

Map 15

Short Title: PM10 emissions from domestic aviation, t/grid

Full Title: Map: Particulate matter (PM10) emissions from domestic aviation (in tonnes per grid cell)

Diffuse Sources / General information:

The map shows the diffuse emissions of particulate matter (PM10) to air from domestic aviation (below an altitude of 1000m) of the EU27 and EFTA4 countries per 5x5 km² grid cell for the reference year 2008, available in 2010. Diffuse emissions of Particulate matter (PM10) are expressed in tonnes per grid cell.

Diffuse Sources / Methodology:

Geographic Information System (GIS) overlay:

Diffuse emissions of particulate matter (PM10) to air from domestic aviation (below an altitude of 1000m) are distributed according to the reporting of the countries to the Convention on Long-Range Transport of Air Pollution ([CLRTAP](#)), using the location of airports (GISCO), land use information, and domestic landing and take-off cycles (GISCO). 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.

The methodology applied is described in detail in a methodology report.

Comparability

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

- The spatial pattern of emissions from domestic aviation is dependent on the spatial distribution of airports across Europe and their landing and take-off cycles.

Diffuse Sources / Source Data:

Map: Particulate matter (PM10) emissions from domestic aviation (in tonnes per grid cell)

Emissions data

Emission data used are national totals including the release from civil domestic aviation (NFR 1A3ai(i) LTO) to below an altitude of 1000 m for the year 2008. These data are based on data sets officially reported as national emission totals by countries to the Convention on Long-range Transboundary Air Pollution ([CLRTAP](#)). Emissions data used for the gridding procedure of PM10 are national totals from the CLRTAP Nomenclature For Reporting (NFR). All emissions from domestic aviation are considered as diffuse releases in the E-PRTR Register. The methodology applied and data used is described in detail in a methodology report.

Administrative boundaries data

[EUROSTAT GISCO Administrative units and Statistical units](#)

Airport location data

Airport locations from [EUROSTAT GISCO transport networks](#) data (2009 geo data set on airports)

Activity data of domestic aviation

Activity data from [EUROSTAT](#) for 2008 on domestic LTO cycles at airports are used

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. Harbour location data are derived using CORINE Land Cover data (CLC₂₀₀₆, CLC₂₀₀₀ class "1.2.3: Port areas")