EEA geospatial data catalogue

Annual number of Cooling Degree Days (1990-2015 average), version 1.0, Jan. 2019

The dataset presents the annual number of Cooling Degree Days (CDD) in average for the period 1990-2015, for a series of individual European cities from Eurostat's Urban Audit 2011-2014 spatial dataset, based on the E-OBS dataset from the EU-FP6 project ENSEMBLES (http://ensembles-eu.metoffice.com) and around 10,000 meteorological stations across Europe.

This dataset has been used in the EEA Report No 22/2018 "Unequal exposure and unequal impacts: social vulnerability to air pollution, noise and extreme temperatures in Europe" (https://www.eea.europa.eu/publications/unequal-exposure-and-unequal-impacts/at_download/file), where CDD is defined as the sum of the difference in degrees between 21 °C and the mean temperature over the year, for the days when the mean daily temperature is higher than 21 °C.

The number of CDDs is useful in differentiating between areas based on the need for cooling homes or workplaces. As a measurement designed to quantify the demand for energy needed to cool a building in order to keep it at a comfortable temperature, it is relevant to issues of thermal comfort and energy affordability.

Simple

Date (Creation)	2019-01-12T00:00:00
Date (Publication)	2019-01-28T00:00:00
Edition	01.00
Citation identifier	metoffice_v_3857_100_k_cooling-degree-days_p_1990-2015_v01_r00

Point of contact

No information provided.

Maintenance and update frequency	Not planned
GEMET - INSPIRE themes, version 1.0	• Atmospheric conditions • Meteorological geographical features
Keywords	
Keywords	
GEMET	• climate change impact • temperature • climate • temperature change • climate change adaptation • health • cooling
Continents, countries, sea regions of the world.	• Norway • Switzerland • EU27 (from 2020) • Iceland • United Kingdom
Spatial scope	• European
EEA topics	

	• Climate adaptation

Resource constraints

No information provided.

Access constraints	Other restrictions
Other constraints	no limitations to public access
Use constraints	Other restrictions
Other constraints	This dataset is based on different sources: 1) The climate data associated to the individual cities are made freely available for academic, educational and commercial use, but use its must be acknowledged by inclusion of the following statement: "The ENSEMBLES data used in this dataset was funded by the EU FP6 Integrated Project ENSEMBLES (Contract number 505539), whose support is gratefully acknowledged". More information about the ENSEMBLES data policy is available here: http://ensembles-eu.metoffice.com/docs/Ensembles_Data_Policy_261108.pdf. 2) The geometry of the dataset is derived from the Urban Audit Cities 2011-2014 dataset is publicly available and can be used for non commercial purposes. The source and intellectual property have always to be acknowledged for the original data and for derived data. For the centroid geometry (c) EuroGeographics. 3) As a dataset published by the EEA, it also applies the EEA standard re-use policy: unless otherwise indicated, re-use of content on the EEA website for commercial or non-commercial purposes is permitted free of charge, provided that the source is acknowledged (http://www.eea.europa.eu/legal/copyright).
Spatial representation type	Vector
Denominator	100000
Distance	0.25 deg
Language of dataset	English
Topic category	• Environment • Climatology, meteorology, atmosphere
Begin date	1990-01-01
End date	2015-12-31

69.76	N	-20.94	S	55.50	E	-61.04	W

Coordinate reference system identifier	EPSG:3857
Distribution format	• GDB ( ) • SHP ( )

OnLine resource

Protocol	Linkage	Name
EEA:FOLDERPATH	https://sdi.eea.europa.eu/webdav/datastore/public/metoffice_v_3857_100_k_cooling-degree-days_p_1990-2015_v01_r00/	
WWW:LINK-1.0-http--link	https://climate-adapt.eea.europa.eu/en/knowledge/tools/urban-adaptation	
WWW:URL	https://sdi.eea.europa.eu/data/da3f3ad6-f582-4577-8e96-bfc7421f937e	Direct download
OGC:WMS	https://climate.discomap.eea.europa.eu/arcgis/services/UAMV/CoolingDegreeDays/MapServer/WMSServer?request=GetCapabilities&service=WMS	0
ESRI:REST	https://climate.discomap.eea.europa.eu/arcgis/rest/services/UAMV/CoolingDegreeDays/MapServer	

Hierarchy level	Dataset

Conformance result

Title	Commission Regulation (EU) No 1089/2010 of 23 November 2010 implementing Directive 2007/2/EC of the European Parliament and of the Council as regards interoperability of spatial data sets and services
Date (Publication)	2010-12-08
Explanation	See the referenced specification

Statement	The Cooling Degree Days (CDD) in the period 1990-2015 were calculated based on the E-OBS dataset, which is a gridded data with 0.25° spatial resolution, based on over 10,000 stations across Europe. E-OBS dataset is an outcome of the EU-FP6 project ENSEMBLES (http://ensembles-eu.metoffice.com), data is provided by the European Climate Assessment and Dataset (ECA&D) project (http://www.ecad.eu). Updated from Haylock, M. R., et al., 2008, 'A European daily high-resolution gridded dataset of surface temperature and precipitation', Journal of Geophysical Research 113, p. D20119 (DOI: doi:10.1029/2008JD10201). The ENSEMBLES data used in this dataset was funded by the EU FP6 Integrated Project ENSEMBLES (Contract number 505539). In allocating the temperature values to individual cities, the Urban Audit 2011-2014 spatial dataset was used to identify the centroid (https://ec.europa.eu/eurostat/web/gisco/geodata/reference-data/administrative-units-statistical-units/urban-audit). UA geometry was derived from Eurogeographics EuroBoundaryMap (EBM) v6 and 6.2. The value of the nearest-distance grid point to the city centroid was used as the value for that city.

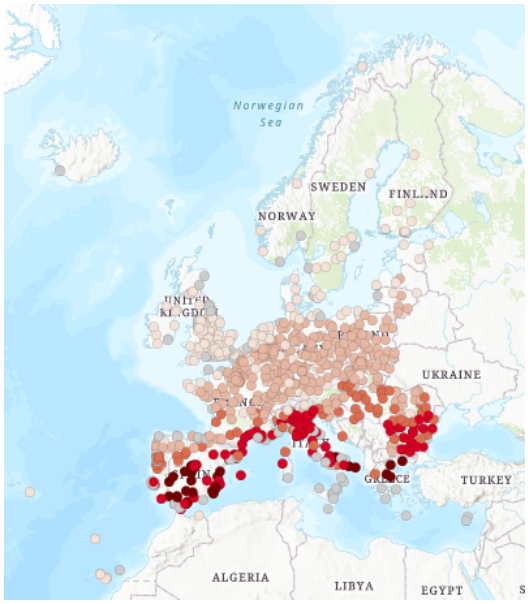
Metadata

File identifier	da3f3ad6-f582-4577-8e96-bfc7421f937e XML
Metadata language	English
Character set	UTF8
Hierarchy level	Dataset
Date stamp	2021-09-02T12:05:16.46Z
Metadata standard name	ISO 19115/19139
Metadata standard version	1.0

Metadata author

Organisation name	Individual name	Electronic mail address	Website	Role
European Environment Agency		sdi@eea.europa.eu		Point of contact

Overviews



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