



## CLCplus Backbone 2021 (raster 10 m), Europe, 3-yearly, Jun. 2024

This metadata refers to the 'Corine Land Cover plus Backbone' (CLCplus Backbone), a spatially detailed, large-scale, Earth Observation-based land cover inventory which is produced by the Copernicus Land Monitoring Service (CLMS). The CLCplus Backbone is a 10m pixel-based land cover map based on Sentinel satellite time series. Each pixel contains the dominant land cover among the 11 basic land cover classes. See pixel class codes in the additional information section.

The product has an update cycle of three years and starting from the 2018 reference year. The update cycle for future products (from 2021 reference year onwards) will be 2 years.

### Simple

Date (Creation)	2023-11-30
Date (Publication)	2024-06-21
Edition	01.00
Citation identifier	copernicus_r_3035_10_m_chaplus-backbone2020-2022_p_2021_v01_r00
Code	<a href="https://doi.org/10.2909/71fc9d1b-479f-4da1-aa66-662a2fff2cf7">10.2909/71fc9d1b-479f-4da1-aa66-662a2fff2cf7</a>

### Point of contact

No information provided.

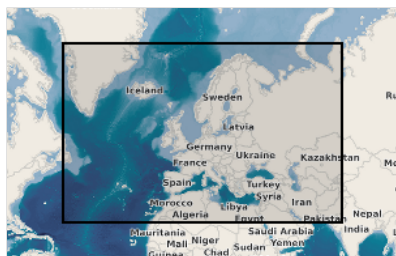
Maintenance and update frequency	As needed
GEMET - INSPIRE themes, version 1.0	<ul style="list-style-type: none"><li>Land cover</li></ul>
Keywords	
Continents, countries, sea regions of the world.	<ul style="list-style-type: none"><li>EEA38 (from 2020)</li></ul>
Keywords	
GEMET	<ul style="list-style-type: none"><li>land</li><li>land cover</li></ul>
Spatial scope	<ul style="list-style-type: none"><li><a href="#">European</a></li></ul>
EEA topics	<ul style="list-style-type: none"><li>Land use</li></ul>
Access constraints	Other restrictions
Other constraints	<a href="#">no limitations to public access</a>
Use constraints	Other restrictions
Other constraints	<p>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.</p> <p>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.</p>

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.

<b>Spatial representation type</b>	Grid
<b>Distance</b>	10 m
<b>Language of dataset</b>	English
<b>Character set</b>	UTF8
<b>Topic category</b>	<ul style="list-style-type: none"><li>• Environment</li><li>• Imagery base maps earth cover</li></ul>

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<b>Begin date</b>	2020-10-01		
<b>End date</b>	2022-03-31		
<b>Additional Information</b>	<p>Pixel class codes:</p> <p>1: Sealed</p> <p>2: Woody – needle leaved trees</p> <p>3: Woody – Broadleaved deciduous trees</p> <p>4: Woody – Broadleaved evergreen trees</p> <p>5: Low-growing woody plants (bushes, shrubs)</p> <p>6: Permanent herbaceous</p> <p>7: Periodically herbaceous</p> <p>8: Lichens and mosses</p> <p>9: Non- and sparsely-vegetated</p> <p>10: Water</p> <p>11: Snow and ice</p> <p>253: Coastal Seawater buffer</p> <p>254: Outside area</p> <p>255: No data</p>		
<b>Coordinate reference system identifier</b>	<a href="#">EPSG:3035</a>		
<b>Distribution format</b>	<ul style="list-style-type: none"> <li>GeoTIFF ( )</li> </ul>		
<b>OnLine resource</b>	<p><b>Protocol</b></p> <p>WWW:LINK-1.0-http--link</p> <p>OGC:WMS</p> <p>ESRI:REST</p> <p>WWW:LINK-1.0-http--link</p> <p>WWW:URL</p> <p>WWW:LINK-1.0-http--link</p>	<p><b>Linkage</b></p> <p><a href="https://land.copernicus.eu/en/products/clc-backbone">https://land.copernicus.eu/en/products/clc-backbone</a></p> <p><a href="https://copernicus.discomap.eea.europa.eu/arcgis/services/CLC_plus/CLMS_CLCplus_RASTER_2021_010m_eu/ImageServer/WMSServer?request=GetCapabilities&amp;service=WMS">https://copernicus.discomap.eea.europa.eu/arcgis/services/CLC_plus/CLMS_CLCplus_RASTER_2021_010m_eu/ImageServer/WMSServer?request=GetCapabilities&amp;service=WMS</a></p> <p><a href="https://copernicus.discomap.eea.europa.eu/arcgis/rest/services/CLC_plus/CLMS_CLCplus_RASTER_2021_010m_eu/ImageServer">https://copernicus.discomap.eea.europa.eu/arcgis/rest/services/CLC_plus/CLMS_CLCplus_RASTER_2021_010m_eu/ImageServer</a></p> <p><a href="https://land.copernicus.eu/en/products/clc-backbone/clc-backbone-2021">https://land.copernicus.eu/en/products/clc-backbone/clc-backbone-2021</a></p> <p><a href="https://land.copernicus.eu/en/products/clc-backbone/clc-backbone-2021#download">https://land.copernicus.eu/en/products/clc-backbone/clc-backbone-2021#download</a></p> <p><a href="https://land.copernicus.eu/en/technical-library/product-user-manual-clc-backbone-2021/@@download/file">https://land.copernicus.eu/en/technical-library/product-user-manual-clc-backbone-2021/@@download/file</a></p>	<p><b>Name</b></p> <p>CLCplus Backbone product description</p> <p>CLMS_CLCplus_RASTER_2021_010m_eu</p> <p>CLCplus Backbone - Copernicus Land Monitoring Service</p> <p>Download (requires authentication)</p> <p>Product user manual – CLCplus Backbone 2021</p>

OnLine resource	Protocol	Linkage	Name
	DOI	<a href="https://doi.org/10.2909/71fc9d1b-479f-4da1-aa66-662a2fff2cf7">https://doi.org/10.2909/71fc9d1b-479f-4da1-aa66-662a2fff2cf7</a>	
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	<p>CLCplus Backbone Raster Product is primarily based on a supervised classification of satellite image time-series.</p> <p>Input data:</p> <p>Copernicus Sentinel-2 L2A including all scenes with a cloud cover below 80% and acquired between October 2020 and March 2022.</p> <p>Training and test data:</p> <p>Based on the sample data base created for reference year 2018 which was compiled from various sources, such as adjusted and filtered Eurostat LUCAS 2018 data, stratified automated LC class annotations based on existing land use/land cover maps, visual sample point photo-interpretation from VHR imagery, NDVI time series and auxiliary datasets.</p> <p>Classification:</p> <p>A Temporal Convolutional Neural Network (TempCNN) with four hierarchical layers was calibrated on the collected training data and input time-series / features. Given the heterogeneity of the addressed European landscapes, all classifier training, testing and, finally, LC classification, was performed along substrata based on biogeographical regions and existing LC layers (i.e. 132 production units).</p> <p>Postprocessing:</p> <p>Steps applied comprise 1) bilateral filtering of the class probabilities, 2) blending of the probabilities along production unit borders and 3) an interannual calibration with the class probabilities from the 2018 production to ensure best possible product consistency, while still allowing for changes in the land cover.</p> <p>Changes to previous release (2018):</p> <ul style="list-style-type: none"><li>- Area of Interest: EEA38 (exclusion of UK territory)</li><li>- Implementation of a Coastal Seawater buffer (class code: 253)</li><li>- Input time-series reduced to reference year +/- three months</li><li>- Minor updates of production units</li></ul>
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Metadata

File identifier	71fc9d1b-479f-4da1-aa66-662a2fff2cf7 <a href="#">XML</a>
Metadata language	English
Character set	UTF8
Hierarchy level	Dataset
Date stamp	2024-12-12T10:07:23.512254Z
Metadata standard name	ISO 19115/19139
Metadata standard version	1.0
Metadata author	Electronic

Organisation name

Individual name

mail  
address

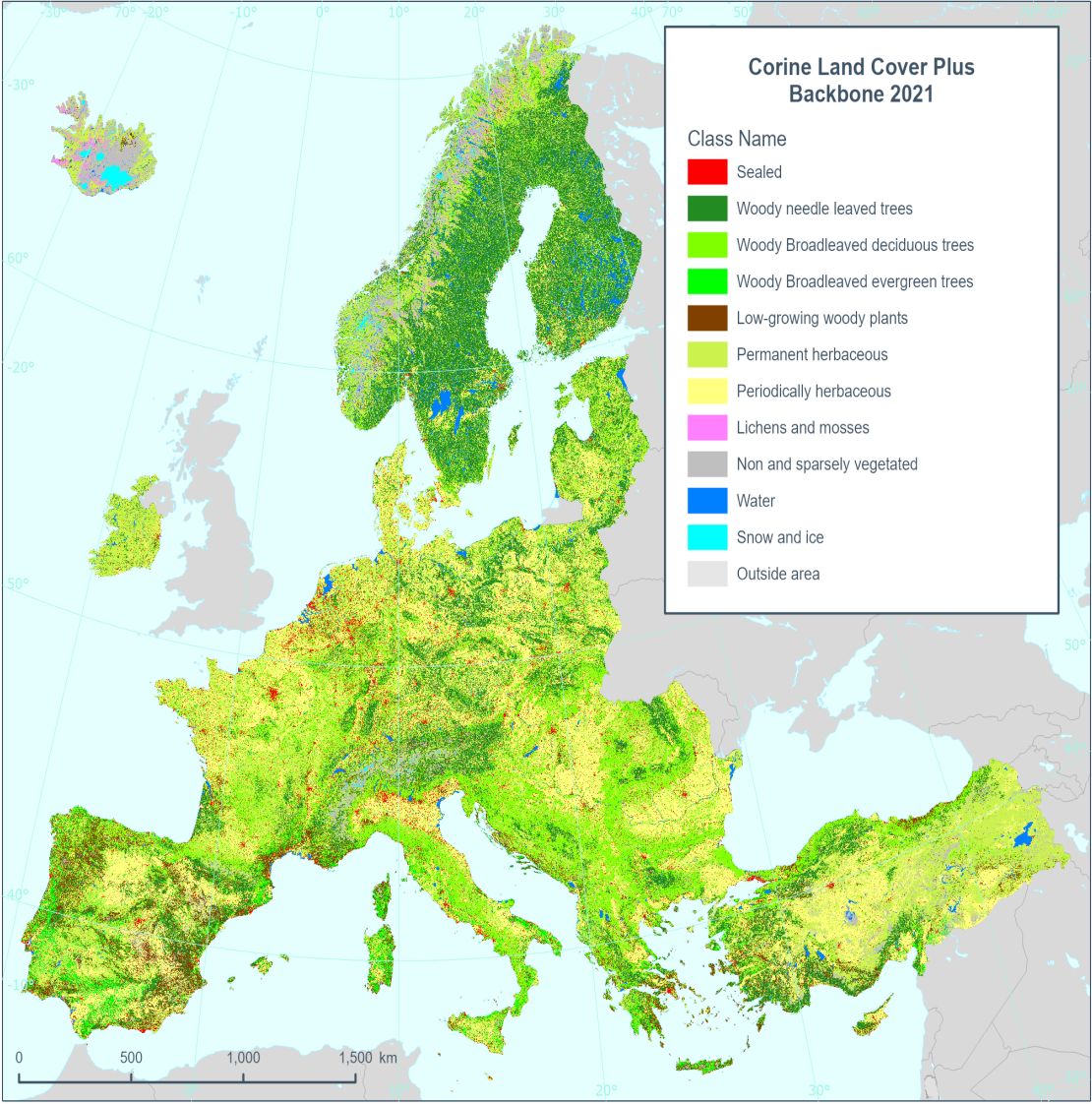
Website Role

European Environment Agency

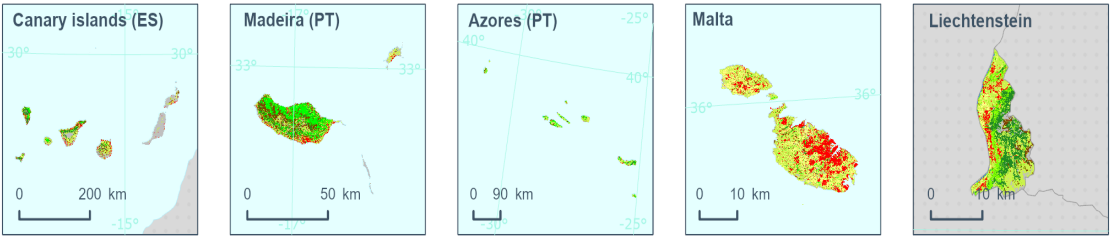
sdi@eea.  
europa.eu

Point  
of  
contact

Overviews



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



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