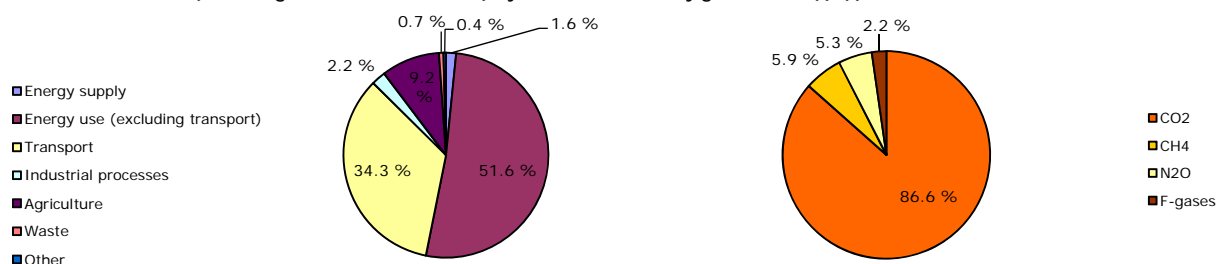


| Key GHG data ⁽¹⁾ | 1990 | 2008 | 2009 | 2010 ⁽²⁾ | Unit | Rank in EU-27 ⁽³⁾ | Rank in EU-15 ⁽³⁾ |
|---|--------|---------|----------|---------------------|---------------------------------|------------------------------|------------------------------|
| Total greenhouse gas emissions (GHG) | 0.23 | 0.26 | 0.25 | n.a. | Mt CO ₂ -eq. | n.a. | n.a. |
| GHG from international bunkers ⁽⁴⁾ | 0.0004 | 0.0007 | 0.0009 | n.a. | Mt CO ₂ -eq. | n.a. | n.a. |
| GHG per capita | 8.1 | 7.4 | 7.0 | n.a. | t CO ₂ -eq. / capita | n.a. | n.a. |
| GHG per GDP (constant prices) ⁽⁵⁾ | n.a. | n.a. | n.a. | n.a. | g CO ₂ -eq. / euro | | |
| EU ETS verified emissions - all installations ⁽⁶⁾ | | 0.020 | 0.013 | 0.002 | Mt CO ₂ -eq. | n.a. | n.a. |
| EU ETS verified emissions - constant scope ⁽⁷⁾ | | 0.020 | 0.013 | 0.002 | Mt CO ₂ -eq. | | |
| Share of EU ETS verified emissions (all installations) in total GHG | | 7.5 % | 5.4 % | n.a. | % | | |
| ETS verified emissions compared to annual allowances ⁽⁸⁾ | | - 5.8 % | - 31.4 % | - 89.8 % | % | | |

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 | 0.018 | 7.8 % | - 0.016 | - 6.1 % | n.a. | n.a. | n.a. | n.a. |
| GHG per capita | - 1.1 | - 13.8 % | - 0.498 | - 6.7 % | n.a. | n.a. | n.a. | n.a. |
| EU ETS verified emissions - all installations ⁽⁶⁾ | | | - 0.007 | - 32.7 % | | | - 0.012 | - 86.6 % |
| EU ETS verified emissions - constant scope ⁽⁷⁾ | | | - 0.007 | - 32.7 % | | | - 0.007 | - 32.7 % |

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

The main emission sources are the transport and the commercial sectors, along with the residential sector. Emissions have been increasing since the early 1990s, due to increased fuel combustion by households and services. During the period 1990–2008, the number of inhabitants increased by 23 % whereas employment increased by 40 %. This is reflected in a 31 % increase of related GHG emissions until 2006, with fluctuations caused by warm and cold winter periods. Emissions fell by almost a fourth between 2006 and 2007. This may have been due to a very high price for gas oil, which led people to reduce fuel consumption and to hold off the filling of their oil tanks. Simultaneously, warm winter months at the beginning and at the end of 2007 caused lower consumption of heating fuels. Accompanied by an extension of the gas-grid, natural gas has replaced gas oil as the main heating fuel in buildings. In parallel with the built-up of the gas supply network since 1990, fugitive emissions have strongly increased over the period. Emissions from agriculture show a minimum around 2000 due to decreasing and increasing animal numbers. Only few emissions from the waste sector are occurring, because municipal solid waste is exported to a Swiss incineration plant.

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

Annual variations are mostly observed in energy use from households and services for heating purposes. CO₂ emissions decreased between 2008 and 2009, while CH₄ emissions remained stable. Beside the fluctuations in 2007 and 2008 caused by fuel price fluctuations followed by changing stocking behaviour for fuel tanks, a negative trend from 2006 to 2009 becomes apparent. High prices of fossil led to a smaller consumption of fossil fuels in 2007, when stocks were depleted, and higher apparent consumption in 2008, when fuel tanks were refilled. In 2009, the lower prices raised the demand of gas oil and the increase of the CO₂-Tax on 1.1.2010 induced the consumers to refill their fuel tanks at the end of 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 EEA estimate of 2010 emissions.

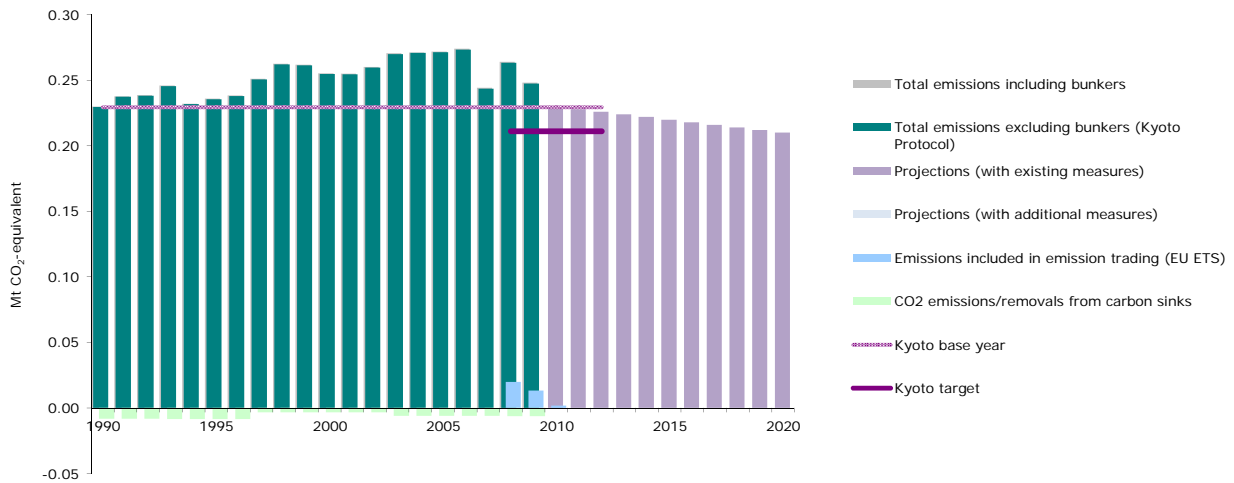
(3) Comparison of 2009 values, 1 = highest value among EU countries.

(4) International bunkers: international aviation and international maritime transport.

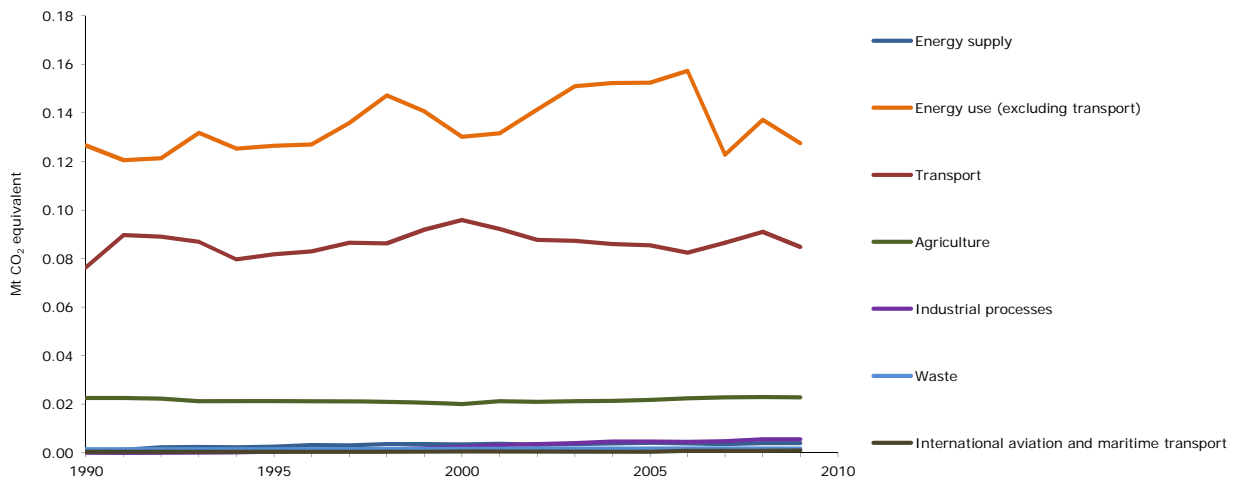
(5) GDP in constant 2000 prices - not suitable for a ranking or quantitative comparison between countries for the same year. 1990 information not available for some countries, replaced by later years: 1991 (Bulgaria, Germany, Hungary and Malta), 1992 (Slovakia), 1993 (Estonia) and 1995 (Croatia). Source GDP: Eurostat, 2011; Ameco database, 2011.

(6) 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



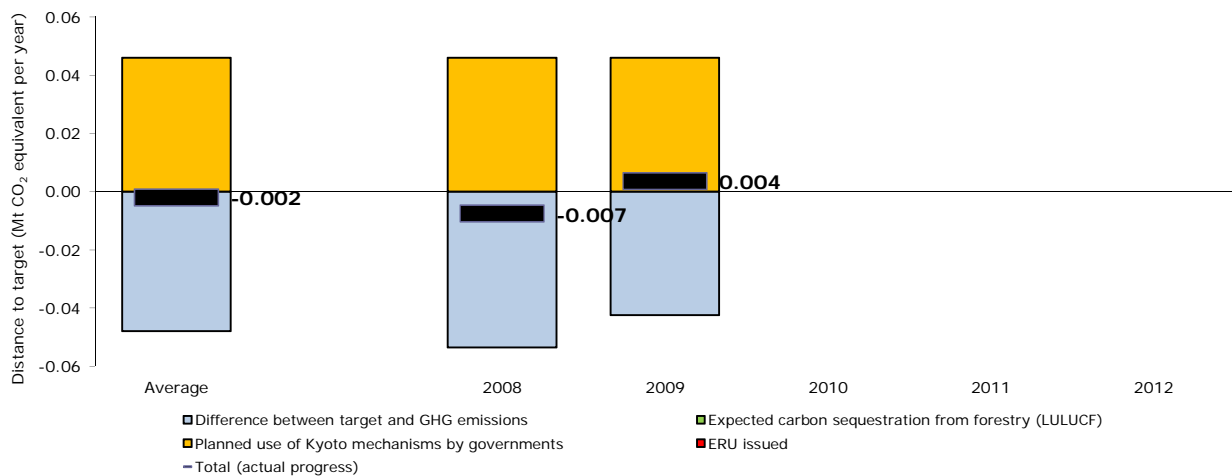
GHG trends 1990–2009 - emissions by sector



Source: National GHG inventory, 2011.

Progress towards Kyoto target

Average 2008–2009 emissions in Liechtenstein were 11.3 % higher than the base-year level, significantly above the Kyoto target of -8 % for the period 2008–2012. In the sectors not covered by the EU ETS, emissions were significantly higher than their respective target, by an amount equivalent to 20.9 % the country's base-year emissions. Liechtenstein intends to use the flexible mechanisms at government level by acquiring an amount of Kyoto units equivalent to 20 % of base-year emissions per year. Taking all these effects in to account, average emissions in the sectors not covered by the EU ETS in Liechtenstein were standing above their target level, by a gap representing 0.8 % of the base-year emissions. Liechtenstein was therefore not on track towards its Kyoto target by the end of 2009. This gap can be considered small, however, especially in comparison with the gaps currently observed in other countries for which emissions are also above their respective target.



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.