EEA geospatial data catalogue

Grassland Change 2021-2024 (raster 20m), Europe, 3-yearly, June. 2026

The High Resolution Layer Grassland Change (GRAC) 2021-2024 raster product at 20m resolution provides information on changes in grassland vegetation cover between the reference years 2021 and 2024. The thematic classes indicate all non-grassland areas, grassland gain and grassland loss, unchanged grassland in both years and unverified grassland gain and loss areas.

This dataset is provided in 20 meter rasters (fully conformant with the EEA reference grid) in 100 x 100 km tiles covering the EEA38 countries.

High Resolution Layer Grasslands product is part of the European Union's Copernicus Land Monitoring Service. Confidence layer available for the dataset.

This dataset includes data from the French Overseas Territories (DOMs)

Simple

Identification info

Date (Creation)	2026-06-01
Date (Publication)	2026-07-01
Edition	01.00
Citation identifier	copernicus_r_3035_20_m_grac-2021-2024_p_2021-2024_v01_r00

Identifier

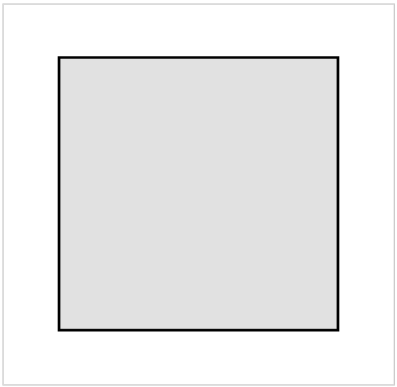
Code	10.2909/7eb70c85-b5b8-45f2-a260-6795b3ef32b9
Codespace	doi.org
Description	Digital Object Identifier (DOI)
Spatial representation type	Grid

Spatial resolution

Spatial resolution	20 m
Topic category	• Environment • Imagery base maps earth cover

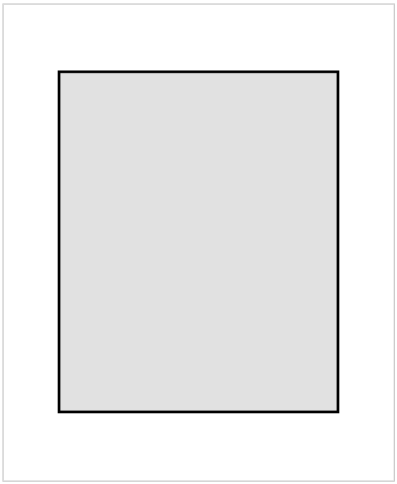
Extent

71.16	N	27.64	S	44.81	E	-31.28	W



Extent

5.77	N	2.11	S	-51.61	E	-54.62	W

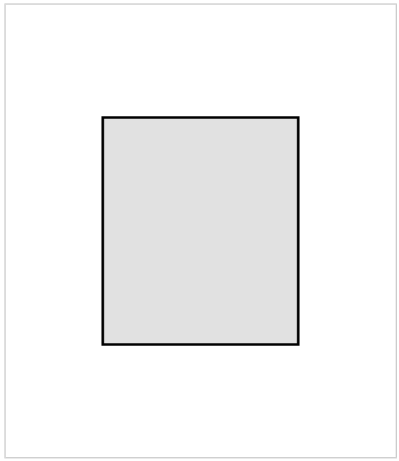


Extent

16.52	N	15.82	S	-60.99	E	-61.82	W

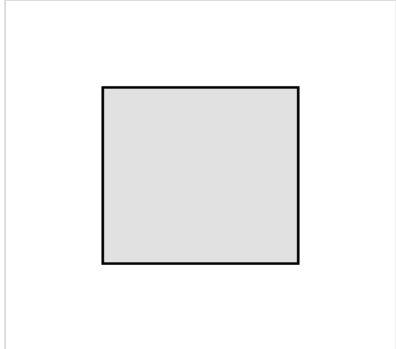
Extent

14.88	N	14.38	S	-60.79	E	-61.24	W



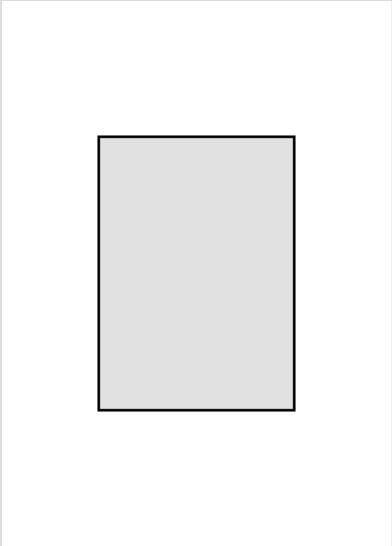
Extent

-20.87	N	-21.39	S	55.84	E	55.21	W



Extent

-12.58	N	-13.08	S	45.31	E	44.94	W



Extent

Temporal extent

Time period	2021-01-01 2024-12-31
Maintenance and update frequency	As needed
GEMET - INSPIRE themes, version 1.0	• Land cover • Land use
Continents, countries, sea regions of the world.	• EEA38 (from 2020)
GEMET	• land use
Spatial scope	• European
EEA topics	• Biodiversity: state of habitats and species • Land use • Agriculture and food system
EEA Management Plan	• 2024 6.5.24

Resource constraints

Access constraints	Other restrictions
Other constraints	no limitations to public access

Resource constraints

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.
Language	English
Character encoding	UTF8

Distribution Information

Distribution format	• GTiff
OnLine resource	Product Information & Technical Documentation
OnLine resource	CLMS Website Download (requires authentication)
OnLine resource	Digital Object Identifier (DOI)

Data quality info

Hierarchy level	Dataset

Report

Result

Date (Publication)	
Explanation	See the referenced specification

Resource lineage

Statement	The main part of the Grassland Change (GRAC) processing and time-series analysis is carried out in the processing of the herbaceous layer as this builds the fundament of any subsequently derived layer. For the change detection, it is specifically important to include a sophisticated time-series analysis into the herbaceous classification to prevent false class-flips between consecutive years and therefore to avoid artificial changes introduced by classification noise. This specific part is achieved by calculating the (fast) dynamic time warp (DTW) of the time-series of two subsequent years. The Plant Phenology Index from the High Resolution Vegetation Phenology and Productivity is used for this analysis. This dataset is a continuation of the HRL Grassland Change timeseries, generated on a 3-year update cycle since the 2018-2021 comparisson. The models and input data used to generate the product have evolved and therefore higher quality is to be expected as the timeseries progress. Quality assurance follows the ISO9000 standards for Quality Management and comprises of dedicated procedures of ongoing quality checks (QA breakpoints) during implementation of the production chain, in order to keep persistent control over the various stages of production, assure fitness-for-purpose of the end-products and that all quality requirements are fulfilled. Priority has been given to the target thematic accuracies to be achieved by each product, as well as to the issues of product consistency (spatial, thematic, temporal) and homogeneity. Quality Assessment: The quality assessment has been performed according to INSPIRE Data Specifications. The data quality elements considered are: (i) Completeness,

	(ii) Logical Consistency, (iii) Thematic Accuracy, (iv) Temporal quality and (v) Usability. Each of them (excl. the Thematic Accuracy hereafter) forms a section in the QA/QC Procedures.
Hierarchy level	Dataset

Reference System Information

Reference System Information

Code	EPSG:3035

Reference System Information

Reference System Information

Code	EPSG:32738

Reference System Information

Reference System Information

Code	EPSG:32740

Reference System Information

Reference System Information

Code	EPSG:32620

Reference System Information

Reference System Information

Code	EPSG:32622

Maintenance and update frequency	

Metadata

Metadata identifier	7eb70c85-b5b8-45f2-a260-6795b3ef32b9
Language	English
Character encoding	UTF8
Contact	**Organisation** / **Individual** / **Electronic mail address** / **Website** / **Role** European Environment Agency / / sdi@eea.europa.eu / / Point of contact

Type of resource

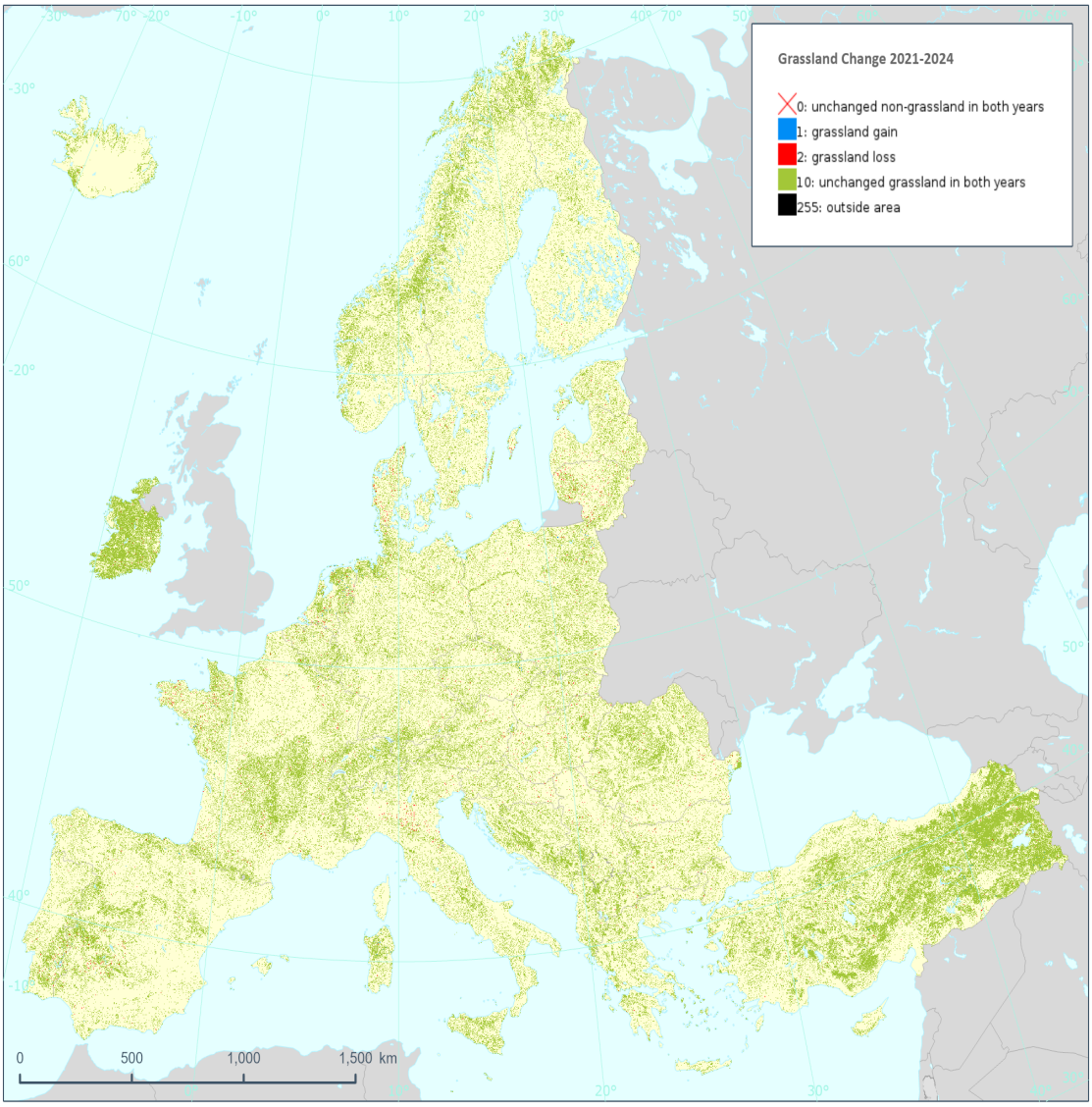
Resource type	Dataset
Metadata linkage	https://sdi.eea.europa.eu/catalogue/srv/api/records/7eb70c85-b5b8-45f2-a260-6795b3ef32b9?language=all
Date info (Creation)	2026-06-01T11:09:48.598604Z

Date info (Revision)	2026-10-05T13:40:09.700947Z

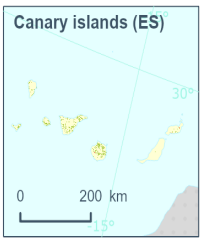
Metadata standard

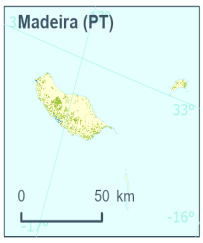
Title	ISO 19115/19139
Edition	1.0

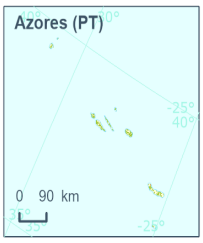
Overviews

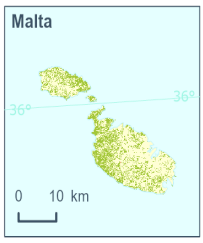


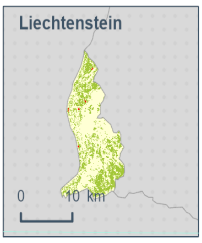
Reference data: © EuroGeographics, © FAO (UN), © TurkStat Source: European Commission – Eurostat/GISCO











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