
Greenhouse gas emissions by country and sector (infographic)

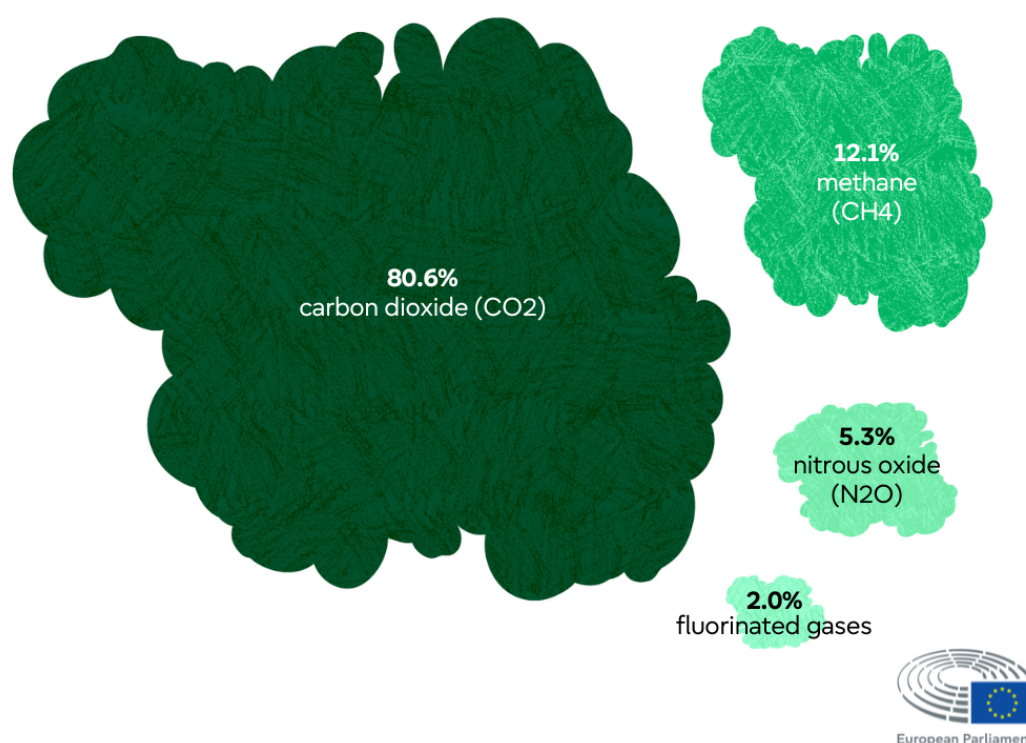
Check out our infographics to discover greenhouse gas emissions by country and by sector in the EU as well as the world's top emitters.

Greenhouse gas emissions contribute to accelerating [climate change](#). Who are the biggest emitters? What sector produces the most emissions?

Amount of greenhouse gas emissions per year in the EU

Greenhouse gas emissions in the EU by pollutant

share of total emissions estimated
in CO₂ equivalent (2022)



Infographic showing greenhouse gas emissions in the EU by pollutant

As the infographic shows, CO₂ is the greenhouse gas that is emitted the most. It is commonly produced by human activities. Other greenhouse gases are emitted in smaller quantities, but they **trap heat far more effectively than CO₂**. For example, [methane](#) is more than 80 times more potent than CO₂ over a 20-year period

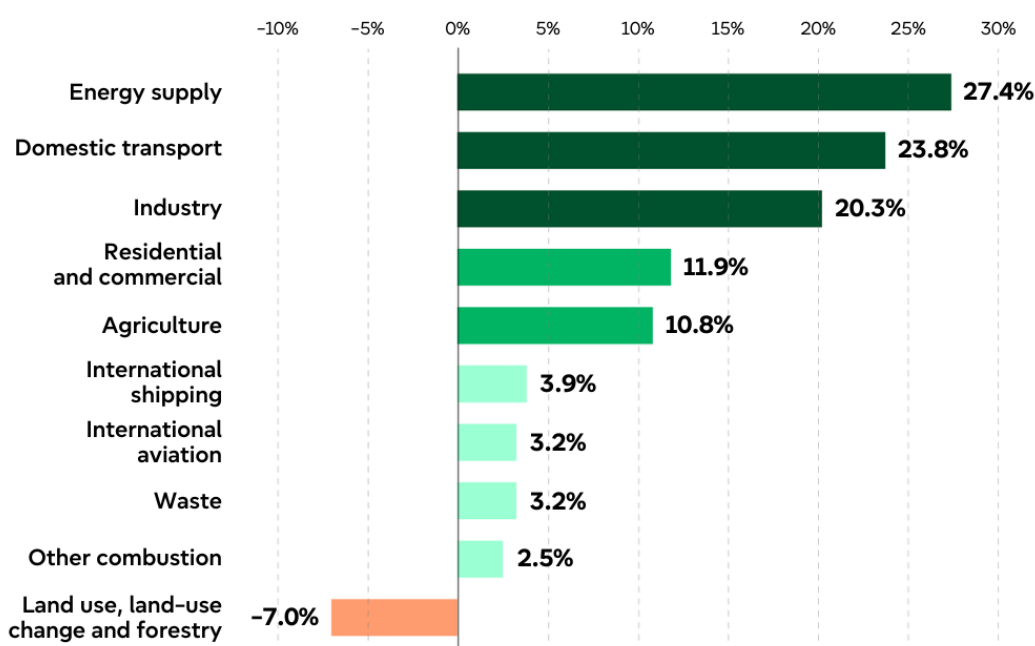
Further information

[Find out more about the different greenhouse gases, their origins and warming potentials](#)

Greenhouse gas emissions by sector in the EU

Greenhouse gas emissions in the EU by sector

share of total emissions estimated
in CO₂ equivalent (2022)



Source: European Environment Agency

Infographic showing the share of greenhouse gas emissions by sector in the EU in 2022

According to the sixth assessment report by the [InterGovernmental Panel on Climate Change](#) (IPCC) from 2023, emissions of greenhouse gases from human activities are responsible for about 1.1°C of warming since the beginning of the 20th century. These activities include for example the burning of coal, oil and gas, deforestation and farming.

The infographic shows greenhouse gas emissions in the EU in 2022 broken down by the sectors that are the main sources. **Energy supply** was responsible for 27.4% of the EU greenhouse gas emissions in 2022, while **domestic transport** accounted for 23.8%. Greenhouse gas emissions from **industry** were responsible for 20.3% of the emissions,

residential and commercial activities - for 11.9% and **agriculture** for 10.8%.

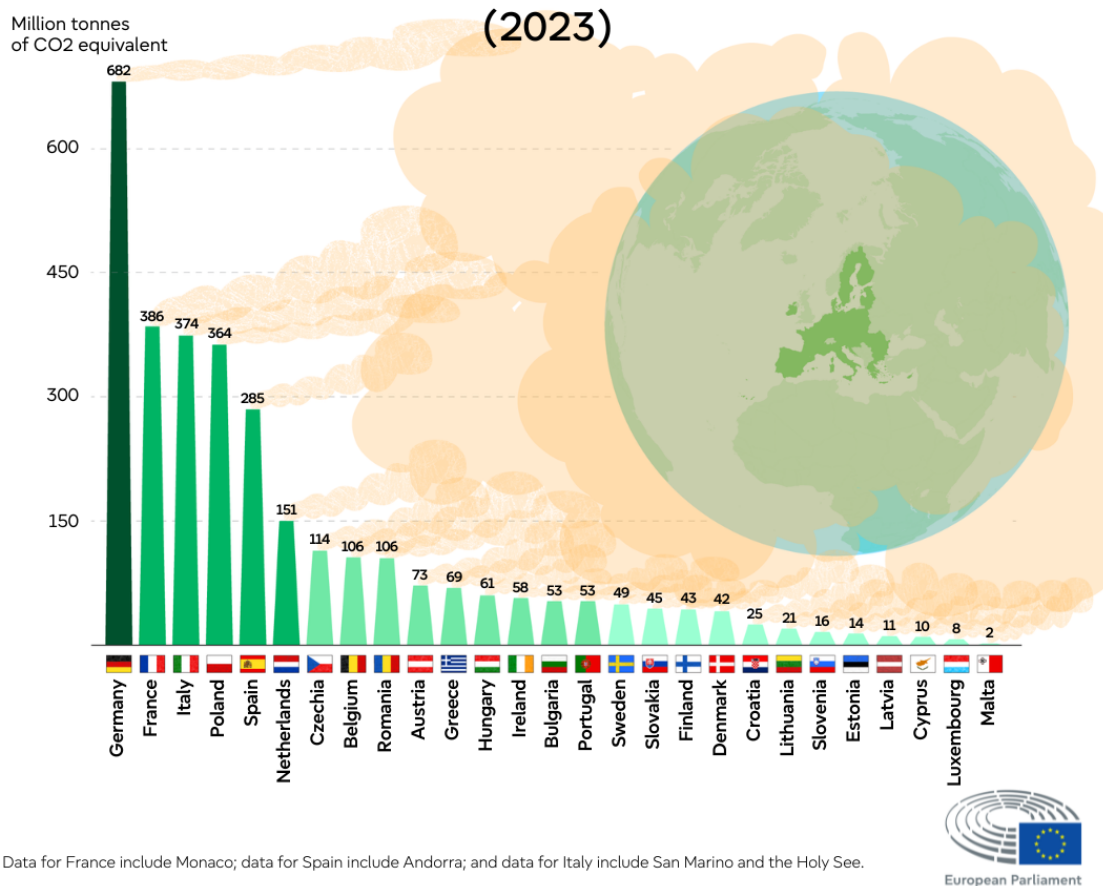
Land use, land-use change and forestry help to reduce emissions as plants absorb carbon dioxide, for example. The positive impact of the sector amounted to 7% of the total emissions.

Further information

[Find out more about EU targets and measures to reduce greenhouse gas emissions](#)

Greenhouse gases emissions in the EU and in the world

Total greenhouse gas emissions per EU country (2023)

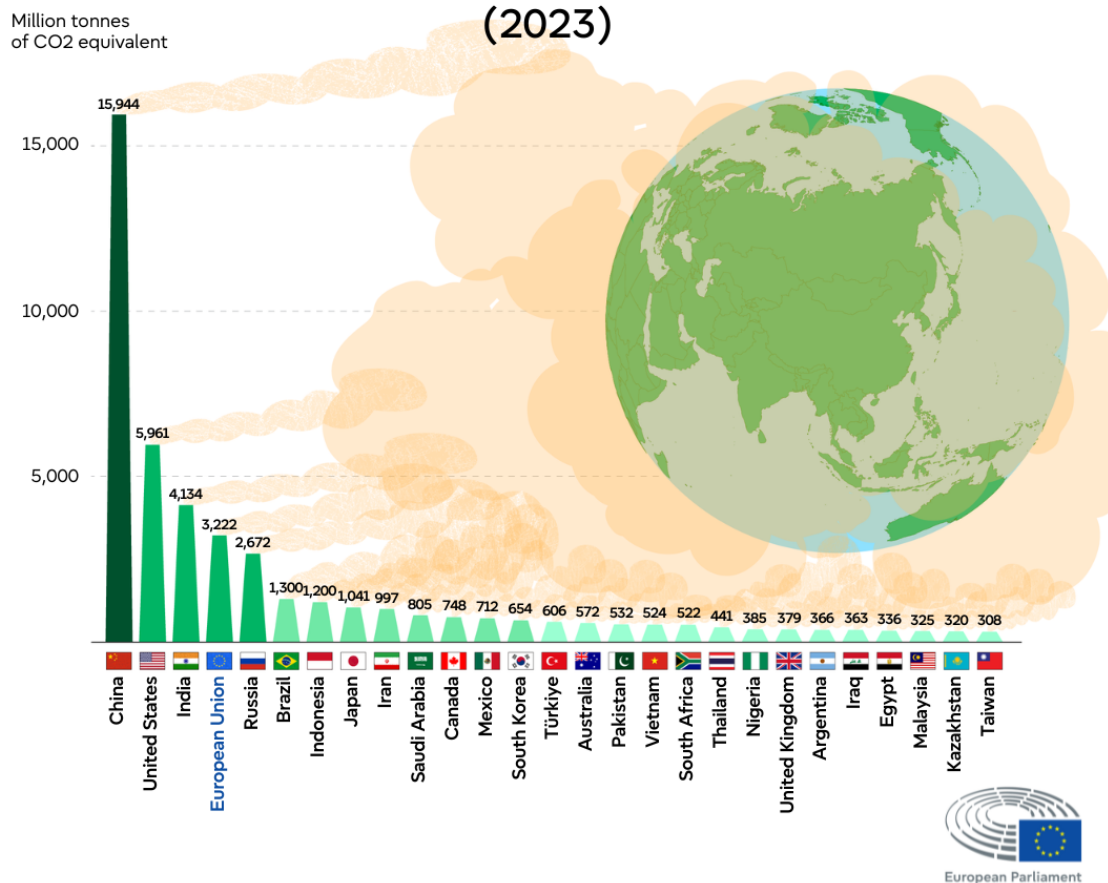


Infographic comparing total greenhouse gas emissions by EU countries in 2023

The infographic above lists EU countries by total greenhouse gas (GHG) emissions in 2023 and the infographic below shows the world's top greenhouse gas emitters in 2023. **The EU is the fourth biggest emitter** behind China, the United State and India, followed by Russia and Brazil.

Greenhouse gases remain in the atmosphere for periods ranging from a few years to thousands of years. As such, they have a worldwide impact, no matter where they were first emitted.

Top greenhouse gas emitters in the world



Infographic comparing total greenhouse gas emissions by countries worldwide in 2023

What are greenhouse gases?

- Greenhouse gases are gases in the atmosphere that act similarly to the glass in a greenhouse: it absorbs the sun's energy and heat that is radiated from the Earth's surface, trap it in the atmosphere and prevent it from escaping into space.
- This process is the main reason for greenhouse effect that keeps the Earth's temperature warmer than it would otherwise be, allowing life on Earth to exist
- Many greenhouse gases occur naturally in the atmosphere, but human activity adds enormous amounts, boosting the greenhouse effect that is contributing to global warming

More infographics on climate change

- [EU progress towards its climate change goals \(infographic\)](#)
- [Infographic: how climate change is affecting Europe](#)
- [Timeline of climate change negotiations](#)
- [CO2 emissions from cars: facts and figures](#)
- [Emissions from planes and ships: facts and figures](#)

