Map 17

Short Title: NH_3 emissions from agricultural sources, t/grid

Full Title: Map: Ammonia (NH_3) emissions to air from agricultural sources (in tonnes per grid cell)

Diffuse Sources / General information:

The map shows the ammonia (NH_3) emissions to air from agricultural sources of the EU27 and EFTA4 countries per 5x5 km^2 grid cell for the reference year 2008, available in 2010. Emissions are expressed in tonnes per grid cell.

Diffuse Sources / Methodology:

Geographic Information System (GIS) overlay:

Diffuse emissions of Ammonia (NH_3) to air from agriculture have been distributed according to the reporting of the countries to the Convention on Long-Range Transport of Air Pollution (CLRTAP), using the information on animal density (distribution with spatial resolution from FAO and EUROSTAT) and land use information (CORINE).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 reasons for the differences are:

> The spatial pattern of emissions from agricultural activities is dependent on animal density and the spatial pattern of agricultural land use.

Diffuse Sources / Source Data:

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Emissions data

Emissions data used are national totals including releases for sectors like manure management and animal husbandry (NFR 4B), and crop production and agricultural soils (NFR 4D) for the year 2008.These data are based on data 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 NH_3 are national totals from the CLRTAP Nomenclature For Reporting (NFR). A subtraction method for pigs and poultry is applied in order to identify and quantify the emission from diffuse releases.

EUROSTAT GISCO Administrative units and Statistical units

Animal data from EUROSTAT for 2008

FAO (Food and Agriculture Organisation of the United Nations) GIS data on livestock density

CORINE Land Cover data (CLC_{2006}, CLC_{2000} and CLC_{CH1990} for Switzerland) are merged in order to cover all EU27 and EFTA4 countries. Location data for Emissions released by agricultural activities are derived using CORINE Land Cover data classes "2.1 Arable land", "2.2 Permanent crops", "2.3 Pastures", and "2.4 Heterogeneous agricultural areas".