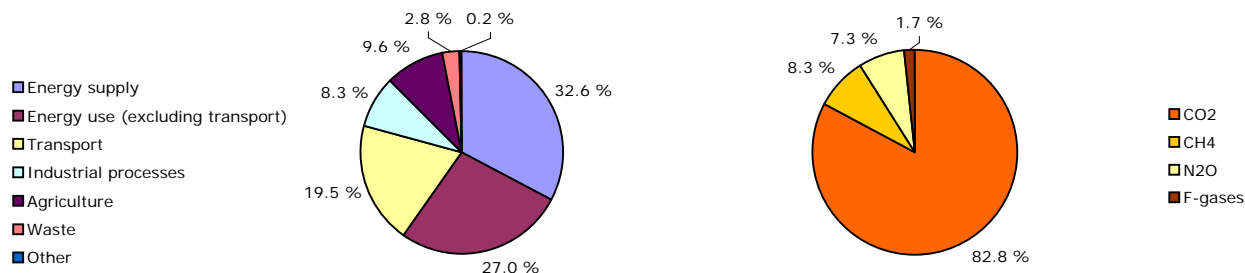


Key GHG data ⁽¹⁾	1990	2007	2008	2009 ⁽²⁾	Unit	Rank in EU-27 ⁽³⁾	Rank in EU-15 ⁽³⁾
Total greenhouse gas emissions (GHG)	5 567.0	5 038.8	4 939.7	4 600.4	Mt CO ₂ -eq.	n.a.	n.a.
GHG from international bunkers ⁽⁴⁾	175.4	313.3	309.6	n.a.	Mt CO ₂ -eq.	n.a.	n.a.
GHG per capita	11.8	10.2	9.9	9.2	t CO ₂ -eq. / capita	n.a.	n.a.
GHG per GDP ⁽⁵⁾	n.a.	472	459	446	g CO ₂ -eq. / euro		
Share of GHG in total EU-27 emissions	n.a.	n.a.	n.a.	n.a.	%		
EU ETS verified emissions ⁽⁶⁾		2 164.7	2 100.2	1 854.1	Mt CO ₂ -eq.	n.a.	n.a.
Share of EU ETS verified emissions in total GHG		43.0 %	42.5 %	40.3 %	%		
ETS verified emissions compared to annual allowances ⁽⁷⁾		0.5 %	7.7 %	- 5.4 %	%		

Share of GHG emissions (excluding international bunkers) by main source and by gas in 2008 ^{(1),(8)}



Key GHG trends	1990–2008		2007–2008		1990–2009 ⁽²⁾		2008–2009 ⁽²⁾	
	Mt CO ₂ -eq.	%	Mt CO ₂ -eq.	%	Mt CO ₂ -eq.	%	Mt CO ₂ -eq.	%
Total GHG	- 627.3	- 11.3 %	- 99.0	- 2.0 %	- 966.6	- 17.4 %	- 339.4	- 6.9 %
GHG per capita	- 1.9	- 15.9 %	- 0.2	- 2.4 %	- 2.6	- 22.0 %	- 0.7	- 6.9 %
EU ETS verified emissions - all installations			- 64.5	- 3.0 %			- 246.2	- 11.7 %
EU ETS verified emissions - constant scope ⁽⁹⁾			n.a.	n.a.			- 237.1	- 11.4 %

Assessment of long-term GHG trend (1990–2008)

Emissions have been declining steadily since 2003. Decreases in emissions between 1990 and 2008 were observed in all sectors except transport. The emission reductions that took place in Eastern European countries in the early 1990s account for a significant part of the reductions observed at EU level. Important emission reductions also took place in France and the United Kingdom during that period, in particular in energy industries, manufacturing industries and other energy sectors. In the United Kingdom this reduction in emissions was due to a switch from solid fuels to gaseous fuels. Improvements in energy efficiency and increased use of renewable sources have also contributed to lower emissions. This overall decrease was partly offset by the important emission increases in Spain and, to a lesser extent, Italy. Since 1990, international transport emissions have grown very rapidly and have reached about 6 % of total greenhouse gas emissions in the EU. Hydrofluorocarbons (HFCs) were the only group of gases which increased between 1990 and 2008 due to increased production of cooling devices.

Assessment of short-term GHG trend (2007–2008)

All the main sectors reduced their greenhouse gas emissions in 2008 except households and services. The combination of high coal and carbon prices accompanied by a drop in natural gas prices in 2008 induced heat and electricity producers to replace more polluting coal by gas and as a result, reduce their GHG emissions. The use of biomass and other renewable sources (wind and hydroelectric power) has also increased significantly in 2008. The economic recession, which started during the second half of the year, also contributed to emission reductions from several sectors including the manufacturing and construction, and road transport sectors. Road transport emissions were also affected by high oil prices, the continued decline in gasoline consumption and a reversal of the upward trend in diesel sales. Emissions from international aviation and maritime transport fell for the first time since 1992. Final energy consumption in households increased significantly, mainly due to an increased use of fuel for heating purposes, due to lower winter temperatures than in 2007, and to refilling of fuel stocks (fuel purchases were avoided in 2007 because of the high prices).

Source and additional information

Greenhouse gas emission data and EU ETS data

www.eea.europa.eu/themes/climate/data-viewers

List and description of national policies and measures

www.eea.europa.eu/themes/climate/pam

⁽¹⁾ Total greenhouse gas emissions (GHG), GHG per capita, GHG per GDP and shares of GHG do not include emissions and removals from LULUCF (carbon sinks) and emissions from international bunkers.

⁽²⁾ Preliminary estimates reported by the country for total greenhouse gas emissions. EEA estimates in the case of EU-27, EU-15 and Slovakia.

⁽³⁾ Comparison of 2008 values, 1 = highest value among EU countries.

⁽⁴⁾ International bunkers: international aviation and international maritime transport.

⁽⁵⁾ GDP in constant 2000 prices - not suitable for a quantitative comparison between countries for the same year.

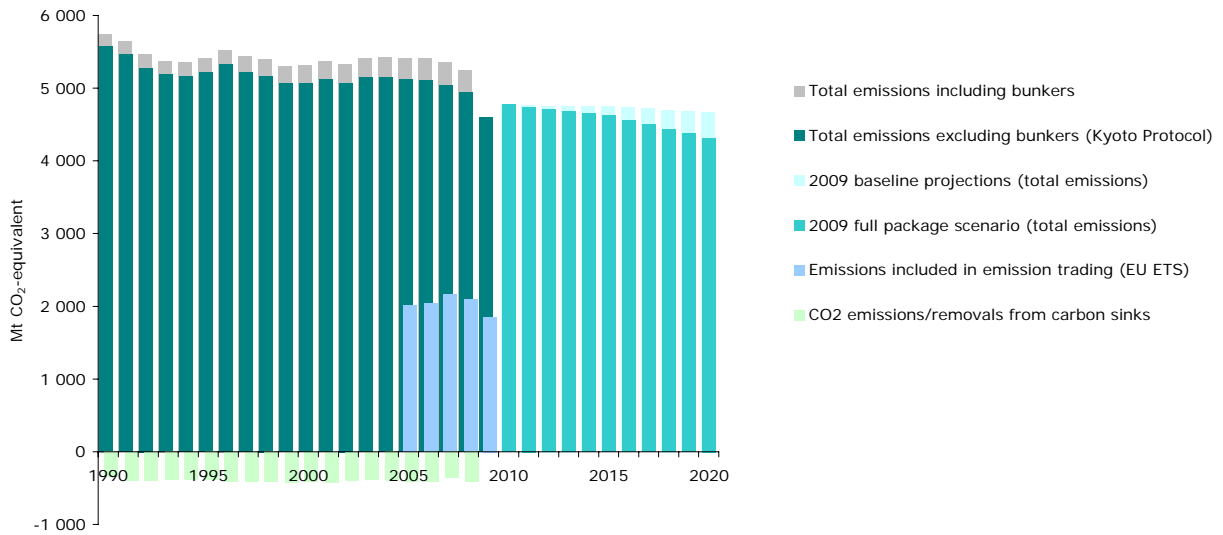
⁽⁶⁾ All installations included. This includes new entrants and closures. Data from the community independent transaction log (CITL) released on 29 April 2009 for the reporting years 2005 and 2006, 11 May 2009 for the reporting year 2007 and data as of 17 May 2010 for the reporting year 2008 and 2009. The CITL regularly receives new information (including delayed verified emissions data, new entrants and closures) so the figures shown may change over time.

⁽⁷⁾ "+" and "-" mean that verified emissions exceeded allowances or were below allowances, respectively. Annual allowances include allocated allowances and allowances auctioned during the same year.

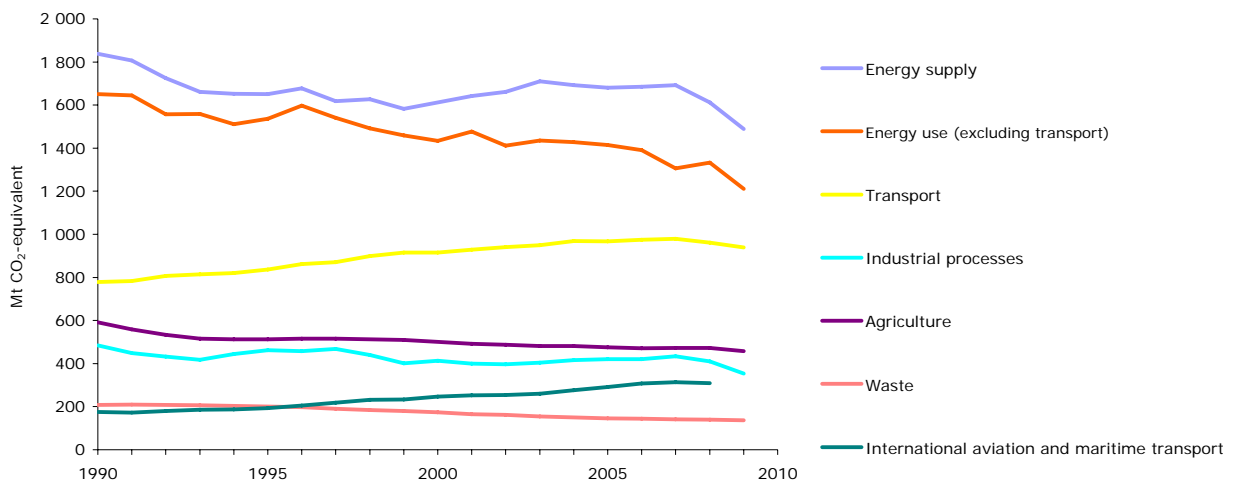
⁽⁸⁾ LULUCF sector and emissions from international bunkers excluded. Due to independent rounding the sums do not necessarily add up.

⁽⁹⁾ Constant scope: includes only those installations with verified emissions available for the two most recent years (2008 and 2009).

GHG trends and projections 1990–2020 - total emissions and removals



GHG trends 1990–2008 - emissions by sector



Note: updated sectoral projections, taking the effects of the economic crisis, will be presented in 2011

Progress towards Kyoto target

The EU-27 does not have a target under the Kyoto Protocol. Although it can be expected that recent emission trends level off or are even reversed temporarily as the economy picks up again, projections from the European Commission show that the EU-27 is expected to achieve its 20 % reduction commitment by 2020 through domestic action alone, provided that Member States implement fully the Climate and Energy Package.