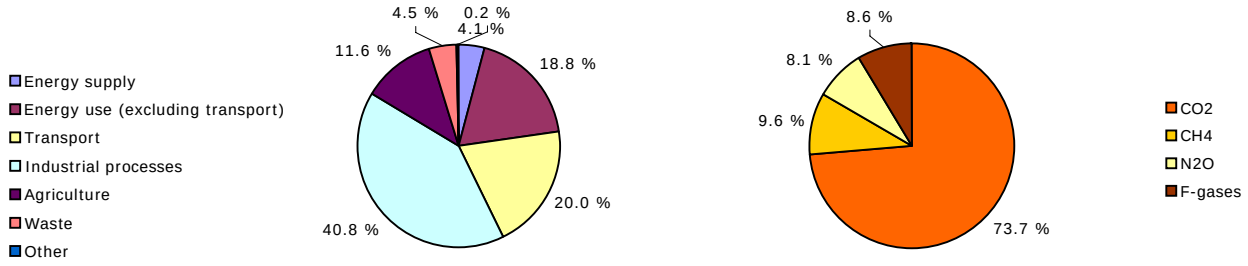
GHG trends and projections in Iceland

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)	3.4	4.5	4.9	n.a.	Mt CO_2-eq.	n.a.	n.a.
GHG from international bunkers [4]	0.3	0.7	0.7	n.a.	Mt CO_2-eq.	n.a.	n.a.
GHG per capita	13.5	14.7	15.5	n.a.	t CO_2-eq. / capita	n.a.	n.a.
GHG per GDP [5]	466	350	375	n.a.	g CO_2-eq. / euro		

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	1.5	42.9 %	0.4	8.3 %	n.a.	n.a.	n.a.	n.a.
GHG per capita	2.0	15.0 %	0.8	5.6 %	n.a.	n.a.	n.a.	n.a.

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

Around 80 % of Iceland's energy – and almost all stationary energy – comes from renewable resources, hydro and geothermal. This means that Iceland has few possibilities to reduce greenhouse emissions from the production of electricity and space heating, as Iceland had already almost abolished the use of fossil fuels for these purposes in 1990. While they were relatively stable over the period 1999–2005 (at the level of the Kyoto target), emissions have dramatically increased in the last three consecutive years. This recent upward trend is almost exclusively driven by the expansion of heavy industry in Iceland, mainly in the field of aluminium production. This industry produces exclusively for export. Current production capacity of the plant is 260 000 tonnes per year. The latest large scale project was the Alcoa aluminium plant, which started production in 2007 and has a production capacity of 350 000 tonnes of aluminium per year. Land-use change (land conversion to cropland and grassland) is also a significant contributor to CO2 emissions. However, increased government funding to afforestation and revegetation is increasing sequestering of carbon from the atmosphere.

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

The significant increase in total emissions was almost exclusively due to increased emissions from aluminium production. In relative terms, emissions from public electricity and heat also contributed significantly towards the overall increase.

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.

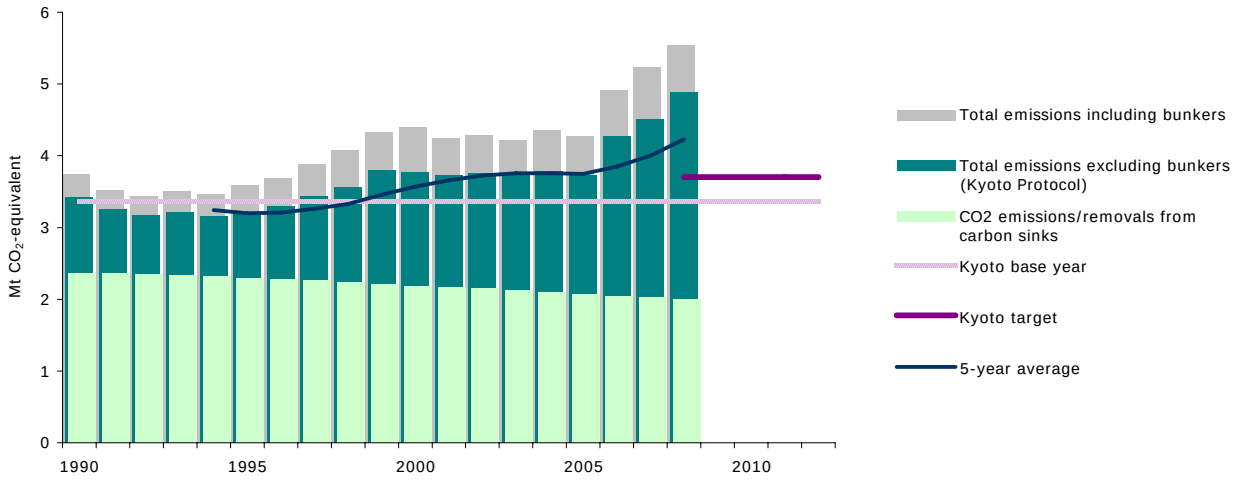
[3] Comparison of 2008 values, 1 = highest value among EU countries.

[4] International bunkers: international aviation and international maritime transport.

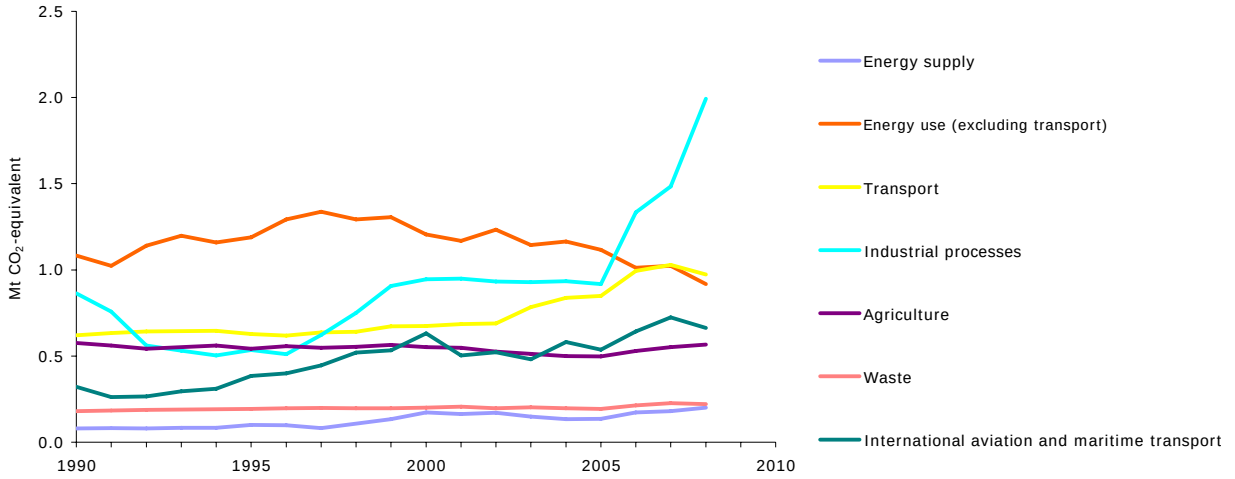
[5] GDP in constant 2000 prices - not suitable for a quantitative comparison between countries for the same year.

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

GHG trends 1990–2008 - total emissions and removals



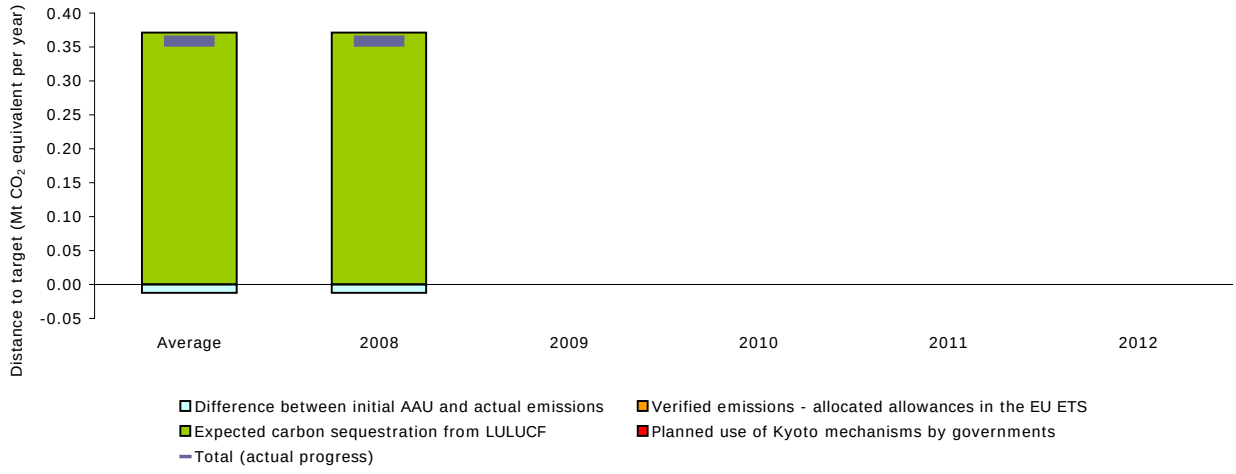
GHG trends 1990–2008 - emissions by sector



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

Progress towards Kyoto target

Emissions in Iceland in 2008 were 10.4 % higher than the base-year level, above the Kyoto target of 10 % for the period 2008–2012. LULUCF activities are expected to decrease net emissions by 11 % of base-year level emissions. Taking all these effects in to account, emissions in Iceland stand currently below their target level, by a gap representing 10.6 % of the base-year emissions.



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