such as Forestry and Animal Hides and Skins (not included as part of Bord Bia trade statistics), along with traditional Food and Beverage products.

Agri-food exports reached €14.5 billion in 2019, an increase of 6% since 2018 and an increase of 63% since 2010. Imports of agri-food sector products totalled €10 billion in 2019, increasing by 65% from €6 billion in 2010. There was a trade surplus in agri-food products of €4.6 billion in 2019.
In value terms our top five agri-food exports were Dairy Produce, Beef, Beverages, Pigmeat and Fish. Dairy exports were valued at over €5 billion in 2019 a 10% increase on 2018 figures. Beef exports decreased slightly in 2019 to €2.3 billion, a 4% decrease on 2018 figures. Beverage exports increased by €269 million or 19% on 2018 figures. Pigmeat exports increased by €63 million or 8% while fish exports also increased slightly by 0.3% on 2018 figures.
Between 2018 and 2019, agri-food sector exports increased in value across 16 of the 26 agri-food categories. Overall agri-food exports by volume increased by 6% between 2018 and 2019, including an increase of 12% in the volume of Dairy exports, a 19% increase in the volume of Cereal & cereal preparation exports, a 14% increase in the weight of Forestry products, and a further 23% increase in the volume of exports of Fruit and Vegetables.
Table 6.1 Value and volume of agri-food exports by category, 2018 - 2019

<table>
<thead>
<tr>
<th>Industry</th>
<th>2018</th>
<th>2019</th>
<th>% Value change 2018 vs 2019</th>
<th>% Volume change 2018 vs 2019</th>
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<td>Dairy Produce</td>
<td>4,586,929</td>
<td>5,039,996</td>
<td>10%</td>
<td>12%</td>
</tr>
<tr>
<td>Beef</td>
<td>2,434,586</td>
<td>2,348,523</td>
<td>-4%</td>
<td>-1%</td>
</tr>
<tr>
<td>Beverages</td>
<td>1,443,813</td>
<td>1,712,328</td>
<td>19%</td>
<td>11%</td>
</tr>
<tr>
<td>Pigmeat</td>
<td>828,075</td>
<td>911,163</td>
<td>8%</td>
<td>-4%</td>
</tr>
<tr>
<td>Fish</td>
<td>576,515</td>
<td>578,058</td>
<td>0.3%</td>
<td>-10%</td>
</tr>
<tr>
<td>Cereal &amp; cereal preparation</td>
<td>439,542</td>
<td>535,270</td>
<td>22%</td>
<td>19%</td>
</tr>
<tr>
<td>Live Animals</td>
<td>439,776</td>
<td>455,414</td>
<td>4%</td>
<td>2%</td>
</tr>
<tr>
<td>Forestry</td>
<td>425,236</td>
<td>430,271</td>
<td>1%</td>
<td>14%</td>
</tr>
<tr>
<td>Coffee, Tea, Cocoa &amp; Spices</td>
<td>385,221</td>
<td>415,150</td>
<td>8%</td>
<td>4%</td>
</tr>
<tr>
<td>Animal Foodstuffs</td>
<td>345,859</td>
<td>366,719</td>
<td>6%</td>
<td>0%</td>
</tr>
<tr>
<td>Sheepmeat</td>
<td>316,004</td>
<td>317,838</td>
<td>1%</td>
<td>3%</td>
</tr>
<tr>
<td>Miscellaneous Edible Products &amp; Preparations</td>
<td>264,574</td>
<td>317,764</td>
<td>20%</td>
<td>14%</td>
</tr>
<tr>
<td>Poultry</td>
<td>306,220</td>
<td>293,583</td>
<td>-4%</td>
<td>6%</td>
</tr>
<tr>
<td>Fruit &amp; Vegetables</td>
<td>145,735</td>
<td>159,342</td>
<td>9%</td>
<td>23%</td>
</tr>
<tr>
<td>Fruit &amp; Vegetables Based Products</td>
<td>176,896</td>
<td>157,483</td>
<td>-11%</td>
<td>-12%</td>
</tr>
<tr>
<td>Sugar, Sugar Preparation &amp; Honey</td>
<td>146,642</td>
<td>152,364</td>
<td>4%</td>
<td>-26%</td>
</tr>
<tr>
<td>Crude Animal &amp; Vegetable Material</td>
<td>130,597</td>
<td>117,189</td>
<td>-10%</td>
<td>29%</td>
</tr>
<tr>
<td>Animal Skins &amp; Furs</td>
<td>107,690</td>
<td>74,394</td>
<td>-31%</td>
<td>-16%</td>
</tr>
<tr>
<td>Animal Oils &amp; Fats</td>
<td>53,654</td>
<td>94,914</td>
<td>6%</td>
<td>1%</td>
</tr>
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<td>Wood Based Products</td>
<td>52,174</td>
<td>24,843</td>
<td>-31%</td>
<td>-73%</td>
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<tr>
<td>Other Meat &amp; Meat Produce</td>
<td>54,543</td>
<td>20,209</td>
<td>-63%</td>
<td>-50%</td>
</tr>
<tr>
<td>Egg</td>
<td>15,332</td>
<td>8,943</td>
<td>20%</td>
<td>31%</td>
</tr>
<tr>
<td>Oilseeds &amp; Oleaginous Fruit</td>
<td>8,678</td>
<td>21,152</td>
<td>45%</td>
<td>79%</td>
</tr>
<tr>
<td>Vegetable Oils &amp; Fats</td>
<td>11,474</td>
<td>18,677</td>
<td>0%</td>
<td>2%</td>
</tr>
<tr>
<td>Flax, Wool &amp; Animal Hair</td>
<td>9,402</td>
<td>5,677</td>
<td>-24%</td>
<td>-17%</td>
</tr>
<tr>
<td>Cotton</td>
<td>7</td>
<td>3</td>
<td>-64%</td>
<td>-70%</td>
</tr>
<tr>
<td>Grand Total</td>
<td>13,705,177</td>
<td>14,525,829</td>
<td>6%</td>
<td>6%</td>
</tr>
</tbody>
</table>

Source: Central Statistics Office, Trade Statistics 2019
The top five agri-food categories by value, Dairy Produce, Beef, Beverages, Pigmeat and Fish accounted for 73% of total agri-food sector exports in 2019, totalling nearly €10.6 billion.

**Figure 6.4**  
*Agri-food exports by category, 2019*

- Dairy Produce 35%
- Beef 16%
- Beverages 12%
- Pigmeat 6%
- Fish 4%
- Cereal & cereal preparation 4%
- Forestry 3%
- Live Animals 3%
- Coffee, Tea, Cocoa & Spices 3%
- Other 14%

**Source:** Central Statistics Office, Trade Statistics 2019
2019 marked Ireland’s 10th year of increased pigmeat exports. Exports from this sector were valued at €891 million in 2019, an increase of 8% on the previous year. Between 2010 and 2019, this category grew in value by 153% (+€539 million), from just over €352 million to over €891 million. Ireland currently has a €548 million trade surplus in respect of pigmeat, importing €344 million in products in 2019, a slight 0.3% increase on 2018 figures. Pigmeat products are exported to over 50 countries worldwide.

**Figure 6.5 Worldwide pigmeat exports 2010-2019**

The top 10 export destinations by value for pigmeat in 2019 were, the United Kingdom, China, Denmark, Germany, Japan, Australia, France, Spain, United States and the Netherlands. Ireland’s main pigmeat export in 2019 was ‘Hams and cuts thereof, of domestic swine, prepared or preserved’. Hams made up 19% of Ireland’s overall pigmeat exports and is worth nearly €168 million.

Ireland’s largest pigmeat export destination in 2019 was the United Kingdom. In 2019 exports to the United Kingdom totalled over €463 million, a slight 2% decrease on 2018 figures. ‘Hams and cuts thereof, of domestic swine, prepared or preserved’ was Ireland’s top exported commodity to the UK in 2019, making up 27% of total pigmeat exports to the country.

Exports of pigmeat to the United Kingdom decreased by 2% in 2019, from a total of €471 million in 2018 to €463 million. This 2% reduction was largely due to a 27% reduction in exports of ‘prepared or preserved meat, offal and mixtures of swine’, which was mitigated slightly by a 71% increase in exports of ‘Sausages and similar products’ and a 38% increase in the export of ‘Fresh or chilled boneless meat of domestic swine’.

The 5 top import destinations for pigmeat in 2019 was the United Kingdom, Germany, Netherlands, Spain and Denmark, and accounted for 86% of Ireland’s total pigmeat imports.

**Source:** Central Statistics Office, Trade Statistics 2019
6.3 Agri-food sector trade by destination

Agri-Food sector exports by Top 20 destinations, 2019

In 2019 Irish Agri-Food goods were exported to over 180 countries worldwide, with enhanced market opportunities opening for sheepmeat in Japan and enhanced beef access to China in 2019. An expansion of market access for Irish livestock exports to Algeria was achieved in 2020.

The United Kingdom remained our largest trading partner in 2018 with 38% (€5.5 billion) of total exports by value in 2019, a 2% decrease on 2018 figures. The United States was our second largest export destination with the Netherlands in third place, both importing over €1 billion of Irish Agri-food products in 2019.

Trade among the top 20 destinations reached €12.8 billion in 2019.

The highest increases were Nigeria and the United Arab Emirates where exports increased to €163 million and €84 million respectively.
Figure 6.6 Top 10 Agri food destinations 2019

Source: Central Statistics Office, Trade Statistics 2019
### Table 6.2 Value and Tonnage of Agri-food exports by top 25 destinations, 2018-2019

<table>
<thead>
<tr>
<th>Ind</th>
<th>Rank 2018</th>
<th>Rank 2019</th>
<th>Rank Change</th>
<th>2018</th>
<th>2019</th>
<th>2018</th>
<th>2019</th>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>€000</td>
<td>Tonnes</td>
<td>€000</td>
<td>Tonnes</td>
</tr>
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<td>United Kingdom</td>
<td>1</td>
<td>1</td>
<td></td>
<td>€5,578,289</td>
<td>4,300,439</td>
<td>€5,468,127</td>
<td>4,406,090</td>
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<tr>
<td>United States</td>
<td>3</td>
<td>2</td>
<td></td>
<td>€1,022,308</td>
<td>190,930</td>
<td>€1,232,665</td>
<td>214,803</td>
</tr>
<tr>
<td>Netherlands</td>
<td>2</td>
<td>3</td>
<td></td>
<td>€1,052,164</td>
<td>416,634</td>
<td>€1,150,428</td>
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<td>France</td>
<td>4</td>
<td>4</td>
<td></td>
<td>€866,299</td>
<td>273,706</td>
<td>€938,403</td>
<td>307,509</td>
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<td>China</td>
<td>5</td>
<td>5</td>
<td></td>
<td>€568,515</td>
<td>188,586</td>
<td>€917,902</td>
<td>296,002</td>
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<tr>
<td>Germany</td>
<td>6</td>
<td>6</td>
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<td>€758,337</td>
<td>216,214</td>
<td>€788,408</td>
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<td>7</td>
<td>7</td>
<td></td>
<td>€375,525</td>
<td>113,049</td>
<td>€403,287</td>
<td>107,028</td>
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<td>Belgium</td>
<td>8</td>
<td>8</td>
<td></td>
<td>€293,455</td>
<td>98,072</td>
<td>€296,554</td>
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<td>Spain</td>
<td>9</td>
<td>9</td>
<td></td>
<td>€291,203</td>
<td>74,245</td>
<td>€291,021</td>
<td>74,078</td>
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<td>Poland</td>
<td>12</td>
<td>10</td>
<td></td>
<td>€143,671</td>
<td>48,814</td>
<td>€167,335</td>
<td>51,921</td>
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<td>Nigeria</td>
<td>14</td>
<td>11</td>
<td></td>
<td>€110,975</td>
<td>90,455</td>
<td>€162,773</td>
<td>99,173</td>
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<td>Sweden</td>
<td>10</td>
<td>12</td>
<td></td>
<td>€153,005</td>
<td>45,686</td>
<td>€152,432</td>
<td>45,211</td>
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<td>Denmark</td>
<td>11</td>
<td>13</td>
<td></td>
<td>€147,513</td>
<td>65,990</td>
<td>€145,495</td>
<td>61,516</td>
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<td>Japan</td>
<td>13</td>
<td>14</td>
<td></td>
<td>€114,807</td>
<td>45,804</td>
<td>€132,577</td>
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<td>Canada</td>
<td>15</td>
<td>15</td>
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<td>€108,201</td>
<td>27,183</td>
<td>€118,613</td>
<td>27,604</td>
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<td>Saudi Arabia</td>
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<td>16</td>
<td></td>
<td>€108,049</td>
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<td>€85,734</td>
<td>24,893</td>
</tr>
<tr>
<td>United Arab Emirates</td>
<td>22</td>
<td>17</td>
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<td>€83,532</td>
<td>34,402</td>
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<td>South Africa</td>
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<td>18</td>
<td></td>
<td>€80,789</td>
<td>50,909</td>
<td>€82,777</td>
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<td>Philippines</td>
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<td>19</td>
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<td>41,524</td>
<td>€79,226</td>
<td>43,839</td>
</tr>
<tr>
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<td>20</td>
<td></td>
<td>€58,820</td>
<td>25,322</td>
<td>€72,705</td>
<td>21,009</td>
</tr>
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<td>21</td>
<td></td>
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<td>€69,964</td>
<td>17,309</td>
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<td>22</td>
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<td>€52,566</td>
<td>24,425</td>
<td>€67,557</td>
<td>31,970</td>
</tr>
<tr>
<td>Egypt</td>
<td>34</td>
<td>23</td>
<td></td>
<td>€33,995</td>
<td>19,188</td>
<td>€67,062</td>
<td>31,025</td>
</tr>
<tr>
<td>Mexico</td>
<td>28</td>
<td>24</td>
<td></td>
<td>€47,904</td>
<td>12,280</td>
<td>€67,022</td>
<td>13,876</td>
</tr>
<tr>
<td>Switzerland</td>
<td>18</td>
<td>25</td>
<td></td>
<td>€66,654</td>
<td>9,799</td>
<td>€63,090</td>
<td>9,028</td>
</tr>
<tr>
<td>Top 25 total</td>
<td></td>
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<td>€12,217,903</td>
<td>6,441,039</td>
<td>€13,104,687</td>
<td>6,855,347</td>
</tr>
</tbody>
</table>

Source: Central Statistics Office, Trade Statistics 2019
6.4 Key markets for Irish Exports

Irish Agri-Food products were exported to over 180 countries in 2019. The United Kingdom remains our largest trading partner with 38% (€5.5 billion) of agri-food products exported to this destination. Other EU countries accounted for approximately 33% (€4.7 billion) of agri-food exports in 2019 and the Rest of the World accounted for approximately 30% (€4.3 billion).

United Kingdom

The United Kingdom (Great Britain & Northern Ireland) remains Ireland’s largest trading partner with 38% of total agri-food sector goods products exported to the United Kingdom in 2019. 67% of Prepared Consumer Food (PCF) exports go to the United Kingdom.

In 2019 total agri-food exports to the UK were €5.5 billion, while imports totalled €4.6 billion, giving Ireland a trade surplus with the United Kingdom of approximately €843 million.

Figure 6.7 United Kingdom as part of total worldwide trade, 2010 - 2019

Source: Central Statistics Office, Trade Statistics, 2019
<table>
<thead>
<tr>
<th>Ind</th>
<th>2019</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
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<td></td>
<td>United Kingdom</td>
<td>Great Britain</td>
<td>Northern Ireland</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>€ 000</td>
<td>€ 000</td>
<td>€ 000</td>
<td>€ 000</td>
<td>€ 000</td>
<td>€ 000</td>
</tr>
<tr>
<td>Animal Foodstuffs</td>
<td>253,759</td>
<td>281,786</td>
<td>167,168</td>
<td>173,662</td>
<td>86,592</td>
<td>108,124</td>
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<tr>
<td>Animal Oils &amp; Fats</td>
<td>12,149</td>
<td>10,523</td>
<td>11,865</td>
<td>5,372</td>
<td>284</td>
<td>5,151</td>
</tr>
<tr>
<td>Animal Skins &amp; Furs</td>
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<td>825</td>
<td>11,718</td>
<td>786</td>
<td>1,110</td>
<td>39</td>
</tr>
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<td>Beef</td>
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<td>110,732</td>
<td>908,972</td>
<td>95,482</td>
<td>100,496</td>
<td>15,250</td>
</tr>
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<td>Beverages</td>
<td>302,717</td>
<td>447,914</td>
<td>224,039</td>
<td>366,890</td>
<td>78,679</td>
<td>81,024</td>
</tr>
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<td>Cereal &amp; cereal preparation</td>
<td>499,494</td>
<td>719,841</td>
<td>399,454</td>
<td>642,845</td>
<td>100,040</td>
<td>76,996</td>
</tr>
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<td>Coffee, Tea, Cocoa &amp; Spices</td>
<td>272,965</td>
<td>355,508</td>
<td>252,769</td>
<td>344,824</td>
<td>20,196</td>
<td>10,684</td>
</tr>
<tr>
<td>Cotton</td>
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<td>223</td>
<td>0</td>
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<td>12</td>
</tr>
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<td>72,322</td>
<td>22,084</td>
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</tr>
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<td>Dairy Produce</td>
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<td>952,027</td>
<td>371,600</td>
<td>79,065</td>
<td>233,465</td>
</tr>
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<td>Egg</td>
<td>11,227</td>
<td>12,637</td>
<td>7,942</td>
<td>8,232</td>
<td>3,284</td>
<td>4,405</td>
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<td>Fish</td>
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<td>162,577</td>
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<td>40</td>
<td>353</td>
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<td>Forestry</td>
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<td>256,892</td>
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<td>93,601</td>
<td>30,894</td>
</tr>
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<td>Fruit &amp; Vegetables</td>
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<td>234,391</td>
<td>120,625</td>
<td>200,660</td>
<td>33,086</td>
<td>33,732</td>
</tr>
<tr>
<td>Fruit &amp; Vegetables Based Products</td>
<td>84,037</td>
<td>256,837</td>
<td>69,495</td>
<td>243,523</td>
<td>14,542</td>
<td>13,314</td>
</tr>
<tr>
<td>Live Animals</td>
<td>340,528</td>
<td>254,538</td>
<td>250,693</td>
<td>246,104</td>
<td>89,836</td>
<td>8,434</td>
</tr>
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<td>Miscellaneous Edible Products &amp; Preparations</td>
<td>184,824</td>
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<td>323,400</td>
<td>16,723</td>
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<td>Oilseeds &amp; Oleaginous Fruit</td>
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</tr>
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<td>Other Meat &amp; Meat Produce</td>
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<td>13,491</td>
<td>10,434</td>
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<td>1,134</td>
<td>995</td>
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<td>Pigmeat</td>
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<td>Poultry</td>
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<td>163,642</td>
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<td>32,271</td>
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</tr>
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<td>Sugar, Sugar Preparation &amp; Honey</td>
<td>58,802</td>
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<td>51,344</td>
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<td>7,458</td>
<td>8,599</td>
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<td>49,482</td>
<td>2,185</td>
<td>37,037</td>
<td>8,669</td>
<td>12,445</td>
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<td>Wood Based Products</td>
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<td>8,832</td>
<td>17,956</td>
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<td>Grand Total</td>
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<td>4,601,463</td>
<td>3,902,275</td>
<td>866,664</td>
<td>722,836</td>
</tr>
</tbody>
</table>

Source: Central Statistics Office, Trade Statistics, 2019
While Prepared Consumer Foods (PCF) exports to the United Kingdom accounted for 67% of total PCF exports, 97% of total fruit-based bakery, 97% of savoury snacks and 96% of pizza/quiches under the PCF heading were exported to the United Kingdom. Figure 6.8 provides a detailed analysis of each category by percentage exported to the United Kingdom in 2018.

Figure 6.8  Prepared Consumer Food exports by type and destination, 2019

Source: Central Statistics Office, Trade Statistics 2019

Meat Preparations remained Ireland’s highest valued export category to the United Kingdom under the PCF heading, despite decreasing by 12% in 2019 to €560 million. This category accounted for 31% of total PCF exports to the United Kingdom.
Table 6.4 Prepared Consumer Food Exports to the United Kingdom by category, 2019

<table>
<thead>
<tr>
<th>Industry</th>
<th>2019</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>United Kingdom € 000</td>
<td></td>
<td>Great Britain € 000</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Exports</td>
<td>Imports</td>
<td>Exports</td>
<td>Imports</td>
</tr>
<tr>
<td>Biscuits</td>
<td>€17,191</td>
<td>€112,041</td>
<td>€13,756</td>
<td>€107,444</td>
</tr>
<tr>
<td>Breads</td>
<td>€80,987</td>
<td>€106,057</td>
<td>€59,636</td>
<td>€101,685</td>
</tr>
<tr>
<td>Cereal based Products</td>
<td>€79,348</td>
<td>€264,954</td>
<td>€53,431</td>
<td>€234,638</td>
</tr>
<tr>
<td>Chocolate-based products</td>
<td>€240,200</td>
<td>€233,619</td>
<td>€224,631</td>
<td>€225,193</td>
</tr>
<tr>
<td>Dairy Preparations</td>
<td>€129,662</td>
<td>€63,343</td>
<td>€126,856</td>
<td>€61,677</td>
</tr>
<tr>
<td>Extracts, Sauces, Soups</td>
<td>€52,038</td>
<td>€210,744</td>
<td>€41,155</td>
<td>€202,911</td>
</tr>
<tr>
<td>Frozen Confectionery</td>
<td>€11,036</td>
<td>€54,860</td>
<td>€8,706</td>
<td>€54,196</td>
</tr>
<tr>
<td>Fruit &amp; Vegetable based</td>
<td>€35,762</td>
<td>€224,466</td>
<td>€21,440</td>
<td>€212,751</td>
</tr>
<tr>
<td>Fruit-based bakery</td>
<td>€89,509</td>
<td>€44,980</td>
<td>€85,932</td>
<td>€39,054</td>
</tr>
<tr>
<td>Meat Preparations</td>
<td>€560,008</td>
<td>€309,806</td>
<td>€495,140</td>
<td>€291,880</td>
</tr>
<tr>
<td>Other Food Preparations</td>
<td>€142,913</td>
<td>€161,642</td>
<td>€128,918</td>
<td>€157,500</td>
</tr>
<tr>
<td>Pizza/Quiche</td>
<td>€201,427</td>
<td>€56,414</td>
<td>€192,350</td>
<td>€53,675</td>
</tr>
<tr>
<td>Savoury Snacks etc</td>
<td>€3,132</td>
<td>€31,551</td>
<td>€1,313</td>
<td>€26,729</td>
</tr>
<tr>
<td>Sugar-based products</td>
<td>€47,960</td>
<td>€103,090</td>
<td>€41,739</td>
<td>€94,698</td>
</tr>
<tr>
<td>Waters &amp; Juices &amp; Soft Drinks</td>
<td>€120,399</td>
<td>€249,250</td>
<td>€108,806</td>
<td>€233,973</td>
</tr>
<tr>
<td>Grand Total</td>
<td>€1,811,573</td>
<td>€2,226,817</td>
<td>€1,603,807</td>
<td>€2,098,002</td>
</tr>
</tbody>
</table>

**Source:** Central Statistics Office, Trade Statistics 2019

**United States**

In 2019 the United States moved up one spot to be ranked as Ireland’s second largest market in terms of total agri-food exports. Total Agri-food exports to the United States have increased by 203% since 2010. In 2019 exports to the United States totalled over €1.2 billion, an increase of 21% on 2018 figures.
The top 2 agri-food categories for export to the US are Beverages and Dairy Produce accounting for 89% of total agri-food exports to the US.

In 2019 Beverage exports totalled nearly €768 million, an increase of 25% on 2018 figures. Irish whiskey exports totalled approximately €500 million in 2019 and made up 65% of total beverage exports to the United States. Irish cream liqueur exports to the United States were worth €184 million or 24% of beverage exports.

In 2019 Dairy Produce exports totalled nearly €333 million, an increase of 13% on 2018 figures. Natural butter is the main dairy export worth almost €187 million in 2019.

Source: Central Statistics Office, Trade Statistics 2019
Netherlands

The Netherlands is Ireland’s third largest market in terms of total agri-food exports, dropping one position compared to 2018. The Netherlands accounted for €1.15 billion in exports in 2019, an increase of 10% from 2018 and 167% since 2010.

**Figure 6.11** Value of Agri-Food exports to the Netherlands by year, 2010-2019

The top two agri-food categories exported to the Netherlands in 2019 were Dairy produce and Beef which accounted for 78% of total exports to the Netherlands. Dairy exports to the Netherlands totalled €700 million in 2019, of which almost 38% was attributable to Butter. ‘Unsweetened Milk and cream in solid forms, of a fat content by weight’ was Ireland’s second largest dairy export to the Netherlands, totalling nearly €94 million or 13% of total dairy exports to the country.

Beef was Ireland’s second largest export category to the Netherlands; exports were valued at €200 million with ‘fresh or chilled bovine boneless meat’ accounting for 73% of beef exports. ‘Carcases or half-carcases of bovine animals, fresh or chilled’ was Ireland’s second largest beef export to the Netherlands, totalling €18 million or 9% of total beef exports to the country.

**Source:** Central Statistics Office, Trade Statistics 2019

**Figure 6.12** Agri-Food exports to the Netherlands by type, 2019

**Source:** Central Statistics Office, Trade Statistics 2019
Australia is the largest country in Oceania, and the world’s sixth largest country by total land area. In 2019 the country had a population of approximately 25 million people. Australia is a highly developed country, ranked as the world’s 13th largest economy in terms of GDP. This high-income economy, exported 21% of its GDP in 2016. Having a gini coefficient of 0.33, Australia ranks highly in terms of equality, quality of life, health, education, economic freedom and civil liberties.

Australia and the European Union (EU) launched negotiations for a free trade agreement (FTA) in June 2018. Based on 2018-19 data, as a bloc the EU was Australia’s second largest trading partner, third largest export destination, and second largest services export market. The EU was Australia’s largest source of foreign investment in 2018. Australia is the EU’s 19th-largest trade partner in terms of goods.

Irish exports to Australia totalled €73 million in 2019, an increase of 24% or €13.9 million since the previous year. Pigmeat, Beverages, Dairy Produce, Coffee, Tea, Cocoa & Spices and Cereal & cereal preparation were the top five categories of agri-food exports to Australia in 2019 and accounted for 91% of total exports to the country. Pigmeat was our largest agri-food export to Australia, accounting for over €24 million worth of exports or 34% of total agri-food exports to the country. The largest commodity exported to Australia was Whiskey, accounting for 18% of total Agri-food exports to this growing market.

**Figure 6.13 Agri-Food exports to Australia, 2010-2019**

Irish imports from Australia totalled nearly €41 million in 2019, an increase of 5% since 2018. Our top 5 imports from Australia according to the CSO are, Beverages, Forestry, Sugar, Sugar Preparation & Honey, Sheepmeat and Flax, Wool & Animal Hair, which accounted for 74% of total imports from the region.

**Source:**
Central Statistics Office, Trade Statistics 2019
6.5 Prepared Consumer Foods

Prepared Consumer Foods (PCF) are value added food and beverage products, which sell both domestically and internationally to retail, food service or other food companies. These goods are categorised into 15 areas identified and agreed by industry stakeholders, Department of Agriculture, Food and the Marine and the Central Statistics Office.

The Prepared Consumer Foods sector accounted for over €2.7 billion in agri-food sector exports in 2019, and €3.8 billion in imports. This resulted in a trade deficit of just over €1 billion. Between the period 2012 – 2018 prepared consumer food exports increased by 35% from €2 billion to over €2.7 billion.

Source: Central Statistics Office, Trade Statistics 2019
While overall exports of Irish Prepared Consumer Foods increased by 3% between 2018 and 2019, variances are evident depending on the category exported. The highest increase (by percentage) recorded relates to 'Fruit-based bakery products' which increased from €47 million to €92 million during this period.

Pizza/Quiche, reached a record high in 2019 of over €200 million, which represents a 73% increase on 2018 figures. Pizza/Quiche made up 8% of total exports in 2019. The largest decrease was seen in the savoury snack’s category, with a 67% decrease on 2018 figures.

The top five Prepared Consumer Food categories are Meat Preparations, Chocolate-based products, Other Food Preparations, Pizza/Quiche and Waters & Juices & Soft Drinks, accounted for 70% of total exports by value in 2019.

Table 6.5 Prepared Consumer Food Exports by type, 2018-2019

<table>
<thead>
<tr>
<th>Industry</th>
<th>2018 Exports</th>
<th>2019 Exports</th>
<th>% Change</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>€000</td>
<td>Tonnes</td>
<td>€000</td>
</tr>
<tr>
<td>Meat Preparations</td>
<td>1,015,019</td>
<td>252,000</td>
<td>929,874</td>
</tr>
<tr>
<td>Chocolate-based products</td>
<td>273,240</td>
<td>57,372</td>
<td>286,108</td>
</tr>
<tr>
<td>Other Food Preparations</td>
<td>219,531</td>
<td>80,161</td>
<td>271,155</td>
</tr>
<tr>
<td>Pizza/Quiche</td>
<td>121,415</td>
<td>60,802</td>
<td>210,561</td>
</tr>
<tr>
<td>Waters &amp; Juices &amp; Soft Drinks</td>
<td>165,881</td>
<td>195,189</td>
<td>198,240</td>
</tr>
<tr>
<td>Dairy Preparations</td>
<td>165,680</td>
<td>40,879</td>
<td>180,023</td>
</tr>
<tr>
<td>Extracts, Sauces, Soups</td>
<td>132,221</td>
<td>17,845</td>
<td>144,921</td>
</tr>
<tr>
<td>Sugar-based products</td>
<td>137,131</td>
<td>121,542</td>
<td>138,171</td>
</tr>
<tr>
<td>Fruit-based bakery</td>
<td>47,161</td>
<td>20,292</td>
<td>92,340</td>
</tr>
<tr>
<td>Breads</td>
<td>146,812</td>
<td>93,438</td>
<td>90,643</td>
</tr>
<tr>
<td>Cereal based Products</td>
<td>77,672</td>
<td>133,066</td>
<td>85,328</td>
</tr>
<tr>
<td>Fruit &amp; Vegetable based</td>
<td>80,984</td>
<td>37,800</td>
<td>47,021</td>
</tr>
<tr>
<td>Biscuits</td>
<td>20,215</td>
<td>4,700</td>
<td>20,308</td>
</tr>
<tr>
<td>Frozen Confectionery</td>
<td>20,148</td>
<td>8,464</td>
<td>19,859</td>
</tr>
<tr>
<td>Savoury Snacks etc</td>
<td>9,874</td>
<td>1,373</td>
<td>3,221</td>
</tr>
<tr>
<td>Grand Total</td>
<td>2,632,984</td>
<td>1,124,923</td>
<td>2,717,771</td>
</tr>
</tbody>
</table>

Source: Central Statistics Office, Trade Statistics 2019
While the majority of PCF products were exported to the United Kingdom in 2019 (67%), other significant markets for Prepared Consumer Foods included France, Germany, Netherlands and Spain.

**Source:** Central Statistics Office, Trade Statistics 2019
Prepared Consumer Food by Top 20 destinations, 2019
Trade among the Top 20 destinations accounted for 95% of total Prepared Consumer Food exports in 2019.

PCF exports to China increased by 47% on 2018 figures.

Large increases in export values were also seen in the Netherlands (+24%), the United Arab Emirates (+22%), Australia (+22%) and Greece (+18%).

Source: Central Statistics Office, Trade Statistics 2019
<table>
<thead>
<tr>
<th>Country</th>
<th>2018 Rank</th>
<th>2019 Rank</th>
<th>2018 Exports</th>
<th>2019 Exports</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>€000</td>
<td>Tonnes</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>1</td>
<td>1</td>
<td>€1,794,857</td>
<td>972,082</td>
</tr>
<tr>
<td>France</td>
<td>2</td>
<td>2</td>
<td>€143,608</td>
<td>23,058</td>
</tr>
<tr>
<td>Germany</td>
<td>5</td>
<td>3</td>
<td>€78,041</td>
<td>15,826</td>
</tr>
<tr>
<td>Netherlands</td>
<td>3</td>
<td>4</td>
<td>€87,814</td>
<td>13,053</td>
</tr>
<tr>
<td>Spain</td>
<td>4</td>
<td>5</td>
<td>€80,041</td>
<td>8,901</td>
</tr>
<tr>
<td>Italy</td>
<td>6</td>
<td>6</td>
<td>€70,295</td>
<td>6,656</td>
</tr>
<tr>
<td>United States</td>
<td>7</td>
<td>7</td>
<td>€51,966</td>
<td>16,031</td>
</tr>
<tr>
<td>Belgium</td>
<td>11</td>
<td>8</td>
<td>€27,165</td>
<td>3,575</td>
</tr>
<tr>
<td>Sweden</td>
<td>10</td>
<td>9</td>
<td>€27,636</td>
<td>5,132</td>
</tr>
<tr>
<td>Denmark</td>
<td>8</td>
<td>10</td>
<td>€32,892</td>
<td>13,157</td>
</tr>
<tr>
<td>China</td>
<td>13</td>
<td>11</td>
<td>€32,099</td>
<td>4,280</td>
</tr>
<tr>
<td>Portugal</td>
<td>16</td>
<td>12</td>
<td>€15,956</td>
<td>2,283</td>
</tr>
<tr>
<td>Romania</td>
<td>12</td>
<td>13</td>
<td>€12,052</td>
<td>977</td>
</tr>
<tr>
<td>Japan</td>
<td>13</td>
<td>14</td>
<td>€17,541</td>
<td>7,058</td>
</tr>
<tr>
<td>Poland</td>
<td>27</td>
<td>15</td>
<td>€12,543</td>
<td>2,478</td>
</tr>
<tr>
<td>Greece</td>
<td>9</td>
<td>16</td>
<td>€3,212</td>
<td>299</td>
</tr>
<tr>
<td>South Korea</td>
<td>14</td>
<td>17</td>
<td>€13,879</td>
<td>1,368</td>
</tr>
<tr>
<td>Russia Federation</td>
<td>17</td>
<td>18</td>
<td>€10,338</td>
<td>1,125</td>
</tr>
<tr>
<td>United Arab Emirates</td>
<td>20</td>
<td>19</td>
<td>€8,266</td>
<td>1,756</td>
</tr>
<tr>
<td>Australia</td>
<td>21</td>
<td>20</td>
<td>€7,646</td>
<td>1,811</td>
</tr>
<tr>
<td>Grand Total top 20</td>
<td></td>
<td></td>
<td>€2,527,845</td>
<td>1,100,909</td>
</tr>
</tbody>
</table>

**Source:** Central Statistics Office, Trade Statistics 2019
The water, juices & soft drinks category is a varied and expanding Prepared Consumer Food category. Irish water, juices & soft drinks were exported to over 80 countries worldwide. Exports of this prepared consumer food category were valued at €198 million in 2019, an increase of 20% on the previous year. Between 2012 and 2019, this category grew in value by €58 million, or a 41% increase in value.

**Figure 6.17 Water, juices & Soft Drinks exports by 2012- 2019**

The top 10 export destinations by value for water, juices & soft drinks in 2019 were; the United Kingdom, Germany, Greece, the Netherlands, Romania, Croatia, Spain, Bulgaria, the Russia Federation and Kazakhstan.

Ireland’s largest export destination is the UK. In 2019 exports to the United Kingdom totalled over €120 million, a slight decrease of 4% on 2018 figures but a 11% increase on 2016 figures.

The largest export under this category is; ‘Waters, incl. mineral and aerated, with added sugar, sweetener or flavour, for direct consumption as a beverage’. This commodity is valued at €91 million, with exports increasing by 29% on 2018 figures. This commodity represents 46% of the sectors exports.

Imports of water, juices & soft drinks totalled almost €405 million in 2019. Ireland’s largest import under this heading was ‘Waters, incl. mineral and aerated, with added sugar, sweetener or flavour, for direct consumption as a beverage’. Imports of this commodity totalled €227 million in 2019 and represents 56% of total water, juices & soft drinks imports.

The 10 top import destinations by value for water, juices & soft drinks in 2019 were the United Kingdom, Brazil, Germany, Austria, the Netherlands, Switzerland, France, Argentina, Spain and Italy. In 2019 imports from the United Kingdom totalled approximately €249 Million euro, a 9% increase on 2018 figures.

**Source:** Central Statistics Office, Trade Statistics 2019
6.6 Agri- Food Sector Imports

The agri-food sector accounted for 11% of Ireland's total imports in 2019. Between the period 2010 – 2019, agri-food imports increased by 65% from €6 billion to nearly €10 billion. Agri-food imports totalled nearly €10 billion in 2019, an increase of 2% on 2018, while volume of goods imported decreased by 9% according to the CSO.

In value terms the highest increases between 2018 and 2019 were:

- Cereal & cereal preparation, which increased by €14 million to nearly €1.3 billion.
- Forestry imports increased by €32 million to almost €352 million.
- Beverage imports increased by €74 million to over €967 billion.

The top five agri-food categories by value accounted for 50% of total agri-food sector imports in 2019 totalling over €5 billion.

Figure 6.18 Agri-food Imports by category, 2019

- Cereal & cereal preparation 13%
- Dairy Produce 10%
- Beverages 10%
- Animal Foodstuffs 9%
- Fruit & Vegetables 9%
- Miscellaneous Edible Products & Preparations 6%
- Coffee, Tea, Cocoa & Spices 6%
- Fruit & Vegetables Based Products 5%
- Poultry 5%
- Other 27%
## Table 6.7 Value and volume of agri-food imports by category, 2018 - 2019

<table>
<thead>
<tr>
<th>Ind</th>
<th>2018 Imports €000</th>
<th>2018 Imports Tonnes</th>
<th>2019 Exports €000</th>
<th>2019 Exports Tonnes</th>
<th>% Change of Exports</th>
<th>% Change of Tonnes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Animal Foodstuffs</td>
<td>1,064,286</td>
<td>4,067,925</td>
<td>900,341</td>
<td>3,105,975</td>
<td>-15%</td>
<td>-24%</td>
</tr>
<tr>
<td>Animal Oils &amp; Fats</td>
<td>16,305</td>
<td>15,976</td>
<td>16,359</td>
<td>17,550</td>
<td>0%</td>
<td>10%</td>
</tr>
<tr>
<td>Animal Skins &amp; Furs</td>
<td>2,062</td>
<td>71</td>
<td>2,166</td>
<td>257</td>
<td>5%</td>
<td>264%</td>
</tr>
<tr>
<td>Beef</td>
<td>134,633</td>
<td>34,437</td>
<td>128,723</td>
<td>30,532</td>
<td>-4%</td>
<td>-11%</td>
</tr>
<tr>
<td>Beverages</td>
<td>893,559</td>
<td>890,052</td>
<td>967,190</td>
<td>938,477</td>
<td>8%</td>
<td>5%</td>
</tr>
<tr>
<td>Cereal &amp; cereal preparation</td>
<td>1,278,708</td>
<td>3,149,255</td>
<td>1,293,058</td>
<td>2,736,718</td>
<td>1%</td>
<td>-13%</td>
</tr>
<tr>
<td>Coffee, Tea, Cocoa &amp; Spices</td>
<td>614,286</td>
<td>129,478</td>
<td>656,508</td>
<td>137,451</td>
<td>7%</td>
<td>6%</td>
</tr>
<tr>
<td>Cotton</td>
<td>833</td>
<td>234</td>
<td>1,101</td>
<td>329</td>
<td>32%</td>
<td>41%</td>
</tr>
<tr>
<td>Crude Animal &amp; Vegetable Material</td>
<td>220,949</td>
<td>197,911</td>
<td>241,779</td>
<td>264,944</td>
<td>9%</td>
<td>34%</td>
</tr>
<tr>
<td>Dairy Produce</td>
<td>992,778</td>
<td>1,083,649</td>
<td>991,459</td>
<td>1,044,540</td>
<td>0%</td>
<td>-4%</td>
</tr>
<tr>
<td>Egg</td>
<td>18,763</td>
<td>10,293</td>
<td>23,885</td>
<td>11,121</td>
<td>27%</td>
<td>8%</td>
</tr>
<tr>
<td>Fish</td>
<td>292,541</td>
<td>76,226</td>
<td>299,299</td>
<td>63,522</td>
<td>2%</td>
<td>-17%</td>
</tr>
<tr>
<td>Flax, Wool &amp; Animal Hair</td>
<td>21,708</td>
<td>2,852</td>
<td>22,985</td>
<td>4,350</td>
<td>6%</td>
<td>53%</td>
</tr>
<tr>
<td>Forestry</td>
<td>319,588</td>
<td>732,331</td>
<td>351,867</td>
<td>895,833</td>
<td>10%</td>
<td>22%</td>
</tr>
<tr>
<td>Fruit &amp; Vegetables</td>
<td>843,977</td>
<td>783,190</td>
<td>868,434</td>
<td>723,057</td>
<td>3%</td>
<td>-8%</td>
</tr>
<tr>
<td>Fruit &amp; Vegetables Based Products</td>
<td>521,188</td>
<td>368,372</td>
<td>512,118</td>
<td>387,275</td>
<td>-2%</td>
<td>5%</td>
</tr>
<tr>
<td>Live Animals</td>
<td>261,761</td>
<td>4,205</td>
<td>316,692</td>
<td>5,655</td>
<td>21%</td>
<td>34%</td>
</tr>
<tr>
<td>Miscellaneous Edible Products &amp; Preparations</td>
<td>567,046</td>
<td>224,821</td>
<td>599,477</td>
<td>256,218</td>
<td>6%</td>
<td>14%</td>
</tr>
<tr>
<td>Oilseeds &amp; Oleaginous Fruit</td>
<td>30,196</td>
<td>70,921</td>
<td>30,656</td>
<td>70,283</td>
<td>2%</td>
<td>-1%</td>
</tr>
<tr>
<td>Other Meat &amp; Meat Produce</td>
<td>34,686</td>
<td>12,762</td>
<td>26,346</td>
<td>10,957</td>
<td>-24%</td>
<td>-14%</td>
</tr>
<tr>
<td>Pigmeat</td>
<td>342,532</td>
<td>114,872</td>
<td>343,564</td>
<td>106,676</td>
<td>0%</td>
<td>-7%</td>
</tr>
<tr>
<td>Poultry</td>
<td>486,545</td>
<td>135,479</td>
<td>477,805</td>
<td>134,051</td>
<td>-2%</td>
<td>-1%</td>
</tr>
<tr>
<td>Sheepmeat</td>
<td>28,200</td>
<td>5,329</td>
<td>35,714</td>
<td>6,985</td>
<td>27%</td>
<td>31%</td>
</tr>
<tr>
<td>Sugar, Sugar Preparation &amp; Honey</td>
<td>354,488</td>
<td>530,797</td>
<td>368,536</td>
<td>492,754</td>
<td>4%</td>
<td>-7%</td>
</tr>
<tr>
<td>Vegetable Oils &amp; Fats</td>
<td>259,827</td>
<td>311,522</td>
<td>244,050</td>
<td>304,950</td>
<td>-6%</td>
<td>-2%</td>
</tr>
<tr>
<td>Wood Based Products</td>
<td>211,418</td>
<td>131,054</td>
<td>253,788</td>
<td>156,048</td>
<td>20%</td>
<td>19%</td>
</tr>
<tr>
<td>Grand Total</td>
<td>9,812,864</td>
<td>13,084,011</td>
<td>9,973,900</td>
<td>11,906,505</td>
<td>2%</td>
<td>-9%</td>
</tr>
</tbody>
</table>

**Source:** Central Statistics Office, Trade Statistics 2019
6.7 Agri- Food Sector Import destinations

In 2019, agri-food goods were imported into Ireland from over 180 countries worldwide. Ireland’s top five import destinations were the United Kingdom, the Netherlands, Germany, France and the United States which accounted for 71% of Ireland’s total imports for the year.

Figure 6.19 Top 10 Agri-Food Import destinations 2019

Source: Central Statistics Office, Trade Statistics 2019

Table 6.8 Value and volume of agri-food imports by top 20 destinations, 2018 - 2019

<table>
<thead>
<tr>
<th>Ind</th>
<th>2018 Imports</th>
<th>2019 Exports</th>
<th>% Change</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>€000</td>
<td>Tonnes</td>
<td>€000</td>
</tr>
<tr>
<td></td>
<td>2018</td>
<td>2019</td>
<td></td>
</tr>
<tr>
<td>The United Kingdom</td>
<td>4,495,994</td>
<td>4,878,884</td>
<td>4,625,110</td>
</tr>
<tr>
<td>Netherlands</td>
<td>908,759</td>
<td>708,362</td>
<td>900,653</td>
</tr>
<tr>
<td>Germany</td>
<td>667,631</td>
<td>497,626</td>
<td>703,321</td>
</tr>
<tr>
<td>France</td>
<td>483,495</td>
<td>714,983</td>
<td>474,686</td>
</tr>
<tr>
<td>United States</td>
<td>383,814</td>
<td>1,071,426</td>
<td>356,234</td>
</tr>
<tr>
<td>Belgium</td>
<td>256,776</td>
<td>233,324</td>
<td>315,543</td>
</tr>
<tr>
<td>Spain</td>
<td>291,264</td>
<td>255,438</td>
<td>292,002</td>
</tr>
<tr>
<td>Poland</td>
<td>173,960</td>
<td>126,032</td>
<td>191,538</td>
</tr>
<tr>
<td>Italy</td>
<td>189,990</td>
<td>156,576</td>
<td>189,985</td>
</tr>
<tr>
<td>Argentina</td>
<td>205,918</td>
<td>735,843</td>
<td>178,741</td>
</tr>
<tr>
<td>Canada</td>
<td>190,166</td>
<td>957,527</td>
<td>137,188</td>
</tr>
<tr>
<td>Brazil</td>
<td>133,988</td>
<td>365,936</td>
<td>128,281</td>
</tr>
<tr>
<td>China</td>
<td>98,503</td>
<td>55,101</td>
<td>112,370</td>
</tr>
<tr>
<td>Denmark</td>
<td>131,523</td>
<td>150,100</td>
<td>99,923</td>
</tr>
<tr>
<td>Ukraine</td>
<td>47,760</td>
<td>296,848</td>
<td>86,611</td>
</tr>
<tr>
<td>Austria</td>
<td>68,862</td>
<td>39,925</td>
<td>73,729</td>
</tr>
<tr>
<td>Thailand</td>
<td>58,226</td>
<td>22,267</td>
<td>67,398</td>
</tr>
<tr>
<td>Chile</td>
<td>68,038</td>
<td>26,270</td>
<td>66,995</td>
</tr>
<tr>
<td>Malaysia</td>
<td>60,485</td>
<td>120,094</td>
<td>64,583</td>
</tr>
<tr>
<td>South Africa</td>
<td>54,340</td>
<td>45,068</td>
<td>56,604</td>
</tr>
<tr>
<td>Total top 20</td>
<td>€8,969,493</td>
<td>11,457,629</td>
<td>€9,121,495</td>
</tr>
</tbody>
</table>

Source: Central Statistics Office, Trade Statistics 2019
Prepared Consumer Food imports totalled nearly €3.8 billion in 2019, a 4% increase on the previous year, and a 38% increase since 2012.

In value terms, the highest increases between 2018 and 2019 were:

- Cereal based products increased by €30 million
- Pizza/ Quiches increased by €23 million
- Fruit based bakery by €16 million

Key Import Markets for Ireland

The United Kingdom (Great Britain & Northern Ireland) remains Ireland’s largest import partner with almost 46% of total agri-food sector goods and 59% of Prepared Consumer Food (PCF) products imported into Ireland from the UK in 2019.

In 2019, total agri-food imports from the United Kingdom totalled almost €4.6 billion.

Figure 6.20 United Kingdom as % of total worldwide Imports, 2009 – 2019

Source: Central Statistics Office, Trade Statistics 2019

Prepared Consumer Food Imports

Prepared Consumer Food imports totalled nearly €3.8 billion in 2019, a 4% increase on the previous year, and a 38% increase since 2012.

In value terms, the highest increases between 2018 and 2019 were:

- Cereal based products increased by €30 million
- Pizza/ Quiches increased by €23 million
- Fruit based bakery by €16 million
Table 6.9  Value and volume of Prepared Consumer Food imports by category, 2018 – 2019

<table>
<thead>
<tr>
<th></th>
<th>2018 Imports</th>
<th>2019 Imports</th>
<th>% Change</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>€000</td>
<td>Tonnes</td>
<td>€000</td>
</tr>
<tr>
<td>Biscuits</td>
<td>143,957</td>
<td>53,253</td>
<td>158,776</td>
</tr>
<tr>
<td>Breads</td>
<td>151,751</td>
<td>108,250</td>
<td>152,148</td>
</tr>
<tr>
<td>Cereal based</td>
<td>348,269</td>
<td>415,561</td>
<td>378,694</td>
</tr>
<tr>
<td>Products</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chocolate-based</td>
<td>356,604</td>
<td>81,302</td>
<td>373,171</td>
</tr>
<tr>
<td>Dairy Preparations</td>
<td>192,629</td>
<td>94,557</td>
<td>191,577</td>
</tr>
<tr>
<td>Extracts, Sauces,</td>
<td>362,166</td>
<td>122,044</td>
<td>382,388</td>
</tr>
<tr>
<td>Soups</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Frozen Confectionery</td>
<td>67,722</td>
<td>32,922</td>
<td>69,698</td>
</tr>
<tr>
<td>Fruit &amp; Vegetable</td>
<td>424,778</td>
<td>312,231</td>
<td>433,341</td>
</tr>
<tr>
<td>based</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fruit-based bakery</td>
<td>57,618</td>
<td>17,534</td>
<td>73,501</td>
</tr>
<tr>
<td>Meat Preparations</td>
<td>536,635</td>
<td>131,777</td>
<td>558,512</td>
</tr>
<tr>
<td>Other Food</td>
<td>250,935</td>
<td>109,933</td>
<td>258,720</td>
</tr>
<tr>
<td>Preparations</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pizza/Quiche</td>
<td>71,284</td>
<td>25,928</td>
<td>94,682</td>
</tr>
<tr>
<td>Savoury Snacks</td>
<td>51,000</td>
<td>15,026</td>
<td>44,356</td>
</tr>
<tr>
<td>etc</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sugar-based</td>
<td>204,102</td>
<td>362,770</td>
<td>211,460</td>
</tr>
<tr>
<td>products</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Waters &amp; Juices</td>
<td>406,192</td>
<td>510,306</td>
<td>405,472</td>
</tr>
<tr>
<td>&amp; Soft Drinks</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grand Total</td>
<td>3,625,644</td>
<td>2,393,394</td>
<td>3,786,495</td>
</tr>
</tbody>
</table>

Source: Central Statistics Office, Trade Statistics 2019

The top five Prepared Consumer Food categories accounted for 57% of total PCF imports in 2019 and totalled approximately €2.2 billion.

Figure 6.21  Prepared Consumer Food Imports by type, 2019

Source: Central Statistics Office, Trade Statistics 2019
Ireland’s largest trading partner for Prepared Consumer Food Imports is the United Kingdom with 59% of PCF imports totalling over €2.2 billion in 2019. Other significant trading partners include Germany, the Netherlands, Belgium, France and Italy.

**Figure 6.22**  Prepared Consumer Food Imports by Destination, 2019

While Prepared Consumer Foods (PCF) imports from the United Kingdom accounted for 59% of total PCF imports, 79% of Frozen Confectionery, 71% of Savoury Snacks, and 71% of Biscuits under the PCF heading were imported from the UK. Figure 6.22 provides a detailed analysis of each category by percentage imported from the UK in 2019.

**Source:** Central Statistics Office, Trade Statistics 2019

**Figure 6.23**  Prepared Consumer Food Imports by type and destination, 2019

**Source:** Central Statistics Office, Trade Statistics 2019
A revised Withdrawal Agreement was agreed between the European Union and the United Kingdom on 17 October 2019.

€110 million made up the first tranche of DAFM supports in the event of a no deal Brexit.

A political agreement on the EU-Mercosur Free Trade Agreement was announced on 28 June 2019.

7.1 Overview
The EU and International Agricultural Policy Chapter offers an overview of the international factors and Irish Agriculture, including the influence of EU agricultural policy and Brexit. In addition, this chapter will incorporate data generated by the Organisation for Economic Cooperation and Development (OECD), which monitors and advises on international trade policy and benchmarks the level of EU agricultural supports.

7.2 Brexit
The agri-food sector is of critical importance to the Irish economy. Its regional spread means that it underpins the socio-economic development of rural areas in particular. The agri-food sector employed 164,400 people, representing 7.1% of total employment in 2019. There are ambitious plans to further develop the sector under the Food Wise 2025 strategy, which would see the creation of 23,000 direct and indirect jobs and growth of 85% in the value of our exports over the ten-year period to 2025.
However, Brexit poses enormous challenges for the agri-food and fisheries sectors by virtue of their exposure to the United Kingdom (UK) market, as evidenced by various studies including those by the ESRI, Central Bank, Department of Finance and Copenhagen Economics.

The UK is Ireland’s largest export destination for agri-food products with the Central Statistics Office trade statistics valuing this trade at approximately €5.5bn in 2019, i.e. 38% of agri-food exports, while Ireland is also the UK’s largest export destination with agri-food with products imported into Ireland valued at €4.6bn in 2019.

The most immediate impact of Brexit has been the difficulties caused by the significant volatility in the value of sterling against the euro. For much of 2015 the euro was valued at between 70 to 75 pence sterling. In 2016 following the referendum vote by the United Kingdom to leave the EU, the value of the euro rose to between 84 to 90 pence. It has remained there since apart from a number of times each year when it breeches the 90 pence mark, which has traditionally been a benchmark beyond which exporters to the UK find the cost difficult to absorb. The longer-term impacts relate to the need to conduct Sanitary and Phytosanitary (SPS) controls on animals, plants, and products of animal and plant origin being imported on a daily basis from the UK, the certification of Irish agri-food exports to the UK, and the possibility of a hard Brexit, resulting in the imposition of tariffs on trade, as well as a myriad of sectoral obligations.

Things will change for our agri-food industry, particularly for importers and exporters. As the UK becomes a ‘third country’, customs and regulatory requirements will have to be adhered to from the end of the transition period. From a regulatory point of view, new requirements in relation to the carrying out of documentary, identity and physical checks on imports of animals, plants, and products of animal and plant origin, as set out in EU legislation, will be applied to trade with the UK.

Export certification requirements will also have to be fulfilled, and DAFM continues to closely monitor the evolving position in this area. DAFM and its agencies, in conjunction with other Departments, will ensure that the necessary controls are conducted in a manner that ensures the minimum possible disruption to trade flows.

**Revised Withdrawal Agreement**

A revised Withdrawal Agreement was agreed between the European Union and the UK on 17 October 2019, together with the Political Declaration setting the framework of the future EU-UK partnership. The Agreement consists of two main documents:

- The Withdrawal Agreement itself, including a Protocol on Ireland and Northern Ireland;
- A Political Declaration setting out the framework for the future relationship between the United Kingdom and the European Union

The Withdrawal establishes the terms of the UK’s orderly withdrawal from the EU, in accordance with Article 50 of the Treaty of the European Union. The Withdrawal Agreement entered into force on 1 February 2020, following the ratification by both the UK and European Parliaments, which resulted in the UK leaving the EU on 31 January 2020.

The UK will continue to follow EU rules and the EU will continue to treat it as if it were a Member State, with some limited exceptions, during the transition period, which is due to end on 31 December 2020. There was a provision to allow this transition period to be extended once for one or two years by joint decision between the EU and United Kingdom before 1 July 2020. However, the UK Government was clear that it did not wish to seek an extension and therefore the transition period will end on 31 December 2020.

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Whatever the outcome of the EU-UK Future Partnership negotiations, the status quo will not remain and there will be considerable adjustment, particularly for business trading with the UK, and Great Britain in particular.

As noted above, the Withdrawal Agreement includes a dedicated Protocol on Ireland/Northern Ireland and this will become fully applicable at the end of the transition period, unless it is superseded by a subsequent agreement between the EU and the UK. These arrangements include the alignment of Northern Ireland to Single Market rules to the extent required to avoid a hard border, the provisions of which will come into force from the end of the agreed transition period (i.e. 31 December 2020). Northern Ireland will remain in the UK customs territory but will continue to apply the rules of the European Union Customs code. The practical detail of how this will work will be clarified during the transition period by the EU and the UK, working together in the Joint Committee.

The negotiations on the new partnership between the EU and the UK are premised on the effective implementation of the Withdrawal Agreement including the Protocol on Ireland/Northern Ireland.

**Future Relationship Negotiations**

Despite the uncertainties that surround Brexit, DAFM has been very clear on its ‘asks’ in any negotiations on the future with the UK, which are:

- continued free access to the UK market, without tariffs, and with minimal additional customs and administrative procedures;
- minimisation of the risk from UK trade agreements with third countries; and
- maintenance of existing reciprocal access to fishing waters and resources.

DAFM has been working within a whole of Government effort to ensure the best possible outcome for the agri-food sector.

The EU negotiating mandate was adopted at the General Affairs Council in Brussels on 25 February 2020. The EU Mandate is clear in expressing the Union's desire to have as close as possible a partnership with the UK in the future, embodied in an economic sense by an “ambitious, wide-ranging and balanced economic partnership”. The 'United Kingdom Mandate', on the other hand, is much less ambitious and more limited in scope, and gives rise to clear potential for friction in future trading arrangements.

A number of rounds of negotiations on the EU-UK Future Partnership took place since early March 2020 however, progress on reaching substantive agreement may take some time. Significant gaps remain between the two sides' approaches, including in a range of areas including fisheries. For more information on Fisheries and Brexit please see the Fisheries chapter.

Until the conclusion of the transition period at the end of 2020, there will not be immediate changes for business and citizens. However, a Free Trade Agreement is very different to membership of the EU Customs Union and Single Market. Whether there is a Free Trade Agreement or not there will be customs and regulatory controls, and goods will need to comply with the new regulatory regime. These controls will be imposed on trade between the EU and Great Britain with the Northern Ireland Protocol covering trade between the Republic and Northern Ireland.

**Departmental preparedness**

DAFM has been preparing for Brexit for over four years to be as ready as possible for all potential outcomes to Brexit, including for various potential ‘No Deal’ dates on 29 March, 12 April and 31 October 2019. These preparations have been iterative in nature and preparations for earlier potential Brexit deadlines have subsequently been improved upon, refined and further strengthened.
The focus has primarily been on developing infrastructure in ports and airports, recruiting, training and re-deploying staff and developing a robust IT system and the testing of these systems and processes.

An interagency approach to the implementation of customs and sanitary and phytosanitary (SPS) controls on imports from Great Britain has been agreed between Revenue, DAFM, the Department of Health, HSE Environmental Health Service (EHS) and the Food Safety Authority of Ireland (FSAI), to ensure regulatory compliance and optimal goods traffic flows. These controls will undoubtedly add costs, delays and complexity all along the supply chain. This will be particularly challenging for businesses in the agri-food sector.

**Budget & supports**

The most immediate impact of Brexit on the agri-food sector has been the drop in the value of sterling. In order to help mitigate against this and other impacts, and to assist in reducing farm gate and business costs as well as improving competitiveness, the Department has introduced a range of measures in its most recent Budgets.

These measures cover the introduction of low-cost loan schemes for farmers and small and mid-size enterprises (SMEs), along with significantly increased funding for Bord Bia and other agencies. The Government and the EU Commission recognise that if there is a no-deal Brexit, more supports will be needed.

**Budget 2020**

€110 million was set out in the Budget through the DAFM vote to provide the first tranche of supports in the event of a no deal Brexit arising, €85m of this was to support farmers finishing cattle for slaughter, €14m to go towards a tie-up scheme for fishing vessels, €6m in investment aid to improve competitiveness and increase environmental efficiency for other livestock farmers and the mushroom sector, and €5m (with further funding provided by the Department of Business Enterprise and Innovation) to support a Food Transformation capital investment scheme for product and market innovation.
In 2019 the Beef Exceptional Aid Measure (BEAM) scheme was introduced, half-funded by the Commission and half-funded by the Exchequer. BEAM was provided in light of the difficult circumstances that Irish beef farmers have been facing as a result of market volatility caused by a number of factors, including uncertainty arising from Brexit. Under the BEAM scheme €78 million was paid out to more than 33,000 beef farmers.

Other activities
In addition, DAFM has led an intensified series of trade missions to develop and grow new markets to increase the sector’s global footprint across the world, and to reduce our dependence on the UK market. DAFM has appointed a number of additional attachés throughout the globe to further develop and deepen market access. Increased supports have been made available for Bord Bia and Teagasc to assist food companies prepare for Brexit, including through market diversification and innovation.

Consultations, Communications and Stakeholder Engagement
Significant communications and stakeholder consultation took place in 2019 and this work will continue in 2020. DAFM, as part of the whole-of-Government approach, has engaged with stakeholders to inform and encourage them to take the necessary steps to allow their trading arrangements with the UK to continue. DAFM is encouraging relevant operators to register with them so that they will receive relevant information directly.

A series of Brexit-related Ministerial bilateral meetings were held in 2019 with French, German, Polish, Danish, Dutch, Belgian, Lithuanian and Slovakian counterparts, also meeting with the then Agriculture Commissioner Hogan and with Fisheries Commissioner Karmenu Vella. There was also a bilateral with Robert Goodwill, the UK Minister for Agriculture, Fisheries and Food.

The purpose of these engagements was to ensure that the Withdrawal Agreement would be ratified and that meaningful negotiations would get underway as soon as possible. The specific areas of interest to the Irish agri-food sector were highlighted, as well as the impacts a no-deal Brexit would have on the agri-food sector in Ireland.

Brexit Outlook for 2020
At the outset the timeline for negotiations on the future relationship was always going to be challenging and it was always likely that the negotiations would be demanding and difficult, as Brexit negotiations have been to date. As set out in the Political Declaration, the aim is for a deal that avoids the need for tariffs or quotas and provides for deep regulatory and customs cooperation. The complications caused by COVID-19 bring further significant logistical challenges to the negotiating process.

It is still the case that the UK has left the EU, and this will bring change once the transition period ends. Whatever the outcome of the forthcoming EU-UK Future Partnership negotiations, it will not be the status quo and will involve considerable adjustment, particularly for business trading with Great Britain.

It is important that Ireland and its citizens and businesses are ready for that change. DAFM is continuing its work to make sure that the agri-food and fisheries sector is prepared for the end of the transition period.

There remains the possibility that the talks on the EU-UK future relationship could break down, which would result in another cliff edge Brexit deadline on 31 December 2020.
7.3 EU Developments

Overview

Romania and Finland shared the role of the President of the Council of the European Union in 2019. Romania from January to June and Finland from July to December. The key issue discussed by Member States, including Ireland, throughout 2019 was the ongoing negotiations of the Common Agricultural Policy post 2020. A significant number of meetings were held by both Presidencies at technical, official and Ministerial level in a bid to reach agreement on the CAP proposals.

Other key issues discussed during 2019 included the Bioeconomy Strategy; international trade issues, in particular the EU-Mercosur Free Trade Agreement and the consequences of the Airbus-Boeing WTO dispute for the EU agri-food sector; EU-African Union co-operation; forestry-related matters such as the European Commission’s Communication on Stepping up EU action to protect and restore the world’s forests, and the EU Forest Strategy post 2020. In addition, the new President of the European Commission launched the European Green Deal in December. The EU Green Deal is a cross-cutting sectoral policy initiative with the aim of achieving a climate neutral economy by 2050.

Towards the end of 2019, the Commission proposed two CAP Transitional Regulations with the aim to provide legal certainty for farmers and Member States on the continuity of Direct Payments and payments under the Rural Development Programme beyond 2020. The proposed one-year transition period ensures there is no gap between the current CAP 2014-2020 and the new CAP post 2020. The first Regulation pertaining to the Direct Payments was adopted on 31 December 2019, while the second, more detailed, Regulation pertaining to the Rural Development Programme is not expected to be adopted until the summer of 2020.

In addition, the Commission approved a 7th amendment to Ireland’s Rural Development Programme 2014 – 2020, approving two alterations to current LEADER arrangements.
EU Institutional Changes European Parliamentary Elections
A key feature during 2019 was the European Parliamentary Elections which took place between 23 - 26 May. The outcome of the European elections was reflective of the significant changes within the European political landscape. There was a strong show of support for the Greens in North and Western Europe, as well as a solid result for the far-right and the emergence of a stronger centrist block of politics. The results also see a shift in the balance of power within the newly formed Parliament, with the traditionally two largest parties, the European People’s Party (EPP) and the Socialist & Democrat Party (S&D), no longer having the majority. It remains to be seen how the new Parliament will consider existing legislative proposals (including the CAP post 2020 proposals) that had not been agreed as part of the co-decision process, as well as new legislative proposals from the Commission.

The newly elected MEPs, including 11 Irish MEPs, took up their seats in the European Parliament on 2 July 2019. As a result of the UK’s withdrawal from the EU, Member States gained additional MEPs. Ireland gained two extra MEPs but they could not take their seats in the European Parliament until 1 February 2020 i.e. after the UK’s withdrawal from the EU on 31 January 2020.

One of the first tasks of the new European Parliament was to elect a new President of the European Commission. The successful candidate was Ursula von der Leyen, who took over from Jean Claude Juncker.

New European Commission
The new European Commission came into effect on 1 December 2019. President von der Leyen appointed three Executive Vice Presidents, all charged with responsibility for a broad thematic area of the Commission’s work programme. These three thematic areas are also identified as the President’s key priorities:-

- Frans Timmermans, Executive Vice-President for the European Green Deal – with responsibility for climate related issues, including the strategy for sustainable food, the circular economy and the introduction of climate related tax policies;
- Margrethe Vestager, Executive Vice-President to make the European Union fit for the digital age;
- Valdis Dombrovskis, Executive Vice-President for economic and financial affairs, with a focus on inclusivity.

The new College of Commissioners also came into effect on 1 December 2019, following approval by the European Parliament. Each Commissioner was assigned responsibility for specific policy areas by the President of the European Commission.

Each Member State may nominate a candidate for a Commissioner role. Ireland’s nominated candidate, Phil Hogan, was appointed the Commissioner for Trade. He held the role of Commissioner for Agriculture with the previous Commission. The new Commissioner for Agriculture is Polish Commissioner, Janusz Wojciechowski.

Also in 2019, there have been leadership changes to the other EU institutions, the European Council and the European Parliament:-

- Charles Michel has taken over from Donald Tusk as President of the European Council;
- David Sassoli replaced Antonio Tajani as President of the European Parliament.
7.4 EU Policy Developments

Bioeconomy Strategy
Discussions on the Bioeconomy Strategy have been taking place at EU level since 2018. These discussions intensified during 2019, culminating in the adoption of Council Conclusions on the Bioeconomy Strategy. The Strategy applies a cross-sectoral holistic approach, with aims to connect the potential of renewable natural resources; the needs of society; and, to protect, maintain and restore eco-systems and biodiversity. The Council Conclusions also includes references to the CAP, in particular, the potential use of CAP rural development instruments namely EIP-AGRI, AKIS and LEADER, to support the deployment of a local sustainable and circular bioeconomy.

Forestry Developments
EU Forest Strategy
The current EU Forest Strategy runs from 2014 – 2020. In 2019, the need for a new, updated and stronger Forest Strategy for the EU was recognised by forest sector stakeholders, the Agri-Fish Council, the Committee of Regions and the European Economic and Social Committee. In addition, sustainable forest management and the cross-cutting importance the forest sector and forestry has in delivering on our climate challenges, it is also seen as playing an integral role in the new European Green Deal. As forestry policy is a national competence, Member States are closely involved in designing the new Forest Strategy. Council conclusions on a new EU Forest Strategy were adopted in April 2019. Preparations for a new EU Forest Strategy will continue in 2020.

Stepping up EU Action to Protect and Restore the World’s Forests
The European Commission adopted its Communication on Stepping up EU Action to Protect and Restore the World’s Forests on 23 July 2019. The Communication set out to protect and improve the health of forests (especially primary forests) as well as to significantly increase sustainable, bio-diverse forest coverage worldwide. The Communication includes five priorities:

1. Reduce the EU consumption footprint on land and encourage the consumption of products from deforestation-free supply chains in the EU;
2. Work in partnership with producing countries to reduce pressures on forests and to “deforest-proof” EU development cooperation;
3. Strengthen international cooperation to halt deforestation and forest degradation, and encourage forest restoration;
4. Redirect finance to support more sustainable land-use practices;
5. Support the availability of, quality of, and access to information on forests and commodity supply chains, and support research and innovation.

In December 2019, the Council of the European Union adopted Conclusions on the Commission Communication. The conclusions:-

- noted that current actions are not enough to halt deforestation and forest degradation;
- endorsed the objectives and scope of the European Commission’s Communication; and
- called for coherent implementation between the five priority areas.
European Green Deal
The European Green Deal was launched by new Commission President Ursula von der Leyen on 11 December 2019. The Green Deal presents a roadmap of actions to boost the use of efficient resources and covers all economic sectors, including agriculture, with the aim of achieving a carbon neutral economy within the EU by 2050. Further details of the Green Deal will emerge in 2020, however, it is intended to increase the EU’s emissions targets by 2030, as well as introducing several strategies in 2020 to help achieve our climate and environmental ambition. These strategies include a Biodiversity Strategy to 2030 and a Farm to Fork Strategy for sustainable food systems. Elements contained within the European Green Deal and the Farm to Fork Strategy will also need to be reflected in Member States CAP Strategic Plans (which form an integral part of the CAP post 2020 proposals), and which will be approved by the European Commission.

Rural Development Programme
In August 2019, the Commission approved the 7th amendment to the Irish Rural Development Programme 2014 – 2020 introducing two alterations to current LEADER arrangements to ensure the continued smooth running of the Programme. The first ensured that, after the transfer of some geographical areas from Cork County Council to Cork City Council in May, all areas would remain eligible for LEADER. The second allowed for the reallocation of an amount, originally intended for a REDZ/rural town initiative, to the best performing Local Action Groups.

EU/African Union co-operation Task Force on Rural Africa
The European Commission set up the Task Force on Rural Africa in May 2018, with the aim of providing recommendations on how to strengthen the African rural sector and maximise the role of the EU in creating jobs and fostering economic development in the African agriculture, agribusiness and agro-industries. The work of the Task Force is part of the wider set of actions launched by the Commission in the framework of the ‘Africa-Europe Alliance for Sustainable Investment and Jobs’.

The Task Force Rural Africa reported to the Commission in March 2019 on how best to contribute to sustainable development and job creation in Africa’s agri-food sector and rural economy, and recommended four strategic areas for action:-

1. A territorial approach for income and job creation;
2. Sustainable land and natural resources management and climate action;
3. Sustainable transformation of African agriculture;

African Union – European Union Agriculture Conference
The third African Union – European Union Agriculture Ministerial Conference which was held in UN FAO, Rome, on 21 June 2019, was co-hosted by the Agricultural Commissioners from the EU and the African Union. Both Commissioners signed a political declaration, endorsed by all Member States, along with an Action Agenda, designed to strengthen the intercontinental partnership at all levels of the food supply chain (multiannual cooperation programme with African continental, regional & national farmer organisations, food safety and research & innovation). The declaration provides for a range of actions from tackling climate challenges to a farmers’ cooperation programme.
**CAP Transitional Regulations**

The Transitional regulations require amendments to seven specific regulations, including the four CAP Regulations. The Regulations aim to provide certainty and continuity in the granting of support to European farmers and ensuring the continuity of support for rural development in the transitional period for those Member States who have used their 2014 – 2020 EAFRD allocations, by extending the current legal framework until the new CAP becomes available.

The Commission proposed two regulations to fulfil these aims. The first, and most urgent regulation, is the financial flexibility regulation which was adopted on 31 December 2019. The second, and more substantial regulation proposes a number of changes to the Rural Development Programme. Member States have raised a number of queries around these changes and discussions will continue into 2020. The Commission expected the transitional arrangements to be in place by mid-summer 2020, subject to agreement on the Multi-annual Financial Framework post 2020, which will clarify the position regarding the future EU budgetary allocations.
CAP post 2020

Discussions on the CAP post 2020 proposals continued in 2019 under the Romanian and Finnish Presidencies. Good progress has been made on the CMO Regulation and on the Horizontal Financial Regulation. However, many issues remain outstanding in the CAP Strategic Plan Regulation.

The Romanian Presidency pressed strongly for a Partial General Approach and engaged with Member States intensively on this. However, due to the complex nature of the proposals and the number of outstanding issues raised by Member States, the Romanian Presidency instead presented a Progress Report at their final Agri-Fish Council in June of the work done during their Presidency, outlining the state of play with each of the draft Regulations.

Work on the CAP proposals continued under the Finnish Presidency. Member States were invited to submit written comments on the draft Regulations by 25 June and these were provided by the Romanians to the Finnish Presidency. Ireland submitted a full position on all Regulations at this time.

At the outset of their Presidency, the Finns undertook to present revised consolidated texts for all three draft Regulations at the very least. At best, they hoped to achieve Council General Approach. However, this was very much dependent on the parallel budgetary negotiation process on the Multiannual Financial Framework (MFF) post 2020.

The Finnish Presidency made great efforts to address Member States concerns, in particular, on the New Delivery Model and the increased climate and environmental ambition.

Despite their best efforts, it was not possible for the Finns to achieve Council General Approach. However, at December Agri-Fish Council they presented a Progress Report which set out the work done to date on the CAP proposals.

The Finns prepared consolidated revised text on all three draft regulations. Two of the Regulations – the Horizontal Regulation (financing, managing and monitoring) and the Amending Regulation (amending the current CMO Regulation) are considered to be largely stable. However, it was accepted that there are elements within each of these Regulations that cannot be fully agreed until the MFF negotiation process has been concluded.

The CAP Strategic Plan Regulation has proved the most problematic for Member States to consider and there are many outstanding issues that will need to be resolved before agreement can be achieved.

Multiannual Financial Framework (MFF) post-2020

Both the Romanian and Finnish Presidencies sought to advance the MFF post 2020 proposals as far as possible in the hope of reaching a consensus. Agreement on the MFF proposals is a matter for Heads of State and Government, followed by adoption by the Council of Ministers with the consent of the European Parliament.

Despite holding extensive discussions with Member States, the Romanian Presidency could not bridge the diverging views amongst Member States on the appropriate level of the budget. In December, the Finnish Presidency presented a revised proposal with updated figures for Member States to consider. Member States were unhappy with the revised proposal and agreement could not be reached.

EU leaders asked the President of the European Council, Charles Michel, to take the negotiations forward with the aim of reaching a final agreement. Technical and political bilateral meetings with Member States resulted in an agreement being reached on the 21st of July 2020. Combining the multiannual financial framework (€1074.3 billion) and a recovery effort known as the Next Generation EU (€750 billion), the package will help the EU to rebuild after the COVID-19 pandemic and will support investment in the green and digital transitions.
7.5 Organisation for Economic Cooperation and Development

Organisation for Economic Cooperation and Development (OECD)

The OECD Committee for Agriculture provides a forum for senior policy officials to share experiences and improve mutual understanding of agriculture, trade and agri-environmental policies, and to enhance policy performance and effectiveness at both the domestic and international levels. The Committee produces two annual flagship publications: the OECD-FAO Agricultural Outlook (summarised below) and the Agricultural Policy Monitoring and Evaluation report.

DAFM represents Ireland at the Committee for Agriculture and Committee for Fisheries, and their subsidiary working parties and networks, including the Working Party on Agricultural Policies and Markets, the Joint Working Party on Agriculture and Trade, the Joint Working Party on Agriculture and the Environment, the Farm Level Analysis Network, the Food Chain Analysis Network, and other ad-hoc groups and committees that are formed to address specific topics.

To augment this work, DAFM hosted a joint seminar with the OECD in 2019. Topics discussed included medium-term prospects and challenges for global agriculture, the impact of climate change mitigation policies in agriculture and the changing landscape of agricultural markets and trade.

OECD-FAO Agricultural Outlook 2020 – 2029

Macroeconomic Outlook

For the coming decade, per capita income of 1.7% per annum is expected for OECD countries. Growth is projected to slow for China but accelerate in India compared with the past decade. The macroeconomic shocks created by the COVID-19 pandemic are predicted to put downward pressure on agricultural commodity prices. An expanding global population remains the main growth factor although the consumption profiles and projected trends vary depending on the development status of individual countries.

Consumption

It is expected that per-capita food expenditure will expand globally, but fall as a share of income, most significantly in middle income countries. The share of food in total household expenditure is expected to fall from about 8% in the base period to 6% in high income countries by 2029. The absolute decrease is expected to be larger in the emerging economies of upper and lower middle income countries, where food expenditure shares are expected to fall from 21% to 17% for lower middle income countries, and from 19% to 14% for upper middle-income countries by 2029 (note, the proportion is 11.7% for Ireland). The proportion of household income spent on food is projected to remain on average at 43% in 2029.

The highest consumption growth rate is projected for fats at 9% over the coming decade. Due to the ongoing transition in global diets towards higher consumption of animal products, fats and other foods, the share of staples in the food basket is projected to decline by 2029 for all income groups. Consumers in middle-income countries are expected to use their additional income to transform their diets from staples to higher-value products (including animal proteins). However, in high-income countries, environmental and health concerns are expected to support a transition from animal-based protein towards alternative sources, as well as the more immediate substitution away from red meat towards poultry and fish.
Figure 7.1 Per capita consumption of main food groups (calorie equivalent), by income group

Note: The 38 individual countries and 11 regional aggregates in the baseline are classified into the four income groups according to their respective per-capita income in 2018. The applied thresholds are: low: < USD 1 550, lower-middle: < USD 3 895, upper-middle: < USD 13 000, high: > USD 13 000. Staples includes cereals roots and pulses. Animal products include meat, dairy products (excluding butter), eggs and fish. Fats include butter and vegetable oil. The category others include fruits, vegetables etc.


An expansion of 11% in the global population (an increase of 842 million people between 2017-19 and 2029), along with an increase in per capita income in all regions, is expected to increase total consumption of food commodities by 15% by 2029, as measured on a calorie basis. Asia Pacific, the world’s most populous region, will continue to play the most significant role in shaping global demand for food over the outlook period as it is projected to account for 53% of the global population in 2029 (i.e. 4.5 billion people).

Growth in animal protein consumption will be particularly pronounced in upper-middle and lower-middle income countries. Income-driven growth in demand for meat and fish in China, which is expected to see an 11% increase in daily per capita availability, will be the main contributor to the upper-middle income country group.

By 2029, consumption of dairy products is projected to expand by 1.0% p.a over the medium-term, while meat and fish consumption is expected to increase by 12% and 16.3% respectively, with much of this attributed to Asia and the rest of the world. While ongoing economic and population growth in developing countries are the main drivers of meat consumption globally, the Outlook projects a levelling-off in per capita meat consumption with a shift towards a demand for quality products in high-income countries.

Protein from animal sources will continue to account for the most protein consumption in high-income regions such as North America, Europe and Central Asia. Global consumption of meat is projected to increase by 0.5 kg retail weight equivalent by 2029, with most of this increase due to the increased consumption of poultry meat. Demand is shifting for dairy fat products from fresh dairy products in Europe and North America and may reflect consumers look on the health benefits of dairy fat consumption and the preference to consume less processed foods.
**Production**

Global agricultural production is projected to increase over the coming decade leading to a further decline in real commodity prices. Global livestock production is expected to expand by 14%. Poultry production will account for about half of the projected increase in total meat output. The expansion of pig meat production will be largely concentrated in China, which is expected to recover from the ASF outbreak by 2025. Aquaculture production is projected to continue its expansion and by 2024 it is projected to overtake capture fisheries as the most important source of fish worldwide. The Outlook projects global crop production to increase by almost 15% by 2029, mostly due to yield improvements through intensive use of agronomic inputs and technical efficiency improvements.

Livestock production is predicted to expand by nearly 14%. Poultry is expected to be the fastest growing meat, with a projected increase in production of 16%. The projected increase of 14% in sheep meat output will mainly be supported by strong demand growth in China and Africa, most of which will be sourced locally. Globally, beef production is projected to expand by about 9% with most of this increase originating from Asia Pacific, China and Pakistan, in particular, and from Latin America, together accounting for more than half of global output growth. Beef production will also expand in North America supported by low feed costs and positive price expectation due to sustained domestic demand. In the European Union, however, the low profitability of the beef sector, together with large efficiency gains in the dairy is expected to result in a decrease of 6% in the beef output over the next ten years. Pigmeat production is projected to grow by 9% by 2029, with China expected to account for nearly 60% of global output growth over the coming decade. While the African Swine Fever outbreak is projected to continue to negatively impact pork production in China and in other countries in East and South-East Asia in the first years of the projection period, pigmeat output is expected to gradually recover by 2025.

**Figure 7.2 Growth in global livestock production**

Among all livestock commodities, dairy is expected to experience the strongest growth over the next decade in response to strong demand for fresh dairy products in Asian countries, but also with higher-value dairy products such as cheese and butter. Milk production is projected to increase by 20%, with India and Pakistan accounting for 60% of global output growth.

Over the outlook period, world fish production is projected to grow at 1.3% p.a. Asia Pacific, the main producing region, will account for 80% of the global increase.

**Prices**

Over the coming decade, most commodities are expected to see real price declines of less than 1% with the exception of meat. Over the coming decade, meat prices are projected to decrease more strongly (-1.8% p.a.), partly as a reflection of their current high levels, while crops prices will experience a more modest decline (-0.3% p.a.).

**Figure 7.3 Average annual real price change for agricultural commodities, 2020-2029**

It is expected that SMP prices will remain stable in real terms throughout the projection period. Annual butter prices peaked historically in 2017 and have been declining since. Butter prices are expected to continue to decline slightly in real terms, in line with most other agricultural commodities over the projection period. World prices for WMP and cheese are expected to be affected by butter and SMP price developments, in line with the respective content of fat and non-fat solids.

**Trade**

Over the next decade, agricultural trade will grow at a lower rate mainly because there will be a slowdown in demand growth from China. Aggregate trade for the commodities covered in this Outlook is projected to grow at 1.2% p.a. over the projection period, compared to 2.8% p.a. over the previous decade. Latin America and the Caribbean are expected to increase exports with North American exports to be muted. Europe has moved from being a net importer to a net exporter partly due to a static population and constant per capita consumption.

7.6 International Trade Developments

**Russian Ban on EU Products**

There are essentially two bans in place. The Russian Federation imposed a temporary ban on importation of pigs, pork and reproductive material certified from the EU after 26 January 2014 in response to the discovery of two cases of African Swine Fever in wild boar in Lithuania.

A general ban on the importation of agri-food products was imposed by the Russian Federation in August 2014 on countries (including the EU) which had adopted sanctions against Russia in the context of the situation in Ukraine. Although partially lifted (since 1 June 2016) in respect of imports of beef, poultry and vegetables intended for use in baby food manufacturing, the overall ban remains in place until 31 December 2020.

Ireland has consistently urged the European Commission to intensify engagement with the Russian authorities with a view to the lifting of its embargo. While efforts to secure real engagement from the Russian authorities continue, the broader task of securing alternative market outlets for EU food products continues in parallel.

**EU-US**

**US Tariffs arising from WTO Airbus/Boeing Dispute**

The US and EU have been in a long-running dispute regarding subsidies to their respective major Aircraft manufacturers, Airbus (EU) and Boeing (US). Both sides have taken individual cases to the WTO. The WTO Appellate Body has passed judgment on both, with the EU and US both being found at fault.

The WTO arbitration ruling on 2nd October 2019 allowed the US to levy tariffs of $7.496 billion against EU exports into the US. The equivalent WTO ruling permitting EU tariffs against US exports is due in mid-2020.

The Office of the United States Trade Representative (USTR) published a list of EU goods which it commenced applying tariffs to with effect from 18th October 2019. This list levies 10% tariffs on the aircraft industries of the EU countries (FR, DE, UK, ES) that subsidised Airbus as well as a 25% tariff on all EU MS across a range of targeted products.

The value of Irish exports impacted, in 2018 figures, is approximately, €366 million attracting €91.6 million in additional tariffs. The precise selection of product categories means that Ireland is ranked first in terms of tariffs imposed as a percentage of GDP and per capita, and sixth in terms of the absolute value of tariffs.

On the 2nd of December 2019, the USTR issued a statement outlining that they were considering increasing the tariff rates and subjecting additional EU products to the tariff regime under this dispute. They initiated this process due to the result of the ‘reverse compliance panel case’, which the EU lost in the WTO. On the 15th of February 2020, the USTR released the list of additional EU products to the tariff regime. There was no additions or changes to the Irish products that were originally subjected to additional tariffs.
The EU Commission has consistently communicated to the US that the EU is ready to work with them on a fair and balanced solution for our respective aircraft industries. Ireland’s preference is for a negotiated settlement to be reached without tariffs being imposed on either side.

**Autonomous ‘EU 481 grain fed beef’ quota**
The European Commission reached an agreement with the US on the autonomous ‘**EU 481 grain fed beef**’ quota, which was set up to resolve a hormone use dispute between the EU, US and Canada. The existing hormone-free beef quota of 45,000 tonnes will remain at exactly the same level, with the change being 35,000 tonnes of quota being “ring fenced” for the US, with this US allocation being phased in over a 7-year period. The Agreement entered into force on the 1st of January 2020.

**EU-US Trade Negotiations**
The Transatlantic Trade and Investment Partnership (TTIP) talks remain on hold. The European Council approved mandates, on the 15 April 2019, for an agreement on the elimination of tariffs for industrial goods and on conformity assessment. The US administration has also requested the inclusion of agriculture in these discussions. Ireland and the EU remain fully committed to a continued strong partnership with the US as equal partners. Ireland has supported the EU Commission in its view that agriculture should remain excluded from the scope of any future agreement with the US, as per the Juncker-Trump agreement.

**EU-MERCOSUR**
A political agreement was announced on 28 June 2019 marking the end of a twenty-year period of negotiations on the EU-Mercosur Free Trade Agreement. During this time Ireland consistently raised concerns about the very negative impact that an agreement would have on the EU’s agriculture sector, and particularly the beef sector. This agreement includes a significant Tariff Rate Quota for beef - 99,000 tonnes Carcase Weight Equivalent (CWE). To assist farmers with the challenges of market disturbance from the deal, the Commission will make available a fund of €1 billion.

The Commission has described the agreement as one of the largest Free Trade Agreements in the world. From an EU perspective, it establishes improved access to a market of more than 260 million people with a saving of €4 billion in tariffs annually for European exporters.
The inclusion in the agreement of quotas for EU exports of cheese, milk powders and infant formula, as well as full liberalisation in the case of spirits, chocolate and other goods, provides opportunities for Irish exporters to experience growth and increased exports, dairy produce being an example. While the agreement provides for Mercosur countries to establish legal guarantees protecting 357 EU GIs, including Irish Whiskey and Irish Cream Liqueur.

The Agreement also includes a detailed chapter on sustainability and recognises the need to address the urgent threat of climate change and the role trade has in that regard, as well as underscoring the importance of both parties implementing provisions of the Paris Agreement. Importantly the Agreement also includes a chapter on SPS standards and upholds the strict EU rules on SPS that protect food safety, animal and plant health and animal welfare, as well as EU consumer’s interests. Regarding food safety and consumer protection, all EU imports have to comply with EU standards.

Further to the announcement of the EU Mercosur political agreement, a whole-of-government review on the impact on Ireland of the EU Mercosur Political Agreement was announced. This research is being led by the Department of Business, Enterprise and Innovation, who have overall responsibility for Irish Trade policy, with specialist input and assistance from DAFM. Following a tender process, Implement Consulting Group were commissioned to deliver an Economic and Sustainability Impact Assessment (ESIA) for Ireland of the EU Mercosur Trade Agreement. A final report is expected at the end of August 2020.

At present, the Agreement is undergoing legal scrubbing and translation. The European Commission is expected to bring the Mercosur deal to the Trade Council in Q3 or Q4 2020. The outcome of the ESIA study will inform Ireland’s approach to this Trade Council. The provisional application of those aspects of the Agreement which the Commission has exclusive competence (including trade) will require the agreement of the Trade Council (Qualified Majority Voting) and ratification by the European Parliament.

Allowing for the phasing-in of the beef tariff rate quota arrangements over a period of five years, it could take six years before the agreement is fully in place. The formal ratification process for the wider Agreement - which requires ratification by individual Member States because it is one that contains elements which fall under both EU exclusive competence and Member State competence - is likely to prove challenging at both European Parliament and national levels.

**EU-Australia & New Zealand**

The Council of the European Union authorised opening negotiations for a trade agreement between the EU and New Zealand and between the EU and Australia on 22nd May 2018. The talks with Australia and New Zealand started on the 18th and 21st June 2018 respectively.

Seven rounds of negotiations have been completed with between the EU and New Zealand. The most recent round took place between the 30th March and 3rd April 2020 by video conference. One of the most challenging files in these negotiations will be agriculture. It is a key offensive interest for New Zealand to secure market access for their beef and sheep meat and dairy produce - the EU has not yet presented its offer in this regard. Further progress on these items will be very much linked with progress in the overall negotiations.

Six rounds of negotiations have taken place between the EU and Australia with the most recent round taking place in Canberra on the 10th to 14th February 2020. In August 2019, the Australian Government opened a public objections procedure concerning the terms proposed by the EU for the protection of geographical indications under any Australia-EU Free Trade Agreement. The published list included 236 spirit terms and 172 food terms proposed by the EU. Submissions were received up to 13 November 2019. Ireland had three items on the list namely: Irish Cream Spirit, Irish Poteen and Irish Whiskey. Ireland will continue to insist that these GIs are protected in any future agreement.

During the 5th round of negotiations in October 2019, the EU presented an offer to Australia. This initial EU offer excluded most of our most sensitive agricultural tariff lines. These exclusions
included live cattle, sheep/goats, all beef/sheep/goat meat, sugar, all dairy products except several cheeses and caseins, most egg products, some fruit and vegetables and a number of Processed Agricultural Products. Ireland was, in general, pleased to note that our most sensitive products (other than some cheeses and caseins) had been excluded from this offer. Regarding cheeses, our most sensitive lines appear to have also been excluded i.e. Cheddar and Cheeses of a fat content by weight of <=40%.

Ireland has strong relationships with Australia and New Zealand and enjoys good cooperation on a bilateral and a multilateral level with both countries. Ireland is open to trade deals, however, as with any trade deal, there will be both defensive and offensive interests in negotiations, and these must be balanced and have due regard to our special sensitive sectors, such as beef, sheep meat and dairy.

**EU-INDONESIA**

The Council gave the Commission the green light to start negotiations for an FTA with Indonesia on 18 July 2016. The most recent round took place on the 2nd December 2019 in Brussels. The 10th round was due to take place in March 2020 in Bali. However due to the Covid 19 crisis, this was cancelled with no future round yet scheduled.

To date, detailed discussions have been held on all chapters of the potential agreement with good progress made on trade facilitation, SPS and sustainability issues. Initial market offers were exchanged during the 5th round of negotiations. The EU offered to liberalise 78% of tariff lines at Entry Into Force (EIF) with a further 12% to be liberalised over a 7-year period. The Indonesian offer was similar with 79% of lines liberalised at EIF and another 11.3% over a 7-year period. Most agricultural products including meats, animals, fish, fruit and vegetables would be fully liberalised at Entry into Force. In July 2019, during the 9th round of negotiations, a second offer was exchanged on tariff liberalisation. However, this offer contained no alteration by either side to the initial tariff offers on agricultural products. This round also saw the publication for opposition of the respective lists of geographical indications and the commencement of detailed discussions on product specific rules.
EU-JAPAN
The EU-Japan negotiations for a Free Trade Agreement were launched in March 2013. On 8 December 2017, the EU and Japan finalised the Economic Partnership Agreement (EPA). The EU and Japan signed both agreements at a summit on 11 July 2018 in Brussels with the agreement coming into force on 1 February 2019.

The agreement represents a major boost for the EU and Irish agri-food sector, with considerable additional market access provided for in relation to beef, pigmeat and dairy (cheeses) products. Over 200 Geographical Indications are protected under the deal including Irish Whiskey and Irish Cream liquor – another boost to the Irish beverage industry which has seen steady increases in recent years. The agreement is particularly timely as Ireland secured enhanced beef access to Japan in 2019. Furthermore, during the June 2019 Ministerial Trade Mission to Japan agreement was reached in principle on market access for Irish sheepmeat with full access subsequently achieved in July 2019.

EU-Mexico
On 21 April 2018, the EU and Mexico reached an ‘agreement in principle’ on the trade part of a modernised EU-Mexico Global Agreement (updating the 2000 Agreement). Technical issues have now been resolved and the full legal text has been finalised. The announcement of an agreement in principle consolidates and strengthens the EU/Mexico relationship. Discussions on public procurement at sub-central level are ongoing and once finalised, the text of the full Agreement will be sent for translation into all EU official languages before it is transmitted to the Council and the European Parliament for signature, provisional application and conclusion.

From an EU perspective, significant market access improvements were agreed for core exports of cheese and dairy products to Mexico. There will be a considerable improvement of market access conditions for EU’s exports for pork and poultry.

For food and processed agricultural products, this agreement will achieve liberalisation of all processed agriculture products with rapid or immediate tariff dismantling for key products such as pasta, chocolates, confectionery and chocolates, biscuits, lactose and lactose syrup. This should result in improved market access to both parties and cheaper imports for consumers. Full protection of 99% of European Union Geographical Indications has also been assured, including Irish Whiskey and Irish Cream Liqueur.

Comprehensive Economic and Trade Agreement with Canada
The Comprehensive Economic and Trade Agreement with Canada (CETA), which removed over 99% of tariffs, concluded in September 2014. From an Irish agri-food perspective, the outcome was generally satisfactory; although increased access to the EU market was granted for Canadian beef, greater access to the Canadian market for EU beef and dairy products (notably cheese) was secured. The agreement allows immediate 100% tariff-free market access for EU beef to Canada. There is a TRQ of 18,500 tonnes for cheese and industrial cheese, which is managed by an import licensing system. This is made up of 17,700 tonnes plus 800 tonnes which Canada relocated from its WTO TRQ in the first year.

Following a process of legal review, the agreement was signed on 30 October 2016. On 15 February 2017, the European Parliament gave its consent for CETA and on the 21 September 2017 the agreement provisionally entered into force. As such, most of the agreement now applies. The agreement will enter into force fully and when all EU MS parliaments have ratified the agreement. To date 12 EU Member States have ratified CETA: Austria, Croatia, Czech Republic, Denmark, Estonia, Finland, Latvia, Lithuania, Malta, Portugal, Spain and Sweden.

EU-Singapore
Negotiations for an EU-Singapore FTA were launched in March 2010 and completed on 17 October 2014, when the FTA entered the legal review phase. However, the approval process by the Council of Ministers and the European Parliament was put on hold pending the outcome of proceedings in the European Court of Justice on whether the Commission had the necessary...
competence to sign and conclude the agreement alone, or whether the participation of Member States was necessary in respect of certain aspects (mixed competence).

On 16 May 2017, the European Court of Justice ruled that the Singapore agreement could not be ratified at EU level without the approval of all Member States. It added that any trade deal that includes an out-of-court dispute settlement system would require ratification by the EU’s 38 national or regional parliaments.

The draft trade agreements were signed on 19 October 2018 and received the consent of the European Parliament on 13 February 2019. Following the EP’s consent and Singapore concluding its own internal procedure, the Free Trade Agreement entered into force on the 21st of November 2019. The Investment Protection Agreement (IPA) will need to be ratified by all EU Member States before entering into force.

**EU-Vietnam**

In July 2015 the Commission announced a provisional agreement with Vietnam covering the full dismantling of 99% plus of tariffs over 7 years for EU and 10 years for Vietnam.

Negotiations had been launched with Vietnam in December 2012. The provisional FTA provides the elimination of significant tariffs and the addressing of other non-tariff barriers to trade. The Trade and Investment agreements were signed on 30 June 2019. Both sides then began their respective ratification process. This process is almost complete following European Parliament consent on 12 February 2020 and with the Council subsequently adopting a decision on the conclusion of the free trade agreement (FTA) on the 30th March 2020. This Council decision clears the path, on the EU side, for the entry into force of the agreement. Once the Vietnamese National Assembly also ratifies the FTA, the agreement can enter into force, most likely in summer 2020. However the IPA will further need to be ratified by all EU Member States according to their own national procedures before it can enter into force.

**EU-Turkey**

EU-Turkey Customs Union entered into force on 31 December 1995. In December 2016, the Commission proposed to the Council that the Customs Union be modernised. The Council commenced deliberations on the Commission’s proposal in January 2017. The proposal was further discussed, in early 2017, in Council Working Groups, as well as the European Parliament. The Council must adopt the Negotiating Directives before negotiations can commence. Currently no further work towards the modernisation of the EU-Turkey Customs Union is foreseen.

**US China Phase 1 Trade Deal**

US President Donald Trump & China’s Vice-Premier Liu He signed a trade deal in Washington on the 15 January 2020, with the promise of increased Chinese imports of US goods. The deal means that China will buy an average of at least $40bn a year of US food, farm & seafood products, reaching a total of $80bn over the next two years.

The agreement between the US and China on a Phase 1 Trade Deal could result in the US gaining a competitive advantage over Ireland in the Chinese market as China will import a wider range of beef and pork products as well as recognising USDA oversight of US meat and dairy infant formula processing facilities. It should be noted that the tariffs currently imposed on agricultural goods by the US and China will remain in place until further Phase 2 discussions.
7.7 OECD Support estimates

Globally, agricultural policies are implemented in different ways and to different extents between countries. In order to measure and compare the extent of those policies, the OECD has developed agriculture support indicators that, despite their diversity, express policy measures with numbers in a comparable way across time and between countries.

The OECD define agricultural support as the annual monetary value of gross transfers to agriculture from consumers and taxpayers, arising from governments’ policies that support agriculture, regardless of their objectives and their economic impacts.

Three key indicators are produced:

- The Percentage Producer Support Estimate (%PSE) represents policy transfers to agricultural producers, measured at the farm gate and expressed as a share of gross farm receipts. Transfers included in the PSE are composed of market price support, budgetary payments and the cost of revenue foregone by the government and other economic agents. The PSE represents transfers to producers individually. These transfers require that an individual farmer takes actions to produce goods or services, to use factors of production, or to be defined as an eligible farming enterprise or farmer, to receive the transfer.

- The Percentage Consumer Support Estimate (%CSE) measures by how much domestic farm gate prices are inflated by agriculture policy at farm gate level. It captures the value of transfers to consumers and is almost always negative because transfers from consumers due to market price support policies outweigh any consumption subsidies from taxpayers that might be provided to consumers.

- The Percentage Total Support Estimate indicator (%TSE) represents the total of policy transfers to the agricultural sector expressed as a share of GDP. TSE transfers consist of transfers to agricultural producers (measured by the PSE), consumers (measured by the CSE) and support to general services to agricultural sector (measured by the GSSE).

The full data series, charts, tables and analysis can be found on the OECD website.

The OECD provide a comprehensive analysis of these indicators and major agriculture and food policy developments across the globe in its annual ‘Agricultural Policy Monitoring and Evaluation’ publication. It should be noted that the recently published 2020 edition contains a useful summary range of the range of agriculture and food policy measures taken by countries across the globe in response to Covid-19.

For the purposes of this report, a selection of data has been extracted from the OECD database in order to consider the three indicators in detail (note that while data is available for 2019 and can be found at the links above, as it is provisional it is not included here).

**Producer Support Estimate (PSE)**

Of the countries selected in table 7.1, Japan has the highest PSE in 2018 at almost 47% when expressed as a percentage of gross farm receipts. While not included in the data shown here, Norway, Switzerland, Iceland and Korea tend to have some of the highest PSE rates (53-62%) when expressed as a percentage of gross farm receipts. In contrast, the EU’s PSE, 20%, is substantially lower, although slightly above the OECD average of 19.2%. Not surprisingly, New Zealand has the lowest level of support, whether expressed in absolute terms or as a percentage of farm receipts.
Table 7.1 Producer Support Estimate for a selection of countries and regions, 2016 - 2018

<table>
<thead>
<tr>
<th>Country</th>
<th>€ million</th>
<th>% of Gross Farm Receipts</th>
<th>€ million</th>
<th>% of Gross Farm Receipts</th>
<th>€ million</th>
<th>% of Gross Farm Receipts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brazil</td>
<td>5,379</td>
<td>3.9</td>
<td>3,657</td>
<td>2.4</td>
<td>1,942</td>
<td>1.5</td>
</tr>
<tr>
<td>China</td>
<td>199,763</td>
<td>16.2</td>
<td>187,033</td>
<td>15.5</td>
<td>174,951</td>
<td>14.3</td>
</tr>
<tr>
<td>EU 28</td>
<td>88,152</td>
<td>20.1</td>
<td>88,376</td>
<td>19.1</td>
<td>93,472</td>
<td>20.0</td>
</tr>
<tr>
<td>Japan</td>
<td>38,350</td>
<td>45.9</td>
<td>37,592</td>
<td>46.9</td>
<td>35,435</td>
<td>46.7</td>
</tr>
<tr>
<td>New Zealand</td>
<td>147</td>
<td>0.9</td>
<td>144</td>
<td>0.9</td>
<td>75</td>
<td>0.5</td>
</tr>
<tr>
<td>USA</td>
<td>32,954</td>
<td>9.5</td>
<td>29,996</td>
<td>8.6</td>
<td>37,543</td>
<td>12.2</td>
</tr>
<tr>
<td>OECD (Total)</td>
<td>208,898</td>
<td>18.6</td>
<td>202,693</td>
<td>17.7</td>
<td>209,024</td>
<td>19.2</td>
</tr>
</tbody>
</table>


Consumer Support Estimate (CSE)
The CSE of selected countries shows that China has the largest implicit tax on consumers in absolute terms, but when expressed as a percentage of consumption expenditure at farmgate, Japan comes out highest, at -42% in 2018. The EU has a lower CSE percentage than the OECD average, thus indicating that policies are less harmful to consumers. In contrast, the US has a high positive net-support to consumers and this is reflective of the significant domestic food assistance programmes in place there.

Table 7.2 Consumer Support Estimate for a selection of countries and regions, 2016 - 2018

<table>
<thead>
<tr>
<th>Country</th>
<th>€ million</th>
<th>% of Consumption Expenditure *</th>
<th>€ million</th>
<th>% of Consumption Expenditure *</th>
<th>€ million</th>
<th>% of Consumption Expenditure *</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brazil</td>
<td>-1,418</td>
<td>-1.55</td>
<td>-338</td>
<td>-0.38</td>
<td>31</td>
<td>0.05</td>
</tr>
<tr>
<td>EU 28</td>
<td>-15,343</td>
<td>-4.41</td>
<td>-14,416</td>
<td>-3.96</td>
<td>-18,857</td>
<td>-5.05</td>
</tr>
<tr>
<td>Japan</td>
<td>-46,844</td>
<td>-40.70</td>
<td>-46,081</td>
<td>-41.60</td>
<td>-44,279</td>
<td>-42.19</td>
</tr>
<tr>
<td>New Zealand</td>
<td>-113</td>
<td>-4.44</td>
<td>-114</td>
<td>-4.30</td>
<td>-54</td>
<td>-2.14</td>
</tr>
<tr>
<td>USA</td>
<td>31,693</td>
<td>15.39</td>
<td>29,230</td>
<td>13.45</td>
<td>25,474</td>
<td>11.74</td>
</tr>
</tbody>
</table>

*Net of taxpayer transfers


Total Support Estimate (TSE)
Total support relative to the size of countries’ economies varies considerably across OECD countries. For the data selected, China has the highest TSE as a percentage of GDP at 1.77%. At the other extreme, New Zealand has the lowest absolute and relative TSE. In almost all countries, policy transfers to individual producers dominate total support, accounting for approximately 72% of the total support provided to the agricultural sector in 2017-2019.
### Table 7.3 Total Support Estimate for a selection of countries and regions, 2016 - 2018

<table>
<thead>
<tr>
<th>Country</th>
<th>€ million</th>
<th>% of GDP</th>
<th>€ million</th>
<th>% of GDP</th>
<th>€ million</th>
<th>% of GDP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brazil</td>
<td>8,283</td>
<td>0.51</td>
<td>6,786</td>
<td>0.37</td>
<td>4,819</td>
<td>0.30</td>
</tr>
<tr>
<td>China</td>
<td>233,889</td>
<td>2.31</td>
<td>220,994</td>
<td>2.04</td>
<td>205,769</td>
<td>1.77</td>
</tr>
<tr>
<td>EU 28</td>
<td>99,115</td>
<td>0.66</td>
<td>99,201</td>
<td>0.65</td>
<td>104,530</td>
<td>0.67</td>
</tr>
<tr>
<td>Japan</td>
<td>46,815</td>
<td>1.05</td>
<td>45,964</td>
<td>1.06</td>
<td>43,211</td>
<td>1.02</td>
</tr>
<tr>
<td>New Zealand</td>
<td>489</td>
<td>0.29</td>
<td>495</td>
<td>0.27</td>
<td>402</td>
<td>0.23</td>
</tr>
<tr>
<td>USA</td>
<td>83,928</td>
<td>0.50</td>
<td>80,581</td>
<td>0.47</td>
<td>84,172</td>
<td>0.48</td>
</tr>
<tr>
<td>OECD (Total)</td>
<td>290,472</td>
<td>0.67</td>
<td>283,188</td>
<td>0.64</td>
<td>284,005</td>
<td>0.64</td>
</tr>
</tbody>
</table>

COVID-19 & GLOBAL FOOD SYSTEMS

Even before the outbreak of COVID-19, global food systems were faced with a formidable “triple challenge” of simultaneously providing food security and nutrition to a growing global population, ensuring the livelihoods of millions of people working along the food chain from farm to fork, and ensuring the environmental sustainability of the sector.

The OECD presents the three elements of the challenge facing the food system as follows:

- The world population has grown from 3 billion in 1960 to about 7.5 billion today, and there is more food available per capita than ever before. Still, globally, over 800 million people are undernourished and an even greater number are either overweight or obese. Further, the world’s population is expected to reach almost 10 billion in 2050, requiring a significant increase in the production of affordable, healthy and nutritious food.

- The process of technical and structural change has seen consumers benefiting from lower prices and high quality, nutritious food. At the same time, this process has put pressure on the incomes of farmers who are not able to compete.

- The tripling of agricultural production since 1960 has been achieved primarily through improved yields and productivity growth, with only modest overall change in agricultural area. Nevertheless, production growth has imposed stresses on soil and water resources, and direct emissions from the agricultural sector accounts for 11% of global GHG emissions.

The OECD has recommended that policies and approaches to address both the dramatic short-term shocks and to enhance long-term resilience are required, and those that encourage global food systems rather than domestic self-sufficiency will be more effective at meeting the triple challenge. In a recent policy paper, they have made a series of Covid-19 related recommendations under the heading of the triple challenge and these are presented below.

Challenge 1: Ensuring food and nutrition security during Covid-19

- COVID-19 containment measures have disrupted food production and trade, although global food availability has held up remarkably well so far.

- The necessary health and safety measures to protect the workforce from exposure to COVID-19 have affected the availability of farm labour and led to reduced productivity in food processing and distribution plants.

- For international food trade, food safety and certification checks and new biosecurity arrangements are increasing costs and time at borders. Transport and logistics have been slower and are more expensive due to a reduction in available drivers, the reduction in international air cargo and unforeseen port closures.

- Effective responses to COVID-19 should first ensure that global food systems remain open and operational, so that food can move to where it is needed. This task cannot be achieved by any country acting alone: international co-operation is essential.

- In the shorter-term, well-functioning social safety nets are needed to ensure that the most vulnerable in society have access to food.

Challenge 2: Protecting livelihoods along the food chain

- Impacts are likely to hit farmers especially hard in regions where food production systems are more labour intensive. Farmers in both developing and developed countries may also have lower off-farm income due to the pandemic.

- Huge reductions in demand from the food service sector have created challenges for food producers and processors. Pivoting towards supplying food retail is not always straightforward, as food destined for the food service sector is sold in much larger quantities and package sizes.
Over the medium-to-longer term, shifts in consumer demand due to confinement measures may have sustained effects on patterns of food consumption. Reducing human contact will be a high priority for consumers, who are likely to increasingly use click and collect, meal delivery, drive through, or curb-side delivery options.

Demand for high-value, specialised agricultural and fisheries products is also likely to remain depressed, as consumers reduce their household spending.

These shifts in consumer demand will require many actors along the food supply chain to adapt or reinvent their business models, and some may never recover.

A first challenge will thus be to provide necessary short-term support to affected producers in a way that ensures that basic productive capacity is not lost. But a second, equally important challenge is to avoid temporary measures to support livelihoods becoming entrenched, preventing the necessary adjustments and reducing long-term resilience of global food systems.

Examples of positive policy interventions include more timely market information for actors in the chain, including on consumer behaviour; marketing supports including website design, e-sales, etc; flexibilities for payment deadlines; etc.

Challenge 3: Environmental sustainability

Given the urgency to address the COVID-19 public health crisis, there is a risk that environmental policies are weakened or abandoned.

Better policies, in combination with efficiency gains, offer considerable scope to limit or reduce the environmental impact of global food systems.

Policy makers should take the opportunity to reform existing policies that jeopardise sustainability and reduce resilience; revisit current resilience toolkits for farmers faced with shocks to ensure they promote sustainable practices going forward; and ensure that global food systems are able to produce food where it can be done most efficiently and with the least damaging environmental impact.

In 2019 on farm investment was increased to almost €91 million. A total of 23 EIP projects have now been awarded, with a total budget €24 million. DAFM awarded €1,194,697 to the Protecting Farmland Pollinators EIP.

8.1 Overview
Over the course of 2019 the environmental goals of the agriculture and land use sector including forestry were progressed in line with the long-term policy vision for a carbon neutral sector. While Goal 13 of the Sustainable Development Goals (SDGs), *Climate Action*, is particularly relevant, our environmental goals also support a number of the other SDGs such as 2, 7, 12, 14 and 15. The Department continues to work on strengthening the resilience and adaptive capacity of the sector while integrating climate change measures into national policies and strategies and raising sectoral awareness and capacity on climate change issues.
8.2 National Climate Change Strategy

The All of Government Climate Action Plan

In June 2019, the All of Government Climate Action Plan to tackle climate breakdown was published, setting out over 180 actions to meet Ireland’s EU target for 2030 (i.e. 30% reduction on GHG emissions based on 2005 levels) and putting Ireland on the right trajectory for 2050. It sets an ambitious target of net zero greenhouse gas emissions by 2050 while acknowledging the national policy position of an approach to carbon neutrality within the agriculture and land-use sector.

Figure 8.1. The Climate Change Challenge

The Plan sets ambitious targets for the agriculture, forestry and land use sector as follows:

- Emissions from the sector in 2030 to be between 17.5 – 19.0 Mt CO2 eq by achieving between 16.5 -18.5 Mt CO2 eq cumulative abatement over the period 2021 – 2030.
- Achieve 26.8 Mt CO2 eq abatement through Land Use Land Use Change & Forestry (LULUCF) actions:
  - 8,000 ha of newly planted forest per annum,
  - 40,000 ha per annum of reduced management intensity of grasslands on drained organic soils.
- Set a target for the level of energy to be supplied by indigenous biomethane injection in 2030.

Table 8.1 Climate Action Plan – Sectoral Targets

<table>
<thead>
<tr>
<th>Key Sectoral Targets</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Electricity</td>
<td>50–55%</td>
</tr>
<tr>
<td>Transport</td>
<td>45–50%</td>
</tr>
<tr>
<td>Built Environment</td>
<td>40–45%</td>
</tr>
<tr>
<td>Enterprise</td>
<td>10–15%</td>
</tr>
<tr>
<td>Agriculture</td>
<td>10–15%</td>
</tr>
</tbody>
</table>
Government oversight of this plan has been strengthened through:

- An amendment of the Climate Action Bill to provide a legal basis for the establishment of a new Climate Action Council (extending the powers of the current Climate Advisory Council);
- Support for the establishment of an Oireachtas Climate Action Committee (akin to the PAC—Ministers and public bodies will be accountable); and
- Carbon Proofing of all large-scale Government projects.

There is also a monitoring and reporting structure to drive implementation through:

- The establishment of a Climate Action Board under the Department of the Taoiseach, which will report to both the Cabinet Committee and Cabinet on progress of actions within the Plan;
- The establishment of a Just Transition Monitoring and Review Group (supported by the National Economic and Social Council (NESC) and under the Department of the Taoiseach) that will publish a Just Transition Strategy on a three-yearly basis.

**Figure 8.2 All-of-Government Action Plan to Tackle Climate Disruption**

**Figure 8.3 National Governance Structure**
Agriculture, Forest and Seafood Climate Change Sectoral Adaptation Plan

Adaptation involves preparing for the impacts of climate disruption, including, preparations for events such as flooding, fodder shortages or extreme weather storms in harbours and in forests.

The Department of Agriculture, Food and the Marine published its first statutory Agriculture, Forest and Seafood Climate Change Sectoral Adaptation Plan during 2019.

The overall goal of this Plan is to build resilience to the effects of climate change and weather related events in the agriculture, forestry and seafood sector, to reduce any negative impacts where possible, to take advantage of any opportunities and to contribute to the achievement of the Department’s Statement of Strategy Goals.

**Table 8.2 Sectoral Adaptation Plan**

<table>
<thead>
<tr>
<th>Four Overarching Objectives</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Ensure a joined up approach to adaptation planning in the Department of Agriculture, Food and the Marine.</td>
</tr>
<tr>
<td>2. Raise awareness of the impacts of climate change in the agriculture, forest and seafood sector</td>
</tr>
<tr>
<td>3. Reduce vulnerability of the agriculture, forest and seafood sector to main climate impacts and seek to increase resilience</td>
</tr>
<tr>
<td>4. Embed adaptation planning in agriculture, forest and seafood sectoral policies</td>
</tr>
</tbody>
</table>

Climate Action and Common Agricultural Policy (CAP)

The protection of the environment is a core feature of Ireland’s Rural Development Programme 2014 – 2020 with a range of eco-friendly measures in place.

The successful design and implementation of the next CAP post -2020, will be the main policy framework to support higher levels of ambition of climate mitigation, adaptation, biodiversity and carbon sequestration and storage measures. 40% of the overall budget of the new CAP at EU level will contribute to environmental or climate action. The CAP negotiation process is ongoing.

**Figure 8.4 Interaction of CAP with other policies**

FUTURE OF FOOD AND FARMING

- Fair Income
- Resilient Farming Sector
- Environmental Care
- Climate Action
- Knowledge & Innovation
- Food Security
- Generational Renewal
- Thriving Rural Areas
**Outlook:**
The All-of-Government Climate Action plan requires the early adoption and the high level take up of action points to meet the plan’s ambitious targets and to demonstrate that the sector is willing to play its part in the decarbonisation of Ireland’s economy and society. The climate actions are subject to ongoing monitoring and review, and a further update of the Climate Action Plan with additional actions will be undertaken in 2020.

**Ag Climatise**
Ag Climatise – a national climate and air roadmap for the agriculture sector to 2030 and beyond is due to be published in 2020 and is intended to be a roadmap for the agri-food sector over the next decade. The roadmap takes the national emissions reduction target of 10-15% for the agri-food sector and translates it into a series of actions that the sector must implement between now and 2030. The document will propose several ambitious and challenging actions and targets which will require not only an ongoing concerted effort, but a step-up right across the sector from primary producer through to the processor. This roadmap will demonstrate that the agriculture sector is playing its part in decarbonisation and should also be part of the solution.

Mitigation of emissions from the agriculture sector will depend on encouraging extensive behavioural change. The configuration of appropriate measures under a new CAP will provide the most appropriate vehicle for incentivising such change. Any national CAP Strategic Plan will be informed to a significant extent by the need to encourage farmers to engage in climate change mitigation and adaptation activities.

**The Green Deal**
The European Green Deal announced in December 2019, commits to presenting a comprehensive plan in 2020 to increase the EU’s greenhouse gas emission reductions target for 2030 to at least 50%, and enshrining the 2050 climate neutrality objective in legislation by early 2020.

A key element of the Green Deal is addressing food sustainability. The Commission announced a new Farm to Fork Strategy as part of this Deal. The Farm to Fork strategy on sustainable food will cover every step in the food supply chain from production to consumption and feed into the European Commission’s circular economy objectives. The CAP and Common Fisheries Policy (CFP) will be key tools to support the strategy.

The increased GHG emission targets announced in the Green Deal will significantly impact on the agriculture sector, making it even more important that the targets in the Climate Action Plan are met. Also, there will need to be even greater ambition in future Climate Action Plans in order to meet these increased targets, which will require innovative and resourceful planning on how further reductions can be achieved in the agricultural sector.

**CASE STUDY**

**Irish Horticulture and Climate Change**

The Irish horticultural industry makes a very significant contribution to the Irish gross agricultural output with an estimated farm gate value of €437 million in 2018. Within the Industry there are a diverse range of sub-sectors, from edible crops and mushrooms, field vegetables, outdoor fruit and protected fruit and vegetables, to amenity crops such as hardy nursery stock production, bedding plants, turf grass, cut foliage and Christmas trees. For most of these sub-sectors , the cost of production and the value of output are significantly influenced by prevailing weather conditions.

**Source:** Department of Agriculture, Food and the Marine Agriculture, Forest and Seafood Climate Change Sectoral Adaptation Plan (2019)
Impact of Future Climate Change Projections
Projections for Ireland for the period 2041-2060 indicate an increase in the number of heavy rainfall events by approximately 20% during the autumn and winter months. A projected increase in mean precipitation for winter over most of Ireland is also noted in high-emission scenarios. The impact of such severe weather conditions was evident in 2018, with significantly delayed plantings, particularly for outdoor vegetable crops, and in some cases sowing/plantings being missed altogether because of wet soil conditions.

Source: Environmental Protection Agency Ensemble of Regional Climate Model Projections for Ireland (2015)

Early vegetable crops that would have been sown or planted out in March were skipped; other crops were planted in less than favourable conditions, a situation made worse with the subsequent drought due to initial poor establishment. The subsequent extreme warm weather had a dramatic effect on production costs where input costs increased substantially. Additional fuel and labour costs were required to irrigate growing crops in an attempt to maintain yield and quality. Additional energy was required to chill crops post-harvest and to maintain temperatures at acceptable levels within protected structures such as glasshouses and mushroom tunnels.

The extreme weather resulted in rapid ripening of crops and affected crop quality as discoloration and bolting became an issue. This resulted in the need for rapid and regular harvesting of crops, which resulted in increased harvesting and labour costs. Furthermore, the warm and dry weather increased pest and disease pressure in crops and reduced the efficacy of available crop protection measures. Production in 2018 was impacted where expected yields were not attained for many crops, for potatoes particularly, where yields were down by up to 30% on the previous year.
**Steps Towards Building Resilience**

The vulnerability of the sector to increased temperature and drought is evident. Innovation and advances in crop breeding and plant genetics will be important as will the continued monitoring for new pests, diseases and weeds. Adaptation, the process of how we plan for the negative effects of climate change and take suitable action to prevent or minimise the damage it can cause, allows us to build resilience to changes in our climate, while also allowing society to take advantage of any opportunities that might bring.

**Source:** Department of Agriculture, Food and the Marine Agriculture, Forest and Seafood Climate Change Sectoral Adaptation Plan (2019)

### 8.3 Bio energy

The agriculture and forestry sectors have a key role to play in renewable energy systems and are key in the provision of sustainable feedstocks. The development of renewable energy systems is driven primarily by the requirement to reduce GHG emissions through the displacement of fossil fuels but also to promote self-sufficiency in consumers energy demands. Under the Renewable Energy Directive (also a component of the EU Climate and Energy Package 2008), Ireland is required to achieve 16% of its total final energy consumption from renewable energy sources by 2020, as follows:

- 40% renewable electricity
- 12% renewable heat
- 10% renewable transport.

Ireland’s National Renewable Energy Action Plan (NREAP) sets out the Government’s strategic approach and measures to deliver on the above. Responsibility for ensuring that these targets are met is a matter for the Department of Communications, Climate Action and the Environment (DCCAE). While considerable progress has been made in reaching these targets, the renewable heat sector remains a significant challenge.

In December 2018, the revised Renewable Energy Directive (Recast RED 11) entered into force with an overall EU target for Renewable Energy Sources of 32% by 2030. In addition, the recast RED 11 defines a series of sustainability and GHG emission criteria for bioliquids used in transport as well as sustainability for forestry feedstocks and GHG criteria for solid and gaseous biomass fuels.

While energy policy is a matter for DCCAE, this Department continues to work very closely on related matters around energy efficiency, generation of renewable energy and the supply of bioenergy feedstocks. Energy efficiency measures can provide a win-win for the farmer, rural communities and the natural environment. The adoption of on-farm renewable technologies primarily for self-consumption, should be a cost saving to the farmer with the possibility of exporting excess power to the national grid.

Energy efficiency and deployment of renewables at farm level can provide profitability gains while underpinning sustainable agricultural production systems, all of which contribute to reducing Ireland’s GHG emissions. The supply of biomass materials offers farmers another valuable and sustainable income source.

This Department supports energy efficiency measures and deployment of renewable technologies through the Targeted Agriculture Modernisation Scheme (TAMS II). In 2019, the Minister introduced grant-aid for solar PV installation of up to 11kWp that includes solar photovoltaic panels, an inverter and controller and a solar PV rechargeable battery.
Ag Climatise – a national climate and air roadmap for the agriculture sector to 2030 and beyond is due to be published in 2020 and is intended to be a roadmap for the agri-food sector over the next decade.
In addition, a variety of energy saving measures such as; LED lighting, plate coolers, heat transfer units and ice builders are available for the dairy sector under TAMS II. For the pigs and poultry sector, there is a range of grant-aid available including biomass boilers, electrical heat pads, energy efficient LED lighting, indirect heating systems, solar panels for water heating, ventilation fans and control systems, insulation for doors, roofs and walls, air source heat pumps and heat recovery units. In October 2019, the Minister announced an increase in the provision for on farm investment, by more than €12 million, bringing the total to almost €91 million.

**Outlook:**

Of interest particularly to the agriculture sector are the proposals surrounding bioenergy sustainability, Renewable Energy and Bioenergy Sustainability, which focus on developing the decarbonisation potential of advanced biofuels and aim to clarify the role of food-based biofuels post 2020. This has linkages with the proposed LULUCF Regulation that already targets the inclusion of carbon emissions and removals from agriculture & forestry into the EU 2030 Climate and Energy Framework.

The agri-industry is now also beginning to partner with energy suppliers to increase the renewable energy take-up at farm level. Glanbia Ireland, working in partnership with SSE Airtricity and Activ8 Solar Energies recently introduced FarmGen, a farm generated renewable energy initiative. The initiative will offer complementary support to TAMS and will include installation of a 6Kw Solar PV system and a smart metering system, which will monitor energy generation and consumption in real-time and include export meters that will have the ability to potentially profit from any future incentives to return electricity on to the grid. The sector will have a key role to play in renewable energy as a key supplier of bioenergy feedstock and in the longer-term, as a renewable energy provider.

DCCAE, with input from DAFM, will set a target for the level of energy to be supplied by biomethane injection in 2030. Following on from this, DAFM will consider the potential of anaerobic digestion (AD) systems to supply biomethane from agricultural feedstocks such as animal manure and grass/silage inputs, including options to avail of AD infrastructure to manage animal manure production.
8.4 Greenhouse Gas Emissions

Agriculture remains the single largest contributor to overall greenhouse gas emissions (GHG) in Ireland at 34% of the total in 2018 (according to EPA provisional estimates for GHG emissions published in October 2019).

**Figure 8.5 Ireland’s Greenhouse gas emissions, 2018**

![Greenhouse gas emissions pie chart]

- Energy Industries 17.1%
- Residential 10.2%
- Manufacturing Combustion 7.8%
- Commercial Services 1.9%
- Public Services 1.6%
- Transport 20.2%
- Industrial Processes 3.8%
- F-Gases 1.8%
- Agriculture 34.0%
- Waste 1.5%

**Source:** Environmental Protection Agency Ireland’s Provisional Greenhouse House Gas Emissions 1990-2018 (2019)

Agriculture emissions increased by 1.9% or 0.38 Mt CO2eq in 2018 following an increase in 2017 of 2.9%. The most significant drivers for the increased emissions in 2018 are higher dairy cow numbers (+1.9%) with an increase in milk production of 4.3%. In the last 5 years, dairy cow numbers have increased by 27% and corresponding milk production by 40%. This reflects national plans to expand milk production under Food Wise 2025 and the removal of the milk quota in 2015. In 2018, there were also increased CO2eq emissions from synthetic fertiliser application on agricultural soils (+10.6%). Other cattle and sheep numbers decreased by 1.2% and 1.7% respectively, whereas pig and poultry numbers increased by 0.7% and 0.5% respectively. Total fossil fuel consumption in agriculture/forestry/fishing activities increased by 7.8% in 2018.
Table 8.3 Agriculture-related Greenhouse Gas emissions, as measured by the EPA (excl. CO2 from agricultural combustion activities) and Agricultural Ammonia (NH3) emissions.

<table>
<thead>
<tr>
<th>Year</th>
<th>GHG (mt CO₂eq)</th>
<th>NH3 (kt NH₃)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005</td>
<td>18.84</td>
<td>110.49</td>
</tr>
<tr>
<td>2014</td>
<td>18.37</td>
<td>106.91</td>
</tr>
<tr>
<td>2015</td>
<td>18.61</td>
<td>109.41</td>
</tr>
<tr>
<td>2016</td>
<td>19.10</td>
<td>114.93</td>
</tr>
<tr>
<td>2017</td>
<td>19.65</td>
<td>117.38</td>
</tr>
</tbody>
</table>


2020 and 2030 EU targets

Under EU legislation Ireland has emission targets for 2020 and for 2030 with binding limits for each year to 2030:

- **2020 target**: 20% below 2005 level
- **2030 target**: 30% below 2005 level

The Effort Sharing Regulation sets out emission reduction targets for the non-Emissions Trading Scheme sector (i.e. agriculture, transport, residential, commercial, non-energy intensive industry and waste) with annual binding limits set for each year.
The Regulation for the period 2021-2030 maintains existing flexibilities under the current Effort Sharing Decision (e.g. banking, borrowing and buying & selling between Member States) and provides two new flexibilities (i) use of emissions trading system (ETS) allowances and (ii) credit from action undertaken in the Land Use, Land Use Change and Forestry (LULUCF) sector, to allow for a fair and cost-efficient achievement of the targets.

**Outlook:**
The EPA estimates that in terms of compliance with the EU’s Effort Sharing Decision 2020 targets, Ireland’s non-ETS emissions are projected to be 5% and 6% below 2005 levels in 2020 under the ‘With Existing Measures’ and ‘With Additional Measures’ scenarios, respectively. The target for Ireland is a 20% reduction. Ireland has exceeded its annual binding limits for the first time in 2016 and has again exceeded the annual binding limit in 2017.

In relation to the 2030 target, the latest projections indicate that Ireland will exceed the carbon budget implied by those limits by 52 - 67 Mt CO₂ equivalent with the gap potentially narrowing to between 7 and 22 Mt CO₂ equivalent, if both ETS and LULUCF flexibilities are fully utilised.

**Source:** Environmental Protection Agency Ireland’s Greenhouse House Gas Emissions Projections 2018-2040 (2019)

**8.5 The Gothenburg Protocol and NEC Directives**
Ireland is party to the Convention on Long Range Transboundary Air Pollution (CLRTAP) under which certain transboundary air pollutants including ammonia are controlled. As a member of the EU, implementation of the Gothenburg protocol (a daughter protocol of the CLRTAP) is achieved through limits set out in the National Emissions Ceilings Directive 2001/81/EC (NECD). The NECD controls a range of emissions in the air which include sulphur dioxide (SO₂), nitrous oxides (NOx), fine particulate matter (PM2.5), volatile organic carbon (VOC) and ammonia (NH₃). Member States must implement measures to ensure that air quality standards are met.

The Clean Air Strategy for Ireland is led by DCCAE and provides an opportunity to address air pollution in Ireland. As a member state, Ireland must comply with the NECD which encompasses the Gothenburg targets and within this, ammonia emissions must be reduced by 1% below 2005 levels by 2020 and 5% below 2005 levels from 2030 onwards. Under the NECD Ireland has had a mandatory ceiling for ammonia since 2010 which was exceeded for the first time in 2016 and continues to rise.

Failure to bring agriculture ammonia emissions back in line with national ceilings will result in the imposition of significant fines and negative reputation impact to Ireland’s sustainability credentials.

**Trends in ammonia emissions:**
Ammonia emissions have been on an upward trend in recent years. The most recent ammonia emission results from 2017 show that, the agriculture sector accounts for virtually all (99.1%) of ammonia emissions in Ireland.

DAFM continues to engage with DCCAE in relation to the development of Ireland’s Clean Air Strategy as a nationally coordinated strategy to implement the EU NECD 2016. DAFM collaborated closely with DCCAE to develop the agriculture components of Ireland’s National Air Pollution Control Programme (NAPCP) submitted to the European Commission.
In November 2019, DAFM released a Code of Good Agricultural Practice for Reducing Ammonia Emissions which raises awareness of the options for farmers. This is a guidance document that outlines the best practice actions farmers can take to help reduce their ammonia emissions. It is a requirement for every Member state to make this code available to all farmers and to submit it as part of the response to addressing the NECD and Gothenburg protocol. This code will ensure coherence with Ireland’s Nitrates Action Programme (NAP) and will further encourage improvements in nitrogen use efficiency. Furthermore, conditionality of the nitrogen derogation was reviewed and now includes some ammonia abatement measures such as use of low emission spreading.

To date, DAFM has approved approximately 2,000 low emission slurry spreading machines, which will reduce ammonia emissions at land spreading.

**Table 8.4 National Emissions Ceilings (NEC) Directive**

| Ammonia (NH3) reduction compared with 2005 | 1% for any year from 2020 to 2029 | 5% for any year from 2030 |

**Source:** Department of Agriculture, Food & the Marine

**Outlook:**
Achieving the ammonia reduction targets of 1% and 5% by 2020 and 2030 will represent a challenge for Irish farming. DAFM is currently exploring various cost-effective abatement options with a view to limit the extent of noncompliance with ammonia emission reduction targets and to support the mobilisation of best practice outlined in the code of good practice. Additionally, DAFM will take every opportunity to ensure greater convergence of climate, water and air quality led policies to ensure a holistic approach to limiting nitrogen loss at farm level. DAFM will work closely with DCCAE to submit a revised NAPCP to reflect a compliance trajectory with NECD ceilings due in October 2020.

Continued support of the DAFM research stimulus funds and EPA funding in ammonia research is essential in improving our emissions reporting and emissions factors; particularly our emissions factors for manure storage and housing.

There remains a need to enhance Ireland’s ammonia monitoring network to assess the effectiveness of abatement measures on localised areas and target ecosystems. Enough evidence is required that shows that critical loads and levels are not exceeded especially in localised pressure areas, and better planning and use of targeted measures will help to achieve this.

**8.6 International Research Affiliation**

At a meeting of the United Nations Framework Convention on Climate Change (UNFCCC) Subsidiary Body for Scientific and Technical Advice (SBSTA) under COP in Bonn in November 2017, a decision was taken on agriculture (Koronia Joint work on Agriculture(KJWA)) for the first time in 6 years, recognising the role agriculture plays in tackling climate change and achieving the ambitions targets set out by the Paris Climate Agreement and particularly:

- Improved soil carbon, soil health and soil fertility under grassland and cropland as well as integrated systems, including water management;
- Improved nutrient use and manure management towards sustainable and resilient agricultural systems;
- Improved livestock management systems.
The KJWA series of workshops continued at the UNFCCC Subsidiary body (SB) 50th and 51st (COP 25 Madrid) meetings in June and December 2019, with additional workshop under the KJWA held in 2020. Ireland contributed funding to a New Zealand led initiative.

Additionally, the Intergovernmental Panel on Climate Change (IPCC), the United Nations body for assessing the science related to climate change published a special report, ‘Climate Change and the Land’. This is the second in a series of special reports to be produced by the IPCC, following the 2018 release of the Special Report on Global Warming of 1.5°C, which adds detailed information on land related issues, and a third related to Oceans was published on 25th September 2019. This Land report highlighted that the global food system contributes about 21-37% of human generated GHG emissions, while on the other hand, the land biosphere acts as a sink for 30% of human generated CO2 emissions through vegetation and soils. The problem is that this land sink is vulnerable to climate change impacts as well as other environmental and human pressures. The report’s findings clearly call for urgently stepping up climate change mitigation and adaptation actions around the world, including sustainable land-related strategies that also alleviate pressures on land and food security.

Ireland was a founding member of the Global Research Alliance (GRA) on Agricultural Greenhouse Gases, which was launched in December 2009 and now has 62 member countries from all regions of the world. The Alliance is focused on coordinating research, development and extension of technologies and practices that will help deliver ways to grow more food (and more climate-resilient food systems) without growing greenhouse gas emissions. The ninth Global Research Alliance Council Meeting was held in Bali, Indonesia alongside the 5th Global Science Conference on Climate Smart Agriculture.

**Outlook:**
DAFM will continue to participate as part of the EU AFOLU engagement in international meetings of the UNFCCC to ensure the role of agriculture and land use in contributing to the Paris Agreement is better understood.

DAFM will continue to participate in research and relevant international groups and collaborate closely with the EPA in research calls of relevance to sustainable intensification and sustainable land use.

Following the series of seven workshops under the KJWA, it is anticipated that COP 26 in Glasgow will have to set out the next steps for agriculture. A key challenge is that some countries believe that work under the Paris Agreement should be sector neutral as progress is all that matters while others, especially developing countries and economies in transition, want agriculture discussed separately due to the need to protect food security. The EU has built up good credibility in progressing this item so it would be difficult for the EU to step back for risk of impacting other discussion items.

### 8.7 Highlights & Challenges – Climate Change

**Highlights**
- First statutory Agriculture, Forest and Seafood Climate Change Sectoral Adaptation Plan published in 2019.
- Department published a draft national climate and air roadmap for the agriculture sector to 2030 and beyond, acknowledging the urgency in meeting our national and international obligations and that the sector continues to play its part in addressing the climate challenge.
DAFM has committed over €1.5 Million in 2019 to projects that will directly evaluate the abatement potential of feed additives in grass-based production systems.

As part of the VistaMilk SFI Research Centre, jointly funded by SFI and DAFM, two targeted projects, led by Teagasc, will specifically look at feed additives for methane abatement.

The continuation of the Agricultural Catchments Programme (ACP) for a further four-year period to 2023 was announced on 18th November 2019. Following three successful phases of the ACP, Phase 4 of the programme will now also collect data on greenhouse gases emissions, ammonia emissions and soil carbon sequestration, as well as extending the current baseline monitoring of water quality.

Attended review and sign off meeting in Geneva for IPCC Special Report on Climate Change and Land, which published in 2019. Ireland is one of six countries that requested the preparation of this special report.

Signed up as partner and co-financier to EDEN Ireland’s application to EU Life Integrated Projects regarding work on restoring peatlands in the midlands.

MACSUR Science-Policy Pilot initiative engagement as a core member with other EU Member States to model 2030 and 2050 GHG emission scenarios.

Challenges

The Climate Action Plan 2019 To Tackle Climate Breakdown has set ambitious and challenging targets for the agriculture, forestry and land-use sector as part of the decarbonisation of the Irish economy and society. Meeting these targets will help ensure that Ireland meets its 2030 targets and will put our economy and society on the correct trajectory for 2050.

Meeting these targets will prove challenging, especially given the context of international challenges such as Brexit and Mercosur for example. However, the sector is already leading the way by developing a national climate and air roadmap to allow us to deliver on our national and international obligations and ensuring that the agriculture, forestry and land-use sector continues to play its part in addressing the climate challenge.

The Department and its agencies are actively engaged with the farming sector on a large range of measures and actions focussed on the environment and climate, which support the continued transition towards a low carbon economy and society. But early action and high levels of take-up are needed across the range of abatement measures as highlighted in the Teagasc Marginal Abatement Cost Curve (MACC), while also ensuring that we reach our planting target of 8,000 hectares of forestry per annum and also contributing significantly to the displacement of fossil fuels and energy intensive materials.
8.8 Biodiversity & Nitrates

Water Protection and Nitrates

The Good Agricultural Practice for Protection of Waters (GAP) Regulations, otherwise known as the Nitrates Regulations, gives legal effect to the Nitrates Directive and to the Nitrates Action Programme (NAP).

Member States are required to review their NAP at least every four years. Ireland’s NAP was reviewed in 2010 and 2013 and the third review took place in 2017, with a full public consultation. Ireland agreed the fourth NAP for the period 2018-2021 with the European Commission in October 2017. The new NAP builds on the significant progress made under the previous NAPs by addressing pathways for nutrient losses, soil fertility problems and targeting improved implementation of the regulations. Further information on the fourth NAP is available in the Nitrates Explanatory Handbook.

The Nitrates Directive requires that farmers comply with a stocking rate limit of 170kgs of nitrogen per hectare per year. This is the equivalent of two dairy cows per hectare. The Department of Agriculture, Food and the Marine provides farmers with detailed nitrogen and phosphorus statements on holdings. Nitrogen and Phosphorus statements are available online on the Department’s website to all farmers (registered users).

A renewal of our nitrates derogation for the period 2018-2021 was approved by the EU Nitrates Committee in December 2017. The derogation allows intensive farms to maintain higher stocking rates subject to certain conditions.

In light of increasing concerns for water quality, air quality and climate change in Ireland, a review of the terms and conditions of the nitrates derogation was completed in 2019. The review was informed by an extended public consultation period, agricultural and environmental scientific expertise and the Nitrates Expert Group. A number of additional measures have been introduced that derogation farmers must apply from 2020. The measures are primarily focused on nutrient use efficiency in order to reduce agriculture footprint on the environment. Additionally, measures are designed to deliver co-benefits across areas of concern, as well as to support on-farm biodiversity.

The Nitrates Derogation Review has introduced additional requirements for derogation farmers who must

- Adopt a farm scale liming programme from 2020.
- Use low emission slurry spreading (LESS) equipment for all slurry spread after April 15th, 2020.
- Reduce the crude protein in concentrate feed for grazing livestock with a maximum of 16% crude protein permissible between April 1st and September 15th, 2020.
- Exclude commonage/rough grazing from the derogation allowance of 250 kg N/ha.
- Participate in an approved environmental training course by the end of 2021.
- Participate in grassland management requirements from 2020, including grass measuring and annual grass production recording.
- Alternatively, if derogation farmers haven’t the required skills to undertake grassland measurement, they must participate in grassland management training which must be completed by the end of 2021.
- Incorporate Clover in any newly reseeded swards on derogation 2020.
- Adopt at least one measure from the All Island Pollinator Plan on order to enhance biodiversity on farms.
Agricultural Catchments Programme
The primary function of Agricultural Catchments Programme (ACP) is the evaluation of the effectiveness of the measures contained in Ireland’s Nitrates Action Programme (NAP). The programme is delivered by Teagasc and funded by the Department of Agriculture, Food and the Marine. Ireland’s agriculture and food landscape has evolved rapidly during the life of the project. The ACP is constantly reviewed to take account of the changing policy environment.

The ACP works in partnership with over 300 farmers in six intensively farmed catchments and this farmer engagement, which is built on the relationships of the advisers with their farmer clients, facilitates the research elements of the programme. The research work is carried out according to a single experimental design which is implemented rigorously in each catchment. A range of biophysical and socio-economic parameters are used to evaluate the impact of the NAP measures and the derogation implemented by farmers under the Nitrates Directive. The outcome of this research provides a valuable insight into the processes that determine the impact of agricultural activity on water quality in these catchments.

ACP research shows substantial changes in nutrient management on farms. The proportion of fields with excess soil phosphorus (P) has declined in four out of the five catchments. Fields with very low or low P have increased indicating an overall decline in soil P levels thus reducing risk of P loss to water – this reflects national trends. However, soil type and geology can override soil P index as a predictor of P loss risk, therefore, a ‘one size fits all’ approach that does not take account of soil type may not adequately address P loss risk mitigation. Climate pressures can override both source and soil type - excessively wet years and wet pulses following dry periods have become more common patterns during the ACP monitoring period.

Overall, evidence from the ACP indicates that the provision of technical advice to farmers on the management of nutrient applications is the area with the greatest potential to improve outcomes for water quality on Irish farms. This should deliver increased efficiencies for the farmer while reducing risk of nutrient loss to water.

The Agricultural Sustainability Support & Advisory Programme (ASSAP)
The Agricultural Sustainability Support & Advisory Programme (ASSAP) is an innovative collaborative initiative supported by the Department of Agriculture, Food and the Marine, the Department of Housing, Planning and Local Government (DHPLG) and industry. It aims to achieve farmer behavioural change for the protection of water in order to meet Water Framework Directive objectives and will run until 2021.

It is a whole-of-Government, whole-of-sector approach to provide direct advice to farmers in 190 areas-for-action for the protection and improvement of water quality. 30 sustainability advisors are assigned to this programme, 20 provided by the Government and 10 by the Dairy Co-ops. These 30 advisors are working within a unified partnership structure which encompasses Teagasc, the Co-ops and Local Authorities Water Protection Office (LAWPRO).

The programme draws on the experience and resources of key sectoral and industry stakeholders including the two Departments, Local Authorities, Dairy Co-ops, Teagasc, Bord Bia and the farm organisations.

This is a new approach to achieving improvements in water quality and supports the goals of the Food Wise 2025 strategy, facilitating increased productivity hand-in-hand with a more sustainable sector. This will be achieved by advisors working with farmers, focusing on improved nutrient management with more targeted use of fertiliser, better farmyard practice and appropriate measures for identified critical source areas. DAFM are facilitating the delivery of ASSAP programme and have approved for all land based measures under ASSAP to be considered eligible under the Basic Payment Scheme. It is anticipated that this will encourage an increase the implementation of appropriate on farm measures resulting in improvements in water quality in PAAs.
The Green Low Carbon Agri-environment Scheme pays farmers to promote biodiversity, protect water quality, and to help combat climate change on their farms. Including actions targeted at vulnerable habitats and commonage, threatened farmland species.
Biodiversity
DAFM plays an active role in development of biodiversity policy for agriculture and in the regulation of relevant environmental legislation such as the Environmental Impact Assessment (Agriculture) Regulations. DAFM works closely with other Departments and a number of multi-agency working groups and steering committees dealing with a wide range of issues regarding the conservation of biodiversity, including the Biodiversity Working Group that has a role in implementing the National Biodiversity Action Plan 2017-2021.

While the Department of Culture, Heritage and the Gaeltacht (DCHG) is the official body responsible for oversight of the implementation of the National Biodiversity Action Plan, the plan is an over-arching Government policy. It comprises of a suite of objectives, targets and actions that aim to achieve Ireland’s Vision for Biodiversity that “biodiversity and ecosystems in Ireland are conserved and restored, delivering benefits essential for all sectors of society and that Ireland contributes to efforts to halt the loss of biodiversity and the degradation of ecosystems in the EU and globally”.

Across DAFM Biodiversity is supported through a variety of schemes and programmes at national and local scale.

The Green, Low-Carbon, Agri-Environment Scheme (GLAS)
The Green Low Carbon Agri-environment Scheme pays farmers to promote biodiversity, protect water quality, and to help combat climate change on their farms. GLAS was launched in 2015 and supports around 50,000 farmers to manage lands of conservation value. The Scheme includes priority actions targeted at vulnerable habitats and commonage, threatened farmland species, and also measures that will have wider biodiversity benefits. At the end of 2019 a total of €745 million has been issued in GLAS payments.

ADAS RSK Ltd. were contracted in 2015 to conduct a longitudinal study of the impact of GLAS actions across three thematic areas i.e. biodiversity, climate change and water quality. Interim reports are published on the Department’s website. The purpose of the project is to assess the effectiveness of GLAS as a contributory measure towards sustainable Irish agriculture and assess its contribution towards the achievement of wider environmental objectives.

The contribution of GLAS actions to scheme biodiversity goals is being assessed by means of a field survey of over 300 GLAS farms, repeated three times over the duration the scheme.
The latest field survey of GLAS biodiversity actions found that most actions have been well implemented and that some implementation problems have arisen due to issues of understanding of prescriptions and/or capacity to implement and maintain actions. The evaluators consider it too early to measure outcomes for most actions, but the evidence of likely outcomes is generally positive.

Impacts on water quality and climate are difficult to measure directly and the contribution of GLAS actions to those objectives is assessed through a proprietary modelling approach developed by the contractor. The latest modelling suggests that GLAS delivers moderate nitrate, phosphorus, nitrous oxide and methane reductions. It was found that overall contribution to reduction in pollutant loads and climate change mitigation is modest at a national scale and higher impacts would require a greater proportion of intensive farmers to enter the scheme and take up relevant actions.

The findings from the GLAS evaluations reports will be used to inform arrangements for agri-environment-climate schemes in the transitional period and in the CAP Strategic Plan.

The Burren Programme
The Burren Programme began in 2016 and builds on the progress of previous farming for conservation projects. A two-tier approach, with payments for actions and payments for results, delivers agricultural results and environmental benefits. There are now over 300 farmers working towards the conservation and sustainable management of habitats and species in the Burren.
European Innovation Partnerships (EIPs)

European Innovation Partnership projects are being rolled out by the Department under Ireland’s Rural Development Programme 2014-2020. Ireland’s EIP programme is amongst the most ambitious of any EU member state. These projects have a common approach of being locally-designed and led, providing local flexibility in responding to the particular environmental challenges in different areas. Farmers, with scientists, are encouraged to use sustainable farming practices and devise innovative solutions to local environmental and other challenges, from the bottom-up. Many of these projects will pilot results-based payments schemes as part of their project design, further advancing Ireland’s progress in this area in preparation for the next CAP.

Two large EIP Schemes focus on areas already agreed with the EU Commission – the Hen Harrier and the Freshwater Pearl Mussel. A budget of some €35 million has been allocated for these schemes over the full period of the Rural Development Programme (RDP).

The Hen Harrier Project, launched in 2017, is based on priorities identified nationally and focuses specifically on farmers managing habitats in the six Hen Harrier Special Protection Areas (SPAs) with the aim of testing new approaches towards conservation of the bird, building a new relationship with farmers and improving the socio-economics in these areas. The Hen Harrier Programme signed up 629 farmers to the innovative Agri-environmental payments scheme in 2018 and this number is due to double over 2019.

The Freshwater Pearl Mussel Programme (PMP) was launched in March 2019. This new scheme will be open to farmers in eight selected catchments for PMP in Ireland, with special emphasis on restoring the hydromorphology of the species’ aquatic habitat while also improving the quality of semi-natural terrestrial and wetland habitats.

A total of 23 EIP projects have now been awarded through the process of two ‘Open Calls’ with a total budget €24 million. The majority of these open call projects awarded to date focus on priority four (a) of the RDP, ‘restoring, preserving and enhancing biodiversity’ and address a wide range of habitats and species from uplands, peatlands and grasslands to pollinators and the curlew.

Pollinators

In response to the current threat to our pollinators and the importance of their role for agriculture, DAFM has taken a proactive approach to supporting policy development and increasing awareness. The Biodiversity section is currently involved in policy development, working towards the next CAP and agri-environmental schemes and exploring potential measures and actions for pollinators.

DAFM continues to support the All Ireland Pollinator Plan as a member of the steering committee contributing annual funding of €15,000.

As part of the EIP funding stream under the Rural Development Programme, DAFM awarded €1,194,697 to the Protecting Farmland Pollinators EIP. This project began in 2019 and is led by the National Biodiversity Data Centre. The project aims to develop a flexible mechanism that encourages all farmers to make their whole-farm more pollinator friendly in a way that is measurable and will not impact productivity.

8.9 Rural Development

The Irish Rural Development Programme (RDP) for the period 2014 to 2020 was formally adopted by the EU Commission in May 2015. It contains a suite of measures which address all farming sectors and support community-led local development through the LEADER measure. The Programme is co-funded by the European Agricultural Fund for Rural Development (EAFRD) and the national exchequer. EU support for the RDP through the EAFRD will amount to €2.19 billion over the duration of the Programme and will be supplemented by exchequer funding to bring the total support available under the RDP to approximately €4.1 billion. A breakdown of budget allocations by RDP measure is provided in Table 8.5.
At the end of December 2019, Ireland had spent 75% of its EAFRD allocation (excluding a performance reserve sum for the achievement of certain milestones available after 2019). This drawdown was the second highest rate of cumulative expenditure for the current programming period and well above the 53% average figure for all Member States.

The RDP has been amended seven times since its initial approval. The first amendment to the RDP covering, among other things, a new tillage investment support scheme, a new biodiversity scheme for the Burren region and changes to specifications for the Green Low-Carbon, Agri-Environment Scheme (GLAS), was approved by the European Commission in June 2016.

A second amendment to the RDP, introducing new schemes (the Sheep Welfare Scheme, European Innovation Partnerships and support for Beef Producer Organisations) and further modifications to GLAS specifications was approved by the European Commission in January 2017.

The third RDP amendment, approved by the EU Commission in October 2017, was purely technical in nature and concerned some strands of capital investments under the Targeted Agricultural Modernisation Scheme (TAMS), the Sheep Welfare Scheme, an indicator for High Nature Value farmland and support under the Technical Assistance budget.

The fourth amendment, approved by the Commission in August 2018, included changes to the Measure 1 description regarding training for the Burren scheme, changes to the LEADER Food Initiative to clarify eligibility criteria, changes to the RDP Performance Framework to reflect more recent information and changes to payment rates for Areas of Natural Constraint (ANC) & the Financial Plan to increase annual funding to the ANC scheme by €25 million.

The fifth amendment, approved by the Commission in October 2018, amended two GLAS actions to address fodder shortages owing to exceptional weather conditions.

The sixth amendment which introduced new Areas of Natural Constraints (ANC) designations based on bioophysical criteria under Measure 13, was approved by the Commission in February
2019. In addition, the scheme allocation was significantly increased for 2019 and 2020, bringing the overall Measure 13 budget to €1,491 million.

The seventh amendment, approved by the Commission in August 2019, covered changes related to the definition of Rural Areas and LEADER Simplified Cost Options (SCOs):

**Table 8.5 EAFRD and national funding for the 2014 -2020 Rural Development Programme**

<table>
<thead>
<tr>
<th>Measure</th>
<th>€ Millions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Measure 1 – Knowledge transfer and information actions</td>
<td>€126</td>
</tr>
<tr>
<td>Measure 2 – Advisory services, farm management and farm relief services</td>
<td>€8</td>
</tr>
<tr>
<td>Measure 4 – Investments in physical assets</td>
<td>€425</td>
</tr>
<tr>
<td>Measure 7 – Basic services and village renewal in rural areas</td>
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<td>Measure 10 – Agri-environment-climate</td>
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<td>Measure 11 – Organic farming</td>
<td>€56</td>
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<td>Measure 12 – Natura 2000 payments</td>
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<tr>
<td>Measure 13 – Payments to areas facing natural or other specific constraints</td>
<td>€1,491*</td>
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<tr>
<td>Measure 14 – Animal welfare</td>
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<td>Measure 16 – Co-operation</td>
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<td>Measure 19 – Support for LEADER local development</td>
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<td>Measure 20 – Technical assistance</td>
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<tr>
<td>Measure 113 – Early Retirement Scheme (Transitional)</td>
<td>€9</td>
</tr>
<tr>
<td>Total</td>
<td>€4,145</td>
</tr>
</tbody>
</table>

*Includes increased funding of €121 million for the ANC scheme.

*Source: Department of Agriculture, Food and the Marine*

Transitional funding arrangements are the norm for scheme expenditure spanning two RDP programming periods. Transitional funding is included in the above table for Measures 4, 10, 12 and 13. Measure 12 is programmed exclusively to provide for ongoing Natura 2000 commitments under the 2007-2013 RDP. In addition, the current RDP financial plan also includes transitional funding allocated to a discontinued measure (i.e. the Early Retirement Scheme) in the 2007-2013 Programme.

2019 saw the first payments made due to the new designations for Areas of Natural Constraints (ANC), as well as the first payments made to participants in the Pearl Mussel Project, one of the new European Innovation Partnerships (EIP-AGRI) Operational Groups.

Further information on each of the thirteen measures operational in the current programming period is included in this chapter.

**Measure 1 – Knowledge Transfer and information actions (€126m)**

Knowledge Transfer (KT) discussion groups are farmer meetings facilitated by qualified agricultural advisors for the purpose of sharing information and best practice across the beef, sheep, dairy, equine, poultry and tillage sectors. Approximately 18,600 participants enrolled in around 1,100 groups, facilitated by some 460 advisors, are currently active in the scheme.

Under this measure, farmers in the Beef Data and Genomics Programme (BDGP) and the GLAS scheme are trained by DAFM-approved advisors in order to optimise the effectiveness of scheme implementation. BDGP training was completed by the end of 2018 and GLAS training in 2019.
**Measure 2 – Advisory Services (€8m)**
Continuous Professional Development (CPD) for Agricultural Advisors aims to enhance the knowledge base of agricultural advisors by ensuring that they are familiar with the latest techniques and regulatory requirements. A variety of CPD courses have been funded under this measure, the most recent being training for advisors on advanced facilitation skills. The provision of further CPD training will be considered in response to stakeholders’ requests.

Animal Health and Welfare Training provides training to private veterinary practitioners (PVPs) to enable them to provide on-farm advice on animal health and welfare. Animal Health Ireland is responsible for setting up and organising the provision of specialist advice to farmers by trained PVPs. The diseases falling within the remit of the service include Bovine Viral Diarrhoea, Johne’s Disease, Infectious Bovine Rhinotracheitis and mastitis in dairy herds as well as animal and public health issues in the pig and poultry sectors. Nearly 3,800 herd reviews have been completed under the scheme as of December 2019.

A scheme (worth €0.3m) funding the provision of start-up advice to prospective Producer Organisations of active beef suppliers is operational since 2018. Two Beef Producer Organisations (BPOs) were approved in 2019 and the first drawdown on the scheme is expected in 2020.

**Measure 4 – Investments in Physical Assets (€425m)**
The Targeted Agricultural Modernisation Schemes (TAMS II) provides grants to farmers to stimulate capital investments, infrastructure, facilities and equipment which will promote increased competitiveness and sustainability in relevant sectors. Almost 20,000 approvals were issued to scheme applicants and over €178 million paid to farmers by December 2019.

Seven broad categories of investment are supported under the scheme:

- Young Farmers Capital Investment Scheme;
- Dairy Equipment Scheme;
- Organic Capital Investment Scheme;
- Animal Welfare, Safety and Nutrient Storage Scheme;
- Low Emission Slurry Spreading;
- Pig and Poultry Investment Scheme; and
- Tillage Capital Investment Scheme.

Support under this measure is also provided for ‘non-productive investments’ made under the GLAS. As these non-productive investments are part of the GLAS tier 3 list of actions, they form part of GLAS applications.

**Measure 7 – Rural Services and Renewal (€6m)**
The objective of the GLAS Traditional Farm Buildings is to ensure that traditional farm buildings and other related structures contributing to the character of the landscape, and of significant heritage value, are conserved for agricultural use. Participation in GLAS is a prime eligibility condition for this scheme. Available grants range from €4,000 to €25,000 and can cover up to 75% of the cost of works.

Applications are invited at regular intervals throughout the programming period ending in December 2020. The scheme is administered by the Heritage Council on behalf of the Department and a total of 303 projects have been supported by the scheme from its inception to December 2019.

**Measure 10 – Agri-environment-climate (€1,531m)**
The Green Low-Carbon, Agri-Environment Scheme (GLAS) has a three-tier structure designed to produce environmental benefits in the areas of climate change, water quality and the preservation of priority habitats and species. There are currently some 48,500 farmers active in the scheme. By December 2019, total GLAS payments to eligible applicants were nearly €745 million.
The **Beef Data Genomics Programme** (BDGP) requires farmers to undertake a range of actions designed to accelerate genetic improvement in the quality of the beef herd leading to associated climate benefits such as reduced emissions intensity. Central to this approach is the establishment and maintenance of a large-scale data collection system from commercial suckler cow herds. Collated data feeds into a genomics-based breeding index that ranks the efficiency of animals according to a star-based system. Overall, the scheme will assist farmers in selecting more efficient suckler cow and bull replacements. Around 24,000 farmers are currently participating in the scheme. By December 2019, almost 23,500 farmers had received €212 million in respect of BDGP payments since the inception of the scheme.

The **Burren Programme**, which is an expansion of an earlier conservation scheme previously funded outside the RDP, has 328 participants at present. Participants receive a performance-related payment for the management of species-rich grasslands and associated grazed habitats. They can also be reimbursed a proportion of the costs of capital investments (e.g. feeding and water equipment), which improve the environmental dividend delivered by the holding.

**Measure 11 – Organic Farming (€56m)**
The **Organic Farming Scheme** (OFS) encourages farmers to convert from conventional farming by applying organic methods and maintaining them after the initial conversion period. Its overall objective is to deliver enhanced environmental and animal welfare benefits and to encourage producers to respond to market demand for organically produced food. The total number of active organic farmers being funded under the RDP is around 1,500, managing about 72,000ha of land. While the OFS has met all targets for the present programming period in terms of intake and area, a Strategic Review of the sector was carried out to assess the justification for reopening the OFS looking to best economic and environmental outcomes. Consequently, the scheme was reopened in December 2018, for a limited period, focusing on areas that have a supply deficit and where market demand is growing such as organic horticulture, tillage and dairy. Sixty applicants were successful and were offered contracts to December 2023.

**Measure 12 – Natura 2000 payments (€73m)**
This measure is not part of the current Programme because Natura areas are targeted under Measure 10. It is programmed exclusively to provide for ongoing commitments from the previous programming period. Total scheme expenditure at the end of 2018 amounted to €46.3 million.

**Measure 13 – Areas facing natural constraint (€1,491m)**
The **Area of Natural Constraints** (ANC) measure is based on the previous Less Favoured Areas Scheme and the Disadvantaged Areas Scheme. It compensates farmers for income foregone and additional costs linked to the disadvantage of the area concerned. A separate category of support is available for island farmers in recognition of the specific constraints on production faced by farmers in those areas.

Under EU regulation, Less Favoured / Disadvantaged Areas (with the exception of the islands) were replaced by newly designated Areas of Natural Constraints from 2019, with eligible areas being designated using a set list of bio-physical criteria such as slope, soil texture, soil rooting depth, soil moisture and drainage. The review of the areas and the fine-tuning process allowed under the EU rules was concluded in 2018 and submitted to the EU Commission for approval. Approval was received in February 2019.

The outcome of the review project can be summarised as follows: The vast majority of land that was eligible under the existing scheme remained eligible under the new approach. Some 700 townlands, which were previously eligible, became ineligible under the new designation.

Farmers who were negatively affected by the change will receive a degressive phasing out payment in 2019 and 2020. Over 2,000 newly designated townlands became eligible for a scheme payment. In 2019, the first year of the redesignation, 98,300 farmers received nearly €250m, representing an increase of nearly 3,000 participants.
The Organic Farming Scheme (OFS) encourages farmers to convert from conventional farming by applying organic methods and maintaining them after the initial conversion period.
Measure 14 – Animal Welfare Scheme (€100m)

The Sheep Welfare Scheme is aimed at improving the Irish sheep production system. Sheep farmers with breeding ewes can apply for support based on two actions they choose to undertake from a menu of options appropriate to their flock type (i.e. hill or lowland). The scheme was launched in December 2016 and almost 18,500 farmers were paid €18.9 million for their participation in the scheme during 2019. Farmers are paid on the number of eligible breeding ewes owned subject to the fulfilment of all scheme criteria.

Measure 16 – Co-operation (€62m)

European Innovation Partnerships (EIPs) aim to create greater linkages between research and on-farm implementation. There are currently 23 projects approved for support under this measure: 12 from the first call for proposals launched in December 2016 and 9 from the second call for proposals launched in August 2017, together with 2 projects prioritising the conservation of endangered species in core areas. Further details are available on the Department’s website.

Locally-led schemes for the conservation of the Hen Harrier and the Freshwater Pearl Mussel are included under the EIP framework. Winning teams have been selected and contracts signed for both projects. Over 1,500 participants have signed contracts for the Hen Harrier Project with the first payments being made in 2018. Nearly 350 contracts have been signed for the Pearl Mussel Project with the first payments being made in 2019. As of December 2019, €8.7m has been spent of the total budget of €35 million available for these schemes during the lifetime of the current Programme.

Other locally-led schemes follow a ‘bottom-up’ approach. On the basis of open calls for proposals, certain projects are selected and shortlisted for funding – initially for the development of detailed project plans and then shortlisted again for full project support. Although administered using the same process, there are two distinct streams of EIP projects. The first stream, with 3 approved projects, focuses on themes such as farm viability, economic performance, sustainable forest management and innovative technologies. The second stream, with 18 approved projects, focuses on challenges related to environmental, biodiversity and climate change issues.

Collaborative Farming grants are intended to address some of the structural, economic, and social challenges facing Irish agriculture such as a lack of land availability, small average farm size, work/life balance, development of the knowledge base and intergenerational transfer. All new registered farm partnerships are eligible to receive a contribution of up to 50% towards the legal, accounting and advisory costs involved in setting up the partnership, subject to a maximum grant of €2,500. At the end of December 2019, a total of €1.63 million had been paid to support the formation of 1,266 registered farm partnerships under the first 7 tranches of the scheme.

Measure 19 – LEADER (€250m)

LEADER supports actions in rural areas targeted at addressing local needs under the broad themes of economic development, social inclusion and rural environment. Local communities direct where this funding is provided through the formation of, and participation in, Local Action Groups (LAGs), and the design and implementation of Local Development Strategies (LDS). LAGs have been selected in all 28 sub-regional areas and funding agreements signed with all groups.

A LEADER Forum was hosted for stakeholders in May 2017 to explore areas where operational requirements could be improved and simplified. In response to suggestions from the Forum, the Department of Rural and Community Development is implementing 31 actions to improve measure delivery with the majority of these already implemented and bearing fruit.

The level of LEADER project activity has increased significantly over the last number of years which has given rise to a continued rise in project approvals. Currently over 2,850 projects have been approved for funding of approximately €108 million. There are also another 314 projects going through the application process seeking funding of over €26 million.
Measure 20 – Technical Assistance (€8m)
The main items of expenditure relate to payments for the running of the National Rural Network, the administration of the Burren Programme, several evaluation studies (e.g. a longitudinal study of the GLAS) and other ancillary costs.

Measure 113 – Early Retirement Scheme (€9m)
Outstanding commitments on unexpired scheme contracts from the previous programming period are being funded from the current RDP. Cumulative expenditure on this measure was €7.63 million at the end of 2019.

Rural Development Programme evaluation
The 2014-2020 Rural Development Programme (RDP) is subject to rigorous monitoring and evaluation requirements including the submission of an Annual Implementation Report (AIR) on RDP implementation to the European Commission.

The RDP has also been subject to a number of evaluations, to assess the effectiveness and impact of the Programme. The evaluations include:

- Mid-term evaluation by Indecon International Economic Consultants (more information below);
- Longitudinal study of the Green Low-Carbon Agri-Environment Scheme (GLAS) by ADAS RSK Ltd. (more information below);
- Spending Reviews by the Department of Public Expenditure and Reform of the Beef Data and Genomics Programme (BDGP), GLAS and the Targeted Agricultural Modernisation Scheme (TAMS II);
- An ex-post evaluation of the RDP, to assess full programme effects and impacts, will be required in 2024.

Mid-term evaluation
The mid-term evaluation, by Indecon International Economic Consultants, was completed in June 2019 and has been published on the Department’s website. The key findings from the mid-term evaluation include:

- The mid-term evaluation suggests that the RDP has performed well against its various key targets.
- The evaluators noted that some of the overall impacts of the RDP are not fully observable yet.
- The evaluators also noted some competing objectives between different measures, e.g. TAMS investment increasing output which may have negative environment impacts.
- Areas of Natural Constraint (ANC) prevents land abandonment and the indicative estimate of the landscape value generated by the RDP is around €285 million per annum.
- BDGP will take several years before impacts are measurable. However, preliminary evidence indicates that BDGP cows are calving at younger ages which is consistent with the objectives of the BDGP scheme.
- TAMS was found to have a positive impact on farm output (by 6 – 7%) and an increase in productivity (by 5 – 6%).
- Knowledge Transfer Groups have a positive impact on farm output and agricultural incomes. Indecon also found that many beneficiaries would not have participated in a knowledge transfer group without the RDP support, which suggests relatively low levels of deadweight.
- GLAS findings took account of ADAS findings (see below).
- Other schemes were not evaluated since it was too early in the implementation, e.g. EIPs. However, continued support for organics and the EIPs were recommended.

GLAS Evaluation
ADAS RSK Ltd. were contracted in 2015 to conduct a longitudinal study of the impact of GLAS actions across three thematic areas i.e. biodiversity, climate change and water quality. Interim reports are published on the Department’s website. The purpose of the project is to assess the
effectiveness of GLAS as a contributory measure towards sustainable Irish agriculture and assess its contribution towards the achievement of wider environmental objectives.

The contribution of GLAS actions to scheme biodiversity goals is being assessed by means of a field survey of over 300 GLAS farms repeated three times over the duration the scheme. The latest field survey of GLAS biodiversity actions found that most actions have been well implemented and that some implementation problems have arisen due to issues of understanding of prescriptions and/or capacity to implement and maintain actions. The evaluators consider it too early to measure outcomes for most actions, but the evidence of likely outcomes is generally positive.

Impacts on water quality and climate are difficult to measure directly and the contribution of GLAS actions to those objectives is assessed through a proprietary modelling approach developed by the contractor. The latest modelling suggests that GLAS delivers moderate nitrate, phosphorus, nitrous oxide and methane reductions. It was found that overall contribution to reduction in pollutant loads and climate change mitigation is modest at a national scale and higher impacts would require a greater proportion of intensive farmers to enter the scheme and take up relevant actions.

The findings from the GLAS evaluations reports will be used to inform arrangements for agri-environment-climate schemes in the transitional period and in the CAP Strategic Plan.

8.10 Rural Innovation and Development Fund

The Rural Innovation & Development Fund (RIDF) supports proposals that promote and develop projects which stimulate and energise the rural economy and communities by the facilitation of locally-run economic operations, the development of a strong sense of community involvement and purpose, and by the injection of capital into the local community.

Since 2015, the fund has been utilised for a variety of initiatives including support for Rural Female Entrepreneurs, Agri-Food related tourism initiatives and Social Farming services. Since 2017, funding has been provided for proposals in the area of Food Waste Reduction.

In 2019, funding of €1.5m was used to support the following:

- To continue the implementation of support for the Rural Female Entrepreneurs initiative through the "ACORNS" training programme, which is now in its fifth year. The programme is aimed at providing early-stage female entrepreneurs living in rural Ireland with the knowledge, support and networking opportunities to develop and grow sustainable businesses, increase employment and to make a real contribution to their local communities. The ‘ACORNS’ programme has provided peer support and learning for over 50 women with start-up businesses in rural areas each year. The National Strategy for Women and Girls 2017 – 2020, published by the Department of Justice and Equality in April 2017, includes an action to provide support for rural female entrepreneurs at start-up stage and DAFM is the responsible body. This is also a key deliverable in the Government’s Action Plan for Rural Development.

- In the area of social farming, 2019 has seen the continuation of funding for the design, development and implementation of the national Social Farming Network as well as support towards a number of model social farms across Ireland. The intention is to encourage and generate national benefits for disadvantaged groups and to support farm diversification in the rural community. Social farming involves offering, on a voluntary basis, farming and horticultural participation in a farming environment as a choice to people who avail of a range of therapeutic day support services. These operations are run in a number of settings ranging from working family farms, local community initiatives through to more institutional frameworks. This is one of the key deliverables in the Government’s Action Plan for Rural Development.
Funding provided in 2019 in the Agri-food tourism area has helped support the development of the food network across a number of rural areas. Broadly, Agri-food tourism is the practice of offering an activity or activities in rural areas to visit areas of well-known agricultural produce, and to sample and taste the local or regional cuisine or specialties. Agri-food tourism includes a wide variety of activities that involve the links between agriculture and the food produced at the local or regional level. It may involve staying on farm or touring food trails and events, participation in agricultural endeavours or buying produce direct from a farm or market. Agri-food tourism also encompasses local food, farmer and artisan market schemes that support and are paired with local and seasonal food producers and artisan crafts.

In 2019, the potential for supporting activities that relate to the promotion and/or development of innovative food waste reduction techniques and link with environmental sustainability actions of the Department’s sectoral strategy Food Wise 2025 was explored. Funding was subsequently provided for a number of projects to address the problem of food waste through surplus food redistribution and to carry out pilot initiatives to promote food waste reduction and prevent food waste with associated environmental benefits. Ireland generates over 1 million tonnes of food waste each year. Of this, over 300,000 tonnes come from commercial businesses and over 400,000 tonnes is generated by the industrial food producing sector.

**Figure 8.7 Rural innovation and Development fund (CEDRA) 2019 Total Expenditure**

The RIDF has been maintained at €1.5m for 2020 and it is hoped that this allocation will ensure that it is possible to provide continued support for the existing themes, all of which have long term sustainable benefits.
The funding from DAFM has had a very positive impact on the Discover Galway Food Experiences project rolled out by Galway County Council in 2019. This funding has facilitated the creation of a unique brand and assisted in the process of bringing stakeholders offering agritourism experiences in County Galway, starting with East, North and South of County Galway, to create a combined unique offering that attracts visitors to come to the region and have an authentic ‘off the beaten track’ visit.

- The project has currently brought together almost 50 businesses/producers to assist in creating bookable, saleable experiences.
- The project has seen to date those business and producers hold almost 45 events/ open days within the County.
- The funding has been key in the support to a new online presence for discovergalway.ie and with 36 promotional films to capture each offering.
- The project has linked further with Ireland Hidden Heartlands and have showcased at Tourism Shows in both Belfast and Dublin.

It is hoped that the project will be rolled out county-wide and the development of a Food Tourism Network is currently being considered.
### HNV_FarmForBio: High Nature Value Farmland and Forestry Systems for Biodiversity.

Across Europe, High Nature Value farmland and forests (HNVFF) are those areas with a high proportion of natural and semi-natural vegetation supporting high biodiversity, including various rare and threatened species. HNVFF systems have the potential to produce quality food and fibre as well as being vitally important for biodiversity, climate and water regulation, and landscape quality. The HNV_FarmForBio project will identify, characterise and map the national extent of HNV farmland and forest areas. It will develop methodologies to assess their quality in terms of their biodiversity value and their potential contribution to a range of vital ecosystem service e.g. carbon storage and water quality. HNV_FarmForBio will also investigate incentives for the maintenance and enhancement of these areas. The finding of this project will help design a range of agri-environment, climate and forestry measures in future land use strategies to assist improved targeting of climate and biodiversity actions in Ireland.

### ENSUS: Sensing Nutrients for Agronomic Advice and Sustainability Measures.

Agriculture is a pressure on water quality. Nutrients such as nitrogen and phosphorus are essential for crop growth but can be lost to water through overland flow from fields and through the network of ditches and drains on farms. Putting the right measure in the right place on the landscape to protect water quality depends on information about soil, sediment and surface water quality. This research will optimise a number of sensor technologies that can be deployed to provide rapid assessments to identify pinch-points for nutrient loss on farms. These in-situ methods will allow sustainability advisors to make decisions on the ground and include applications in passive sensing, lab-on-a-chip and handheld spectroscopy, validated under Irish field conditions. In-situ sensing will be optimised to collect data at high spatial and temporal scales to advance the ability to improve decision making about nutrient use on farms and protect water quality.
AGGRIC: Towards an Agricultural Greenhouse Gas Research & Innovation Centre.

Agriculture faces the dual challenge of meeting increased global food demand whilst enhancing sustainability. To reduce the impacts of climate change Ireland has committed to reduce greenhouse gas emissions, fossil fuel dependency and enhance carbon storage. Agricultural activities lead to release of greenhouse gases, however agricultural soils are also an important store of carbon and can contribute to climate change mitigation. Further research is needed to provide verifiable scientific evidence on carbon sequestration potential of Irish soils. Additionally, current research into mitigation of gaseous emissions is insufficient and new measures to reduce emissions of all greenhouse gases and ammonia are required as research steps up to develop the new science to meet the extremely ambitious EU target of carbon neutrality by 2050. This desk study will identify the scope, structure, infrastructure and funding requirements for the establishment of a leading global National Centre of Excellence for Agricultural Greenhouse Gas Research.

METH-ABATE: Development and validation of novel technologies to reduce methane emissions from pasture based Irish agricultural systems.

Agriculture is the largest contributor to Greenhouse Gas (GHG) emissions in Ireland. Methane is released as a by-product of rumen fermentation and from stored manure and slurry. Under EU legislation, Ireland has committed to reduce GHG emissions by 40% by 2030. The aim of METH-ABATE is to develop novel farm-ready technologies to reduce methane emissions from ruminants and their stored manure and slurry. A number of promising feed additives will be evaluated to reduce methane emissions from sheep, dairy and beef production while simultaneously monitoring their effects on animal productivity and nutritional/toxicological composition of meat and milk. Technologies will also be developed to reduce methane losses from stored manures. A fundamental understanding of mechanism of action of these interventions in the rumen and manure will be assessed. To ensure appropriate implementation, the effect of developed technologies on overall methane and GHG emissions and farm level cost effectiveness will be evaluated.

(* denotes project co-funded by DAERA)
Dr David Wall
Teagasc

**Lead Institution:**
Teagasc

**Collaborating Institutions:**
University College Dublin, Waterford Institute of Technology

**Funding:**
€1,199,737.10

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**FaSTEN: Farm Sustainability Tools for Efficient Nutrient management.**

FaSTEN will develop new knowledge to improve nutrient use efficiency on farms, thus reducing potential N losses and emissions to the environment. FaSTEN will build new understanding of soils and key technologies for efficient nutrient management and will identify best knowledge transfer methods for these primary stakeholders. Nutrient management support tools tailored to specific soils, environments and farming systems will be developed to aid farmers and advisory personnel to make profitable and sustainable nutrient management decisions and to benchmark future success. The overall goals of FaSTEN are to develop a decision support tool and nutrient management technologies that harness a new understanding of plant-soil-biodiversity interactions driving nutrient dynamics to deliver soil specific nutrient advice for grassland & arable farms in Ireland. FaSTEN will directly support Food Wise 2025 goals to enhance the sustainability of primary food production systems and will help benchmark nutrient use and environmental standards on farms.
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<th>Description</th>
<th>Estimated Value (at current prices)</th>
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</tr>
</thead>
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<td></td>
<td>2017</td>
<td>2018</td>
</tr>
<tr>
<td><strong>Livestock (incl. stock changes)</strong></td>
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<td>Cattle</td>
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<td>Pigs</td>
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<td>Horses</td>
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<td>Poultry</td>
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<td><strong>Crops (incl. stock changes)</strong></td>
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<td><strong>Goods output at producer prices</strong></td>
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<td><strong>Intermediate consumption</strong></td>
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<td>FISIM[^1]</td>
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<td>Seeds</td>
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<td><strong>Gross value added at basic prices</strong></td>
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<tr>
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<td>Land rental</td>
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<td>Entrepreneurial income</td>
<td>3,162.1</td>
<td>2,609.1</td>
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¹ FISIM: Financial Intermediation Services Indirectly Measured.

**Source:** Central Statistics Office, Output, Input & Income in Agriculture Final Estimates, 2019
## Table 2
**Estimated Direct Payments to Farmers (National and EU) during Calendar Year 2019**

<table>
<thead>
<tr>
<th>SCHEME</th>
<th>Estimated 2019 Total Expenditure € Millions</th>
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<tbody>
<tr>
<td>Basic Payment Scheme</td>
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<tr>
<td>Areas of Natural Constraint</td>
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<tr>
<td>Sheep Welfare Scheme</td>
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<td>Beef Data &amp; Genomics Programme</td>
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<td>BEEP</td>
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<td>Burren Programme</td>
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<td>Hen Harrier Scheme</td>
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<td>Pearl Mussel Project</td>
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<td>Blackstairs Farming Futures</td>
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<td>Knowledge Transfer</td>
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<td>Disease Eradication Schemes</td>
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<td>Brucellosis Eradication Scheme</td>
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<td>BSE Scheme (slaughter of herds)</td>
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</tr>
<tr>
<td>Scrapie Eradication Programme</td>
<td>0.000</td>
</tr>
<tr>
<td>Forestry</td>
<td>57.818</td>
</tr>
<tr>
<td>Forestry Premia</td>
<td>57.818</td>
</tr>
<tr>
<td>Bioenergy</td>
<td>0.000</td>
</tr>
<tr>
<td>Rural Environment Protection Scheme</td>
<td>-0.028</td>
</tr>
<tr>
<td>AEOS</td>
<td>0.567</td>
</tr>
<tr>
<td>Organics</td>
<td>9.450</td>
</tr>
<tr>
<td>GLAS</td>
<td>213.800</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>1,909.400</strong></td>
</tr>
</tbody>
</table>

*Source: Department of Agriculture, Food and the Marine.

## Table 3
**EU-funded expenditure managed by the Department of Agriculture, Food and the Marine**

<table>
<thead>
<tr>
<th></th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>EAGF</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Direct Payment/Single Payment Scheme</td>
<td>1,190</td>
<td>1,222</td>
<td>1,204</td>
</tr>
<tr>
<td>Intervention/Aid to Private Storage*</td>
<td>19.5</td>
<td>3</td>
<td>-12</td>
</tr>
<tr>
<td>Other market supports</td>
<td>26</td>
<td>4.5</td>
<td>61.8</td>
</tr>
<tr>
<td>Other</td>
<td>-4</td>
<td>-3</td>
<td>-3</td>
</tr>
<tr>
<td><strong>Co-funded receipts (measures co-funded by EU) – a Agriculture</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EAFRD Rural Development Programmes</td>
<td>169</td>
<td>401</td>
<td>324</td>
</tr>
<tr>
<td>Veterinary fund</td>
<td>11</td>
<td>10</td>
<td>9</td>
</tr>
<tr>
<td>Other co-financing receipts</td>
<td>2</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td><strong>Fisheries</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EMFF and EFF Fisheries Programme**</td>
<td>23</td>
<td>16</td>
<td>23</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>1,419</strong></td>
<td><strong>1,654.5</strong></td>
<td><strong>1,607.8</strong></td>
</tr>
</tbody>
</table>

Only the EU co-funding on these programmes is shown in this table.

*€-12 million This is the amount paid by DAFM on product purchased into intervention in the year. The cost of Intervention purchases is fully recouped from the EU through depreciation of stock value during the year of purchase and at the time of sale of the product.

**EMFF advance funding not receipted to A&A
## Table 4 Vote – Expenditure on Agriculture, Food and the Marine, 2018-2019

<table>
<thead>
<tr>
<th></th>
<th>€m</th>
<th>€m</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>2018 Outturn</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EAGGF Guarantee direct expenditure</td>
<td>€1,229</td>
<td>€1,251</td>
</tr>
<tr>
<td>Voted Expenditure (excluding Administration)</td>
<td>€1,309</td>
<td>€1,362</td>
</tr>
<tr>
<td>Rural Development (^1)</td>
<td>€575</td>
<td>€611</td>
</tr>
<tr>
<td>Structural Measures (^1)</td>
<td>€81</td>
<td>€85</td>
</tr>
<tr>
<td>State Bodies</td>
<td>€247</td>
<td>€266</td>
</tr>
<tr>
<td>Horse and Greyhound Fund</td>
<td>€80</td>
<td>€84</td>
</tr>
<tr>
<td>Animal Health</td>
<td>€87</td>
<td>€93</td>
</tr>
<tr>
<td>Research Quality and Certification</td>
<td>€28</td>
<td>€25</td>
</tr>
<tr>
<td>Market Support Costs</td>
<td>€9</td>
<td>€8</td>
</tr>
<tr>
<td>Forestry and Bio-Fuels</td>
<td>€95</td>
<td>€90</td>
</tr>
<tr>
<td>Fisheries</td>
<td>€35</td>
<td>€42</td>
</tr>
<tr>
<td>Food Aid / World Food Programme</td>
<td>€19</td>
<td>€25</td>
</tr>
<tr>
<td>Brexit Response Loan Scheme</td>
<td>€25</td>
<td>€0</td>
</tr>
<tr>
<td>Other</td>
<td>€28</td>
<td>€32</td>
</tr>
<tr>
<td>Administration</td>
<td>€237</td>
<td>€280</td>
</tr>
<tr>
<td><strong>Total Voted Expenditure (including Administration)</strong></td>
<td>€1,546</td>
<td>€1,641</td>
</tr>
<tr>
<td><strong>Total DAFM Expenditure</strong></td>
<td>€2,775</td>
<td>€2,893</td>
</tr>
</tbody>
</table>

Note: (1) EAFRD Rural Development measures and certain Structural Development measures are part financed by the EU and the Exchequer. These figures are total expenditure on these measures in the calendar year. Expenditure in 2018 comprises GLAS, REPS, AEOS, Locally-led Environmental Schemes, Early retirement, Areas of Natural Constraint, Organic Farming, Beef Data & Genomics programme (BDGP), TAMS, Knowledge Transfer and Animal Welfare Scheme for Sheep.

Source: Department of Agriculture, Food and the Marine.
### Table 5 Payments to Farmers by DAFM by County, 2019

<table>
<thead>
<tr>
<th>County Name</th>
<th>Average Payment</th>
<th>Total Paid (Farmers)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CARLOW</td>
<td>22,344.03</td>
<td>44,419,936.90</td>
</tr>
<tr>
<td>CAVAN</td>
<td>12,908.58</td>
<td>66,221,002.81</td>
</tr>
<tr>
<td>CLARE</td>
<td>14,128.34</td>
<td>93,614,366.58</td>
</tr>
<tr>
<td>CORK</td>
<td>16,524.44</td>
<td>234,266,939.65</td>
</tr>
<tr>
<td>DONEGAL</td>
<td>12,532.28</td>
<td>113,918,400.57</td>
</tr>
<tr>
<td>DUBLIN</td>
<td>17,234.47</td>
<td>185,509,821.31</td>
</tr>
<tr>
<td>GALWAY</td>
<td>12,763.16</td>
<td>167,248,474.64</td>
</tr>
<tr>
<td>KERRY</td>
<td>14,781.61</td>
<td>126,367,992.79</td>
</tr>
<tr>
<td>KILDARE</td>
<td>17,434.50</td>
<td>42,540,172.13</td>
</tr>
<tr>
<td>KILKENNY</td>
<td>19,552.90</td>
<td>71,035,680.56</td>
</tr>
<tr>
<td>LAOIS</td>
<td>17,364.43</td>
<td>49,419,159.70</td>
</tr>
<tr>
<td>LEITRIM</td>
<td>12,383.30</td>
<td>47,217,522.08</td>
</tr>
<tr>
<td>LIMERICK</td>
<td>14,721.18</td>
<td>82,674,144.03</td>
</tr>
<tr>
<td>LONGFORD</td>
<td>13,683.80</td>
<td>36,645,217.28</td>
</tr>
<tr>
<td>LOUTH</td>
<td>15,224.75</td>
<td>25,059,943.11</td>
</tr>
<tr>
<td>MAYO</td>
<td>11,424.38</td>
<td>137,435,151.16</td>
</tr>
<tr>
<td>MEATH</td>
<td>10,173.16</td>
<td>64,099,158.74</td>
</tr>
<tr>
<td>MONAGHAN</td>
<td>11,431.38</td>
<td>48,354,748.07</td>
</tr>
<tr>
<td>OFFALY</td>
<td>16,717.13</td>
<td>50,301,854.12</td>
</tr>
<tr>
<td>ROSCOMMON</td>
<td>12,981.42</td>
<td>75,655,735.70</td>
</tr>
<tr>
<td>SLIGO</td>
<td>11,656.95</td>
<td>50,194,841.30</td>
</tr>
<tr>
<td>TIPPERARY</td>
<td>18,402.53</td>
<td>138,755,059.35</td>
</tr>
<tr>
<td>WATERFORD</td>
<td>19,578.50</td>
<td>50,003,497.38</td>
</tr>
<tr>
<td>WESTMEATH</td>
<td>15,654.85</td>
<td>55,715,615.99</td>
</tr>
<tr>
<td>WEXFORD</td>
<td>18,286.73</td>
<td>83,460,620.94</td>
</tr>
<tr>
<td>WICKLOW</td>
<td>19,061.85</td>
<td>43,613,508.50</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>2,016,748,565.39</strong></td>
</tr>
</tbody>
</table>

1 Includes direct payments to farmers as well as capital and other grants. Includes both EU and exchequer related payments.

### Table 6 Payments to Farmers by DAFM by Province, 2019

<table>
<thead>
<tr>
<th>Province</th>
<th>Average Payment</th>
<th>Total Paid (Farmers)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ULSTER</td>
<td>12,384.51</td>
<td>228,494,151.45</td>
</tr>
<tr>
<td>MUNSTER</td>
<td>16,104.08</td>
<td>725,681,999.78</td>
</tr>
<tr>
<td>LEINSTER</td>
<td>17,351.67</td>
<td>584,820,689.28</td>
</tr>
<tr>
<td>CONNAUGHT</td>
<td>12,224.65</td>
<td>477,751,724.88</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>2,016,748,565.39</strong></td>
</tr>
</tbody>
</table>

Note: The figure included in table 5 are based on actual payments issued in the calendar year. This would include payments posted in earlier years and only released 2019. Payments posted by line divisions in 2019 and held in SAP for any reason (death of herdowner, lack of bank details etc) would not be included.

**Source:** Department of Agriculture, Food & the Marine

*While every effort has been made to ensure the accuracy of the data contained in this publication, in view of the volume of statistical data, some errors may occur. Where these anomalies are identified, the Department will liaise to amend as required.

**Acknowledgement**
Economics and Planning Division wish to thank all who contributed to the Annual Review and Outlook 2019, with thanks in particular to Teagasc and the Central Statistics Office.