

Greenhouse gases 2010

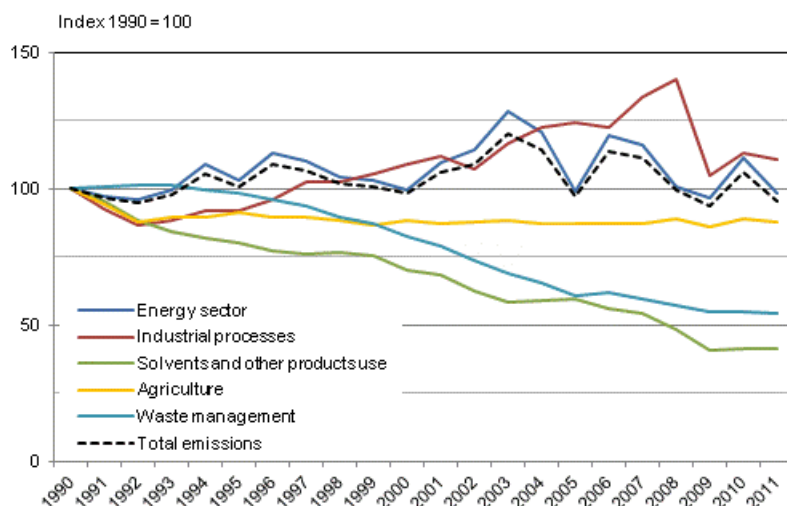
Preliminary data on greenhouse gas emissions in 2011

Corrected on 29 June 2012. The corrections are indicated in red.

Besides official data on greenhouse gas emissions in 2010, Statistics Finland now releases for the first time preliminary emission figures by sector for 2011 broken down to emissions within the emissions trading scheme and emissions outside it. In addition, Statistics Finland has estimated for 2010 regional data by municipality according to place of origin on the emissions of the sectors not included in the emissions trading scheme.

Total greenhouse gas emissions in 2010 amounted to 74.6 million tonnes of carbon dioxide equivalent (t CO₂ eq.). According to preliminary data, total emissions in 2011 decreased by some 10 per cent (7 million t CO₂ eq.) from 2010. The energy sector's emissions decreased by around 12 per cent. This was mainly due to reduced consumption of coal and natural gas and increased net imports of electricity.

Development of greenhouse gas emissions by sector in Finland 1990-2011. Data for 2011 are preliminary



In 2011, emissions under the emissions trading scheme decreased by approximately 15 per cent from the previous year. In sectors outside the emissions trading scheme (e.g. heating of buildings, transport, agriculture and waste management) the reduction in emissions only amounted to a couple of per cent.

The monitoring under the Effort Sharing Decision of the EU's Climate and Energy Package will in future require emissions data to be broken down to emissions within and outside the emissions trading scheme. The Effort Sharing Decision sets binding targets for emission reductions from the 2005 levels in the non-emissions trading scheme sectors during 2013-2020. The reduction target for Finland is 16 per cent by 2020. Between 2013 and 2020 the emissions must be on the so-called target path or below it. The path is linear and its starting point is the average of emissions from non-emissions trading scheme sources in 2008-2010 and its final point is the target for emissions reduction by 2020. Emissions from non-emissions trading scheme sources are calculated as the difference between reviewed total emissions and verified emissions of the emissions trading scheme sector. The data on the verified emissions of the emissions trading scheme sector are published by the Energy Market Authority.

Greenhouse gas emissions and removals broken down between emissions trading scheme sources and non-emissions trading scheme sources in 2005 and 2008-2011 (million t CO₂ eq.). The land use, land-use change and forestry sector does not come under the scope of the emissions trading scheme or the reduction targets of effort sharing

Corrected on 29 June 2012. Total emission data on emissions within the emissions trading scheme and those outside the emissions trading scheme have been corrected. The previously presented emission data were erroneously derived directly from the inventory calculation, which have now been corrected according to the data in the emissions trading registry. There were errors in the data on emissions within the emissions trading scheme for the years 2005, 2008, 2009 and 2010 as follows: 0.1, 0.1, 0.02 and 0.2. Correspondingly, the data on emissions outside the emissions trading scheme were too low by the amount of the mentioned errors.

	2005	2008	2009	2010	2011 ¹⁾	Change, 2010 - 2011 ¹⁾
Total excluding land use, land-use change and forestry sector	68.6	70.2	66.1	74.6	67.3	-7.3
Emissions trading ²⁾	33.1	36.2	34.4	41.3	35.1	-6.2
Non-emissions trading	35.5	34.1	31.8	33.3	32.2	-1.0
Land use, land-use change and forestry sector	-28.6	-26.6	-36.1	-22.1	-20.6	1.5

1) Preliminary data

2) Figures from Energy Market Authority

Greenhouse gas emissions and removals by sector broken down between emissions trading scheme sources and non-emissions trading scheme sources in 2005 and 2008-2011 (million t CO₂ eq.). Data concerning 2010 were used for the sub-sectors for which no preliminary data were available for 2011. In these cases, changes in emissions were given as zero (0). Notation 0.0 means that the value of the quantity is less than 0.05. The land use, land-use change and forestry sector does not come under the scope of the emissions trading scheme or the reduction targets of effort sharing

Corrected on 29 June 2012. Total emission data on emissions within the emissions trading scheme and on those outside the emissions trading scheme and emission data specified by sector have been corrected. The error in total emission data was presented above. The methodological calculation error concerning the emission data in the energy sector was corrected to the emission data specified by sector and a missing sub-category was added to combine the data of the emissions trading registry and the inventory. There were errors in emissions within the emissions trading scheme in the energy sector for the years 2005, 2008, 2009 and 2010 as follows: 0.2, 0.2, 0.2 and 0.2. Correspondingly, the data on emissions outside the emissions trading scheme in the energy sector were too low by the amount of the mentioned errors. In addition, emission data are now given at the accuracy of one decimal instead of two as before.

	2005	2008	2009	2010	2011 ¹⁾	Change, 2010 - 2011
Emissions without land use, land-use change and forestry	68.6	70.2	66.1	74.6	67.3	-7.2
ETS sector²⁾	33.1	36.2	34.4	41.3	35.1	-6.2
Energy	29.5	31.8	30.8	37.3	31.2	-6.1
Industrial processes	3.6	4.3	3.4	4.0	3.9	-0.1
Mineral products	1.1	1.2	0.8	1.0	1.1	0.1
Chemical industry	0.1	0.6	0.6	0.6	0.6	-0.1
Metal production	2.4	2.5	1.9	2.4	2.3	-0.1
Difference between the emissions trading registry and the inventory ³⁾	0.1	0.1	0.2	0.0		
Non-ETS sector	35.5	34.1	31.8	33.3	32.2	-1.0
Energy	24.5	23.1	22.0	23.4	22.5	-0.9
Energy without transport	10.8	9.5	9.0	9.8	9.3	-0.5
Transport	13.7	13.6	13.0	13.6	13.2	-0.4
Industrial processes	2.8	2.9	1.9	1.7	1.7	-0.0
Mineral products	0.1	0.1	0.1	0.2	0.2	0.0
Chemical industry	1.7	1.7	0.9	0.3	0.3	-0.0
Metal production	0.0	0.0	0.0	0.0	0.0	0
Consumption of F-gases	0.9	1.0	0.9	1.2	1.2	0
Solvents and other products use	0.1	0.1	0.1	0.1	0.1	0
Agriculture	5.8	5.9	5.7	5.9	5.8	-0.1
Enteric fermentation	1.6	1.6	1.6	1.6	1.6	0.0
Manure management	0.7	0.7	0.7	0.7	0.7	0.0
Agricultural soils	3.5	3.6	3.4	3.5	3.5	-0.1
Waste management	2.4	2.3	2.2	2.2	2.2	-0.0
Solid waste disposal on land	2.0	1.9	1.8	1.8	1.8	0.0
Wastewater handling	0.2	0.2	0.2	0.2	0.2	0
Composting	0.1	0.1	0.1	0.1	0.1	0.0
Difference between the emissions trading registry and the inventory ³⁾	-0.1	-0.1	-0.2	-0.0		
Land use, land-use change and forestry	-28.6	-26.6	-36.1	-22.1	-20.6	1.5
Forest land	-38.6	-37.2	-48.2	-32.8	-31.2	1.5
Cropland	6.1	5.9	5.8	5.8	5.8	0

Corrected on 29 June 2012. Total emission data on emissions within the emissions trading scheme and on those outside the emissions trading scheme and emission data specified by sector have been corrected. The error in total emission data was presented above. The methodological calculation error concerning the emission data in the energy sector was corrected to the emission data specified by sector and a missing sub-category was added to combine the data of the emissions trading registry and the inventory. There were errors in emissions within the emissions trading scheme in the energy sector for the years 2005, 2008, 2009 and 2010 as follows: 0.2, 0.2, 0.2 and 0.2. Correspondingly, the data on emissions outside the emissions trading scheme in the energy sector were too low by the amount of the mentioned errors. In addition, emission data are now given at the accuracy of one decimal instead of two as before.

	2005	2008	2009	2010	2011 ¹⁾	Change, 2010 - 2011
Grassland	0.7	0.7	0.7	0.7	0.7	0
Wetlands	1.6	1.9	2.0	2.1	2.1	0
Settlements	1.9	1.8	1.8	1.8	1.8	0
Harvested wood products	-0.3	0.3	1.8	0.4	0.4	0

1) Preliminary data

2) Figures from Energy Market Authority

3) The divergence caused by the methodological and definitional differences in total emissions in the emissions trading sector between the data of the Energy.

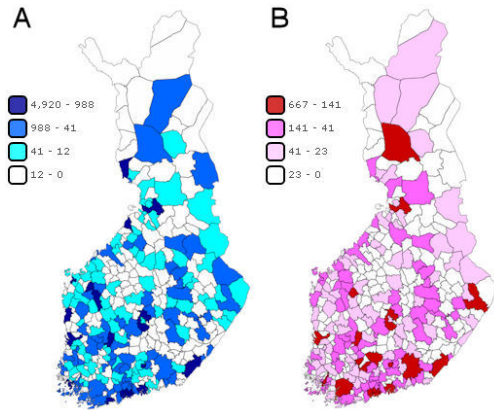
The preliminary data on emissions in 2011 have been not been calculated at very detailed level and will become revised in the emission calculations that will be submitted to the Secretariat of the UNFCCC by 15 April 2013. Further information in Finnish about preliminary data on emissions and their calculation methods can be found in Statistics Finland's report [Suomen kasvihuonekaasupäästöt vuosina 1990-2010](#).

Regional data on emissions

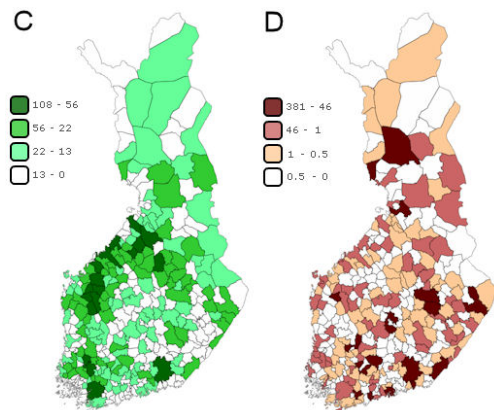
Interest in regional emissions data has increased recently as municipalities and regions have begun to draw up their own climate strategies. Regional decision-making and political actions have an impact especially on emissions from non-emissions trading scheme sources (e.g. heating of buildings, transport, and waste management). Regional data on emissions support the planning and monitoring of climate policy at the regional level.

Statistics Finland's calculations have been performed from the so-called production-based perspective, i.e. emissions have been allocated to their areas of origin. The data have been calculated with methods consistent with the greenhouse gas inventory by allocating emissions to regions on the basis of data on the activities by municipality. The data have been separately calculated for the sectors of energy, transport, industrial processes (incl. solvent and other product use), agriculture and waste. The calculations exclude the land use, land-use change and forestry sector. Statistics Finland only publishes numeric data by municipality on emissions from the non-emissions trading scheme sectors. The data can be found in [database tables](#). Respective data for the emissions trading scheme sector are not released for confidentiality reasons. The calculation method for regional data on emissions is still being developed further.

A) Greenhouse gas emissions from the energy sector and industrial processes by municipality in 2010 (1,000 t CO₂ eq.), B) Greenhouse gas emissions from transport by municipality in 2010 (1,000 t CO₂ eq.)



C) Greenhouse gas emissions from agriculture by municipality in 2010 (1,000 t CO₂ eq.), D) Greenhouse gas emissions from the waste sector by municipality in 2010 (1,000 t CO₂ eq.)



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Appendix table 1. Finland's greenhouse gas emissions without LULUCF sector 1990–2010

	Energy industries	Manufacturing industries and construction (emissions from energy use of fuels)	Transport	Other use of energy ¹⁾	Industrial processes excl. consumption of F-gases	Consumption of F-gases	Solvents and other products use	Agriculture	Waste management	Total
	million tonnes CO ₂ eq.									
1990	19.19	13.36	12.76	9.19	5.01	0.09	0.18	6.62	3.97	70.37
1991	18.96	12.83	12.40	8.86	4.64	0.07	0.17	6.23	4.01	68.18
1992	18.73	12.30	12.32	8.99	4.39	0.04	0.16	5.82	4.03	66.77
1993	21.46	12.41	11.85	8.57	4.46	0.03	0.15	5.91	4.02	68.87
1994	26.39	12.70	12.20	8.23	4.64	0.04	0.15	5.94	3.97	74.26
1995	24.12	12.14	11.99	7.80	4.59	0.10	0.14	6.03	3.91	70.82
1996	29.83	12.00	11.98	7.93	4.76	0.15	0.14	5.94	3.82	76.55
1997	27.44	12.28	12.55	7.89	4.98	0.24	0.14	5.95	3.72	75.18
1998	24.18	11.94	12.70	8.02	4.92	0.30	0.14	5.83	3.55	71.58
1999	23.66	11.92	12.94	7.78	4.98	0.40	0.14	5.75	3.48	71.04
2000	22.12	11.94	12.84	7.53	5.00	0.57	0.12	5.84	3.27	69.24
2001	27.51	11.48	12.96	7.75	4.99	0.72	0.12	5.77	3.14	74.46
2002	30.26	11.17	13.16	7.69	4.94	0.53	0.11	5.83	2.92	76.61
2003	37.23	11.54	13.34	7.76	5.24	0.71	0.10	5.84	2.75	84.51
2004	33.05	11.63	13.69	7.36	5.52	0.74	0.11	5.78	2.61	80.48
2005	21.93	11.33	13.71	7.01	5.42	0.91	0.11	5.79	2.40	68.62
2006	32.89	11.62	13.90	6.82	5.46	0.80	0.10	5.79	2.46	79.83
2007	30.83	11.44	14.26	6.59	5.86	0.95	0.10	5.78	2.38	78.20
2008	24.17	10.78	13.63	6.27	6.10	1.04	0.09	5.87	2.28	70.24
2009	25.23	8.38	12.96	6.24	4.40	0.94	0.07	5.72	2.19	66.12
2010	30.55	9.90	13.57	6.63	4.57	1.20	0.07	5.88	2.19	74.56

1) Other use of energy includes subcategories heating of buildings, other fuel use in agriculture, forestry and fisheries, other fuel use and fugitive emissions from fuels

Appendix table 2. Emissions and removals of the LULUCF sector in Finland 1990–2010

Year	Forest land	Cropland	Grassland	Wetlands	Settlements	Harvested wood products	Total*
	million tonnes CO ₂ eq. ¹⁾						
1990	-23.26	5.56	0.80	1.30	0.82	-0.95	-15.72
1991	-37.48	4.95	0.80	1.34	0.86	0.31	-29.22
1992	-31.37	4.79	0.78	1.37	0.93	-0.22	-23.73
1993	-29.67	5.05	0.76	1.41	0.97	-0.09	-21.57
1994	-22.24	5.04	0.74	1.44	1.01	-0.76	-14.76
1995	-22.24	5.34	0.72	1.47	1.04	-0.87	-14.53
1996	-31.31	5.43	0.69	1.47	1.13	-1.05	-23.64
1997	-25.59	5.55	0.68	1.47	1.22	-2.12	-18.79
1998	-23.92	5.64	0.68	1.47	1.32	-1.77	-16.57
1999	-26.75	5.67	0.68	1.51	1.35	-2.04	-19.58
2000	-28.12	5.76	0.67	1.52	1.35	-1.27	-20.08
2001	-32.48	5.94	0.70	1.53	1.55	-0.31	-23.08
2002	-33.05	6.08	0.72	1.53	1.57	-0.44	-23.59

Year	Forest land	Cropland	Grassland	Wetlands	Settlements	Harvested wood products	Total*
2003	-33.09	6.04	0.73	1.56	1.63	-0.89	-24.01
2004	-34.10	6.08	0.78	1.54	1.81	-0.83	-24.71
2005	-38.63	6.09	0.74	1.61	1.92	-0.34	-28.61
2006	-41.95	6.01	0.75	1.64	1.84	-0.45	-32.17
2007	-32.47	5.90	0.71	1.80	1.84	-1.73	-23.96
2008	-37.21	5.93	0.67	1.93	1.82	0.27	-26.58
2009	-48.15	5.82	0.67	1.99	1.81	1.76	-36.09
2010	-32.77	5.75	0.66	2.11	1.76	0.41	-22.08

1) Emissions are positive figures, removals negative

Appendix table 3. Carbon dioxide emissions in Finland 1990–2010

	Energy industries	Manufacturing industries and construction (emissions from energy use of fuels)	Transport	Heating of buildings, other fuel use in agriculture, forestry and fisheries	Other fuel use	Fugitive emissions from fuels	Industrial processes	Solvents and other products use	Emissions without LULUCF	Land use, land-use change and forestry (LULUCF) ¹⁾
million tonnes CO ₂										
1990	19.06	13.17	12.48	7.16	1.08	0.22	3.34	0.12	56.63	-15.86
1991	18.82	12.66	12.13	7.01	0.91	0.21	3.20	0.11	55.05	-29.36
1992	18.58	12.14	12.05	7.13	0.90	0.22	3.08	0.10	54.20	-23.86
1993	21.29	12.23	11.59	6.74	0.81	0.27	3.09	0.09	56.11	-21.69
1994	26.19	12.52	11.94	6.24	1.07	0.17	3.19	0.08	61.41	-14.89
1995	23.92	11.96	11.74	5.70	1.21	0.17	3.12	0.08	57.89	-14.66
1996	29.59	11.82	11.72	5.81	1.23	0.15	3.29	0.08	63.69	-23.77
1997	27.20	12.07	12.30	5.83	1.15	0.20	3.52	0.07	62.34	-18.92
1998	23.95	11.74	12.45	5.92	1.26	0.14	3.53	0.07	59.06	-16.71
1999	23.43	11.72	12.68	5.83	1.15	0.13	3.63	0.07	58.64	-19.72
2000	21.90	11.73	12.59	5.47	1.29	0.13	3.63	0.07	56.81	-20.22
2001	27.23	11.29	12.71	5.69	1.26	0.12	3.69	0.07	62.07	-23.22
2002	29.94	10.98	12.91	5.64	1.25	0.12	3.60	0.07	64.52	-23.74
2003	36.88	11.35	13.10	5.56	1.38	0.12	3.82	0.06	72.27	-24.16
2004	32.71	11.44	13.45	5.43	1.15	0.11	4.02	0.06	68.37	-24.86
2005	21.66	11.15	13.48	5.11	1.14	0.13	3.79	0.06	56.52	-28.76
2006	32.53	11.44	13.67	4.89	1.16	0.11	4.01	0.06	67.88	-32.32
2007	30.48	11.27	14.04	4.72	1.11	0.13	4.37	0.06	66.18	-24.12
2008	23.85	10.62	13.42	4.44	1.07	0.14	4.52	0.05	58.10	-26.76
2009	24.92	8.25	12.75	4.46	1.06	0.12	3.60	0.05	55.19	-36.27
2010	30.17	9.75	13.36	4.73	1.10	0.14	4.39	0.05	63.69	-22.26

1) Emissions are positive figures, removals negative

Appendix table 4. Methane emissions in Finland 1990–2010

	Energy industries	Manufacturing industries and construction (emissions from energy use of fuels)	Transport	Heating of buildings, other fuel use in agriculture, forestry and fisheries	Other fuel use	Fugitive emissions from fuels	Industrial processes	Enteric fermentation	Manure management	Field burning of agricultural residues	Waste management	Emissions without LULUCF	Land use, land-use change and forestry (LULUCF)
1000 tonnes													
1990	0.4	0.6	4.7	8.7	0.1	0.5	0.2	92.0	11.8	0.09	181.4	300.7	1.9
1991	0.4	0.6	4.5	8.7	0.1	2.0	0.2	88.5	11.5	0.01	183.4	299.9	1.8
1992	0.4	0.6	4.4	8.8	0.08	2.7	0.2	85.5	11.6	0.01	184.2	298.5	1.9
1993	0.5	0.6	4.2	8.8	0.07	3.5	0.4	85.6	11.9	0.02	184.1	299.7	1.8
1994	0.6	0.7	4.0	8.8	0.1	3.8	0.5	85.7	12.5	0.01	181.4	298.0	1.9
1995	0.6	0.7	3.9	8.8	0.1	3.8	0.5	80.8	12.9	0.02	178.5	290.7	1.9
1996	0.7	0.7	3.7	9.2	0.1	3.9	0.5	81.0	13.0	0.03	174.1	287.0	1.9
1997	0.8	0.7	3.6	9.2	0.1	3.4	0.4	81.9	13.8	0.02	169.3	283.3	2.0
1998	0.8	0.7	3.5	9.3	0.1	3.5	0.5	80.0	13.5	0.01	161.7	273.6	2.0
1999	0.8	0.7	3.4	9.1	0.1	2.8	0.5	78.8	13.3	0.01	158.0	267.5	2.0
2000	0.7	0.7	3.2	8.9	0.1	2.6	0.5	78.9	13.6	0.04	148.2	257.4	2.0
2001	0.9	0.7	3.0	9.9	0.1	3.2	0.5	77.9	13.1	0.02	141.9	251.3	2.1
2002	1.2	0.7	2.9	10.2	0.1	2.7	0.5	78.6	13.7	0.02	131.7	242.3	2.1
2003	1.3	0.7	2.8	10.3	0.1	2.9	0.4	77.7	14.2	0.02	123.2	233.7	2.1
2004	1.2	0.7	2.6	10.3	0.1	2.6	0.5	76.9	14.2	0.02	116.7	225.7	2.0
2005	1.0	0.6	2.4	10.3	0.1	3.1	0.4	76.3	14.6	0.01	106.7	215.6	2.1
2006	1.2	0.7	2.2	10.6	0.1	2.6	0.4	76.4	14.6	0.02	109.5	218.3	2.1
2007	1.1	0.7	2.1	10.6	0.1	2.4	0.4	75.3	14.5	0.03	105.2	212.6	2.1
2008	1.0	0.6	1.9	11.1	0.1	2.3	0.4	74.7	14.6	0.03	100.7	207.6	2.2
2009	1.0	0.5	1.8	11.6	0.1	2.2	0.4	75.3	14.2	0.02	96.7	203.9	2.3
2010	1.1	0.7	1.8	12.8	0.1	1.9	0.4	76.4	14.3	0.02	96.4	206.1	2.4

Appendix table 5. Nitrous oxide emissions in Finland 1990–2010

	Energy industries	Manufacturing industries and construction (emissions from energy use of fuels)	Transport	Heating of buildings, other fuel use in agriculture, forestry and fisheries	Other fuel use	Industrial processes	Solvents and other products use	Manure management	Agricultural soils	Waste management	Emissions without LULUCF ¹⁾	Land use, land-use change and forestry (LULUCF)
1000 tonnes												
1990	0.4	0.6	0.6	0.3	1.4	5.3	0.2	1.6	12.7	0.5	23.6	0.3
1991	0.4	0.5	0.6	0.3	1.4	4.6	0.2	1.5	11.9	0.5	21.8	0.3
1992	0.5	0.5	0.6	0.3	1.3	4.2	0.2	1.4	10.8	0.5	20.2	0.3
1993	0.5	0.5	0.6	0.3	1.3	4.4	0.2	1.4	11.0	0.5	20.7	0.3
1994	0.6	0.5	0.6	0.3	1.3	4.6	0.2	1.5	11.1	0.5	21.1	0.3
1995	0.6	0.5	0.6	0.2	1.2	4.7	0.2	1.4	11.7	0.5	21.7	0.3
1996	0.7	0.5	0.6	0.3	1.2	4.7	0.2	1.5	11.3	0.5	21.6	0.3
1997	0.7	0.6	0.6	0.3	1.2	4.7	0.2	1.5	11.2	0.5	21.4	0.3
1998	0.7	0.6	0.6	0.3	1.1	4.4	0.2	1.5	11.0	0.5	20.9	0.3
1999	0.7	0.6	0.6	0.3	1.1	4.3	0.2	1.4	10.9	0.5	20.6	0.3
2000	0.7	0.6	0.6	0.2	1.0	4.4	0.2	1.4	11.2	0.5	20.8	0.3
2001	0.8	0.6	0.6	0.3	1.0	4.2	0.2	1.3	11.1	0.5	20.6	0.3
2002	0.9	0.6	0.6	0.3	1.0	4.3	0.1	1.4	11.2	0.5	20.9	0.3
2003	1.1	0.6	0.6	0.3	1.1	4.5	0.1	1.4	11.2	0.5	21.4	0.3
2004	1.0	0.6	0.6	0.3	1.0	4.8	0.1	1.4	11.1	0.5	21.4	0.3
2005	0.8	0.5	0.6	0.2	0.9	5.2	0.2	1.4	11.1	0.5	21.5	0.3
2006	1.1	0.5	0.6	0.2	1.0	4.6	0.1	1.3	11.2	0.5	21.2	0.4
2007	1.1	0.5	0.6	0.2	0.9	4.8	0.1	1.3	11.2	0.5	21.3	0.4
2008	1.0	0.5	0.6	0.2	0.8	5.1	0.1	1.3	11.6	0.5	21.7	0.4
2009	0.9	0.4	0.6	0.2	0.8	2.6	0.08	1.4	11.0	0.5	18.4	0.4
2010	1.2	0.4	0.6	0.3	0.8	0.5	0.09	1.4	11.4	0.5	17.2	0.4

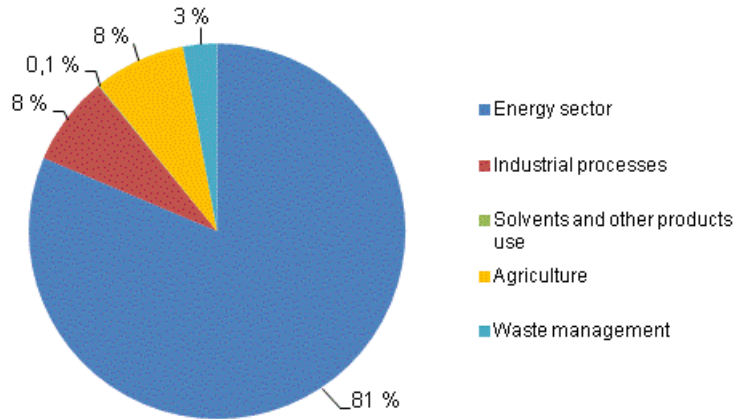
1) Fugitive emissions from fuels and emissions from field burning of agricultural residues included in the total emissions are not presented in this table. Those emissions are annually under 0.005 thousand tonnes

Appendix table 6. Emissions of F-gases in Finland 1990–2010

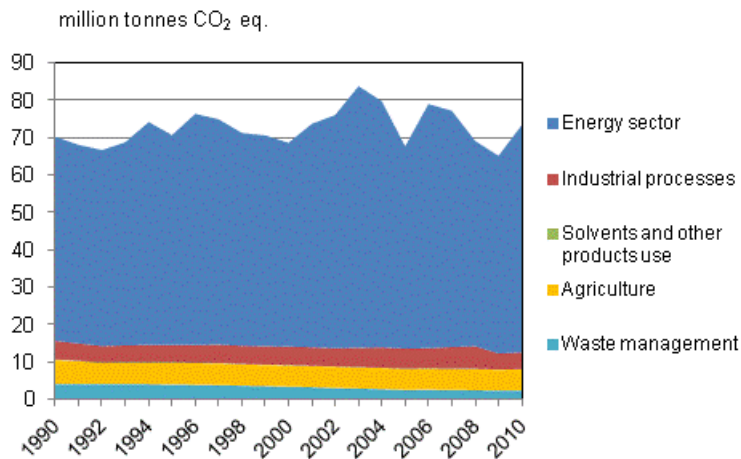
	HFC	PFC	SF6
	1000 tonnes CO2 eq.		
1990	0.02	0.07	94.4
1991	0.05	0.08	67.3
1992	0.1	0.09	36.6
1993	0.1	0.1	33.6
1994	6.5	0.1	34.9
1995	29.3	0.1	68.5
1996	77.3	0.2	72.2
1997	167.8	0.2	76.0
1998	245.2	0.2	53.2
1999	318.3	28.0	52.0
2000	491.8	22.5	51.5
2001	646.4	20.1	55.0
2002	463.2	13.4	51.3
2003	651.3	14.9	48.1
2004	693.7	12.2	33.8
2005	863.5	9.9	34.8
2006	747.2	15.4	40.2
2007	903.3	8.4	36.0
2008	993.2	11.2	40.4
2009	888.8	9.3	41.3
2010	1,164.0	0.7	31.2

Appendix figures

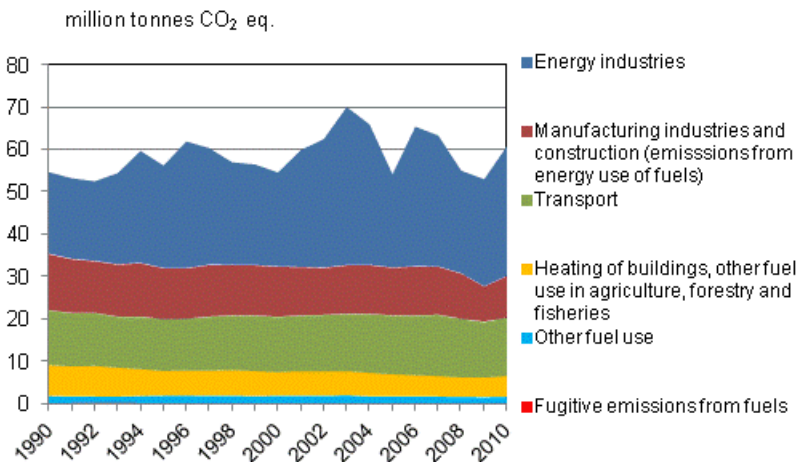
Appendix figure 1: Greenhouse gas emissions in Finland by sectors in 2010



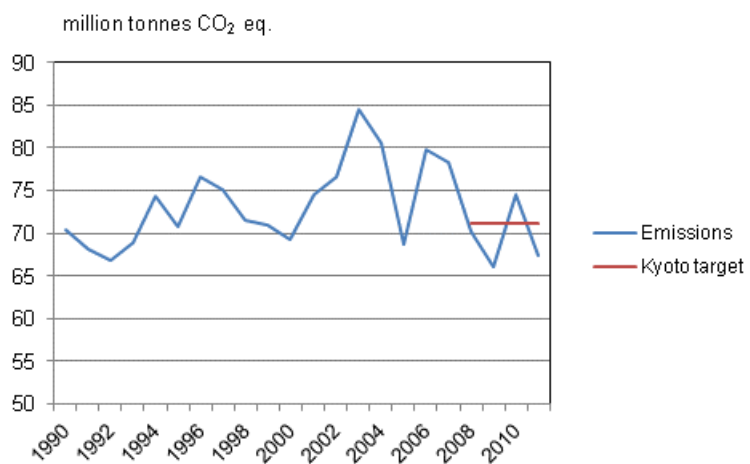
Appendix figure 2: Greenhouse gas emissions in Finland in 1990–2010



Appendix figure 3: Development of emissions in Finland in the energy sector in 1990–2010



Appendix figure 4: Greenhouse gas emission in Finland in 1990–2011 in relation to the Kyoto target level. Data for 2011 are preliminary.



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Source: Greenhouse gas inventory unit, Statistics Finland