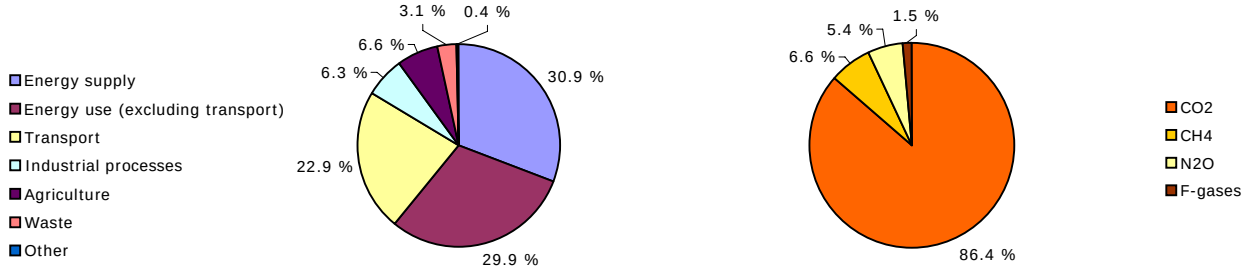
GHG trends and projections in Italy

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)	517.0	552.6	541.5	495.0	Mt CO_2-eq.	3	3
GHG from international bunkers [4]	8.6	18.3	18.5	n.a.	Mt CO_2-eq.	7	7
GHG per capita	9.1	9.3	9.1	8.2	t CO_2-eq. / capita	17	11
GHG per GDP [5]	508	429	426	410	g CO_2-eq. / euro		
Share of GHG in total EU-27 emissions	9.3 %	11.0 %	11.0 %	10.8 %	%		
EU ETS verified emissions [6]		226.4	220.7	184.9	Mt CO_2-eq.	3	3
Share of EU ETS verified emissions in total GHG		41.0 %	40.8 %	37.3 %	%		
ETS verified emissions compared to annual allowances [7]		11.4 %	4.2 %	– 9.4 %	%		

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	24.4	4.7 %	– 11.1	– 2.0 %	– 22.0	– 4.3 %	– 46.4	– 8.6 %
GHG per capita	– 0.0	– 0.4 %	– 0.3	– 2.8 %	– 0.9	– 9.6 %	– 0.8	– 8.6 %
EU ETS verified emissions - all installations			– 5.7	– 2.5 %			– 35.8	– 16.2 %
EU ETS verified emissions - constant scope [9]			n.a.	n.a.			– 36.1	– 16.4 %

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

After a long period of increasing emissions between 1994 and 2004, emissions have been regularly decreasing since. Energy-related emissions increased by about 8.2 % from 1990 to 2008. Significant increases were observed in the transport sector, energy industries and in the households and services sectors. The decrease in emissions from industrial processes was attributed to the chemical industry (production of nitric acid and adipic acid) and metal production (pig iron and steel). Emissions from adipic acid productions were significantly reduced through abatement technology. Emissions of fluorinated gases emissions increased considerably (221 %). Emissions in the agricultural sector decreased mostly due to reduced CH4 emissions from enteric fermentation and of N2O emissions from agricultural soils. Emissions from the waste sector decreased due to reduced emissions from solid waste disposal on land.

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

Emissions continued to decrease for the fourth consecutive year. In particular, reductions were observed in emissions from energy industries, iron and steel industry, and pulp and paper production, cement production and road transport. This latter notable decrease was possibly due to the economic recession. Emissions from households and services, on the other hand, increased, partly due to a colder winter.

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.

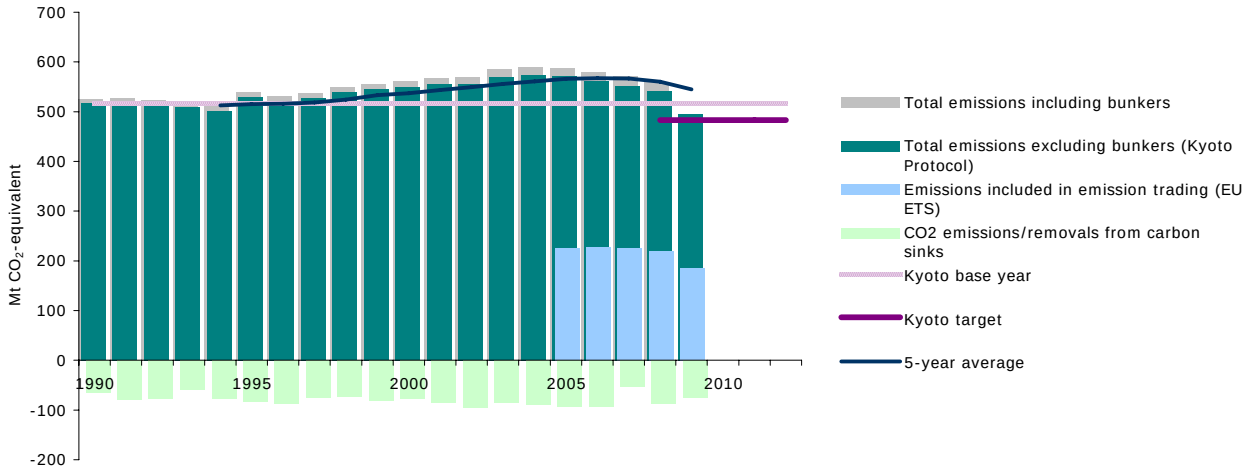
[6] All installations included. This includes new entrants and closures. Data from the community independent transaction log (CITL) released on 29 April 2009 for the reporting years 2005 and 2006, 11 May 2009 for the reporting year 2007 and data as of 17 May 2010 for the reporting year 2008 and 2009.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

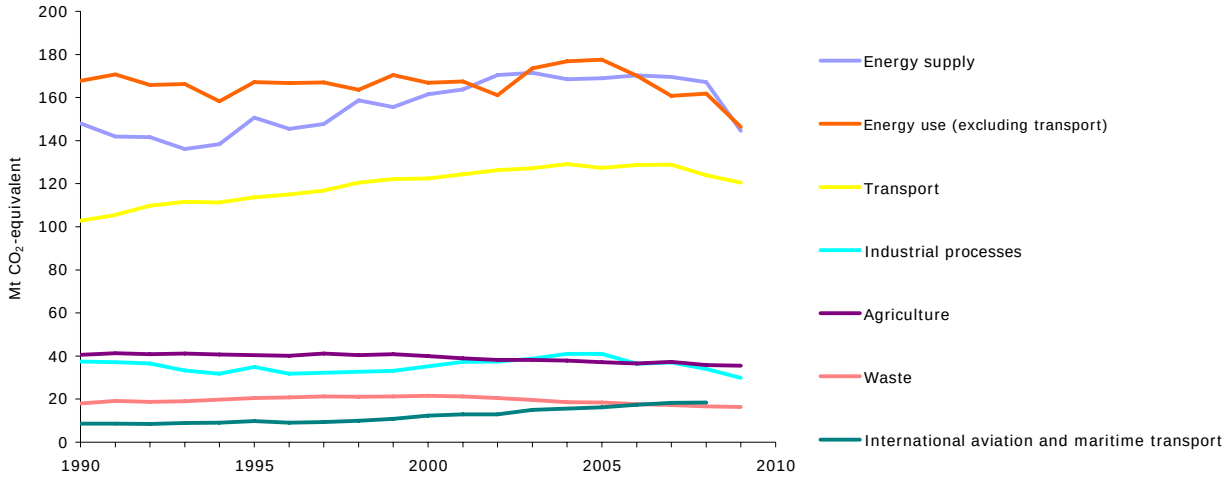
[8] LULUCF sector and emissions from international bunkers excluded. Due to independent rounding the sums do not necessarily add up.

[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



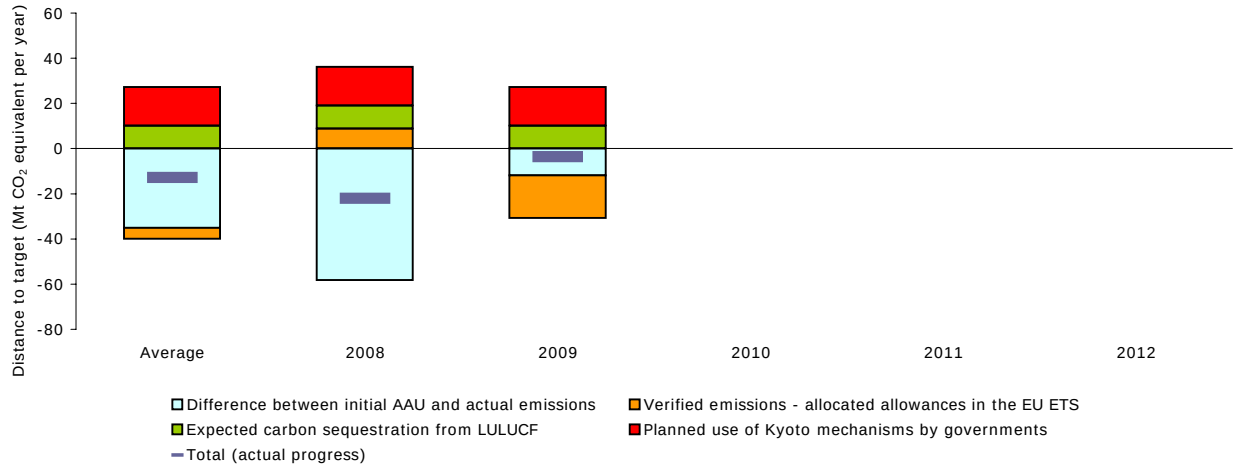
GHG trends 1990–2008 - emissions by sector



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

Progress towards Kyoto target

Average emissions in Italy in 2008–2009 were 0.3 % higher than the base-year level, significantly above the burden-sharing target of -6.5 % for the period 2008–2012. Operators of installations covered by the EU ETS had to surrender less allowances than were issued to the EU ETS, decreasing the countries assigned amount by 1 % of base-year level emissions. LULUCF activities are expected to decrease net emissions by 2 % of base-year level emissions. Italy intends to acquire allowances corresponding to 3.3 % 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 Italy stand currently above their target level, by a gap representing 2.5 % of the base-year emissions.



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