EEA geospatial data catalogue

Medium Resolution Vegetation Phenology and Productivity: Rate of decrease at the end of the season (raster 500m), Oct. 2022

The decrease rate, one of the Vegetation Phenology and Productivity (VPP) parameters, is a product of the pan-European Medium Resolution Vegetation Phenology and Productivity (MR-VPP) component of the Copernicus Land Monitoring Service (CLMS).

The decrease rate at the end of the season (decrease rate) expresses the rate of change in the values of the Plant Phenology Index (PPI) at the day when the vegetation growing season ends. It is calculated as the absolute value of the ratio of the difference between the right 20 % and 80% levels and the corresponding time difference.

The Plant Phenology Index (PPI) is a physically based vegetation index, developed for improving the monitoring of the vegetation growth cycle. The PPI index values, with 5-day satellite revisit cycle, are first used in a function fitting to derive the PPI Seasonal Trajectories. From these Seasonal Trajectories, a suite of 13 Vegetation Phenology and Productivity (VPP) parameters are then computed and provided, for up to two seasons each year. The decrease rate at the end of the season (decrease rate) is one of the 13 parameters. The full list is available in the Product User Manual: https://land.copernicus.eu/user-corner/technical-library/clms_mrvpp_pum_d1-0.pdf

The decrease rate at the end of the season (decrease rate) time series dataset is made available as raster files with 500x 500m resolution, in ETRS89-LAEA projection corresponding to the MCD43 tiling grid, for those tiles that cover the EEA38 countries and the United Kingdom and for two seasons in each year from 2000 onwards. It is updated in the first quarter of each year.

The full on-line access to open and free data for this resource will be made available in the second half of 2024. Until then the data will be made available 'on-demand' by filling in the form at: https://land.copernicus.eu/contact-form

Simple

Date (Creation)	2022-06-08
Date (Publication)	2022-10-10
Edition	01.00
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Point of contact	**Organisation name** / **Individual name** / **Electronic mail address** / **Website** / **Role** European Commission / / / https://commission.europa.eu / Owner Copernicus Land Monitoring Service / / copernicus@eea.europa.eu / https://land.copernicus.eu / Custodian European Environment Agency / / sdi@eea.europa.eu / http://www.eea.europa.eu / Publisher Copernicus Land Monitoring Service helpdesk / / copernicus@eea.europa.eu / https://land.copernicus.eu/en/contact-service-helpdesk / Point of contact
Maintenance and update frequency	Annually
GEMET - INSPIRE themes, version 1.0	• Habitats and biotopes • Environmental monitoring facilities • Orthoimagery
Keywords	
Continents, countries, sea regions of the world.	• EEA38 (from 2020) • United Kingdom

Keywords	
GEMET	• remote sensing • plant ecology • plant production • index • productivity • vegetation • land
Spatial scope	• European
Temporal resolution	• Annually
EEA topics	• Agriculture and food • Land use • Forests and forestry
Access constraints	Other restrictions
Other constraints	no limitations to public access
Use constraints	Other restrictions
Other constraints	The Copernicus component is governed by Regulation (EU) No 2021/696 of the European Parliament and of the Council of 28 April 2021 establishing the Union Space Programme and the European Union Agency for the Space Programme and repealing Regulations (EU) No 912/2010, (EU) No 1285/2013 and (EU) No 377/2014 and Decision No 541/2014/EU. Within the Copernicus component, a portfolio of land monitoring activities has been delegated by the European Union to the European Environment Agency (EEA) and the DG Joint Research Centre of the European Commission. The Copernicus land monitoring products and services are made available on a principle of full, open and free access, as established by the Commission Delegated Regulation (EU) No 1159/2013 of 12 July 2013. Free, full and open access to the products and services of the Copernicus Land Monitoring Service is made on the conditions that: 1. When distributing or communicating Copernicus Land Monitoring Service products and services (data, software scripts, web services, user and methodological documentation and similar) to the public, users shall inform the public of the source of these products and services. 2. Where the Copernicus Land Monitoring Service products and services have been adapted or modified by the user, the user shall clearly state this. 3. Users shall make sure not to convey the impression to the public that the user's activities are officially endorsed by the European Union.
Spatial representation type	Grid
Distance	500 m
Language of dataset	English
Character set	UTF8
Topic category	• Environment • Imagery base maps earth cover • Climatology, meteorology, atmosphere

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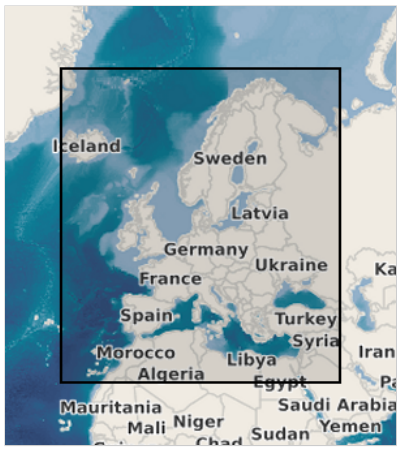

Begin date	2000-01-01
Coordinate reference system identifier	EPSG:3035
Distribution format	• GeoTIFF ( )
OnLine resource	**Protocol**: WWW:LINK-1.0-http--link **Linkage**: https://land.copernicus.eu/user-corner/technical-library/clms_mrvpp_pum_d1-0.pdf **Name**: User manual
Hierarchy level	Dataset

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	Vegetation Phenology and Productivity parameters (VPP) are based on Plant Phenology Index (PPI) seasonal trajectories and are yearly produced for two seasons using the Timesat software. One of the parameters is the decrease rate at the end of the season (decrease rate) expressing the rate of change in the values of the Plant Phenology Index (PPI) at the day when the vegetation growing season ends. It is calculated as the absolute value of the ratio of the difference between the right 20 % and 80% levels and the corresponding time difference.

Metadata

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Metadata author	Organisation name	Individual name	Electronic mail address	Website	Role
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Overviews