

Tree Cover Change Mask 2015-2018 (raster 20 m), Europe, 3-yearly, Dec. 2020

The Copernicus High Resolution Forest Layer Tree Cover Change Mask (TCCM) 2015-2018 raster product provides information on the change between the reference years 2015 and 2018 and consists of 4 thematic classes (unchanged areas with no tree cover / new tree cover / loss of tree cover / unchanged areas with tree cover) at 20m spatial resolution and covers EEA38 area and the United Kingdom.

The production of the High Resolution Forest layers was coordinated by the European Environment Agency (EEA) in the frame of the EU Copernicus programme.

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.

Simple

Date (Creation)	2020-12-10				
Date (Publication)	2020-12-10				
Edition	01.00				
Citation identifier	copernicus_r_3035_20_m_tccm-2015-2018_p	_2014-2018_v01_r00			
Code	10.2909/9723d33f-ac36-49d0-b2c7-80710d377a7d				
Point of contact	Organisation name	Individual name	Electronic mail address	Website	Role
	European Environment Agency		copernicus@eea. europa.eu	https://land. copernicus. eu	
	European Environment Agency		copernicus@eea. europa.eu	https://land. copernicus. eu	
	European Environment Agency		copernicus@eea. europa.eu	https://land. copernicus. eu	
	I .				

Point of contact

No information provided.

Maintenance and update frequency	Continual
GEMET - INSPIRE themes, version 1.0	Land cover
Keywords	
Continents, countries, sea regions of the world.	EEA38 (from 2020) United Kingdom
Keywords	
GEMET	land cover landscape alteration forest management
	land use

Spatial scope	• European	
Access constraints	Other restrictions	
Other constraints	no limitations to public access	
Use constraints	Other restrictions	
Other constraints	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/Copernic users.	
	Free, full and open access to this data set is made on the conditions that:	
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Spatial representation type	Grid	
Distance	20 m	
Language of dataset	English	
Character set	UTF8	
Topic category	Environment Imagery base maps earth cover	
Begin date	2014-01-01	
End date	2018-10-31	





Coordinate reference system identifier	EPSG:3035		
Distribution format	• GeoTIFF (1.0)		
OnLine resource	Protocol	Linkage	Name
	ESRI:REST	https://image.discomap.eea.europa.eu/arcgis/rest/services //GioLandPublic/HRL_TreeCoverChangeMask_15_18 //ImageServer	
	OGC:WMS	https://image.discomap.eea.europa.eu/arcgis/services /GioLandPublic/HRL_TreeCoverChangeMask_15_18 //mageServer/WMSServer? request=GetCapabilities&service=WMS	
	WWW:LINK-1.0-httplink	https://land.copernicus.eu/en/products/high-resolution-layer-tree-cover-density/tree-cover-change-mask-2015-2018#Download	Download (requires authentication)
OnLine resource	Protocol	Linkage	Name
	DOI	https://doi.org/10.2909/9723d33f-ac36-49d0-b2c7- 80710d377a7d	
Hierarchy level	Dataset		
Conformance result	·		
Date (Publication)	2010-12-08		
Explanation	See the referenced specification		
Statement			

Statement

The Tree Cover Change Mask (TCCM) 2015-2018 is a change product based on the binary Tree Cover Masks (TCMs) of the primary status layers Dominant Leaf Type 2015 at 20m spatial resolution and Dominant Leaf Type 2018 at 10m spatial resolution. First, the 2018 product has been aggregated to 20m to enable a map-to-map comparison. The therof derived pixel-based change map is categorised into loss and gain strata and subsequently reclassified using the Reference Database for Change Calibration to improve the TCM 2018 and to detect omission and commission errors in the TCM 2015. Subsequently, a 1 pixel boundary filter has been applied in order to mitigate geometric imprecisions between the input layers 2015 and 2018, caused by the different satellite input data characteristics. Remaining change areas are filtered according to the specified Minimum Mapping Unit (MMU) of 1 ha. Finally, a manual enhancement has been performed within identified regional clusters of remaining issues, considering both: loss and gain of tree cover. The product covers the whole EEA39 area and is provided in European projection. National products might show a broken MMU due to reprojection.

Quality assurance follows the ISO 9001:2015 standards for Quality Management and comprises of dedicated procedures of 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 accuracy 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) positional accuracy, (iv) Thematic Accuracy, (v) Temporal quality and (vi) Usability.

Geometric accuracy (positioning scale): Less than one pixel (10m) according to ortho-rectified satellite image base (Sentinel-2 Level-2A) delivered by ESA.

Thematic target accuracy: 90% producer and user accuracy.

	areas with no tree cover: 98.45% producer accuracy 86.73% user accuracy; loss of tree cover: 65.08% pr 98.02% producer accuracy and 97.93% user accura	cy).	producer acc ged areas wi	curacy and ith tree cover:
Source	Tree Cover Density 2015 (raster 20 m), Europe, Tree Cover Density 2018 (raster 10 m), Europe,	The state of the s		
Metadata				
File identifier	9723d33f-ac36-49d0-b2c7-80710d377a7d XML			
Metadata language	English			
Character set	UTF8			
Hierarchy level	Dataset			
Date stamp	2023-08-15T14:36:04.433Z			
Metadata standard name	ISO 19115/19139			
Metadata standard version	1.0			
Metadata author	Organisation name	Individual name	Electronic mail address	Website Role

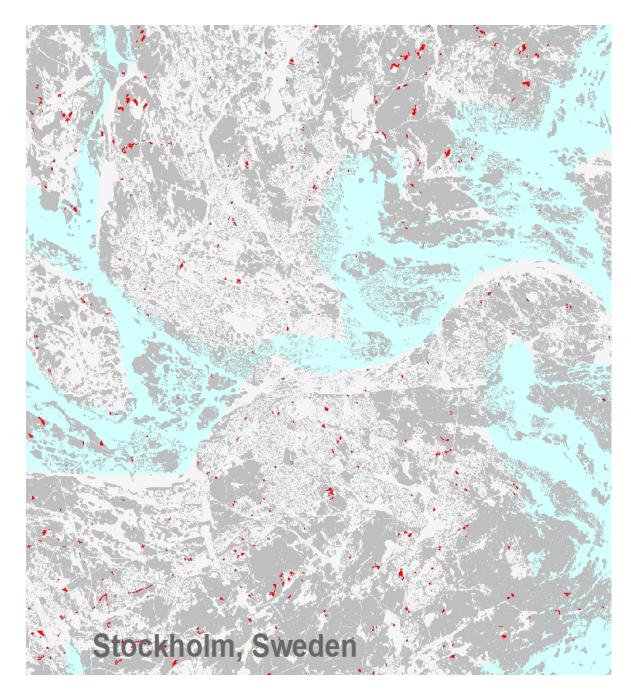
European Environment Agency

Point

contact

sdi@eea. europa.eu

Overviews



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