

Map 23

Short Title: CO₂ emissions from diffuse industrial releases, kt/grid

Full Title: Map: Carbon dioxide (CO₂) emissions from diffuse industrial releases (in tonnes per grid cell)

Diffuse Sources / General information:

The map shows the diffuse emissions of carbon dioxide (CO₂) to air from diffuse industrial releases of the EU27 and EFTA4 countries per 5x5 km² grid cell for the reference year 2008, available in 2010. Diffuse emissions of carbon dioxide (CO₂) are expressed in ktonnes grid cell.

Diffuse Sources / Methodology:

Geographic Information System (GIS) overlay:

Diffuse emissions of carbon dioxide (CO₂) to air from industrial releases have been distributed according to the reporting of the countries to the United Nations Framework Convention on Climate Change ([UNFCCC](#)), and to the E-PRTR, using the location of the emission sources, employment statistics, and land use information. The emissions are allocated using GIS overlay techniques for distribution into grid cells with a spatial resolution of 5x5km². The dataset is then transformed into vector polygons and projected into the E-PRTR WGS84 standard projection.

Comparability

Considerable spatial variation is apparent. The main reason for the difference is:

- The spatial pattern of emissions is dependent on distribution of industrial sources across Europe, their spatial density and the level of their activities
- The spatial variation is linked to the allocation of population per activity branch on a regional level

Diffuse Sources / Source Data:

Map: Carbon dioxide (CO₂) emissions from diffuse industrial releases (in ktonnes per grid cell)

Emissions data

Diffuse emissions of carbon dioxide (CO₂) to air from industrial releases (industrial and energy processes, waste and wastewater management) for the year 2008 are based on data sets officially reported as national emission totals by countries to the United Nations Framework Convention on Climate Change ([UNFCCC](#)), including diffuse and non-diffuse emissions, and on the data reported to the E-PRTR data base. A subtraction method (CLRTAP data minus E- PRTR data) is applied in order to identify and quantify the diffuse part of the industrial emissions.

Employment data

[Employment statistic data from EUROSTAT](#) for 2008 (economically active employees distinguished by activity branch)

Facility data

[European Pollutant Release and Transfer Register \(E-PRTR\)](#) data base for the reporting years 2007 and 2008

Land use data

[CORINE Land Cover data](#) ([CLC₂₀₀₆](#), [CLC₂₀₀₀](#) and [CLC_{CH1990} for Switzerland](#)) are merged in order to cover all EU27 and EFTA4 countries. Location data for diffuse emissions released by industrial activities, not covered by the E-PRTR Regulation, are derived using CORINE Land Cover data classes “1.2.1. Industrial or commercial units”, “1.1.1 Continuous urban fabric”, “1.1.2 Discontinuous urban fabric”, and “1.2.1 Industrial or commercial units”.