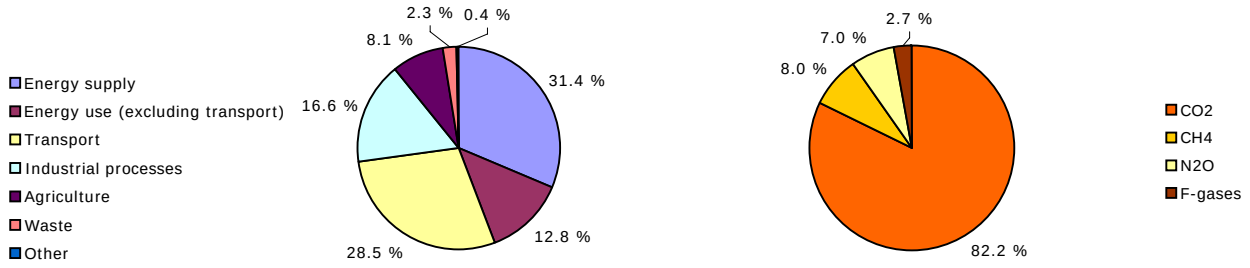
GHG trends and projections in Norway

European Environment Agency

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)	49.7	55.1	53.7	50.8	Mt CO_2-eq.	n.a.	n.a.
GHG from international bunkers [4]	2.1	3.3	3.3	n.a.	Mt CO_2-eq.	n.a.	n.a.
GHG per capita	11.8	11.8	11.3	10.6	t CO_2-eq. / capita	n.a.	n.a.
GHG per GDP [5]	392	258	246	237	g CO_2-eq. / euro		
EU ETS verified emissions [6]		n.a.	19.3	19.2	Mt CO_2-eq.	n.a.	n.a.
Share of EU ETS verified emissions in total GHG		n.a.	n.a.	37.8 %	%		
ETS verified emissions compared to annual allowances [7]		n.a.	n.a.	– 7.0 %	%		

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	4.0	8.0 %	– 1.4	– 2.6 %	1.1	2.1 %	– 2.9	– 5.4 %
GHG per capita	– 0.4	– 3.5 %	– 0.4	– 3.8 %	– 1.2	– 9.9 %	– 0.8	– 5.4 %
EU ETS verified emissions - all installations			n.a.	n.a.			– 0.1	– 0.6 %
EU ETS verified emissions - constant scope [9]			n.a.	n.a.			– 0.1	– 0.7 %

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

The overall economic growth since 1990 (with only minor setbacks in the early 1990s) has resulted in higher CO2 emissions from most sources, in particular from energy use, both in energy industries and for transportation. The total emissions show a marked decrease between 1990 and 1992, mainly due to the low economic activity during that time and the CO2-tax, implemented with effect from 1991, which led to a decrease in the consumption of gasoline and fuel oils as well as reduced production of metals. Emissions increased thereafter, and they have remained relatively stable after 1999. The decrease observed between 2001 and 2002 was due to close-downs and reductions in the ferroalloy industry and magnesium industry, reduced flaring in the oil and gas extraction sector and reduced domestic navigation (these reductions outweighed increased emissions from road traffic, fertilizer production, aluminium production and consumption of HFCs). Emissions decreased again in 2005 due to high prices on heating oil and lower production volumes in the industry. Increases in emissions in 2003, due to a cold winter combined with low generation of hydropower (due to a long dry period).

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

The decrease in emissions can be partly explained by lower activity at the end of the year for many transportation companies, as a result of the turbulence in the financial market. This is especially prominent in the freight transportation and taxi industry. Fugitive emissions from oil and natural gas also decreased, mainly due to increased regularity of production of the LNG plant, which started in 2007.

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.

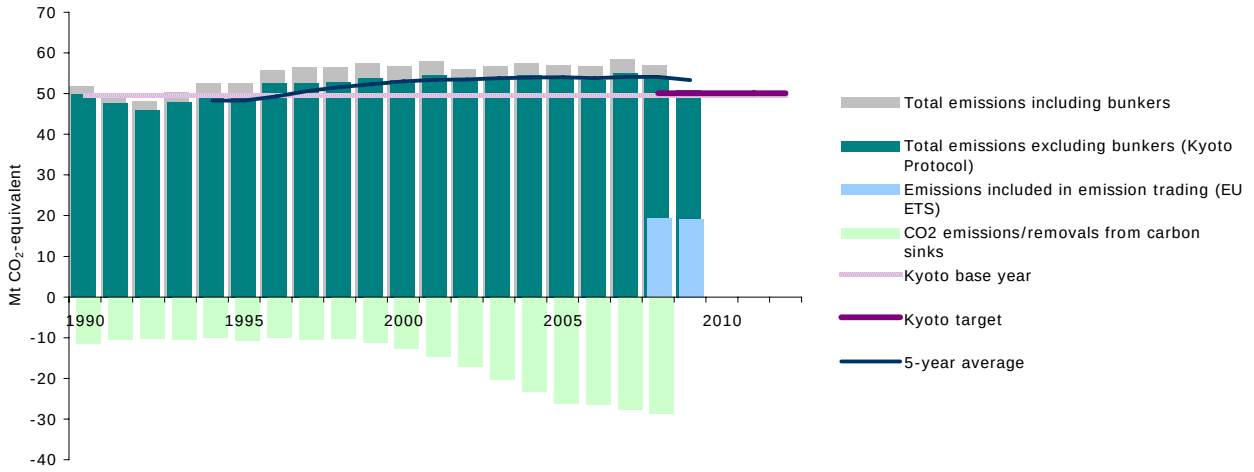
[6] All installations included. This includes new entrants and closures. Data from the community independent transaction log (CITL) released on 29 April 2009 for the reporting years 2005 and 2006, 11 May 2009 for the reporting year 2007 and data as of 17 May 2010 for the reporting year 2008 and 2009. 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.

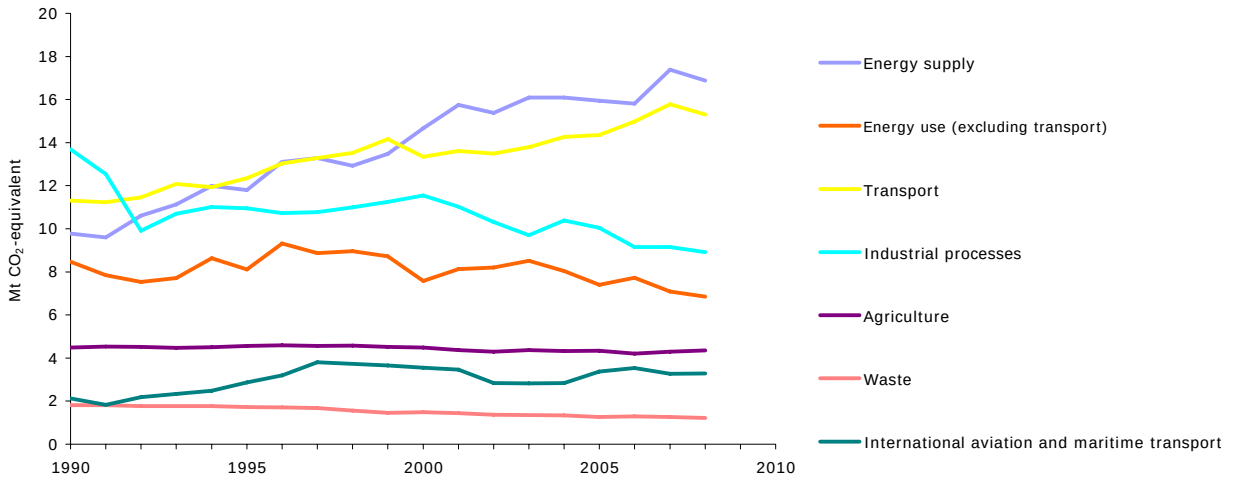
[8] LULUCF sector and emissions from international bunkers excluded. Due to independent rounding the sums do not necessarily add up.

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

GHG trends 1990–2009 - total emissions and removals



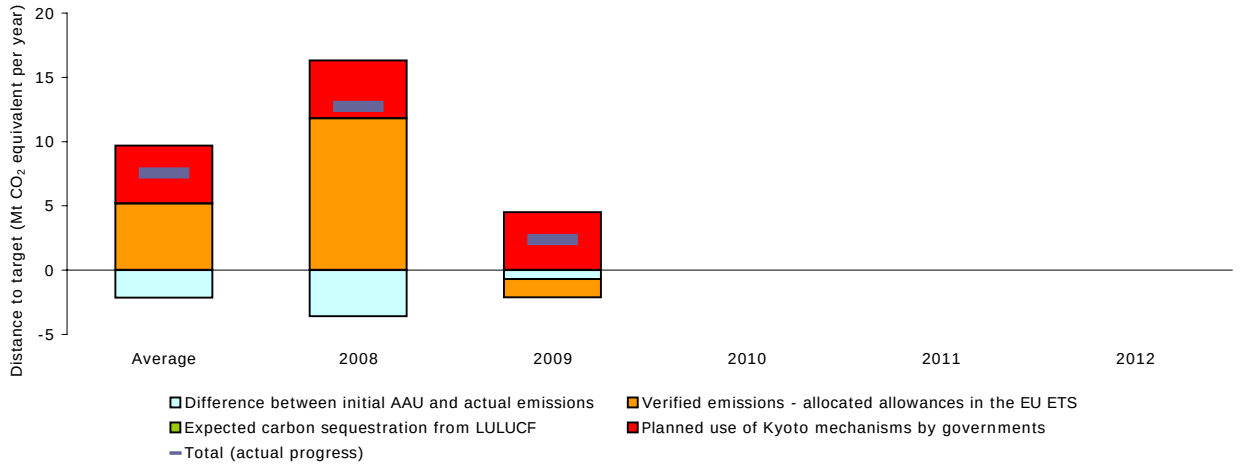
GHG trends 1990–2008 - emissions by sector



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

Progress towards Kyoto target

Average emissions in Norway in 2008–2009 were 5.3 % higher than the base-year level, above the Kyoto target of 1 % for the period 2008–2012. Operators of installations covered by the EU ETS had to surrender more allowances than were issued to the EU ETS, increasing the countries assigned amount by 10.5 % of base-year level emissions. Norway intends to acquire allowances corresponding to 9.1 % of base-year level emissions per year through the use of flexible mechanisms at government level. Taking all these effects in to account, emissions in the sectors not covered by the EU ETS in Norway stand currently below their target level, by a gap representing 15.2 % of the base-year emissions.



Note: A positive value indicates emissions lower than the average target.