

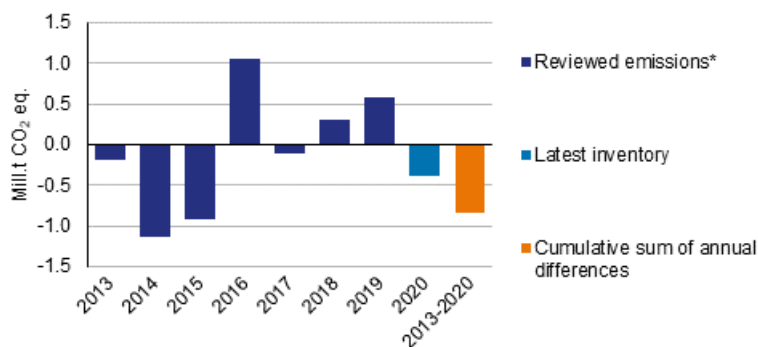
Greenhouse gases

2020

Finland has met its greenhouse gas emission reduction commitments

According to Statistics Finland's data, greenhouse gas emissions in 2020 amounting to 47.8 million tonnes of carbon dioxide equivalents (million tonnes of CO₂ eq.) were the lowest in the reference period. Finland is meeting its emission reduction commitments under the EU and the Kyoto Protocol concerning the entire period 2013 to 2020. The fulfilment of commitments is ensured after international reviews and the so-called true-up period during 2022 to 2024.

The difference of emissions not included in the EU Emissions Trading System to the annual emission allocations defined in the EU Effort Sharing Decision in 2013 to 2020 and the cumulative sum of annual differences



The difference to the target path is expressed as a negative figure when the realised emissions are below the path according to the EU's Effort Sharing Decision and as a positive figure when they are higher than the target path emissions.

* The emission figures affecting the EU commitment have been confirmed and fixed annually in internal reviews within the EU. The review of data for 2020 is in progress.

Total greenhouse gas emissions in Finland amounted to 47.8 million tonnes of CO₂ equivalent in 2020. The sum of emissions and removals in the land use, land use change and forestry (LULUCF) sector, or the net sink is not included in these total emissions. The net sink of the LULUCF sector amounted to -17.3 million tonnes of CO₂ equivalent in 2020. Taking the net sink of the LULUCF sector into account total emissions would translate into 30.5 million tonnes of CO₂ equivalent in 2020. The now released total emissions without the LULUCF sector fell by 0.3 million tonnes of CO₂ equivalent compared with the

preliminary data released in December 2021. Further information from the [review](#) (in Finnish), [database tables](#) and [revision table of the release](#).

Finland has obligations under both the EU's Effort Sharing Decision and the Kyoto Protocol for the period 2013 to 2020.

The EU Effort Sharing Decision defines annual national emission allocations for emissions not included in the EU Emissions Trading System. Emission allocations have tightened annually, but the emission allocations not used in previous years may have been used for emissions exceeding the target path in later years. The difference of Finland's entire period is below the target path and the targets will be reached. An EU review of the figures published now is under way and if no changes are made to them, the figures will be confirmed during spring 2022.

During the Kyoto Protocol's second commitment period (2013 to 2020), Finland's emissions not included in the EU Emissions Trading System must be limited to 240.5 million tonnes of CO₂ eq. (so called assigned amount). LULUCF activities also affect the commitment under the Kyoto Protocol (afforestation and reforestation, deforestation, forest management). Different LULUCF activities are taken into account in the commitment using different accounting rules. Based on the data now released, Finland will also fulfil its commitments under the Kyoto Protocol, but in addition to assigned amount units left over after subtracting the emissions not included in the EU ETS, it will also have to use additional emission units transferred from the previous Kyoto Protocol commitment period or acquired from the Clean Development Mechanism or Joint Implementation for this, due to the additional burden arising from LULUCF activities (according to the now released figures 5.9 million tonnes of CO₂ eq.). More information about LULUCF calculations can be found in the [Tieto&trendit](#) article (in Finnish).

Final data on the emissions and removals affecting the fulfilment of the commitments under the second commitment period of the Kyoto Protocol are confirmed after a review carried out by an international group of reviewers coordinated by the UNFCCC Secretariat. After this, a so-called true-up period report is submitted to the Kyoto Protocol, where the parties to the Protocol report on how their commitments have been fulfilled based on the data in the emissions register. After the review of the true-up period, fulfilment of the commitments is confirmed. This is likely to take place only at the end of 2023 or in 2024.

More information on the implementation of the commitments under the EU and the Kyoto Protocol is available in [the review of the release](#) (in Finnish).

The fulfilment of the commitment under the second commitment period (2013 to 2020) of the Kyoto Protocol

	Commitment period 2013 to 2020 mill. tonnes CO2 eq.
Finland's assigned amount	240.5
Emissions not included in the EU Emissions Trading System (ETS)	238.2
Difference between non-ETS emissions and the assigned amount	-2.3
Article 3.3. activities (sum of emissions and removals from afforestation, reforestation and deforestation)	25.9
Article 3.4. activities (forest management) ¹⁾	-20.0
Combined effect of Articles 3.3 and 3.4 activities to Finland's commitment	5.9
Sum of the difference between non-ETS emissions and the assigned amount and the combined effect of the Articles 3.3 and 3.4 activities²⁾	3.5
Transferable assigned amount units from the previous commitment period ²⁾	-14.0
Units from the Clean Development Mechanism and Joint Implementation projects ²⁾	-12.9

1) Use of potential credits from Article 3.4. activities (forest management), i.e. credits from net removals exceeding the forest management reference level and its correction (total of 65 mill. tonnes CO2 eq.) is limited by the forest management cap of 20 mill. tonnes CO2 eq. Cap is calculated as 3.5% of total emissions without LULUCF in 1990 multiplied by the number of years of the commitment period. The cap is based on the the initial report for the second commitment period and remains fixed for the whole period.

2) To fulfill its commitment under the Kyoto Protocol, Finland have to use surplus assigned amount units (AAUs) from the previous commitment period or units from Clean Development Mechanism and Joint Implementation projects (CERs and ERUs) acquired during the second commitment period.

This is the last statistical release of Statistics Finland related to monitoring the greenhouse gas emission reduction commitments for the period 2013 to 2020 in case EU and UN reviews do not change the reported data. In May instant preliminary data for 2021 will be released, which are the first data in accordance with the EU Effort Sharing Regulation and the obligations of the Paris Agreement valid until 2030. The guidelines on reporting of emissions and removals (e.g. GWP coefficients used to measure the impacts of various gases are updated) and the rules governing the calculation of commitments are revised.

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Revisions in these statistics

The emission and removal figures for the greenhouse gas inventory become revised every year in the entire time series, because constant improvements are made to the inventory, taking into account the international review recommendations of inventories and the development of the scientific basis for emission calculation methods. The changes in calculations are described in the annual National Inventory Report submitted to the UN and the EU. The data according to the actual inventory are based on more detailed initial data than the instant preliminary data released in May, when all necessary data are not yet available.

The now released total emissions without the LULUCF sector for 2020 are 0.3 million tonnes of CO₂ equivalent (0.6%) lower than in the preliminary data released in December. The biggest reason for the change is the revisions made to the total consumption volume of certain oil products in the energy sector.

The net sink of the LULUCF sector in 2020 according to the latest release is 0.1 million tonnes of CO₂ equivalent bigger than the preliminary data released in December. This is due to updating of activity data for the calculation of carbon stock changes in cropland soils.

Revision of Finland's greenhouse gas emissions

	Statistical reference year	Previous release, 16 December 2021	Latest release, 17 March 2022	Change ¹⁾
		Mill. t CO ₂ eq.		%
Total emissions (without LULUCF sector) ²⁾	1990	71.2	71.2	0.0
	2005	69.9	69.9	0.0
	2010	75.7	75.7	0.0
	2015	55.0	55.0	0.0
	2016	57.9	57.9	0.0
	2017	55.1	55.1	-0.1
	2018	56.2	56.2	0.0
	2019	52.8	52.8	-0.1
	2020	48.1 ⁴⁾	47.8	-0.6
LULUCF sector ²⁾	1990	-13.4	-13.4	0.0
	2005	-20.5	-20.5	0.0
	2010	-21.7	-21.7	0.0
	2015	-18.8	-18.8	0.0
	2016	-17.7	-17.7	0.0
	2017	-16.3	-16.3	0.2
	2018	-7.4	-7.4	0.5
	2019	-13.5	-13.6	0.3
	2020	-17.2 ⁴⁾	-17.3	0.4
Emissions not included in the Emissions Trading System ³⁾	2013	31.2	31.2	0.0
	2014	29.8	29.8	0.0
	2015	29.5	29.5	0.0
	2016	30.6	30.6	0.0
	2017	29.9	29.9	-0.1
	2018	29.8	29.8	0.0
	2019	29.4	29.3	-0.2
	2020	28.4 ⁴⁾	28.1	-1.1

1) Change between the latest and previous releases

2) LULUCF refers to the land use, land-use change and forestry sector

3) Excluding CO₂ emissions from domestic civil aviation

4) Preliminary data

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Source: Greenhouse gas inventory unit. Statistics Finland