

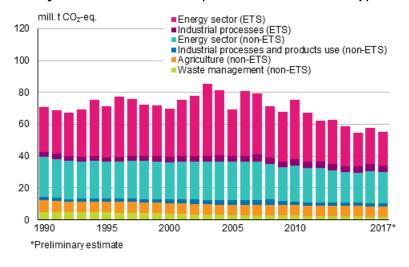
# Greenhouse gases

2017, preliminary data

# Greenhouse gas emissions fell and emissions not included in the EU Emissions Trading System on the target path

According to Statistics Finland's preliminary data, the total emissions of greenhouse gases in 2017 correspond with 55.5 million tonnes of carbon dioxide equivalent (CO2 eq.), being 15.8 million tonnes less than in the comparison year 1990. Emissions went down by almost five per cent from the previous year. The fall in emissions was most influenced by the decreased consumption of the main fossil fuels and the increased share of biofuels used in traffic. Emissions not included in the EU Emissions Trading System went down by two per cent from 2016, being on level with the emission allocations units set by the EU. The data are based on the preliminary report on emissions in 2017 to be submitted by Statistics Finland to the European Commission by 15 January 2019.

## Greenhouse gas emissions in the EU ETS and emissions not in the ETS by sector in 1990 to 2017 (million tonnes of CO2 eq.)



According to the preliminary data, total emissions in 2017 decreased by nearly five per cent compared with the previous year. Emissions decreased in all sectors. Emissions in the energy sector fell by five per cent, the fall in emissions was most influenced by the lower consumption of coal, natural gas and peat and the increased share of biofuels in traffic (Link to the energy release). Emissions from industrial processes

and product use fell by three per cent, emissions from agriculture by one per cent and emissions from the waste sector by five per cent from 2016 to 2017. The calculation results of the land use, land-use change and forestry sector (LULUCF) are not yet completed, so they are not published in connection with these preliminary data. Emissions and sinks in this sector are not included in total emissions.

#### Greenhouse gas emissions in Finland by sector

	1990	1995	2005	2010	2015	2016	2017 <sup>4)</sup>	Change 2016-2017
	Emissions, million tonnes CO2 eq.							
Emissions without								
LULUCF sector <sup>1)</sup>	71.3	71.9	69.9	75.7	55.2	58.1	55.5	-2.7
Energy sector	53.6	55.3	53.7	60.2	40.6	43.4	41.1	-2.3
Energy industries	19.0	24.0	22.1	30.9	17.8	19.1	17.6	-1.6
Manufacturing industries	40.7	40.4	44.0	40.0		- ^		
and construction	13.7	12.4	11.6	10.2	6.9	7.0	6.9	-0.2
Transport	12.1	11.3	12.9	12.7	10.9	12.1	11.5	-0.2
Other energy <sup>2)</sup>	8.8	7.6	7.0	6.3	5.0	5.2	5.2	0.0
Industrial processes and products use	5.4	5.1	6.8	6.1	5.9	6.1	5.9	-0.2
Industrial processes (excl. F-gases) <sup>3)</sup>	5.3	4.9	5.6	4.7	4.4	4.7	4.6	-0.1
Consumption of F-gases 3)	0.05	0.19	1.2	1.4	1.4	1.4	1.3	-0.1
Agriculture	7.5	6.8	6.5	6.6	6.5	6.6	6.5	-0.1
Waste management	4.7	4.6	2.8	2.6	2.1	2.0	1.9	-0.1
Indirect CO2 emissions	0.17	0.13	0.09	0.07	0.05	0.05	0.05	0.0

<sup>1)</sup> LULUCF refers to the land use, land use change and forestry sector. The sector does not come under the scope of the Emissions Trading System or the reduction targets under the Effort Sharing Decision.

Emissions not included in the ETS are calculated as the difference between the total emissions and verified emissions of the sectors in the EU ETS, excluding CO2 emissions from domestic civil aviation according to the inventory. The data on the <u>verified emissions belonging to the EU ETS</u> are published by the Energy Authority. Annual emission allocations for the years 2013 to 2020 have been defined in the EU's Effort Sharing Decision for emissions not in the ETS. Annual emission allocations not used can be used to compensate for the emissions that exceed the target path. Preliminary data for 2017 were 0.04 million tonnes of CO2 equivalent below the target path. More information in Finnish is available in the <u>Review</u> of the release.

<sup>2)</sup> Other energy includes subcategories of heating of buildings, fuel use in agriculture, forestry and fisheries, other fuel use and fugitive emissions from fuels.

<sup>3)</sup> F-gases refer to fluorinated greenhouse gases (HFC, PFC compounds, SF6 and NF3)

<sup>4)</sup> Preliminary data

#### Greenhouse gas emissions in Finland by sector

	2013	2014	2015	2016	2017 <sup>3)</sup>	Change 2016-2017
	Emissions, million tonnes CO2 eq.					
Emissions without LULUCF sector	63.0	58.8	55.2	58.1	55.5	-2.7
CO2 emissions from civil aviation	0.2	0.2	0.2	0.2	0.2	0.0
Emissions trading sector emissions <sup>1)</sup>	31.5	28.8	25.5	27.2	25.1	-2.1
Non-emissions trading sector emissions <sup>2)</sup>	31.3	29.8	29.5	30.7	30.1	-0.6

<sup>1)</sup> Source: Energy Authority

<sup>2)</sup> Excluding CO2 emissions from domestic civil aviation according to the inventory

<sup>3)</sup> Preliminary data

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### Revisions in these statistics

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

	Statistical reference year	Previous release 24 May 2018	Latest release 11 December 2018	Change <sup>1)</sup>
		Mill. t CO2-eq.		%
emissions (without LULUCF sector)	1990	71.3	71.3	0.0
	2005	69.8	69.9	0.2
	2010	75.5	75.7	0.2
	2013	63.1	63.0	-0.2
	2014	58.9	58.8	-0.2
	2015	55.4	55.2	-0.4
	2016	58.8	58.1	-1.1
	2017	56.1 <sup>2)</sup>	55.5 <sup>3)</sup>	-1.1
LULUCF sector <sup>4)</sup> 2005 2010 2013 2014 2015 2016 2017	1990	-14.0		
	2005	-27.7		
	2010	-27.5		
	2013	-27.3		
	2014	-30.9		
	2015	-28.8		
	2016	-27.1		
	2017	-27.1 <sup>2)</sup>		
Emissions	2013	31.4	31.3	-0.3
not in Emissions Trading	2014	30.0	29.8	-0.5
	2015	29.7	29.5	-0.8
System <sup>5)</sup>	2016	31.4	30.7	-2.1
	2017	30.8 <sup>2)</sup>	30.1 <sup>3)</sup>	-2.3

<sup>1)</sup> Change between the latest and previous releases

<sup>2)</sup> Proxy estimate

<sup>3)</sup> Preliminary data

<sup>4)</sup> The time series will be updated when the calculation results for the latest years are completed

<sup>5)</sup> Excluding CO2 emissions from domestic civil aviation



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#### Inquiries

 Päivi Lindh
 029 551 3778

 Pia Forsell
 029 551 2937

Director in charge: Ville Vertanen

kasvihuonekaasut@stat.fi www.stat.fi

Source: Greenhouse gas inventory unit. Statistics Finland