EEA geospatial data catalogue

Current and projections of Fire Weather Index, 1981-2100, Mar. 2017

This dataset refers to the climate change assessment of the Fire Weather Index (FWI) aggregated component, computed daily from 1980 to 2100 for five models for two scenarios (2°C global warming and RCP8.5 high emissions scenario at the end of this century), see "Forest fire danger extremes in Europe under climate change", table 4 (https://doi.org/10.2760/13180).

The temporal extent covers these periods:

* Control period: 1981-2010;

* Two degrees global warming: 2016-2059 (variable depending on the specific run);

* Long-term: 2071-2100.

The main scope of the dataset covers Europe. A number of countries are partially covered: DZ, EG, EH, GE, GL, IQ, JO, KZ, LY, MA, ML, MR, SA, SJ, SY, TR, RU. Cells with missing data may be present in both totally and parially covered countries.

The dataset contributes to the EEA indicator CLIM035 "Forest fires in Europe" (https://www.eea.europa.eu/data-and-maps/indicators/forest-fire-danger-4/assessment)

Simple

Date (Creation)	2017-03-16
Date (Publication)	2017-03-16
Edition	1.0
Citation identifier	jrc_v_4258_100_k_fire-weather_i_1981-2100_v01_r00
Point of contact	**Organisation name** / **Individual name** / **Electronic mail address** / **Website** / **Role** European Environment Agency / / sdi@eea.europa.eu / http://www.eea.europa.eu / Point of contact European Environment Agency / / sdi@eea.europa.eu / / Custodian
Maintenance and update frequency	Unknown
GEMET - INSPIRE themes, version 1.0	• Natural risk zones
Keywords	
Keywords	
GEMET	• climate change adaptation • climate change impact • risk • climate • fire • disaster • forest fire
Continents, countries, sea regions of the world.	• Belarus

	• EEA38 (from 2020) • United Kingdom • Vatican • Andorra • Palestine • Gibraltar • Monaco • Lebanon • Isle of Man • San Marino • Jersey • Israel • Tunisia • Ukraine • Moldova • Faeroe Islands • Guernsey
Spatial scope	• European
EEA topics	• Climate adaptation
Access constraints	Other restrictions
Other constraints	public access limited according to Article 13(1)(a) of the INSPIRE Directive
Use constraints	Other restrictions
Other constraints	The underlying dataset is owned by the Joint Research Centre (JRC) and cannot be further re-distributed without their permission. Copyright holder: Joint Research Centre (JRC).
Spatial representation type	Grid
Distance	25 km
Language of dataset	English
Topic category	• Environment • Climatology, meteorology, atmosphere

72.64	N	21.96	S	65.07	E	-44.66	W

Begin date	1981-01-01
End date	2100-12-31
Coordinate reference system identifier	EPSG:4258
Distribution format	• SHP ( )

OnLine resource

No information provided.

Hierarchy level	Dataset

Conformance result

Date (Publication)	2010-12-08
Explanation	See the referenced specification

Statement	Data are derived from the EURO-CORDEX runs (http://www.euro-cordex.net). A summary table of all the EURO-CORDEX variables is accessible at: http://is-enes-data.github.io/CORDEX_variables_requirement_table.pdf . A bias correction procedure was applied to the EURO-CORDEX data, as described in https://doi.org/10.1029/2011jd015934 , https://doi.org/10.1029/2012jd017968 , https://doi.org/10.1002/2015jd024411. The processing from the bias-adjusted weather data to the fire danger estimates is described in https://doi.org/10.2760/13180 . Climate change assessment of the Fire Weather Index (FWI) aggregated component, computed daily from 1980 to 2100 for five models (see Table 4 of de Rigo et al., 2017 https://doi.org/10.2760/13180). The daily FWI is computed for each scenario realisation based on a corresponding model. The entire time series has been estimated (from the end of the control period, the scenario RCP8.5 has been used) and the 90 % quantile of each time period has been computed. The median of the five model ensemble is shown for each period. The maps are reprojected in EPSG:4258 (ETRS89 LAEA) while the original data are under a rotated-pole projection, as pecified in the EURO-CORDEX project ([1] https://www.euro-cordex.net ; see in particular e.g. [2] https://is-enes-data.github.io/cordex_archive_specifications.pdf and [3] http://www.cordex.org/images/pdf/cordex_regions.pdf). In the NetCDF format, the maps include the coordinates in EPSG:4326 (WGS84 lat-lon) The original grid cells follow the EURO-CORDEX rotated-pole projection (see above), with grid spacing of 0.11 degrees. Approximately, the spatial resolution of a cell is about 12 km. The temporal coverage is as follows: • Control period (per-Control): 1981-2010 • Two degrees global warming (per-2-0-deg): 2016-2059 (variable 30-year interval, depending on the specific model) • Long-term (per-Long-tm): 2071-2100 (under RCP8.5) As a statistic, the multi-model median of the model-specific q90 extremes is estimated.

The columns of the tabular dataset are as follows:

• LAEA-x, LAEA-y : point (centroid) coordinates in EPSG:3035

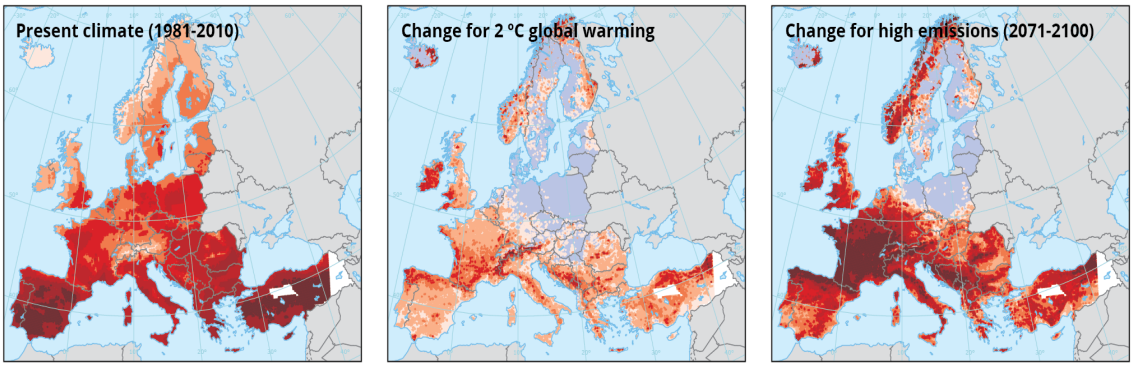
• longitude, latitude : point (centroid) coordinates in EPSG:4326

• FWI_per-Control, FWI_per-2-0-deg, FWI_per-Long-tm : FWI multi-model statistic for each time period.

Metadata

File identifier	d3c0553c-6a4b-49fe-b7ae-9dd58c1d5ea8 XML
Metadata language	English
Character set	UTF8
Hierarchy level	Dataset
Date stamp	2021-11-30T15:56:03.608Z
Metadata standard name	ISO 19115/19139
Metadata standard version	1.0
Metadata author	**Organisation name**: European Environment Agency; **Individual name**: ; **Electronic mail address**: sdi@eea.europa.eu; **Website**: ; **Role**: Point of contact

Overviews



Overall weather-driven forest fire danger in the present climate and projected changes under two climate change scenarios

Fire Weather Index

0-5 5-10 10-15 15-20 20-30 30-40 > 40

Projected change in Fire Weather Index

% < 0 0-5 5-10 10-15 15-20 20-30 30-40 > 40

No data

Outside coverage

0 750 1 500 km

Provided by

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