

# Global Greenhouse Gas (GHG) Emissions Report

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2025-01-24

## Introduction

The report uses greenhouse gas (GHG) emissions time series data from the Emissions Database for Global Atmospheric Research (EDGAR). The database provides data covering all countries and spanning from 1970 to 2023. The report includes three charts providing insights to the questions:

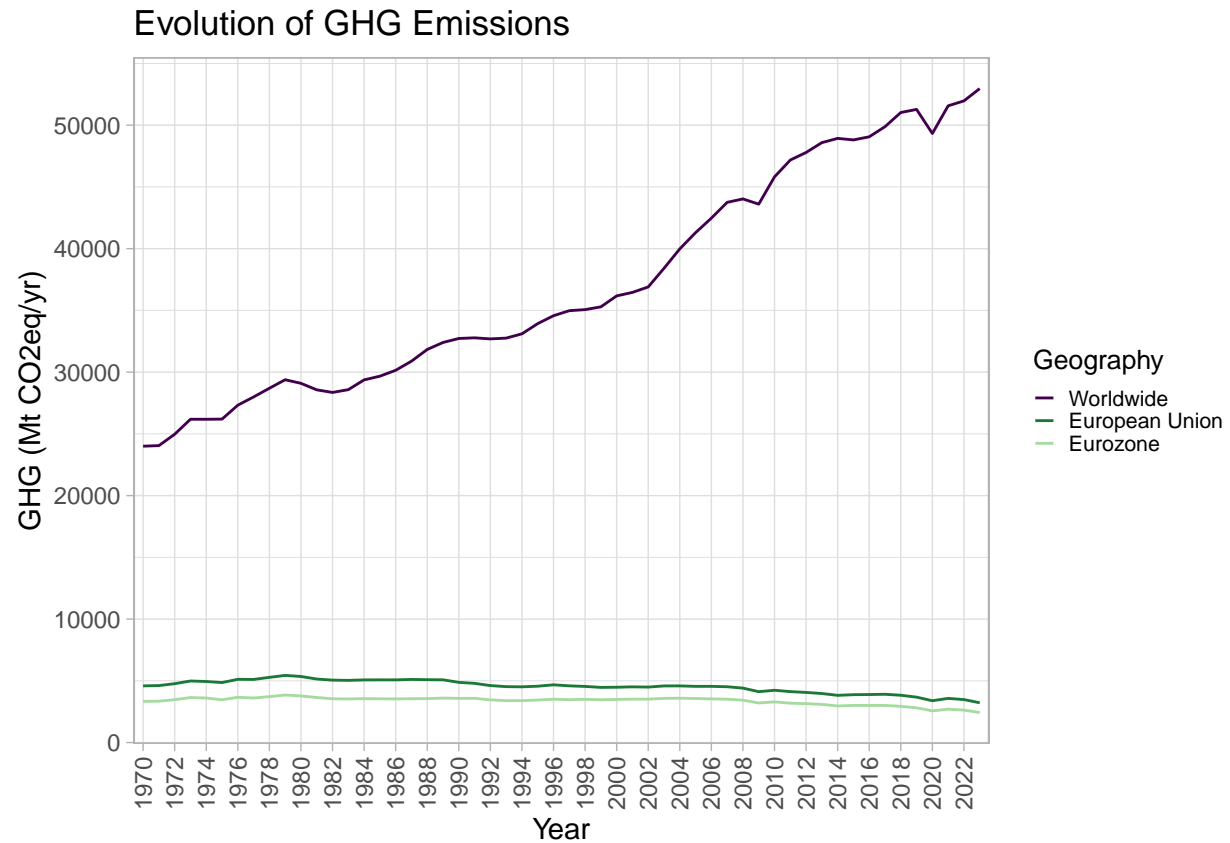
1. What is the evolution of GHG growth in the euro area, in the European Union, and worldwide?
2. How do countries (classified as in the World Bank income groups) compare with respect to GHG emissions per capita?
3. What is the contribution of individual countries and continents to the worldwide GHG emissions?

## Process

Data have been cleaned, analyzed, and visualized using R, mainly through the tidyverse package (e.g., dplyr, ggplot). The report has been generated using RMarkdown. The workflow included working with RStudio, git and GitHub.

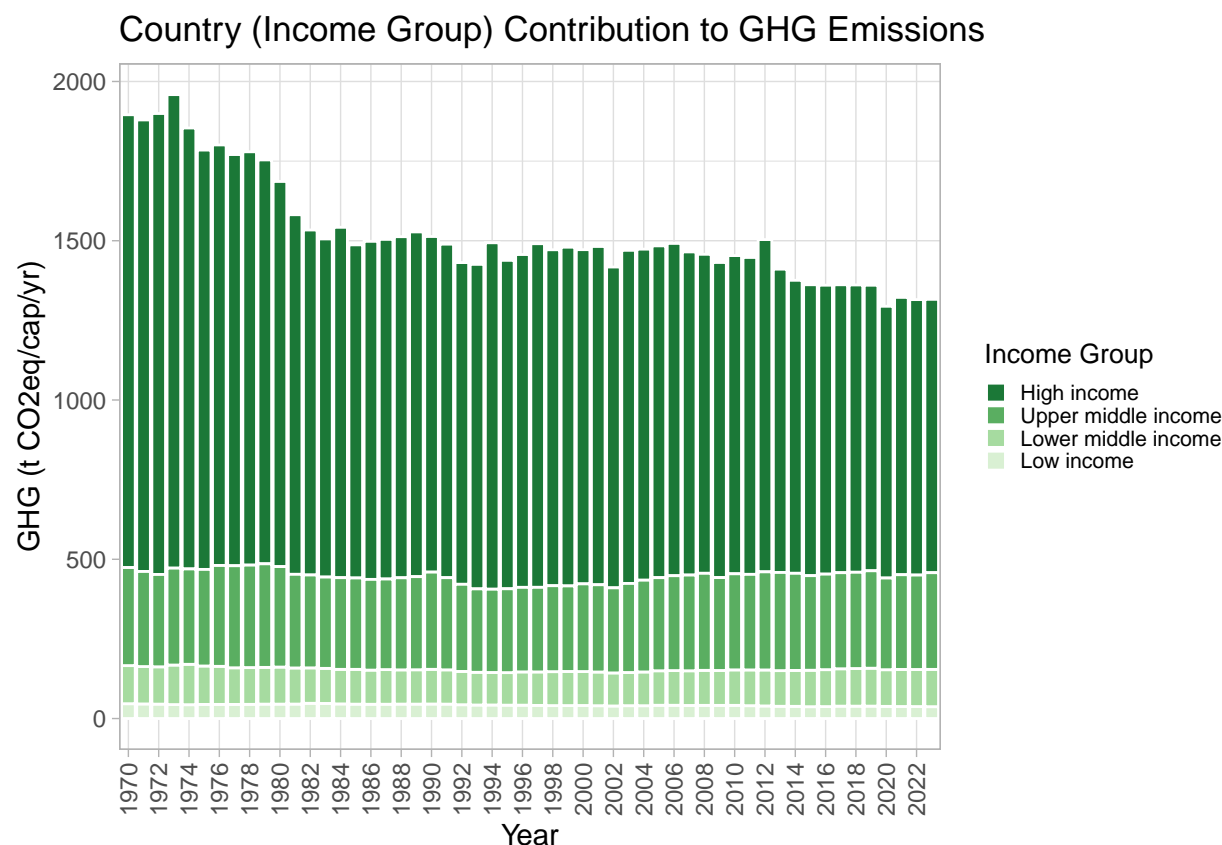
## Evolution of GHG emission growth

What is the evolution of GHG growth in the euro area, in the European Union, and worldwide?



## Countries GHG emission comparison

How do countries (classified as in the World Bank income groups) compare with respect to GHG emissions per capita?



## Contribution of individual countries and continents to worldwide GHG emissions

What is the contribution of individual countries and continents to the worldwide GHG emissions?

## References

EDGAR (Emissions Database for Global Atmospheric Research) Community GHG Database (a collaboration between the European Commission, Joint Research Centre (JRC), the International Energy Agency (IEA), and comprising IEA-EDGAR CO<sub>2</sub>, EDGAR CH<sub>4</sub>, EDGAR N<sub>2</sub>O, EDGAR F-GASES version EDGAR\_2024\_GHG (2024) European Commission.

European Commission, Joint Research Centre, Crippa, M., Guizzardi, D., Pagani, F., Banja, M., Muntean, M., Schaaf, E., Monforti-Ferrario, F., Becker, W.E., Quadrelli, R., Risquez Martin, A., Taghavi-Moharamli, P., Köykkä, J., Grassi, G., Rossi, S., Melo, J., Oom, D., Branco, A., San-Miguel, J., Manca, G., Pisoni, E., Vignati, E. and Pekar, F., GHG emissions of all world countries, Publications Office of the European Union, Luxembourg, 2024, <https://data.europa.eu/doi/10.2760/4002897>, JRC138862.

IEA-EDGAR CO<sub>2</sub> (v3), a component of the EDGAR (Emissions Database for Global Atmospheric Research) Community GHG database version EDGAR\_2024\_GHG (2024) including or based on data from IEA (2023) Greenhouse Gas Emissions from Energy, [www.iea.org/statistics](http://www.iea.org/statistics), as modified by the Joint Research Centre.

Source data: [https://edgar.jrc.ec.europa.eu/dataset\\_ghg2024](https://edgar.jrc.ec.europa.eu/dataset_ghg2024)

EDGAR\_2024\_GHG website: [https://edgar.jrc.ec.europa.eu/dataset\\_ghg2024](https://edgar.jrc.ec.europa.eu/dataset_ghg2024)