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# Overview of EU climate targets

**Table 1: Overview of climate targets**

|  | **International commitments** | **EU domestic legislation** |
| --- | --- | --- |
|  | **Kyoto Protocol** | **Paris Agreement** | **2020 Climate and Energy Package** | **2030 Climate and Energy Framework** |
| **EU ETS** | **Effort Sharing Decision (ESD)** | **EU ETS** **(as proposal COM(2015) 337 final)** | **Effort Sharing Regulation (ESR)****(as proposal COM(2016) 482)** |
| **Target year of period** | Second commitment period (2013-2020)(target for EU-28) | Already in force – covers the period post 2020 | 2013-2020 | 2013-2020 | 2021-2030 | 2021-2030 |
| **Emission reduction target** | -20% | at least -40% in 2030 | -21% in 2020compared to 2005 for ETS emissions | Annual targets by MS. In 2020 -10% compared to 2005 for non-ETS emissions | -43% in 2030 compared to 2005 for ETS emissions | Annual targets by MS. In 2030 -30% compared to 2005 for non-ETS emissions |
| Overall target: -20% GHG emissions reduction vs 1990" | Overall target: "at least -40% domestic GHG emissions reduction vs 1990" |
| **Further targets** | - | • limiting global warming to well below 2°C.; • every 5 years to set more ambitious targets as required by science;• report on implementation/ track progress towards the long-term goal through a robust transparency and accountability system.• balance between anthropogenic emissions by sources and removals by sinks of greenhouse gases in the second half of this century | Renewable Energy Directive: 20% share of renewable energy of gross final energy consumption; | At least 27% share of renewable energy in EU energy consumption; |
| Energy Efficiency Directive : Increase energy efficiency by 20 % | At least 27% improvement in energy efficiency (to be reviewed by 2020, having in mind an EU level of 30%)[[1]](#footnote-2) |
| **Base year** | 1990, but subject to flexibility rules. 1995 or 2000 may be used as its base year for NF3 | 1990 | 1990 for overall emission reduction target; 2005 for targets broken down into ETS and non-ETS emissions. | 1990 for overall emission reduction target; 2005 for targets broken down into ETS and non-ETS emissions  |
| **LULUCF** | Included ARD and forest management, other activities if elected(new accounting rules)  | Included | Excluded  | Included: July 2016, the Commission launched a proposal for a regulation on the inclusion of GHG emissions and removals from LULUCF into the 2030 climate and enegy framework (COM/2016/0479 final) and the rules of its inclusion as of 2021. The proposal includes a "no debit rule", i.e. emissions from LULUCF must be compensated by carbon uptake after specified rules.  |
| **Aviation[[2]](#footnote-3)** | Domestic aviation included. International aviation not attributed.  | Economy-wide action encouraged | EU ETS: Domestic and some international aviation included.  | ESD:Aviation generally excluded | EU ETS:Domestic and some international aviation included. | ESR:Aviation generally excluded |
| **Use of international credits** | Use of KP flexible mechanisms subject to KP rules | Possible | Upper limit for credit use for period 2008-2020 at a maximum of 50 % of the reduction effort below 2005 levels  | Annual use of carbon credits is limited to up to 3 % of each Member State's ESD emissions in 2005[[[3]](#footnote-4)](file:///C%3A/Users/veragsi/AppData/Local/Microsoft/Windows/Temporary%20Internet%20Files/Content.MSO/E0DB9A89.xlsx#RANGE!C25)  | No  | No |
| **Carry-over of units from preceeding periods[[4]](#footnote-5)** | Subject to KP rules including those agreed in the Doha Amendment | No | EU ETS allowances can be banked into subsequent ETS trading periods since the second trading period | No carry over from previous period | Indefinite validity of allowances not limited to trading periods, no need to carry over. | No |
| **Gases covered** | CO2, CH4, N2O, HFCs, PFCs, SF6, NF3 | CO2, CH4, N2O, HFCs, PFCs, SF6, NF3 | CO2, CH4, N2O, HFCs, PFCs, SF6 | CO2, CH4, N2O, HFCs, PFCs, SF6, | CO2, CH4, N2O, HFCs, PFCs, SF6, NF3 |
| **Sectors included** | Energy, IPPU, agriculture, waste, LULUCF | Energy, IPPU, agriculture, waste, LULUCF | Energy, IPPU, agriculture, waste, LULUCF | Power & heat generation, energy-intensive industry sectors, aviation | Transport (except aviation), buildings, non-ETS industry, agriculture (except forestry) and waste | Power & heat generation, energy-intensive industry sectors, aviation | Transport (except aviation), buildings, non-ETS industry, agriculture (except forestry) and waste |
| **GWPs used** | IPCC SAR | IPCC AR4 | IPCC AR4 | IPCC AR4 | IPCC AR4 |
| **Applicable to number of MS** | 15 (additional KP targets for single MS) | 28 and Iceland | 28 Member States + possibly Iceland and Norway | 28[[5]](#footnote-6)  | 28  |

Source: European Commission.

# EU-wide emissions trends and projections

Figure 1: Share of greenhouse gas emissions by sector[[6]](#footnote-7), EU-28 2015

Source: 2017 EU greenhouse gas inventory (European Environment Agency).

Figure 2: Historical change in EU-28 greenhouse gas emissions by sector[[7]](#footnote-8).

 Source: 2017 EU greenhouse gas inventory (European Environment Agency).

Figure 3: EU-28 GHG emissions per sector[[8]](#footnote-9): historical data and projections (Mt. CO2-eq.).

Source: 1990-2015 data based on 2017 EU greenhouse gas inventory (European Environment Agency), 2016 data based on 2017 approximated inventory (European Environment Agency), 2017-2035 data based on Member States' projections[[9]](#footnote-10) reviewed by the European Environment Agency.

Figure 4: GHG emissions intensity in the EU and its Member States 1990, 2005 and 2016 (tonnes CO2-eq. per million Euro GDP)[[10]](#footnote-11), [[11]](#footnote-12).

Source: European Environment Agency. For 2016 approximated emissions data are used.

Figure 5: GHG emissions per capita in the EU and its Member States, 1990, 2005 and 2016 (tonnes CO2-eq. per capita)[[12]](#footnote-13),[[13]](#footnote-14).

Source: 1990 and 2005 emissions from inventory data, 2016 emissions from approximated inventory data (European Environment Agency). Population data: Eurostat.

Table 2: Emissions covered by the Kyoto Protocol 2nd commitment period (Mt. CO2-eq.).[[14]](#footnote-15)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  |  |  |  |
|  | 1990 | 2005 | 2015 | 2020 |
| Total GHG emissions | 5,647 | 5,214 | 4,310 |  |
| *Of which domestic aviation* | *14* | *20* | *15* |
| Projections as compilation of MS data, WEM scenario |  | 4,068 |
| -20% compared to Kyoto base year |  | 4517[[15]](#footnote-16) |

Table 3: Emissions covered by the Climate and Energy Package (Mt CO2-eq.).

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | 1990 | 2005 | 2015 | 2020 |
| Total GHG emissions | 5,716 | 5,345 | 4,452 |  |
| *of which domestic aviation* | *14* | *20* | *15* |
| *of which international aviation* | *69* | *132* | *142* |
| Projections as compilation of MS data, WEM scenario |  | 4,213 |
| -20 % compared to 1990 |  | 4,573 |

# EU ETS emissions

Table 4: Verified ETS emissions (Mt CO2-equivalents).

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Year** | **2011** | **2012** | **2013** | **2014** | **2015** | **2016** |
| **Verified total emissions**  | 1904 | 1867 | 1908 | 1814 | 1803 | 1750 |
| **Change to year x-1** | -1.8% | -2% | 2.2% | -4.9% | -0.6% | -2.9% |
| **Verified emissions from power sector**  | 1.185 | 1.181 | 1.128 | 1.039 | 1.031 | 982 |
| **Change to year x-1** |  | -0,3% | -4,4% | -7,9% | -0,8% | -4,8% |
| **Verified emissions from industrial installations**  | 720 | 686 | 780 | 775 | 772 | 768 |
| **Change to year x-1** |  | -4,6% | 13,7% | -0,7% | -0,4% | -0,5% |
| **Real GDP[[16]](#footnote-17) growth rate EU28** | 1.7% | -0.5% | 0.2% | 1.7% | 2.2% | 1.9% |



Figure 6: Development in supply and demand of ETS allowances 2013-2016.

# Member States' LULUCF accounting quantities

Table 5: LULUCF accounting quantities (average annual values) estimated by JRC based on Member States' GHG Inventories under KP and under 529/2013.

| **Member State** | **Accounting quantity, average annual values (Mt CO2/y), credits (-) and debits (+)** |
| --- | --- |
| **Activities under KP** | **Additional activities under 529/2013** |
| **Article 3.3** | **Article 3.4** | **total under KP** |
| **AR** | **D** | **FM** | **CM** | **GM** | **RV** | **WDR** | **CM** | **GM** |
| Austria | -2.0 | 0.5 | -2.7 |   |   |   |   | -4.2 | -0.3 | 0.1 |
| Belgium | -0.4 | 1.3 | -1.2 |   |   |   |   | -0.3 | 0.0 | 0.1 |
| Bulgaria | -1.3 | 0.1 | 2.3 |   |   |   |   | 1.1 |   |   |
| Croatia | -0.2 | 0.1 | -1.1 |   |   |   |   | -1.3 | -0.1 | 0.0 |
| Cyprus |   |   |   |   |   |   |   | 0.0 |   |   |
| Czech Republic | -0.5 | 0.2 | -1.2 |   |   |   |   | -1.6 | -0.1 |   |
| Denmark | -0.3 | 0.1 | -2.2 | -1.8 | 0.3 |   |   | -3.9 |   |   |
| Estonia | -0.2 | 0.2 | -0.4 |   |   |   |   | -0.4 | 0.0 | -0.1 |
| Finland | -0.2 | 3.4 | -2.5 |   |   |   |   | 0.7 | -0.1 | 0.0 |
| France | -9.6 | 11.2 | -7.5 |   |   |   |   | -5.9 |   |   |
| Germany | -6.5 | 2.1 | -32.3 | 1.9 | -3.5 |   |   | -38.3 |   |   |
| Greece | -0.1 | 0.0 | -0.4 |   |   |   |   | -0.5 | 2.0 | 0.0 |
| Hungary | -1.2 | 0.2 | -2.0 |   |   |   |   | -3.0 |   |   |
| Ireland | -3.7 | 0.2 | 0.3 | 0.0 | -1.2 |   |   | -4.4 |   |   |
| Italy | -8.3 | 2.0 | -8.7 | 0.5 | -0.7 |   |   | -15.2 |   |   |
| Latvia | -0.1 | 1.7 | 2.7 |   |   |   |   | 4.4 | -0.3 | -0.8 |
| Lithuania | -0.3 | 0.2 | -1.7 |   |   |   |   | -1.8 | -1.4 | 0.0 |
| Luxemburg | -0.2 | 0.0 | -0.2 |   |   |   |   | -0.3 | 0.0 | 0.0 |
| Malta |   |   |   |   |   |   |   | 0.0 |   |   |
| Netherlands | -0.8 | 1.5 | 0.0 |   |   |   |   | 0.7 | 0.9 | -1.4 |
| Poland | -2.8 | 0.3 | -12.1 |   |   |   |   | -14.6 | 0.8 | -0.7 |
| Portugal | -3.5 | 2.1 | -2.1 | -3.0 | -1.4 |   |   | -7.9 |   |   |
| Romania | -0.3 | 8.1 | -7.5 |   |   | -1.2 |   | -1.0 | 0.5 | 1.0 |
| Slovakia | -0.4 | 0.1 | -2.6 |   |   |   |   | -3.0 | -0.1 | 0.0 |
| Slovenia |   | 0.5 | -0.6 |   |   |   |   | -0.1 |   |   |
| Spain | -12.1 | 0.6 | -2.4 | 0.0 |   |   |   | -14.0 |   |   |
| Sweden | -1.3 | 3.0 | -2.5 |   |   |   |   | -0.9 | -0.9 | 0.1 |
| Un. Kingdom | -0.8 | 1.3 | -3.2 | -1.8 | 1.1 |   |   | -3.4 |   |   |
| **EU** | **-57.2** | **41.0** | **-92.0** | **-4.1** | **-5.5** | **-1.2** | **0.0** | **-119.0** | **0.9** | **-1.5** |
| Iceland | -0.6 | 0.0 | 0.2 |   |   | -0.6 |   | -1.0 |   |   |
| **EU + Iceland** | **-57.8** | **41.0** | **-91.8** | **-4.1** | **-5.5** | **-1.9** | **0.0** | **-120.1** | **0.9** | **-1.5** |

AR: Afforestation/Reforestation, D: Deforestation, FM: Forest Management CM: Cropland Management, GM: Grazing land management, RV: Revegetation, WDR: Wetland Drainage and Rewetting.

Numbers express the average annual values based on values reported during 2013-2015. For FM, estimates consider information on technical corrections to Forest Management Reference Levels and the impact of the cap.

AR, D and FM are mandatory activities under the KP. Grey cells indicate the voluntary elected activities.

Under 529/2013, some MS did not report yet complete information on CM and GM. Specifically, information on CM and GM is missing in BG, CY, FR, HU, MT and SI; CZ and ES did not provide information on the base year for GM. Grey cells are already reported under the KP.

# Member States' progress towards Effort Sharing Decision targets

Table 6: Member States' ESD targets and emissions relative to 2005 base year. Relative gap between emissions and targets[[17]](#footnote-18).

|  | **2015** | **2016** | **2020** |
| --- | --- | --- | --- |
| **Country** | **2015 ESD target compared to 2005** | **2015 emissions data compared to 2005** | **Relative gap 2015 vs. ESD 2015 target** | **2016 ESD target compared to 2005** | **2016 proxy emissions data compared to 2005** | **Relative gap 2016 vs. ESD 2016 target** | **2020 ESD target compared to 2005** | **Projected 2020 ESD emissions compared to 2005** | **Relative gap projected 2020 emissions vs. 2020 ESD targets** |
| Austria | -9% | -13% | -4% | -10% | -12% | -1% | -16% | -14% | 2% |
| Belgium | -6% | -9% | -3% | -8% | -7% | 1% | -15% | -12% | 3% |
| Bulgaria | 24% | 15% | -10% | 25% | 13% | -13% | 20% | -2% | -22% |
| Croatia | 15% | -11% | -25% | 16% | -18% | -34% | 11% | -12% | -23% |
| Cyprus | 42% | -3% | -45% | 42% | 0% | -42% | -5% | -14% | -9% |
| Czech Republic | 4% | -1% | -4% | 5% | -6% | -11% | 9% | 0% | -9% |
| Denmark | -13% | -19% | -6% | -15% | -19% | -4% | -20% | -22% | -2% |
| Estonia | 17% | 13% | -4% | 17% | 8% | -10% | 11% | 11% | 0% |
| Finland | -9% | -12% | -3% | -11% | -8% | 3% | -16% | -15% | 1% |
| France | -3% | -11% | -8% | -5% | -10% | -6% | -14% | -20% | -6% |
| Germany | -4% | -7% | -3% | -5% | -6% | 0% | -14% | -11% | 3% |
| Greece | -5% | -27% | -23% | -4% | -26% | -22% | -4% | -22% | -18% |
| Hungary | 10% | -14% | -23% | 12% | -12% | -24% | 10% | -19% | -29% |
| Ireland | -5% | -9% | -3% | -8% | -5% | 2% | -20% | -3% | 17% |
| Italy | -9% | -18% | -9% | -10% | -17% | -7% | -13% | -21% | -8% |
| Latvia | 11% | 5% | -5% | 12% | 4% | -8% | 17% | 8% | -9% |
| Lithuania | 3% | 0% | -3% | 6% | -2% | -8% | 15% | 2% | -13% |
| Luxembourg | -10% | -15% | -5% | -12% | -16% | -4% | -20% | -17% | 3% |
| Malta | 4% | 17% | 12% | 4% | 20% | 16% | 5% | 16% | 11% |
| Netherlands | -7% | -21% | -14% | -9% | -20% | -11% | -16% | -26% | -10% |
| Poland | 9% | 4% | -5% | 10% | 7% | -3% | 14% | 6% | -8% |
| Portugal | 3% | -16% | -19% | 3% | -17% | -20% | 1% | -17% | -18% |
| Romania | 5% | -1% | -6% | 7% | -4% | -11% | 19% | 1% | -18% |
| Slovakia | 8% | -13% | -20% | 9% | -14% | -23% | 13% | -12% | -25% |
| Slovenia | 5% | -9% | -14% | 5% | -7% | -12% | 4% | -9% | -13% |
| Spain | -5% | -17% | -12% | -6% | -16% | -10% | -10% | -20% | -10% |
| Sweden | -7% | -22% | -15% | -9% | -22% | -14% | -17% | -32% | -15% |
| United Kingdom | -16% | -22% | -6% | -17% | -22% | -5% | -16% | -26% | -10% |

Source: 2015 emissions from 2017 annual review of inventory data. 2016 emissions from 2017 approximated inventory data. 2020 Member States' projections (with existing measures), quality checked by the European Environment Agency (2017).

Table 7: Annual emissions allocations, emissions and gap to targets under the Effort Sharing Decision (Mt. CO2-eq.)

|  |  | **Base year emissions** | **ESD reviewed** | **Proxy emissions** | **Projections (WEM)** |
| --- | --- | --- | --- | --- | --- |
|   |   | **2005** | **2013** | **2014** | **2015** | **2016** | **2017** | **2018** | **2019** | **2020** |
| **Country** | **Mt CO2-eq.** | base year emissions | emissions / target | absolute gap to target | emissions / target | absolute gap to target | emissions / target | absolute gap to target | emissions / target | absolute gap to target | emissions / target | absolute gap to target | emissions / target | absolute gap to target | emissions / target | absolute gap to target | emissions / target | absolute gap to target |
| Austria | emissions | 56.8 | 50.1 |   | 48.2 |   | 49.3 |   | 50.2 |   | 49.5 |   | 49.4 |   | 49.3 |   | 49.1 |   |
| target |   | 52.6 | -2.5 | 52.1 | -3.9 | 51.5 | -2.2 | 51.0 | -0.8 | 49.5 | 0.0 | 48.9 | 0.5 | 48.3 | 1.0 | 47.8 | 1.4 |
| Belgium | emissions | 80.3 | 74.3 |   | 70.1 |   | 72.7 |   | 74.5 |   | 71.9 |   | 71.7 |   | 71.5 |   | 71.0 |   |
| target |   | 78.4 | -4.1 | 76.9 | -6.8 | 75.3 | -2.6 | 73.8 | 0.7 | 72.5 | -0.6 | 71.1 | 0.7 | 69.7 | 1.8 | 68.2 | 2.8 |
| Bulgaria | emissions | 22.1 | 22.2 |   | 22.9 |   | 25.4 |   | 25.0 |   | 22.4 |   | 22.2 |   | 22.0 |   | 21.7 |   |
| target |   | 26.9 | -4.7 | 27.2 | -4.3 | 27.5 | -2.1 | 27.7 | -2.8 | 25.9 | -3.5 | 26.1 | -3.9 | 26.3 | -4.4 | 26.5 | -4.8 |
| Croatia | emissions | 17.4 | 15.1 |   | 14.7 |   | 15.6 |   | 14.3 |   | 15.1 |   | 15.2 |   | 15.2 |   | 15.2 |   |
| target |   | 19.6 | -4.5 | 19.8 | -5.1 | 20.0 | -4.4 | 20.2 | -5.9 | 18.7 | -3.6 | 18.9 | -3.7 | 19.1 | -3.9 | 19.3 | -4.1 |
| Cyprus | emissions | 4.2 | 3.9 |   | 3.9 |   | 4.1 |   | 4.2 |   | 3.7 |   | 3.7 |   | 3.6 |   | 3.6 |   |
| target |   | 5.9 | -2.0 | 5.9 | -2.0 | 5.9 | -1.9 | 5.9 | -1.7 | 4.2 | -0.5 | 4.1 | -0.5 | 4.0 | -0.4 | 4.0 | -0.4 |
| Czech Republic | emissions | 61.7 | 61.5 |   | 57.6 |   | 61.3 |   | 58.1 |   | 59.3 |   | 60.2 |   | 61.1 |   | 61.9 |   |
| target |   | 62.5 | -1.0 | 63.2 | -5.6 | 64.0 | -2.7 | 64.7 | -6.6 | 65.2 | -5.9 | 65.9 | -5.7 | 66.5 | -5.5 | 67.2 | -5.3 |
| Denmark | emissions | 40.1 | 33.7 |   | 32.6 |   | 32.5 |   | 32.3 |   | 32.4 |   | 31.8 |   | 31.5 |   | 31.1 |   |
| target |   | 36.8 | -3.1 | 35.9 | -3.3 | 35.0 | -2.5 | 34.1 | -1.8 | 34.8 | -2.4 | 33.9 | -2.1 | 33.0 | -1.5 | 32.1 | -0.9 |
| Estonia | emissions | 5.4 | 5.8 |   | 6.1 |   | 6.1 |   | 5.8 |   | 6.0 |   | 6.0 |   | 6.0 |   | 6.0 |   |
| target |   | 6.3 | -0.5 | 6.3 | -0.2 | 6.3 | -0.2 | 6.4 | -0.5 | 5.9 | 0.1 | 6.0 | 0.1 | 6.0 | 0.0 | 6.0 | 0.0 |
| Finland | emissions | 33.9 | 31.6 |   | 30.1 |   | 29.9 |   | 31.3 |   | 29.7 |   | 29.4 |   | 29.1 |   | 28.8 |   |
| target |   | 31.8 | -0.2 | 31.3 | -1.1 | 30.8 | -0.9 | 30.3 | 1.0 | 30.2 | -0.5 | 29.6 | -0.2 | 29.1 | 0.0 | 28.5 | 0.3 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| France | emissions | 398.2 | 366.1 |   | 353.5 |   | 353.0 |   | 357.0 |   | 339.1 |   | 332.1 |   | 325.2 |   | 318.2 |   |
| target |   | 394.1 | -28.0 | 389.5 | -35.9 | 384.4 | -31.4 | 379.4 | -22.4 | 358.2 | -19.1 | 352.9 | -20.8 | 347.7 | -22.5 | 342.5 | -24.3 |
| Germany | emissions | 477.8 | 460.2 |   | 436.8 |   | 444.1 |   | 450.4 |   | 441.5 |   | 436.3 |   | 431.2 |   | 426.5 |   |
| target |   | 472.5 | -12.3 | 465.8 | -29.0 | 459.1 | -15.1 | 452.4 | -2.0 | 432.3 | 9.1 | 425.2 | 11.1 | 418.1 | 13.1 | 410.9 | 15.6 |
| Greece | emissions | 62.6 | 44.2 |   | 44.4 |   | 45.4 |   | 46.5 |   | 47.6 |   | 48.2 |   | 48.7 |   | 48.9 |   |
| target |   | 59.0 | -14.8 | 59.3 | -14.9 | 59.6 | -14.2 | 59.9 | -13.5 | 59.1 | -11.6 | 59.4 | -11.2 | 59.7 | -11.1 | 60.0 | -11.1 |
| Hungary | emissions | 48.0 | 38.4 |   | 38.4 |   | 41.4 |   | 42.1 |   | 40.7 |   | 40.0 |   | 39.5 |   | 39.1 |   |
| target |   | 50.4 | -12.0 | 51.5 | -13.1 | 52.6 | -11.2 | 53.8 | -11.6 | 50.1 | -9.3 | 51.0 | -11.0 | 51.9 | -12.4 | 52.8 | -13.7 |
| Ireland | emissions | 47.1 | 42.2 |   | 41.7 |   | 43.0 |   | 44.5 |   | 44.6 |   | 44.6 |   | 45.3 |   | 45.6 |   |
| target |   | 46.9 | -4.7 | 45.8 | -4.1 | 44.6 | -1.6 | 43.5 | 1.0 | 40.9 | 3.7 | 39.8 | 4.8 | 38.7 | 6.5 | 37.7 | 8.0 |
| Italy | emissions | 334.5 | 273.3 |   | 265.3 |   | 273.3 |   | 277.5 |   | 269.9 |   | 267.5 |   | 265.1 |   | 262.7 |   |
| target |   | 308.2 | -34.8 | 306.2 | -40.9 | 304.2 | -31.0 | 302.3 | -24.8 | 298.3 | -28.4 | 295.8 | -28.4 | 293.4 | -28.3 | 291.0 | -28.3 |
| Latvia | emissions | 8.5 | 8.8 |   | 9.0 |   | 9.0 |   | 8.9 |   | 9.1 |   | 9.1 |   | 9.2 |   | 9.2 |   |
| target |   | 9.3 | -0.5 | 9.4 | -0.3 | 9.4 | -0.4 | 9.5 | -0.7 | 9.7 | -0.7 | 9.8 | -0.7 | 9.9 | -0.7 | 10.0 | -0.8 |
| Lithuania | emissions | 13.3 | 12.4 |   | 12.9 |   | 13.3 |   | 13.0 |   | 13.6 |   | 13.5 |   | 13.6 |   | 13.6 |   |
| target |   | 12.9 | -0.5 | 13.3 | -0.4 | 13.7 | -0.4 | 14.0 | -1.0 | 14.1 | -0.5 | 14.5 | -1.0 | 14.9 | -1.3 | 15.2 | -1.7 |
| Luxembourg | emissions | 10.1 | 9.4 |   | 8.9 |   | 8.6 |   | 8.5 |   | 8.4 |   | 8.4 |   | 8.4 |   | 8.4 |   |
| target |   | 9.5 | -0.2 | 9.3 | -0.5 | 9.1 | -0.5 | 8.9 | -0.4 | 8.7 | -0.4 | 8.5 | -0.2 | 8.3 | 0.0 | 8.1 | 0.3 |
| Malta | emissions | 1.1 | 1.3 |   | 1.3 |   | 1.3 |   | 1.3 |   | 1.3 |   | 1.3 |   | 1.3 |   | 1.3 |   |
| target |   | 1.2 | 0.1 | 1.2 | 0.1 | 1.2 | 0.1 | 1.2 | 0.2 | 1.2 | 0.1 | 1.2 | 0.1 | 1.2 | 0.1 | 1.2 | 0.1 |
| Netherlands | emissions | 127.8 | 108.3 |   | 97.9 |   | 101.1 |   | 102.7 |   | 98.3 |   | 96.9 |   | 96.0 |   | 94.6 |   |
| target |   | 122.9 | -14.7 | 120.7 | -22.8 | 118.4 | -17.3 | 116.1 | -13.5 | 114.1 | -15.7 | 111.8 | -14.9 | 109.6 | -13.6 | 107.4 | -12.8 |
| Poland | emissions | 180.0 | 186.1 |   | 181.5 |   | 186.8 |   | 192.8 |   | 189.2 |   | 189.5 |   | 189.8 |   | 190.1 |   |
| target |   | 193.6 | -7.5 | 194.9 | -13.3 | 196.1 | -9.4 | 197.4 | -4.6 | 200.0 | -10.8 | 201.7 | -12.2 | 203.4 | -13.6 | 205.2 | -15.1 |
| Portugal | emissions | 48.6 | 38.6 |   | 38.8 |   | 40.6 |   | 40.4 |   | 41.9 |   | 41.4 |   | 41.0 |   | 40.5 |   |
| target |   | 49.3 | -10.7 | 49.6 | -10.8 | 49.9 | -9.2 | 50.1 | -9.7 | 47.9 | -6.0 | 48.3 | -6.9 | 48.7 | -7.7 | 49.1 | -8.6 |
| Romania | emissions | 75.5 | 72.7 |   | 72.5 |   | 74.6 |   | 72.7 |   | 75.1 |   | 75.6 |   | 76.0 |   | 76.5 |   |
| target |   | 75.6 | -2.9 | 77.5 | -4.9 | 79.3 | -4.7 | 81.1 | -8.4 | 84.1 | -9.0 | 86.0 | -10.4 | 87.9 | -11.8 | 89.8 | -13.3 |
| Slovakia | emissions | 23.0 | 21.1 |   | 19.8 |   | 20.1 |   | 19.7 |   | 19.9 |   | 20.0 |   | 20.1 |   | 20.2 |   |
| target |   | 24.0 | -2.9 | 24.4 | -4.6 | 24.7 | -4.7 | 25.1 | -5.4 | 25.0 | -5.1 | 25.3 | -5.3 | 25.6 | -5.6 | 25.9 | -5.8 |
| Slovenia | emissions | 11.8 | 10.9 |   | 10.5 |   | 10.7 |   | 11.0 |   | 10.7 |   | 10.7 |   | 10.7 |   | 10.7 |   |
| target |   | 12.3 | -1.4 | 12.4 | -1.9 | 12.4 | -1.7 | 12.4 | -1.4 | 12.2 | -1.5 | 12.2 | -1.5 | 12.3 | -1.5 | 12.3 | -1.6 |
| Spain | emissions | 236.0 | 200.3 |   | 199.8 |   | 196.2 |   | 197.8 |   | 191.4 |   | 191.2 |   | 190.4 |   | 189.1 |   |
| target |   | 227.6 | -27.3 | 225.6 | -25.9 | 223.7 | -27.6 | 221.8 | -24.0 | 218.3 | -26.8 | 216.3 | -25.1 | 214.3 | -23.9 | 212.4 | -23.3 |
| Sweden | emissions | 43.5 | 35.3 |   | 34.5 |   | 33.9 |   | 33.7 |   | 32.2 |   | 31.4 |   | 30.5 |   | 29.7 |   |
| target |   | 41.7 | -6.4 | 41.0 | -6.5 | 40.4 | -6.5 | 39.8 | -6.1 | 37.8 | -5.6 | 37.2 | -5.9 | 36.7 | -6.1 | 36.1 | -6.4 |
| United Kingdom | emissions | 417.8 | 339.5 |   | 324.4 |   | 326.0 |   | 324.4 |   | 321.0 |   | 316.7 |   | 314.4 |   | 309.4 |   |
| target |   | 358.7 | -19.3 | 354.2 | -29.8 | 349.7 | -23.7 | 345.2 | -20.8 | 360.4 | -39.4 | 357.2 | -40.6 | 354.1 | -39.7 | 350.9 | -41.5 |

Source: 2013 -2015 ESD emissions from the annual reviews of inventory data. 2016 emissions from approximated inventory data. 2017-2020 Member States projections (with existing measures), quality checked by the European Environment Agency.

# Climate finance to developing countries

Table 8: Climate finance provided to developing countries (2016).

|  |  |
| --- | --- |
| **EU and Member States** | **Climate finance (€ million)** |
| Austria | 199.26 |
| Belgium |  100.92 |
| Bulgaria |   |
| Croatia |   |
| Cyprus |   |
| Czech Republic |  7.48 |
| Denmark |  172.98 |
| Estonia |  0.38 |
| Finland |  43.04 |
| France |  3 334.84 |
| Germany |  8 534.08 |
| Greece | 0.23 |
| Hungary | 35.29 |
| Ireland | 52.70 |
| Italy | 242.95 |
| Latvia | 0.01 |
| Lithuania | 0.54 |
| Luxembourg | 129.53 |
| Malta | 0.20 |
| Netherlands | 471.89 |
| Poland |  5.38 |
| Portugal |  2.00 |
| Romania |  0.78 |
| Slovakia |  2.99 |
| Slovenia |  2.98 |
| Spain |  595.03 |
| Sweden |  402.40 |
| United Kingdom |  1 163.58 |
| European Commission  | 2 730.17 |
| European Investment Bank | 1 947.72 |
| **Total** | **20 179.32** |

Source: The figures represent climate finance sources from public budgets and other development financial institutions as reported by Member States under Article 16 of Regulation (EU) No 525/2013 of 21 May 2013. They also include EUR 2.7 billion climate finance from the EU Budget and the European Development Fund, and EUR 1.9 billion from European Investment Bank.

1. On 30 November 2016 the Commission proposed an [update to the Energy Efficiency Directive](https://ec.europa.eu/energy/en/news/commission-proposes-new-rules-consumer-centred-clean-energy-transition) including a new 30% energy efficiency target for 2030. The proposal is under consideration in the Council and the European Parliament. [↑](#footnote-ref-2)
2. May be reviewed in the light of the implementation of ICAO's global measure. [↑](#footnote-ref-3)
3. Member States that do not use their 3 % limit for the use of international credits in any specific year can transfer the unused part of their limit to another Member State or bank it for their own use until 2020. Member States fulfilling additional criteria (Austria, Belgium, Cyprus, Denmark, Finland, Ireland, Italy, Luxembourg, Portugal, Slovenia, Spain and Sweden) may use credits from projects in Least Developed Countries (LDCs) and Small Island Developing States (SIDS) up to an additional 1 % of their verified emissions in 2005. These credits are not bankable and transferable. A maximum of approximately 750 Mt of international credits can be used during the period from 2013 to 2020 in the ESD. [↑](#footnote-ref-4)
4. For the CP2 it refers to carry over from CP1. For the ETS it refers to carry-over from previous trading period under the scheme itself. [↑](#footnote-ref-5)
5. In addition to the 28 MS, Iceland, Liechtenstein and Norway are also covered under the EU-ETS. [↑](#footnote-ref-6)
6. The sectors correspond to IPCC sectors. Energy supply includes IPCC sectors 1.A.1, 1.B, 1.C. Energy use includes IPCC sectors 1.A.2, 1.A.4, 1.A.5, 6. International aviation is not included. [↑](#footnote-ref-7)
7. The sectors correspond to IPCC sectors. Energy supply includes IPCC sectors 1.A.1, 1.B, 1.C. Energy use includes IPCC sectors 1.A.2, 1.A.4, 1.A.5, 6. International aviation is not included. [↑](#footnote-ref-8)
8. The sectors correspond to IPPC sectors. Energy supply includes IPCC sectors 1.A.1, 1.B, 1.C. Energy use includes IPCC sectors 1.A.2, 1.A.4, 1.A.5, 6. International aviation is not included. [↑](#footnote-ref-9)
9. The projections are based on scenarios where existing measures are maintained (WEM scenarios). [↑](#footnote-ref-10)
10. Percentages reflect average annual change in the period 1990-2016. [↑](#footnote-ref-11)
11. Emissions data used are national totals (including international aviation). [↑](#footnote-ref-12)
12. Numbers show tonnes CO2-eq. per capita in 2016. [↑](#footnote-ref-13)
13. Emissions data used are national totals (including international aviation). Population data used are 'average population – total'. [↑](#footnote-ref-14)
14. Emissions from international aviation is covered by the EU Climate and Energy Package, but not by the obligation under the Kyoto Protocol. [↑](#footnote-ref-15)
15. Preliminary numbers. [↑](#footnote-ref-16)
16. GDP data as reported on: <http://epp.eurostat.ec.europa.eu/tgm/table.do?tab=table&init=1&plugin=1&language=en&pcode=tec00115>

(accessed in July 2017). Verified aviation emissions are reported separately in section 4. [↑](#footnote-ref-17)
17. The relative gap to target is calculated as follows: (emissions year x) – (ESD target year x). Negative values indicate over-delivery while positive values indicate shortfall towards ESD target. [↑](#footnote-ref-18)