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<td>378</td>
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</tbody>
</table>
Introduction

At present, Ireland’s rate of economic development continues to cause pressures on the environment. This follows a period of several decades during which population, urbanisation, industrial and agricultural intensification have given rise to gradually increasing environmental pressures.

This chapter contains data on a number of these direct and indirect pressures on the environment, details of which are drawn primarily from the Environmental Protection Agency (EPA).

Table 18.1 contains information on the land areas afforested, together with the associated levels of carbon sinks (changes in forest and other woody biomass stocks). Forests absorb carbon dioxide from the atmosphere and store it in the biomass until the eventual release as a result of burning or timber decay.
Sources of energy by fuel type and energy consumption over the period 1980-2000, which give an indication of the needs of the Irish economy for energy and how they are sourced, are given in Tables 18.3-18.4. The Transport sector accounts for an increasing proportion of energy consumption and Table 18.2 details the growth in vehicle numbers and CO₂ emissions. An example of a pressure indicator derived from economic prosperity and economic activity has been included in Table 18.2, namely the number of cars per 1,000 population.

The next eight tables (Tables 18.5-18.12) deal with greenhouse gases, acid rain agents, environmental pressures over time, such as river quality and the generation of waste. Tables 18.5-18.8 give a picture as to where Ireland has progressed vis-à-vis emissions of greenhouse gases and acidifying agents. Finally, data is provided on various aspects of Ireland’s weather in Tables 18.13-18.16 in respect of 2000.

Recent trends

- The total number of registered vehicles has increased by 60% over the period 1990-2000. The number of cars per 1,000 population has converged rapidly to the European average over the last decade. Related CO₂ emissions have increased by 106% in the same period.

- Greenhouse gas emissions have increased by 24% over the period 1990-2000, while Ireland has agreed to limit the growth in greenhouse gases within 13% above 1990 levels under the Kyoto Protocol.

- Acid rain precursors emissions have decreased by 7% over the period 1990-2000.

- Each household produced on average over one tonne of waste per annum in 1998, of which a quarter is packaging.

- Only 9% of municipal waste in Ireland was recovered in 1998.

- Ireland’s total primary energy requirement in 2000 has increased by 74% since 1980.

- The percentage of land area under forest has increased by 65% over the period 1980-2000.
### Table 18.1  Land areas afforested and CO₂ sinks

<table>
<thead>
<tr>
<th>Year</th>
<th>Hectares public</th>
<th>Hectares private</th>
<th>Hectares total</th>
<th>Hectares annual change</th>
<th>CO₂ sinks kilotonnes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1980</td>
<td>291,086</td>
<td>102,221</td>
<td>393,307</td>
<td>–</td>
<td>–</td>
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<tr>
<td>1981</td>
<td>297,185</td>
<td>102,496</td>
<td>399,681</td>
<td>6,374</td>
<td>–</td>
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<tr>
<td>1982</td>
<td>303,201</td>
<td>102,994</td>
<td>406,195</td>
<td>6,514</td>
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<tr>
<td>1983</td>
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<td>103,321</td>
<td>412,220</td>
<td>6,025</td>
<td>–</td>
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<tr>
<td>1984</td>
<td>314,091</td>
<td>103,794</td>
<td>417,885</td>
<td>5,665</td>
<td>–</td>
</tr>
<tr>
<td>1985</td>
<td>318,716</td>
<td>104,411</td>
<td>423,127</td>
<td>5,242</td>
<td>–</td>
</tr>
<tr>
<td>1986</td>
<td>323,404</td>
<td>106,691</td>
<td>430,095</td>
<td>6,968</td>
<td>–</td>
</tr>
<tr>
<td>1987</td>
<td>328,799</td>
<td>109,645</td>
<td>438,444</td>
<td>8,349</td>
<td>–</td>
</tr>
<tr>
<td>1988</td>
<td>335,910</td>
<td>114,241</td>
<td>450,151</td>
<td>11,707</td>
<td>–</td>
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<tr>
<td>1989</td>
<td>342,539</td>
<td>122,738</td>
<td>465,277</td>
<td>15,126</td>
<td>–</td>
</tr>
<tr>
<td>1990</td>
<td>349,209</td>
<td>131,885</td>
<td>481,094</td>
<td>15,817</td>
<td>-450.11</td>
</tr>
<tr>
<td>1991</td>
<td>357,064</td>
<td>143,177</td>
<td>500,241</td>
<td>19,147</td>
<td>-422.95</td>
</tr>
<tr>
<td>1992</td>
<td>364,629</td>
<td>152,311</td>
<td>516,940</td>
<td>16,699</td>
<td>-318.05</td>
</tr>
<tr>
<td>1993</td>
<td>371,456</td>
<td>161,482</td>
<td>532,938</td>
<td>15,998</td>
<td>-380.85</td>
</tr>
<tr>
<td>1994</td>
<td>378,078</td>
<td>174,319</td>
<td>552,397</td>
<td>19,459</td>
<td>-407.25</td>
</tr>
<tr>
<td>1995</td>
<td>384,445</td>
<td>191,662</td>
<td>576,107</td>
<td>23,710</td>
<td>-428.68</td>
</tr>
<tr>
<td>1996</td>
<td>388,871</td>
<td>208,217</td>
<td>607,088</td>
<td>20,981</td>
<td>-420.15</td>
</tr>
<tr>
<td>1997</td>
<td>389,722</td>
<td>218,800</td>
<td>608,522</td>
<td>11,434</td>
<td>-497.91</td>
</tr>
<tr>
<td>1998</td>
<td>392,648</td>
<td>228,802</td>
<td>621,450</td>
<td>12,928</td>
<td>-573.62</td>
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<tr>
<td>1999</td>
<td>393,539</td>
<td>240,579</td>
<td>634,118</td>
<td>12,668</td>
<td>-500.51</td>
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<tr>
<td>2000</td>
<td>396,725</td>
<td>253,088</td>
<td>649,813</td>
<td>15,695</td>
<td>-407.33</td>
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</table>

*Source: Forest Service*
Table 18.2  Environmental pressures – transport

<table>
<thead>
<tr>
<th>Year</th>
<th>Number of private cars</th>
<th>Total number of vehicles</th>
<th>Population</th>
<th>Number of cars per 1,000 of population</th>
<th>CO₂ emissions from road transport kilotonnes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1979</td>
<td>682,958</td>
<td>852,211</td>
<td>3,368,200</td>
<td>203</td>
<td>n/a</td>
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<tr>
<td>1980</td>
<td>734,371</td>
<td>911,031</td>
<td>3,401,000</td>
<td>216</td>
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<tr>
<td>1981</td>
<td>774,594</td>
<td>949,619</td>
<td>3,443,400</td>
<td>225</td>
<td>n/a</td>
</tr>
<tr>
<td>1982</td>
<td>709,000</td>
<td>882,140</td>
<td>3,480,000</td>
<td>204</td>
<td>n/a</td>
</tr>
<tr>
<td>1983</td>
<td>718,555</td>
<td>897,381</td>
<td>3,504,000</td>
<td>205</td>
<td>n/a</td>
</tr>
<tr>
<td>1984</td>
<td>711,098</td>
<td>906,109</td>
<td>3,529,000</td>
<td>202</td>
<td>n/a</td>
</tr>
<tr>
<td>1985</td>
<td>709,546</td>
<td>914,758</td>
<td>3,540,000</td>
<td>200</td>
<td>n/a</td>
</tr>
<tr>
<td>1986</td>
<td>711,087</td>
<td>922,484</td>
<td>3,540,600</td>
<td>201</td>
<td>n/a</td>
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<tr>
<td>1987</td>
<td>736,595</td>
<td>959,753</td>
<td>3,546,500</td>
<td>208</td>
<td>n/a</td>
</tr>
<tr>
<td>1988</td>
<td>749,459</td>
<td>961,296</td>
<td>3,530,700</td>
<td>212</td>
<td>n/a</td>
</tr>
<tr>
<td>1989</td>
<td>773,396</td>
<td>1,019,550</td>
<td>3,509,500</td>
<td>220</td>
<td>n/a</td>
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<tr>
<td>1990</td>
<td>796,408</td>
<td>1,054,259</td>
<td>3,505,800</td>
<td>227</td>
<td>4,642</td>
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<td>1991</td>
<td>836,583</td>
<td>1,105,545</td>
<td>3,525,700</td>
<td>237</td>
<td>4,927</td>
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<tr>
<td>1992</td>
<td>858,498</td>
<td>1,126,473</td>
<td>3,554,500</td>
<td>242</td>
<td>5,330</td>
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<tr>
<td>1993</td>
<td>891,027</td>
<td>1,151,238</td>
<td>3,574,100</td>
<td>249</td>
<td>5,383</td>
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<td>1994</td>
<td>939,022</td>
<td>1,202,273</td>
<td>3,585,900</td>
<td>262</td>
<td>5,523</td>
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<td>1995</td>
<td>990,384</td>
<td>1,262,503</td>
<td>3,601,300</td>
<td>275</td>
<td>5,954</td>
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<tr>
<td>1996</td>
<td>1,057,383</td>
<td>1,338,616</td>
<td>3,626,100</td>
<td>292</td>
<td>6,657</td>
</tr>
<tr>
<td>1997</td>
<td>1,134,429</td>
<td>1,432,330</td>
<td>3,660,600</td>
<td>310</td>
<td>7,269</td>
</tr>
<tr>
<td>1998</td>
<td>1,196,901</td>
<td>1,510,853</td>
<td>3,704,900</td>
<td>323</td>
<td>8,283</td>
</tr>
<tr>
<td>1999</td>
<td>1,269,245</td>
<td>1,608,156</td>
<td>3,744,700</td>
<td>339</td>
<td>9,149</td>
</tr>
<tr>
<td>2000</td>
<td>1,319,250</td>
<td>1,682,221</td>
<td>3,786,900</td>
<td>348</td>
<td>9,583</td>
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</table>

Source: Department of the Environment and Local Government, CSO and Environmental Protection Agency
Table 18.3  Energy sources by fuel type

<table>
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</thead>
<tbody>
<tr>
<td></td>
<td>Millions of tonnes of oil equivalent (TOE)</td>
<td>Percentages</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Coal</td>
<td>0.73</td>
<td>1.05</td>
<td>2.16</td>
<td>1.92</td>
<td>1.99</td>
<td>9.1</td>
<td>13.1</td>
<td>22.9</td>
<td>17.9</td>
<td>14.2</td>
</tr>
<tr>
<td>Peat</td>
<td>1.17</td>
<td>1.45</td>
<td>1.36</td>
<td>1.21</td>
<td>0.80</td>
<td>14.6</td>
<td>18.0</td>
<td>14.4</td>
<td>11.3</td>
<td>5.7</td>
</tr>
<tr>
<td>Oil</td>
<td>5.61</td>
<td>3.89</td>
<td>4.29</td>
<td>5.45</td>
<td>7.87</td>
<td>69.8</td>
<td>48.4</td>
<td>45.5</td>
<td>50.9</td>
<td>56.3</td>
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<tr>
<td>Natural Gas</td>
<td>0.46</td>
<td>1.59</td>
<td>1.45</td>
<td>1.92</td>
<td>3.06</td>
<td>5.7</td>
<td>19.8</td>
<td>15.4</td>
<td>17.9</td>
<td>21.9</td>
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<tr>
<td>Renewables</td>
<td>0.07</td>
<td>0.06</td>
<td>0.17</td>
<td>0.20</td>
<td>0.25</td>
<td>0.9</td>
<td>0.7</td>
<td>1.8</td>
<td>1.9</td>
<td>1.8</td>
</tr>
<tr>
<td>Total</td>
<td>8.04</td>
<td>8.04</td>
<td>9.43</td>
<td>10.7</td>
<td>13.97</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
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Source: Department of Public Enterprise

Table 18.4  Final energy consumption by sector

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<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Million TOE</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Transport</td>
<td>1.73</td>
<td>1.72</td>
<td>2.03</td>
<td>2.46</td>
<td>3.90</td>
</tr>
<tr>
<td>Residential</td>
<td>1.94</td>
<td>2.09</td>
<td>2.19</td>
<td>2.13</td>
<td>2.58</td>
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<tr>
<td>Industry</td>
<td>1.96</td>
<td>1.68</td>
<td>1.72</td>
<td>1.68</td>
<td>2.27</td>
</tr>
<tr>
<td>Agriculture</td>
<td>n/a</td>
<td>n/a</td>
<td>0.25</td>
<td>0.29</td>
<td>0.33</td>
</tr>
<tr>
<td>Services</td>
<td>0.60</td>
<td>0.68</td>
<td>1.01</td>
<td>1.23</td>
<td>1.53</td>
</tr>
<tr>
<td>Total</td>
<td>6.23</td>
<td>6.17</td>
<td>7.20</td>
<td>7.79</td>
<td>10.61</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th></th>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Transport</td>
<td>27.8</td>
<td>27.9</td>
<td>28.2</td>
<td>31.6</td>
<td>36.8</td>
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<tr>
<td>Residential</td>
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<td>27.3</td>
<td>24.3</td>
</tr>
<tr>
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<td>27.2</td>
<td>23.9</td>
<td>21.6</td>
<td>21.4</td>
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<tr>
<td>Agriculture</td>
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<td>n/a</td>
<td>3.5</td>
<td>3.7</td>
<td>3.1</td>
</tr>
<tr>
<td>Services</td>
<td>9.6</td>
<td>11.0</td>
<td>14.0</td>
<td>15.8</td>
<td>14.4</td>
</tr>
<tr>
<td>Total</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
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Source: Department of Public Enterprise

Final Energy Consumption by Sector
(Agriculture energy consumption only available after 1986)
### Table 18.5  Greenhouse gas emissions

<table>
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<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Carbon Dioxide (CO₂)</td>
<td>31,508</td>
<td>35,629</td>
<td>38,000</td>
<td>39,957</td>
<td>41,825</td>
<td>43,815</td>
</tr>
<tr>
<td>Methane (CH₄)</td>
<td>611</td>
<td>646</td>
<td>655</td>
<td>649</td>
<td>634</td>
<td>610</td>
</tr>
<tr>
<td>Nitrous Oxide (N₂O)</td>
<td>29</td>
<td>31</td>
<td>31</td>
<td>32</td>
<td>33</td>
<td>31</td>
</tr>
<tr>
<td>Total</td>
<td>32,148</td>
<td>36,306</td>
<td>38,686</td>
<td>40,638</td>
<td>42,492</td>
<td>44,456</td>
</tr>
</tbody>
</table>

Source: Environmental Protection Agency

### Table 18.6  Greenhouse gas emissions, CO₂ equivalent

<table>
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<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Carbon Dioxide (CO₂)</td>
<td>31,508</td>
<td>35,629</td>
<td>38,000</td>
<td>39,957</td>
<td>41,825</td>
<td>43,815</td>
</tr>
<tr>
<td>Methane (CH₄)</td>
<td>12,836</td>
<td>13,559</td>
<td>13,747</td>
<td>13,631</td>
<td>13,307</td>
<td>12,800</td>
</tr>
<tr>
<td>Nitrous Oxide (N₂O)</td>
<td>9,086</td>
<td>9,660</td>
<td>9,548</td>
<td>10,066</td>
<td>10,143</td>
<td>9,657</td>
</tr>
<tr>
<td>Total</td>
<td>53,430</td>
<td>58,848</td>
<td>61,295</td>
<td>63,654</td>
<td>65,275</td>
<td>66,272</td>
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</table>

Index (1990=100)  100 110 115 119 122 124

Source: Environmental Protection Agency
Table 18.7  Acid rain and ozone precursors

<table>
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<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Sulphur Dioxide (SO2)</td>
<td>185,786</td>
<td>147,380</td>
<td>166,114</td>
<td>176,061</td>
<td>157,369</td>
<td>131,489</td>
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<tr>
<td>Nitrogen Oxides (NOX)</td>
<td>118,026</td>
<td>120,026</td>
<td>118,414</td>
<td>121,772</td>
<td>119,250</td>
<td>125,132</td>
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<tr>
<td>Ammonia (NH3)</td>
<td>112,317</td>
<td>121,941</td>
<td>123,397</td>
<td>127,497</td>
<td>126,987</td>
<td>122,440</td>
</tr>
<tr>
<td>Carbon Monoxide (CO)</td>
<td>400,920</td>
<td>306,832</td>
<td>312,159</td>
<td>317,732</td>
<td>285,310</td>
<td>279,571</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>925,755</td>
<td>805,460</td>
<td>832,677</td>
<td>856,984</td>
<td>783,495</td>
<td>756,457</td>
</tr>
</tbody>
</table>

Source: Environmental Protection Agency

Table 18.8  Acid rain precursors

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Sulphur Dioxide (SO2)</td>
<td>185,786</td>
<td>147,380</td>
<td>166,114</td>
<td>176,061</td>
<td>157,369</td>
<td>131,489</td>
</tr>
<tr>
<td>Nitrogen Oxides (NOX)</td>
<td>82,618</td>
<td>83,502</td>
<td>82,381</td>
<td>84,717</td>
<td>82,962</td>
<td>87,054</td>
</tr>
<tr>
<td>Ammonia (NH3)</td>
<td>213,402</td>
<td>229,541</td>
<td>232,282</td>
<td>240,000</td>
<td>239,040</td>
<td>230,481</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>481,806</td>
<td>460,423</td>
<td>480,777</td>
<td>500,778</td>
<td>479,371</td>
<td>449,024</td>
</tr>
</tbody>
</table>

Index (1990=100) 100 96 100 104 99 93

Source: Environmental Protection Agency
### Table 18.9  Lead concentrations and sales of unleaded petrol in Dublin

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>O'Connell Street</td>
<td>0.1</td>
<td>0.1</td>
<td>0.1</td>
<td>0.1</td>
<td>0.04</td>
<td>0.02</td>
</tr>
<tr>
<td>College Street</td>
<td>0.2</td>
<td>0.1</td>
<td>0.1</td>
<td>0.1</td>
<td>0.1</td>
<td>0.05</td>
</tr>
<tr>
<td>Pearse Street</td>
<td>0.3</td>
<td>0.2</td>
<td>0.2</td>
<td>0.1</td>
<td>0.1</td>
<td>0.06</td>
</tr>
<tr>
<td>Branch Road (Dublin Port area)</td>
<td>0.4</td>
<td>0.5</td>
<td>0.4</td>
<td>0.3</td>
<td>0.3</td>
<td>0.64</td>
</tr>
<tr>
<td>Ranelagh</td>
<td>0.1</td>
<td>0.1</td>
<td>0.1</td>
<td>0.04</td>
<td>0.04</td>
<td>0.02</td>
</tr>
<tr>
<td>Kilbarrack</td>
<td>0.1</td>
<td>0.04</td>
<td>0.03</td>
<td>0.02</td>
<td>0.01</td>
<td>0.01</td>
</tr>
<tr>
<td>Unleaded Petrol Sales (%)</td>
<td>57</td>
<td>64</td>
<td>73</td>
<td>80</td>
<td>92</td>
<td>100</td>
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</tbody>
</table>

Source: Dublin Corporation

### Table 18.10  River quality

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Unpolluted</td>
<td>69</td>
<td>66</td>
<td>57</td>
<td>51</td>
<td>58</td>
</tr>
<tr>
<td>Slightly polluted</td>
<td>20</td>
<td>19</td>
<td>27</td>
<td>29</td>
<td>26</td>
</tr>
<tr>
<td>Moderately polluted</td>
<td>8</td>
<td>13</td>
<td>15</td>
<td>18</td>
<td>14</td>
</tr>
<tr>
<td>Seriously polluted</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: Environmental Protection Agency
Table 18.11  Total household and commercial waste collected

<table>
<thead>
<tr>
<th>Year</th>
<th>1993</th>
<th>1995</th>
<th>1998</th>
<th>2000</th>
</tr>
</thead>
<tbody>
<tr>
<td>House hold and commercial waste collected</td>
<td>1,186,312</td>
<td>1,385,439</td>
<td>1,852,450</td>
<td>2,242,292</td>
</tr>
<tr>
<td>Index (1984=100.0)</td>
<td>139.0</td>
<td>162.1</td>
<td>216.7</td>
<td>262.3</td>
</tr>
</tbody>
</table>

Source: Environmental Protection Agency

Table 18.12  Disposal and recovery of household and commercial waste and packaging in 1998

<table>
<thead>
<tr>
<th>Material</th>
<th>Paper</th>
<th>Glass</th>
<th>Plastic</th>
<th>Ferrous, aluminium and other metals</th>
<th>Textiles</th>
<th>Organics</th>
<th>Others</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Waste quantity landfill</td>
<td>547,850</td>
<td>80,758</td>
<td>192,928</td>
<td>49,424</td>
<td>36,142</td>
<td>455,204</td>
<td>323,463</td>
<td>1,685,769</td>
</tr>
<tr>
<td>Household waste landfill</td>
<td>219,573</td>
<td>61,526</td>
<td>133,453</td>
<td>39,852</td>
<td>32,708</td>
<td>370,542</td>
<td>268,046</td>
<td>1,125,700</td>
</tr>
<tr>
<td>Commercial waste landfill</td>
<td>328,277</td>
<td>19,232</td>
<td>59,475</td>
<td>9,572</td>
<td>3,434</td>
<td>84,662</td>
<td>55,417</td>
<td>560,069</td>
</tr>
<tr>
<td>Waste quantity recovered</td>
<td>94,302</td>
<td>36,000</td>
<td>7,476</td>
<td>4,828</td>
<td>3,247</td>
<td>5,665</td>
<td>15,167</td>
<td>166,685</td>
</tr>
<tr>
<td>Household waste recovered</td>
<td>7,150</td>
<td>14,100</td>
<td>648</td>
<td>1,542</td>
<td>3,247</td>
<td>5,665</td>
<td>0</td>
<td>37,519</td>
</tr>
<tr>
<td>Commercial waste recovered</td>
<td>87,152</td>
<td>21,900</td>
<td>6,828</td>
<td>3,286</td>
<td>0</td>
<td>10,000</td>
<td>129,166</td>
<td>493,166</td>
</tr>
<tr>
<td>Total Waste Recovered (%)</td>
<td>14.7</td>
<td>30.8</td>
<td>3.7</td>
<td>8.9</td>
<td>8.2</td>
<td>1.2</td>
<td>4.5</td>
<td>9.0</td>
</tr>
<tr>
<td>Packaging quantity disposed</td>
<td>255,520</td>
<td>75,419</td>
<td>164,432</td>
<td>37,988</td>
<td>4,568</td>
<td>–</td>
<td>43,859</td>
<td>581,786</td>
</tr>
<tr>
<td>Household packaging disposed</td>
<td>58,162</td>
<td>59,459</td>
<td>116,775</td>
<td>29,691</td>
<td>3,187</td>
<td>–</td>
<td>28,545</td>
<td>295,819</td>
</tr>
<tr>
<td>Commercial packaging disposed</td>
<td>197,358</td>
<td>15,960</td>
<td>47,657</td>
<td>8,297</td>
<td>1,381</td>
<td>–</td>
<td>15,314</td>
<td>285,967</td>
</tr>
<tr>
<td>Packaging quantity recovered</td>
<td>42,262</td>
<td>36,000</td>
<td>3,458</td>
<td>1,540</td>
<td>0</td>
<td>–</td>
<td>10,000</td>
<td>93,260</td>
</tr>
<tr>
<td>Household packaging recovered</td>
<td>1,632</td>
<td>14,100</td>
<td>648</td>
<td>1,040</td>
<td>0</td>
<td>–</td>
<td>0</td>
<td>17,420</td>
</tr>
<tr>
<td>Commercial packaging recovered</td>
<td>40,630</td>
<td>21,900</td>
<td>2,810</td>
<td>500</td>
<td>0</td>
<td>–</td>
<td>10,000</td>
<td>75,840</td>
</tr>
<tr>
<td>Total Packaging Recovered (%)</td>
<td>14.2</td>
<td>32.3</td>
<td>2.1</td>
<td>3.9</td>
<td>0.0</td>
<td>–</td>
<td>18.6</td>
<td>13.8</td>
</tr>
</tbody>
</table>

Source: Environmental Protection Agency

Disposal and recovery of household and commercial waste in 1998

Diagram showing the breakdown of waste disposal and recovery.
Table 18.13 Rainfall, 2000

<table>
<thead>
<tr>
<th>Station</th>
<th>Total</th>
<th>% of Average</th>
<th>Amount</th>
<th>Date(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shannon Airport</td>
<td>1,097.0</td>
<td>118</td>
<td>39.0</td>
<td>27 July</td>
</tr>
<tr>
<td>Cork Airport</td>
<td>1,142.9</td>
<td>95</td>
<td>43.1</td>
<td>05 November</td>
</tr>
<tr>
<td>Malin Head</td>
<td>1,175.9</td>
<td>111</td>
<td>30.4</td>
<td>20 September</td>
</tr>
<tr>
<td>Dublin Airport</td>
<td>843.4</td>
<td>n/a</td>
<td>41.2</td>
<td>05 November</td>
</tr>
<tr>
<td>Casement Aerodrome</td>
<td>868.0</td>
<td>122</td>
<td>55.5</td>
<td>05 November</td>
</tr>
<tr>
<td>Valentia Observatory</td>
<td>1,768.1</td>
<td>124</td>
<td>48.5</td>
<td>30 November</td>
</tr>
<tr>
<td>Kilkenny</td>
<td>931.2</td>
<td>113</td>
<td>42.4</td>
<td>16 May</td>
</tr>
<tr>
<td>Belmullet</td>
<td>1,340.3</td>
<td>117</td>
<td>25.8</td>
<td>24 October</td>
</tr>
<tr>
<td>Connacht Airport</td>
<td>1,371.6</td>
<td>n/a</td>
<td>22.4</td>
<td>07 March</td>
</tr>
<tr>
<td>Clones</td>
<td>968.7</td>
<td>104</td>
<td>23.2</td>
<td>31 August</td>
</tr>
<tr>
<td>Bir</td>
<td>908.0</td>
<td>113</td>
<td>29.4</td>
<td>02 November</td>
</tr>
<tr>
<td>Mullingar</td>
<td>1,008.2</td>
<td>109</td>
<td>37.4</td>
<td>05 November</td>
</tr>
<tr>
<td>Rosslare</td>
<td>1,066.6</td>
<td>122</td>
<td>37.6</td>
<td>07 December</td>
</tr>
</tbody>
</table>

Source: Met Éireann
### Table 18.14 Temperature, 2000

<table>
<thead>
<tr>
<th>Station</th>
<th>Daily Mean</th>
<th>Difference from average(^1)</th>
<th>Highest</th>
<th>Lowest</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shannon Airport</td>
<td>11.1</td>
<td>+0.9</td>
<td>27.6</td>
<td>-4.9</td>
</tr>
<tr>
<td>Cork Airport</td>
<td>10.1</td>
<td>+0.6</td>
<td>24.2</td>
<td>-3.6</td>
</tr>
<tr>
<td>Malin Head</td>
<td>9.8</td>
<td>+0.4</td>
<td>23.9</td>
<td>-2.8</td>
</tr>
<tr>
<td>Dublin Airport</td>
<td>9.5</td>
<td>n/a</td>
<td>25.7</td>
<td>-7.4</td>
</tr>
<tr>
<td>Casement Aerodrome</td>
<td>9.8</td>
<td>+0.5</td>
<td>27.6</td>
<td>-8.3</td>
</tr>
<tr>
<td>Valentia Observatory</td>
<td>10.8</td>
<td>+0.3</td>
<td>26.1</td>
<td>-2.9</td>
</tr>
<tr>
<td>Kilkenny</td>
<td>10.0</td>
<td>+0.6</td>
<td>26.1</td>
<td>-5.0</td>
</tr>
<tr>
<td>Belmullet</td>
<td>10.6</td>
<td>+0.9</td>
<td>26.3</td>
<td>-5.5</td>
</tr>
<tr>
<td>Connacht Airport</td>
<td>8.6</td>
<td>n/a</td>
<td>24.7</td>
<td>-6.9</td>
</tr>
<tr>
<td>Clones</td>
<td>9.5</td>
<td>+0.6</td>
<td>25.5</td>
<td>-9.3</td>
</tr>
<tr>
<td>Bir</td>
<td>9.9</td>
<td>+0.5</td>
<td>25.9</td>
<td>-7.8</td>
</tr>
<tr>
<td>Mullingar</td>
<td>9.5</td>
<td>+0.6</td>
<td>26.3</td>
<td>-8.0</td>
</tr>
<tr>
<td>Rosslare</td>
<td>10.7</td>
<td>+0.6</td>
<td>23.9</td>
<td>-1.7</td>
</tr>
</tbody>
</table>

\(^1\) Average = 30 year average, 1961-1990
Source: Met Éireann

### Table 18.15 Sunshine, 2000

<table>
<thead>
<tr>
<th>Station</th>
<th>Daily Mean</th>
<th>% of average</th>
<th>Amount</th>
<th>Date(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shannon Airport</td>
<td>3.93</td>
<td>113</td>
<td>14.6</td>
<td>27 June</td>
</tr>
<tr>
<td>Cork Airport</td>
<td>4.12</td>
<td>108</td>
<td>14.8</td>
<td>20 July</td>
</tr>
<tr>
<td>Malin Head</td>
<td>3.78</td>
<td>112</td>
<td>14.9</td>
<td>22 July</td>
</tr>
<tr>
<td>Dublin Airport</td>
<td>4.08</td>
<td>104</td>
<td>14.8</td>
<td>17 July</td>
</tr>
<tr>
<td>Casement Aerodrome</td>
<td>3.89</td>
<td>105</td>
<td>15.0</td>
<td>16 June</td>
</tr>
<tr>
<td>Valentia Observatory</td>
<td>3.68</td>
<td>109</td>
<td>14.2</td>
<td>19 July</td>
</tr>
<tr>
<td>Kilkenny</td>
<td>4.00</td>
<td>114</td>
<td>14.9</td>
<td>21 July</td>
</tr>
<tr>
<td>Belmullet</td>
<td>3.57</td>
<td>102</td>
<td>15.1</td>
<td>22 July</td>
</tr>
<tr>
<td>Connacht Airport</td>
<td>3.58</td>
<td>n/a</td>
<td>15.0</td>
<td>06 July</td>
</tr>
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<td>Clones</td>
<td>3.60</td>
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<td>13.4</td>
<td>28 June</td>
</tr>
<tr>
<td>Bir</td>
<td>3.41</td>
<td>103</td>
<td>13.8</td>
<td>22 July</td>
</tr>
<tr>
<td>Mullingar</td>
<td>3.91</td>
<td>112</td>
<td>14.9</td>
<td>22 July</td>
</tr>
<tr>
<td>Rosslare</td>
<td>4.72</td>
<td>109</td>
<td>14.9</td>
<td>21 July</td>
</tr>
</tbody>
</table>

Source: Met Éireann
### Table 18.16  Number of days, 2000, with various weather conditions

<table>
<thead>
<tr>
<th>Station</th>
<th>Rain</th>
<th>Snow</th>
<th>Air frost</th>
<th>Hail</th>
<th>Thunder</th>
<th>Fog</th>
<th>Gale gusts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shannon Airport</td>
<td>253</td>
<td>6</td>
<td>11</td>
<td>13</td>
<td>9</td>
<td>31</td>
<td>74</td>
</tr>
<tr>
<td>Cork Airport</td>
<td>234</td>
<td>9</td>
<td>14</td>
<td>4</td>
<td>4</td>
<td>106</td>
<td>73</td>
</tr>
<tr>
<td>Malin Head</td>
<td>267</td>
<td>16</td>
<td>3</td>
<td>38</td>
<td>13</td>
<td>8</td>
<td>181</td>
</tr>
<tr>
<td>Dublin Airport</td>
<td>258</td>
<td>6</td>
<td>31</td>
<td>9</td>
<td>9</td>
<td>41</td>
<td>85</td>
</tr>
<tr>
<td>Casement Aerodrome</td>
<td>214</td>
<td>7</td>
<td>24</td>
<td>12</td>
<td>11</td>
<td>17</td>
<td>85</td>
</tr>
<tr>
<td>Valentia Observatory</td>
<td>293</td>
<td>4</td>
<td>15</td>
<td>22</td>
<td>9</td>
<td>20</td>
<td>105</td>
</tr>
<tr>
<td>Kilkenny</td>
<td>249</td>
<td>n/a</td>
<td>43</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>46</td>
</tr>
<tr>
<td>Belmullet</td>
<td>297</td>
<td>12</td>
<td>7</td>
<td>63</td>
<td>15</td>
<td>14</td>
<td>166</td>
</tr>
<tr>
<td>Connacht Airport</td>
<td>283</td>
<td>25</td>
<td>27</td>
<td>18</td>
<td>3</td>
<td>150</td>
<td>91</td>
</tr>
<tr>
<td>Clones</td>
<td>269</td>
<td>n/a</td>
<td>27</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>61</td>
</tr>
<tr>
<td>Bir</td>
<td>256</td>
<td>n/a</td>
<td>22</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>34</td>
</tr>
<tr>
<td>Mullingar</td>
<td>258</td>
<td>n/a</td>
<td>30</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>38</td>
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<tr>
<td>Rosslare</td>
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<td>1</td>
<td>5</td>
<td>6</td>
<td>5</td>
<td>35</td>
<td>60</td>
</tr>
</tbody>
</table>

Source: Met Éireann