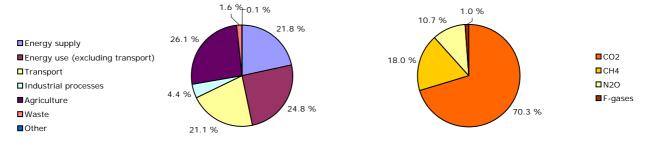
GHG trends and projections in Ireland

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) | 54.8 | 67.6 | 67.4 | n.a. | Mt CO ₂ -eq. | 17 | 12 |
| GHG from international bunkers (4) | 1.1 | 3.4 | 3.0 | n.a. | Mt CO ₂ -eq. | 13 | 13 |
| GHG per capita | 15.6 | 15.7 | 15.3 | n.a. | t CO ₂ -eq. / capita | 2 | 2 |
| GHG per GDP ⁽⁵⁾ | 1 039 | 443 | 455 | n.a. | g CO ₂ -eq. / euro | | |
| Share of GHG in total EU-27 emissions | 1.0 % | 1.3 % | 1.4 % | n.a. | % | | |
| EU ETS verified emissions (6) | | 21.2 | 20.4 | 17.2 | Mt CO ₂ -eq. | 19 | 13 |
| Share of EU ETS verified emissions in total GHG | | 31.4 % | 30.2 % | n.a. | % | | |
| ETS verified emissions compared to annual allowances (7) | | 10.4 % | 2.1 % | - 14.6 % | % | | |

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



| Key GHG trends | 1990- | 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 | 12.6 | 23.0 % | - 0.2 | - 0.3 % | n.a. | n.a. | n.a. | n.a. | |
| GHG per capita | - 0.3 | - 2.0 % | - 0.4 | - 2.3 % | n.a. | n.a. | n.a. | n.a. | |
| EU ETS verified emissions - all installations | | | - 0.9 | - 4.1 % | | | - 3.2 | - 15.5 % | |
| EU ETS verified emissions - constant scope (9) | | | n.a. | n.a. | | | - 3.2 | – 15.7 % | |

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

The large increase in emissions during the period 1990-2001 was clearly driven by the growth in CO2 emissions from energy use. Between 1994 and 2001, during which Ireland experienced a period of unprecedented economic growth, and energy emissions grew by an average of 4.3 percent annually. The rate of economic growth slowed down from 2000 to 2004, which together with the closure of ammonia and nitric acid production plants and continued decline in cattle populations and fertilizer use resulted in some reduction in the emission levels in 2002 -2004. Emissions increased in 2005 due largely to road transport and electricity generation where two new peat-fired stations entered into service. The recent declining trend between 2005 and 2008 is largely due to decreases in the agriculture and waste sectors and in 2008 to reduced emissions from mineral products in the industrial processes sector. The increase in transport emissions came to an end in 2008. Between 1990 and 2007, the transport sector shows the greatest increase at 178 percent, which can be attributed to increasing vehicle numbers and larger vehicles, consequent to economic and demographic growths.

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

The effects of the economic downturn are mainly evident in the 4 % reduction in emissions from the industry and commercial sector with smaller decreases (<1 %) from the agriculture and transport sectors. Energy sector emissions are largely unchanged. However an increase in emissions from the residential sector (reflecting colder winter months) cancels the benefit of these reductions to a large extent. For the first time since 1993, road transport emissions were stabilised.

Source and additional information

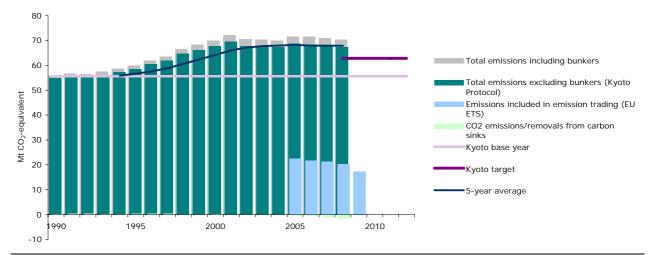
Greenhouse gas emission data and EU ETS data www.eea.europa.eu/themes/climate/data-viewers

List and description of national policies and measures <u>www.eea.europa</u>

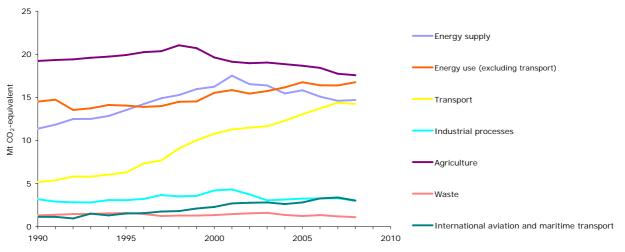
www.eea.europa.eu/themes/climate/pam

- (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 1990–2008 - total emissions and removals



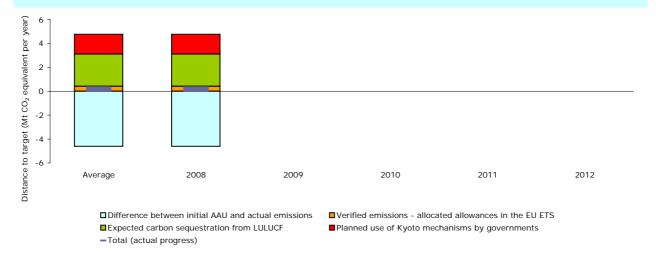
GHG trends 1990-2008 - emissions by sector



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

Progress towards Kyoto target

Emissions in Ireland in 2008 were 21.3 % higher than the base-year level, significantly above the burden-sharing target of 13 % 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 0.7 % of base-year level emissions. LULUCF activities are expected to decrease net emissions by 4.9 % of base-year level emissions. Ireland intends to acquire allowances corresponding to 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 Ireland stand currently below their target level, by a gap representing 0.3 % of the base-year emissions.



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