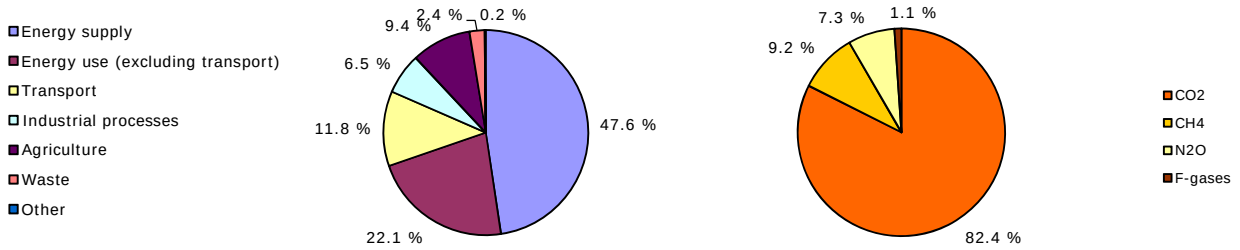
GHG trends and projections in Poland

European Environment Agency

Key GHG data (1)	1990	2008	2009	2010 (2)	Unit	Rank in EU-27 (3)	Rank in EU-15 (3)
Total greenhouse gas emissions (GHG)	452.9	395.7	376.7	393.3	Mt CO_2-eq.	5	n.a.
GHG from international bunkers (4)	1.9	2.5	2.2	n.a.	Mt CO_2-eq.	15	n.a.
GHG per capita	11.9	10.4	9.9	10.3	t CO_2-eq. / capita	12	n.a.
GHG per GDP (constant prices) (5)	3 535	1 535	1 437	1 446	g CO_2-eq. / euro		
Share of GHG in total EU-27 emissions	8.1 %	8.0 %	8.2 %	8.3 %	%		
EU ETS verified emissions - all installations (6)		204.1	191.2	199.7	Mt CO_2-eq.	3	n.a.
EU ETS verified emissions - constant scope (7)		204.1	191.0	199.3	Mt CO_2-eq.		
Share of EU ETS verified emissions (all installations) in total GHG		51.6 %	50.8 %	50.8 %	%		
ETS verified emissions compared to annual allowances (8)		1.5 %	– 5.4 %	– 2.7 %	%		

Share of GHG emissions (excluding international bunkers) by main source and by gas in 2009 (1) (9)



Key GHG trends	1990–2009		2008–2009		1990–2010 (2)		2009–2010 (2)	
	Mt CO_2-eq.	%	Mt CO_2-eq.	%	Mt CO_2-eq.	%	Mt CO_2-eq.	%
Total GHG	– 76.3	– 16.8 %	– 19.1	– 4.8 %	– 59.7	– 13.2 %	16.6	4.4 %
GHG per capita	– 2.0	– 17.1 %	– 0.5	– 4.9 %	– 1.6	– 13.5 %	0.4	4.3 %
EU ETS verified emissions - all installations (6)			– 12.9	– 6.3 %			8.6	4.5 %
EU ETS verified emissions - constant scope (7)			– 13.1	– 6.4 %			– 13.1	– 6.4 %

Assessment of long-term GHG trend (1990–2009)

Between 1988 and 1990, emissions decreased dramatically, triggered by significant economic changes, especially in heavy industry, related to the political transformation from a centralised to a market economy. Emissions continued to decline until 1993, thereafter rising and peaking in 1996 as a result of modernisation processes implemented in heavy industry and other sectors and dynamic economic growth. The succeeding years are characterised by a slow decline in emissions until to 2002, as a result of energy efficiency improvements, followed by a slight increase up to 2006 caused by sustained economic development. A decrease in emissions can be observed since 2007.

Assessment of short-term GHG trend (2008–2009)

Emissions decrease in most sectors, in particular the production of electricity and heat, iron and steel production, cement production, nitric acid production and agriculture. The implementation of joint implementation projects resulted in significant N2O abatement (and consequently of the national N2O emission factor), which led to reduced emissions in the nitric acid production. The increase in renewables also contributed to lower GHG emissions in 2009.

Source and additional information

Greenhouse gas emission data and EU ETS data www.eea.europa.eu/themes/climate/data-viewers

(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) Based on national estimate of 2010 emissions.

(3) Comparison of 2009 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 ranking or quantitative comparison between countries for the same year. 1990 information not available for some countries, replaced by later years: 1991 (Bulgaria, Germany, Hungary and Malta), 1992 (Slovakia), 1993 (Estonia) and 1995 (Croatia). Source GDP: Eurostat, 2011; Ameco database, 2011.

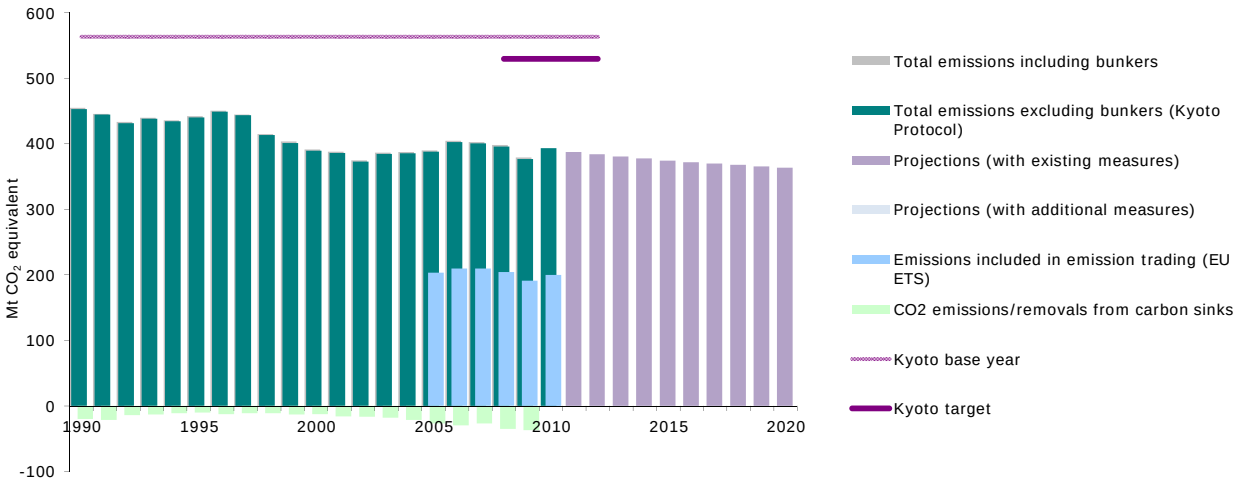
(6) All installations included. This includes new entrants and closures. Data from the community independent transaction log (CITL) as of 29 April 2009 for the reporting years 2005 and 2006, 11 May 2009 for the reporting year 2007, 17 May 2010 for the reporting year 2008 and 23 May for the reporting years 2009 and 2010. The CITL regularly receives new information (including delayed verified emissions data, new entrants and closures) so the figures shown may change over time.

(7) Constant scope: includes only those installations with verified emissions available for 2008, 2009 and 2010.

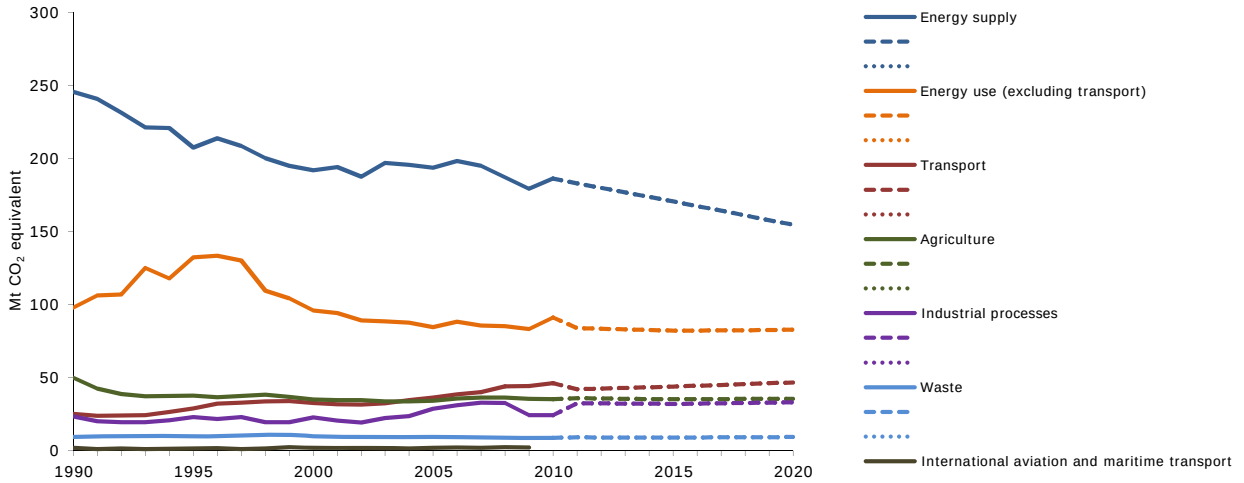
(8) "+" and "-" mean that verified emissions exceeded allowances or were below allowances, respectively. Annual allowances include allocated allowances and allowances auctioned during the same year.

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

GHG trends and projections 1990–2020 — total emissions



GHG trends and projections 1990–2020 — emissions by sector

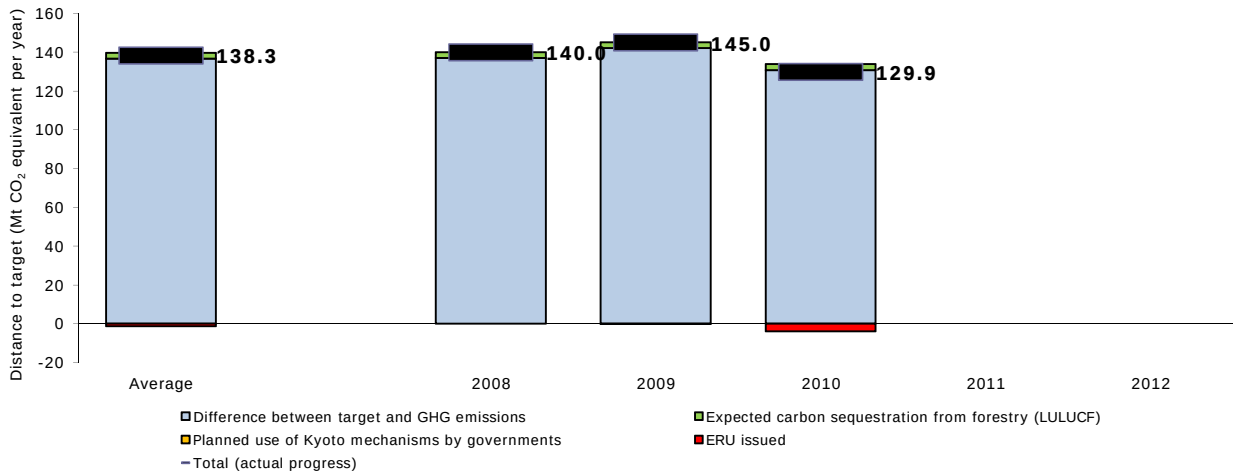


Note: GHG emission projections are represent either through dashed lines (with existing measures) or dotted lines (additional measures).

Source: National inventory, 2011; EEA proxy estimate; 2011; national projection data.

Progress towards Kyoto target

Average 2008–2010 emissions in Poland were 31 % lower than the base-year level, well below the Kyoto target of -6 % for the period 2008–2012. In the sectors not covered by the EU ETS, emissions were significantly lower than their respective target, by an amount equivalent to 24.3 % the country's base-year emissions. LULUCF activities are expected to decrease net emissions by an annual amount equivalent to 0.5 % of base-year level emissions. Taking all these effects in to account, average emissions in the sectors not covered by the EU ETS in Poland were standing below their target level, by a gap representing 24.6 % of the base-year emissions. Poland was therefore on track towards its Kyoto target by the end of 2010.



Note: The difference between target and GHG emissions concerns the sectors not covered by the EU ETS. A positive value indicates emissions lower than the average target.