

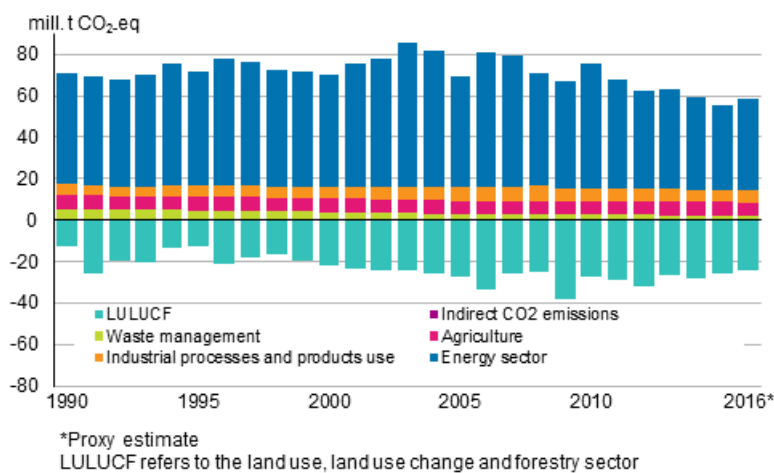
Greenhouse gases

2016, instant preliminary data

Finland's greenhouse gas emissions grew

According to Statistics Finland's instant preliminary data, the total emissions of greenhouse gases in 2016 corresponded with 58.8 million tonnes of carbon dioxide (CO₂ eq.). Emissions grew by six per cent compared with the previous year but were still 18 per cent lower than in 1990. The biggest reasons for the growth in the emissions were the increase in coal consumption and the decline in the proportion of biofuels used in transport. Emissions from the non-emissions trading sector went up by five per cent compared to 2015 and exceeded the annual emission allocation set by the EU by 1.0 million tonnes of CO₂ equivalent.

Finland's greenhouse gas emissions by sector (emissions are positive and removals negative figures)



Statistics Finland releases instant preliminary data on greenhouse gas emissions of the year by sector and broken down between emissions trading sources and non-emissions trading sectors. More information on greenhouse gas emissions, their development and factors affecting the development, as well as the fulfilment of international obligations can be found in Statistics Finland's report [Finland's greenhouse gas emissions in 1990 to 2016](#) (only in Finnish).

According to the instant preliminary data, total emissions increased by six per cent from 2015. Emissions in the energy sector grew by eight per cent year-on-year. The biggest reasons for the growth in the emissions

were the increase in coal consumption and the decline in the proportion of biofuels used in (road) transport. [Preliminary data](#) on total energy consumption in 2016 released by Statistics Finland have been used in the calculation of the energy sector. In the industrial processes and product use sector, emissions rose by three per cent year-on-year, the growth was most affected by emissions from the mineral industry (13 per cent) and the chemical industry (11 per cent.) Emissions from agriculture remained at the same level as in 2015. Emissions from waste management decreased by around four per cent. The carbon sink of the LULUCF sector decreased by eight per cent.

Emissions from sources in the non- emission trading sector are calculated as the difference between the total emissions and verified emissions of the emissions trading sector, excluding CO₂ emissions from domestic civil aviation according to the inventory. [The data on the verified emissions of the emissions trading sector](#) are published by the Energy Authority (in Finnish). Annual emission allocations for the years 2013 to 2020 have been defined in the EU's effort sharing decision for emissions from the non-emissions trading sector. Emissions from the non-emissions trading sector are below the annual emission allocations in 2013 to 2015. According to the instant preliminary data, the 2016 emissions exceeded the target path.

Greenhouse gas emissions and removals by sector broken down between emissions trading and non-emissions trading sectors in 2005, to 2010 and 2013 to 2016 (million t CO₂ eq.)

	2005	2010	2013	2014	2015	2016 ¹⁾	Change, 2015-2016
Emissions without LULUCF sector²⁾	69.6	75.7	63.2	59.1	55.6	58.8	3.2
CO₂ emissions from civil aviation	0.3	0.2	0.2	0.2	0.2	0.2	0.0
Emissions trading sector emissions³⁾	33.1	41.3	31.5	28.8	25.5	27.2	1.8
Energy sector	29.6	37.3	27.6	25.1	21.6	22.9	1.3
Industrial processes	3.5	4.1	3.9	3.7	3.9	4.3	0.4
Difference between the emissions trading registry and the inventory ⁴⁾	0.0	0.0	0.0	0.0	-0.1		
Non- emissions trading sector emissions⁵⁾	36.2	34.1	31.5	30.2	29.9	31.3	1.4
Energy sector	23.8	22.6	20.5	19.2	19.0	20.8	1.8
Transport ⁵⁾	12.6	12.5	12.0	10.9	10.9	12.1	1.2
Energy, other than transport	11.2	10.2	8.5	8.3	8.1	8.7	0.6
Industrial processes and products use	3.0	2.2	2.0	2.2	2.1	2.0	-0.2
Industrial processes (excl. F-gases) ⁶⁾	2.0	0.7	0.4	0.5	0.6	0.5	-0.1
Consumption of F-gases ⁶⁾	0.9	1.5	1.6	1.7	1.6	1.5	-0.1
Agriculture	6.5	6.6	6.5	6.5	6.5	6.5	0.0
Waste management	2.8	2.6	2.3	2.2	2.1	2.0	-0.1
Indirect CO ₂ emissions	0.1	0.1	0.1	0.1	0.1	0.1	0.0
Difference between the emissions trading registry and the inventory ⁴⁾	0.0	0.0	0.0	0.0	0.1		
LULUCF sector²⁾	-27.1	-27.3	-26.3	-28.3	-26.0	-23.9	2.1

1) Proxy estimate

2) LULUCF refers to the land use, land use change and forestry sector. The sector does not come under the scope of the emissions trading scheme or the reduction targets under the effort sharing decision

3) Source: Energy Authority. In 2013, emissions trading was expanded with new sectors

4) The divergence caused by the methodological and definitional differences in total emissions in the emissions trading sector between the data of the Energy Authority and the Greenhouse Gas Inventory

5) Excluding CO₂ emission from domestic civil aviation according to the inventory

6) F-gases refer to fluorinated greenhouse gases (HFC, PFC compounds, SF₆ and NF₃)

The calculation of instant preliminary emissions and removals is carried out at a less detailed level than the actual inventory calculation for 2016. The emissions become revised as all data used in the calculation are completed. Preliminary data of the statistics on greenhouse gases will be released in December 2017 and official data in March to April 2018.

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Revision of Finland's greenhouse gas emissions. Emissions expressed in million tonnes CO2 equivalent

	Statistical reference year	Previous release 6 April 2017	Latest release 24 May 2017	% ¹⁾
Total emissions (without LULUCF sector)	1990	71.3	71.3	0.0
	2005	69.6	69.6	0.0
	2010	75.7	75.7	0.0
	2011	67.7	67.7	0.0
	2012	62.4	62.4	0.0
	2013	63.2	63.2	0.0
	2014	59.1	59.1	0.0
	2015	55.6	55.6	0.0
	2016		58.8 ²⁾	
LULUCF sector	1990	-12.7	-12.7	0.0
	2005	-27.1	-27.1	0.0
	2010	-27.3	-27.3	0.0
	2011	-28.7	-28.7	0.0
	2012	-32.3	-32.3	0.0
	2013	-26.3	-26.3	0.0
	2014	-28.3	-28.3	0.0
	2015	-26.0	-26.0	0.0
	2016		-23.9 ²⁾	
Non-emissions trading sector ³⁾	2013	31.5	31.5	0.0
	2014	30.2	30.2	0.0
	2015	29.9	29.9	0.0
	2016		31.3 ²⁾	

1) Change between the latest and previous releases.

2) Proxy estimate

3) Excluding CO2 emissions from domestic civil aviation.

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Source: Greenhouse gas inventory unit. Statistics Finland