

Map 07

Short Title: SO₂ emissions from non-industrial combustion plants, t/grid

Full Title: Map: Sulphur dioxide (SO₂) emissions to air from non-industrial combustion plants (in tonnes per grid cell)

Diffuse Sources / General information:

The map shows the sulphur dioxide (SO₂) emissions to air from non-industrial combustion plants of the EU27 and EFTA4 countries per 5x5 km² grid cell for the reference year 2008, available in 2010. Diffuse emissions of sulphur dioxide (SO₂) are expressed in tonnes per grid cell.

Diffuse Sources / Methodology:

Map: Sulphur dioxide (SO₂) emissions to air from non-industrial combustion plants (in tonnes per square kilometre per year)

Geographic Information System (GIS) overlay:

Emissions of sulphur dioxide (SO₂) to air from non-industrial combustion plants are distributed according to the reporting of the countries to the Convention on Long-Range Transport of Air Pollution ([CLRTAP](#)), using employees statistic (EUROSTAT), population density geo data (GISCO), EU population density grid (Join Research Centres), 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 reasons for the differences are:

- The spatial pattern of emissions is dependent on diverse horizontal distribution of the sources across Europe (employee and population density, on the different use of fuel type in urban and rural areas)

Diffuse Sources / Source Data:

Map: Sulphur dioxide (SO₂) emissions to air from non-industrial combustion plants (in tonnes per grid cell)

Emissions data

Emission data used are national totals including releases from commercial, institutional (NFR 1A4ai) and residential stationary plants (NFR 1A4bi) from non-industrial combustion plants for the year 2008. These are based on data sets officially reported as national emission totals by countries to the Convention on Long-range Transboundary Air Pollution ([CLRTAP](#)). All emissions from non-industrial combustion sector emissions are considered as diffuse emission sources in the E-PRTR Register.

Employment data

Employment statistic data from [EUROSTAT](#) for 2008 (economically active employees)

Population data

[EUROSTAT GISCO](#) - Statistical information on population data per administrative unit (NUTS3 level) for Switzerland (publicly not available).

[EUROSTAT GISCO](#) - Degree of Urbanisation

[JRC Population density disaggregated with Corine land cover 2000 and 2006](#): European Population Density Map 2000 and 2006 with a spatial resolution 100x100 m.

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 Emissions released by non-industrial combustion plants are derived using CORINE Land Cover data.