



DATASET DESCRIPTION

Reported emissions of methane (CH₄) from all sectors in kt/year

Version: v1

Publication date: 2023

Cite data set as: Reported emissions of methane (CH₄) from all sectors in kt/year, Version v1

Dataset-ID: urn:x-wmo:md:de.dwd.cdc::rgn_deu_p1y_ch4_e_r_1001

Dataset-URL: https://opendata.dwd.de/climate_environment/CDC/regional_averages_DE/annual/CH4/emissions/reported/total

ABSTRACT

The size and the spatial variability of the reported methane emissions from all sectors are presented for the federal states and the districts of Germany. The figure given is the sum of all emissions in all sectors for the whole year. All sectors are defined as the sum of the GNFR (Gridded Nomenclature For Reporting) sectors (Public_Power, Industry, Other_Stationary_Combustion, Fugitives, Solvents, RoadTransport_exhaust_gasoline, RoadTransport_exhaust_diesel, RoadTransport_exhaust_LPG_gas, RoadTransport_nonexhaust, Shipping, Aviation, Off_Road, Waste, Agricultural_Livestock, Agricultural_Other).

Future improvements can be expected from future developments and refinements of the methods.

POINT OF CONTACT

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DATASET DESCRIPTION

Parameter	CH ₄
Unit(s)	kt/year
Statistical processing	annual sum
Temporal coverage	2018-01-01 -- 2018-12-31
Spatial coverage	Germany
Projection	WGS 84 (EPSG:4326)
Format description	Totals for the individual federal states and districts of Germany

All Sectors are the sum of: Public_Power + Industry + Other_Stationary_Combustion + Fugitives + Solvents + RoadTransport_exhaust_gasoline + RoadTransport_exhaust_diesel + RoadTransport_exhaust_LPG_gas + RoadTransport_nonexhaust + Shipping + Aviation + Off_Road + Waste + Agricultural_Livestock + Agricultural_Other (GNFR Sectors)

application schema

csv dialect description

delimiter	line terminator	header	quote char
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;	\\r\\n	true	"
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csv content description

column name	description	uom	type	format
OBSERVED_PROPERTY_ID	identifier of the methane emission		NUMBER	
OBSERVED_PROPERTY_CODE	abbreviation of the methane emission		VARCHAR2	
OBSERVED_PROPERTY_NAME	name of the methane emission		VARCHAR2	
OBSERVING_FACILITY_CODE	NUTS Code of the spatial entity		VARCHAR2	
OBSERVING_FACILITY_NAME	name of the spatial entity		VARCHAR2	
PHENOMEN_TIME	temporal coverage of the measurements		VARCHAR2	duration/ending datetime (ISO-8601 datetime intervals)
REFERENCE_TIME	Alias datetime assigned to the measurement		DATE	yyyy-MM-dd
VALUE	value		NUMBER	
UOM	unit of measure		VARCHAR2	
NUTS_LEVEL	Hierarchy level of the NUTS unit		NUMBER	
SECTOR_ID	SECTOR_ID		NUMBER	

DATA ORIGIN

Emissions from the European Union's Horizon 2020 project "Prototype System for a Copernicus CO2 Service" (CoCO2) used and in the project "High resolution greenhouse gas emissions from Copernicus services for states, counties and cities Germany" (HoTC) processed by DWD and FU Berlin.

Source: Copernicus/TNO HoTC project (DWD, FU Berlin)

VALIDATION AND UNCERTAINTY ESTIMATE

For consistency, the emission figures are given with one decimal place, i.e. rounded to the nearest 100 t.

UNCERTAINTIES

The best estimate at the time the dataset was created is given. Uncertainty may exceed reported accuracy.

CONSIDERATIONS FOR APPLICATIONS

This research data is similar, but not identical to the official UBA data.

The annual change due to emission reductions must be derived from the data, which were created using the same method over all years under consideration.

ADDITIONAL INFORMATION

The Federal Environment Agency (UBA) is responsible for compiling Germany's greenhouse gas inventories, e.g. for the national inventory report (NIR) for reporting under the United Nations Framework Convention on Climate Change and for the Paris Agreement. The internationally defined guidelines are observed. The UBA data can be obtained via <https://www.umweltbundesamt.de/>.

LITERATURE

D2.2 Prior Emission Data set (PED) 2021

EMEP/EEA air pollutant emission inventory guidebook - 2013 7. Spatial mapping of emissions

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REVISION HISTORY

This document is maintained by Deutscher Wetterdienst, Referat Emissionsverifikation Treibhausgase (KU22), last edited at 2023-07-24.