

## Tree Cover Density 2015 (raster 20 m), Europe, 3-yearly, Mar. 2018

The high resolution forest product consists of three types of (status) products and additional change products. The status products are available for the 2012, 2015 and 2018 reference years: 1. Tree cover density providing level of tree cover density in a range from 0-100%; 2. Dominant leaf type providing information on the dominant leaf type: broadleaved or coniferous; 3. A Forest type product. The forest type product allows to get as close as possible to the FAO forest definition. In its original (20m) resolution it consists of two products: 1) a dominant leaf type product that has a MMU of 0.5 ha, as well as a 10% tree cover density threshold applied, and 2) a support layer that maps, based on the dominant leaf type product, trees under agricultural use and in urban context (derived from CLC and high resolution imperviousness 2009 data). For the final 100m product trees under agricultural use and urban context from the support layer are removed. The high resolution forest change products comprise a simple tree cover density change product for 2012-2015 (% increase or decrease of real tree cover density changes).

The production of the high resolution forest layers was coordinated by the European Environment Agency (EEA) in the frame of the EU Copernicus programme.

### Simple

Date (Creation)	2018-03-22				
Date (Publication)	2018-03-22				
Edition	05.00				
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Citation identifier	DAT-189-en				
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Point of contact	Organisation name	Individual name	Electronic mail address	Website	Role
	European Environment Agency		copernicus@eea.europa.eu	<a href="https://land.copernicus.eu">https://land.copernicus.eu</a>	Distributor
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	European Environment Agency		copernicus@eea.europa.eu	<a href="https://land.copernicus.eu">https://land.copernicus.eu</a>	Point of contact

### Point of contact

No information provided.

<b>Maintenance and update frequency</b>	Continual
<b>GEMET - INSPIRE themes, version 1.0</b>	<ul style="list-style-type: none"> <li>Land cover</li> </ul>
<b>Keywords</b>	
<b>Continents, countries, sea regions of the world.</b>	<ul style="list-style-type: none"> <li>EEA39</li> </ul>
<b>Keywords</b>	
<b>GEMET</b>	<ul style="list-style-type: none"> <li>landscape alteration</li> <li>land cover</li> <li>forest management</li> <li>land use</li> </ul>
<b>Spatial scope</b>	<ul style="list-style-type: none"> <li><a href="#">European</a></li> </ul>

EEA Management Plan	<ul style="list-style-type: none"> <li>• 2018 3.6.1</li> </ul>
EEA topics	<ul style="list-style-type: none"> <li>• Biodiversity</li> <li>• Land use</li> <li>• Forests and forestry</li> </ul>
Access constraints	Other restrictions
Other constraints	<a href="#">no limitations to public access</a>
Use constraints	Other restrictions
Other constraints	<p>Access to data is based on a principle of full, open and free access as established by the Copernicus data and information policy Regulation (EU) No 1159/2013 of 12 July 2013. This regulation establishes registration and licensing conditions for GMES/Copernicus users.</p> <p>Free, full and open access to this data set is made on the conditions that:</p> <ol style="list-style-type: none"> <li>1. When distributing or communicating Copernicus dedicated data and Copernicus service information to the public, users shall inform the public of the source of that data and information.</li> <li>2. Users shall make sure not to convey the impression to the public that the user's activities are officially endorsed by the Union.</li> <li>3. Where that data or information has been adapted or modified, the user shall clearly state this.</li> <li>4. The data remain the sole property of the European Union. Any information and data produced in the framework of the action shall be the sole property of the European Union. Any communication and publication by the beneficiary shall acknowledge that the data were produced "with funding by the European Union".</li> </ol>
Aggregate Datasetidentifier	91687ef2-f907-4f84-81f7-c9c81980c306
Association Type	Cross reference
Spatial representation type	Grid
Distance	20 m
Language of dataset	English
Character set	UTF8
Topic category	<ul style="list-style-type: none"> <li>• Environment</li> <li>• Imagery base maps earth cover</li> </ul>
Begin date	2014-01-01
End date	2016-12-31

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Coordinate reference system identifier	<a href="#">EPSG:3035</a>		
Distribution format	<ul style="list-style-type: none"><li>• GeoTIFF ( 1.0 )</li></ul>		
OnLine resource	<b>Protocol</b>  ESRI:REST  OGC:WMS  WWW:LINK-1.0-http--link	<b>Linkage</b>  <a href="https://image.discomap.eea.europa.eu/arcgis/rest/services/GioLandPublic/HRL_TreeCoverDensity_2015/MapServer">https://image.discomap.eea.europa.eu/arcgis/rest/services/GioLandPublic/HRL_TreeCoverDensity_2015/MapServer</a> <a href="https://image.discomap.eea.europa.eu/arcgis/services/GioLandPublic/HRL_TreeCoverDensity_2015/MapServer/WMSServer?service=WMS&amp;request=GetCapabilities&amp;version=1.3.0">https://image.discomap.eea.europa.eu/arcgis/services/GioLandPublic/HRL_TreeCoverDensity_2015/MapServer/WMSServer?service=WMS&amp;request=GetCapabilities&amp;version=1.3.0</a> <a href="https://land.copernicus.eu/en/products/high-resolution-layer-tree-cover-density/tree-cover-density-2015#Download">https://land.copernicus.eu/en/products/high-resolution-layer-tree-cover-density/tree-cover-density-2015#Download</a>	<b>Name</b>          1    Download (requires authentication)
OnLine resource	<b>Protocol</b>  DOI	<b>Linkage</b>  <a href="https://doi.org/10.2909/8bfbda74-7b62-4659-96dd-86600ea425a2">https://doi.org/10.2909/8bfbda74-7b62-4659-96dd-86600ea425a2</a>	<b>Name</b>
Hierarchy level	Dataset		
Conformance result			
Date (Publication)	2010-12-08		
Explanation	See the referenced specification		

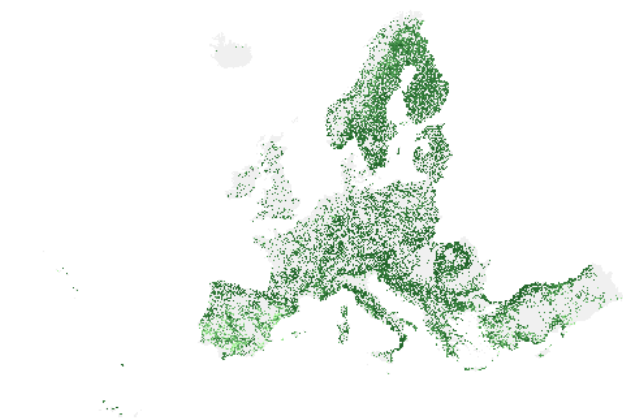
Statement	<p>Semi-automatic classification of pre-processed multitemporal High Resolution (HR) satellite image data (Sentinel-2, Landsat 8) with reference year 2015 (+/- 1 year), using supervised and unsupervised elements, leading to scene-based initial land cover classifications. Performing of a time series analysis to extract tree cover. Subsequently, interactive manual corrections of the derived tree cover mask have been performed and integrated to a seamless mosaic. Thereafter a monotemporal, regression-based thematic classification of Tree Cover Density values has been performed on HR_IMAGE_2015, Landsat 8 and Sentinel-2 data using the HRL Forest reference products for calibration and validation. Finally, TCD results have been mosaicked to an area wide pan-European TCD dataset, absolutely calibrated (if necessary) and intersected with the derived tree cover mask. Geometric accuracy (positioning scale): Less than one pixel according to ortho-rectified satellite image base delivered by ESA. Thematic accuracy: &gt;90% Overall Accuracy.</p> <p>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:</p> <p>(i) Completeness,</p> <p>(ii) Logical Consistency,</p>
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(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.

## Metadata

File identifier	8bfbd74-7b62-4659-96dd-86600ea425a2 <a href="#">XML</a>		
Metadata language	English		
Character set	UTF8		
Hierarchy level	Dataset		
Date stamp	2024-02-06T16:46:48.976Z		
Metadata standard name	ISO 19115/19139		
Metadata standard version	1.0		
Metadata author	Organisation name	Individual name	Electronic mail address Website Role Point of contact
	European Environment Agency		sdi@eea.europa.eu

## Overviews



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