



Corine Land Cover 2018 (raster 100m) version 20 accounting layer, Jun. 2019

The present 100m raster dataset is the 2018 CLC status layer modified for the purpose of consistent statistical analysis in the land cover change accounting system at EEA.

CORINE Land Cover (CLC) data are produced from 1986 for European (EEA member or cooperating) countries. Altogether five mapping inventories were implemented in this period, producing five status layers (CLC1990, CLC2000, CLC2006, CLC2012, CLC2018) and four CLC-Change (CLCC) layers for the corresponding periods (1990-2000, 2000-2006, 2006-2012, 2012-2018). Pan-European CLC and CLCC data are available as vector and raster products.

Due to the technical characteristics of CLC and CLCC data, the evolution in CLC update methodology and in quality of input data, time-series statistics derived directly from historical CLC data includes several inconsistencies. In order to create a statistically solid basis for CLC-based time series analysis, a harmonization methodology was elaborated.

Simple

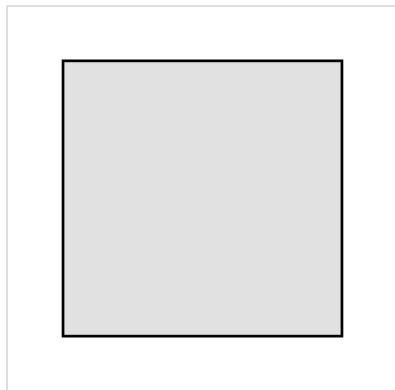
Identification info

Date (Creation)	2019-06-11															
Date (Publication)	2019-07-23															
Edition	01.00															
Citation identifier	eea_r_3035_100_m_clc-2018-acc_p_2017-2018_v01_r00															
Citation identifier	DAT-214-en															
Point of contact	<table border="1"><thead><tr><th>Organisation</th><th>Individual</th><th>Electronic mail address</th><th>Website</th><th>Role</th></tr></thead><tbody><tr><td>European Environment Agency</td><td></td><td>sdi@eea.europa.eu</td><td>http://www.eea.europa.eu</td><td>Custodian</td></tr><tr><td>European Environment Agency</td><td></td><td>sdi@eea.europa.eu</td><td>http://www.eea.europa.eu</td><td>Point of contact</td></tr></tbody></table>	Organisation	Individual	Electronic mail address	Website	Role	European Environment Agency		sdi@eea.europa.eu	http://www.eea.europa.eu	Custodian	European Environment Agency		sdi@eea.europa.eu	http://www.eea.europa.eu	Point of contact
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European Environment Agency		sdi@eea.europa.eu	http://www.eea.europa.eu	Point of contact												
Spatial representation type	Grid															

Spatial resolution

Spatial resolution	100 m
Topic category	<ul style="list-style-type: none">Imagery base maps earth coverEnvironment

Extent



Extent

Temporal extent

Time period	2017-01-01 2018-12-31
Maintenance and update frequency	As needed
GEMET - INSPIRE themes, version 1.0	<ul style="list-style-type: none"> • Land cover • Land use
GEMET	<ul style="list-style-type: none"> • accounting • land use • land cover
Continents, countries, sea regions of the world.	<ul style="list-style-type: none"> • EEA39
Spatial scope	<ul style="list-style-type: none"> • European
EEA Management Plan	<ul style="list-style-type: none"> • 2019 1.8.2
EEA topics	<ul style="list-style-type: none"> • Land use • Water

Resource constraints

Use constraints	Other restrictions
Other constraints	License CC-BY 4.0 (https://creativecommons.org/licenses/by/4.0/). Copyright holder: European Environment Agency (EEA).

Resource constraints

Access constraints	Other restrictions
Other constraints	no limitations to public access

Language	English
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Distribution Information

Distribution format	
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	<ul style="list-style-type: none"> • GeoTIFF
OnLine resource	https://sdi.eea.europa.eu/webdav/datastore/public/eea_r_3035_100_m_clc-2018-acc_p_2017-2018_v01_r00/
OnLine resource	Direct download
OnLine resource	https://land.discomap.eea.europa.eu/arcgis/rest/services/Land/CLC_accounting_layer_2018/ImageServer
OnLine resource	0 CLC_accounting_layer_2018
OnLine resource	Direct download

Data quality info

Hierarchy level	Dataset
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Report

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

Resource lineage

Statement	<p>The Corine Land Cover (CLC) is a European programme, coordinated by the European Environment Agency (EEA), providing consistent information on land cover and land cover changes across Europe. CLC products are based on (visual or semi-automated) interpretation of high-resolution multispectral satellite imagery by the national teams of the participating countries - the EEA member or cooperating countries. Besides the original and still dominating Computer Assisted Photo-Interpretation (CAPI) methodology, the number of countries applying more advanced (bottom-up) solutions is increasing.</p> <p>National teams provided vector CLC datasets within the CLC1990, CLC2000 CLC2006, CLC2012 and CLC2018 projects. All features in the vector databases are classified into the standardized hierarchical 3-level CLC nomenclature, which includes 44 classes optimized for pan-European mapping. CLC status layers are characterized with 25 ha Minimum Mapping Unit (MMU) and 100m Minimum Mapping Width (MMW), while the applied MMU for CLC change layers is 5 ha. CLC change polygons are created directly, based on visual comparison and interpretation of satellite images from the two corresponding dates. Update of CLC status layers is done by adding CLC-Change layer to the previous CLC status layer. The resulting national land cover inventories are integrated into a seamless land cover map of Europe. As a next step, all seamless vector layers are rasterized to the 100m resolution grid with the CELL_CENTER method.</p> <p>The creation of the CLC accounting layers:</p> <p>The solution applied for the harmonization of CLC time-series is based on the idea to combine CLC status and change information in order to create a homogenous quality time series of CLC / CLC-Change layers for land cover accounting purposes fulfilling the relation: CLC-Change = Accounting CLC_ new status – Accounting CLC old status. As a consequence of this criteria, CLC changes for longer period (e.g. 2000-2018) may be derived from the differences of the corresponding CLC accounting status layers accordingly.</p> <p>The CLC accounting methodology is characterized by two major steps:</p> <p>I. Add more detail to the latest CLC status layer (CLC2018) from previous CLCC information and use this modified layer (CLC2018 accounting layer) as a reference,</p> <p>II. Create previous CLC (accounting) status layers by "backdating" of the reference, realized by subtracting CLCC-based information from CLC2018 accounting layer.</p> <p>Based on the above principles, the working steps of the creation of CLC accounting layers are as follows:</p> <p>(1) Include formation information from the CLC-Change layers into the CLC2018 status layer, thereby creating the CLC2018 accounting layer, as follows:</p> <p>(1a) Overwrite CLC2018 with formation code from CLC-Change 2000-2006. Intermediate result: A1_CLC2018,</p>
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- (1b) Overwrite A1_CLC2018 with formation code from CLC-Change 2006-2012. Intermediate result: A2_CLC2018
- (1c) Overwrite A2_CLC2018 with formation code from CLC-Change 2012-2018. Result: Final accounting layer for the reference year 2018 (the present layer).
- (2) Create CLC2012 accounting layer by including consumption information into CLC2018ACC_V2018_20.tif from CLC-Change 2012-2018. Result: Final accounting layer for the reference year 2012.
- (3) Create CLC2006 accounting layer by including consumption information into CLC2012ACC_V2018_20.tif from CLC-Change 2006-2012. Result: Final accounting layer for the reference year 2006.
- (4) Create CLC2000 accounting layer by including consumption information into CLC2006ACC_V2018_20.tif from CLC-Change 2000-2006. Result: Final accounting layer for the reference year 2000.

The harmonization was carried out on the version V2018_20 of Corine Land Cover European database (RELEASE V2018_20; dated 06/2019).

Notes

The simple solution applied for the combination of CLC and CLCC layers causes some known issues, such as:

- (1) Modified CLC layers lose statistical comparability with original CLC layers, because of increased geometry - smaller than 25ha MMU features will appear locally where changes appear.
- (2) "Fake features" may appear in the backdated CLC status layers due to inconsistencies between CLC-Change datasets and due to omitted (not interpreted) changes

In the frame of ETC-ULS activity a raster generalization methodology was developed to eliminate fake features and attenuate effects of mixed MMU (https://forum.eionet.europa.eu/etc-urban-land-and-soil-systems/library/5-copernicus-rfs16_006-sc-56586/7-task-7-clc-adjusted-layers-clc-cube-be-revised). This methodology has not been approved yet, so not applied to actual CLC accounting layers.

Hierarchy level	Dataset
Source	<ul style="list-style-type: none"> • Corine Land Cover 2018 (raster 100m) - version 20, Jun. 2019 • Corine Land Cover 2000 - 2006 changes (raster 100m) - version 20, Jun. 2019 • Corine Land Cover 2006 - 2012 changes (raster 100m) - version 20, Jun. 2019 • Corine Land Cover 2012 - 2018 changes (raster 100m) - version 20, Jun. 2019

Reference System Information

Reference System Information

Code	EPSG:3035
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Metadata

Metadata identifier	5a5f43ca-1447-4ed0-b0a6-4bd2e17e4f4d		
Language	English		
Character encoding	UTF8		
Contact	Organisation	Individual	Electronic mail address sdi@eea.europa.eu
	European Environment Agency		Point of contact

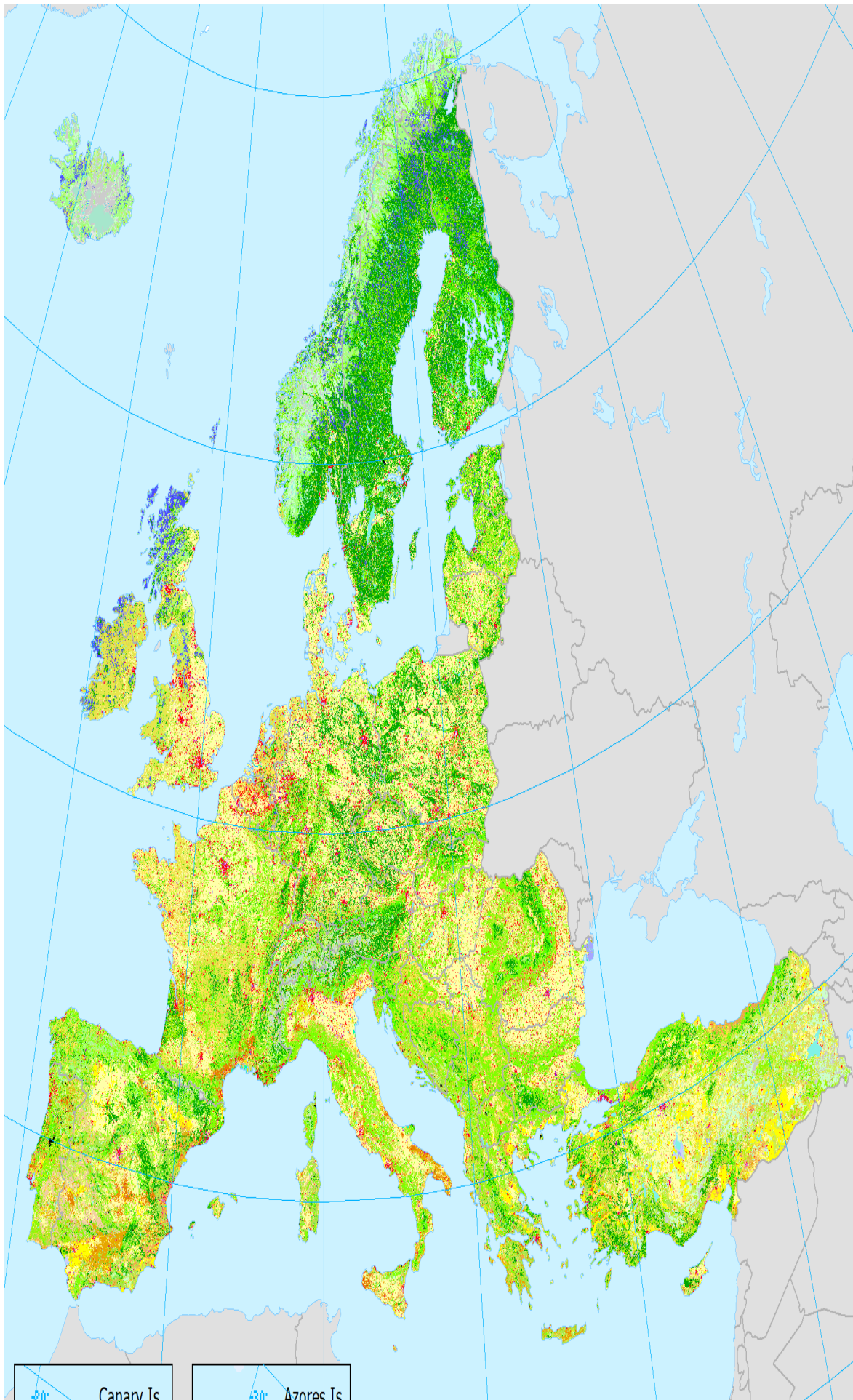
Type of resource

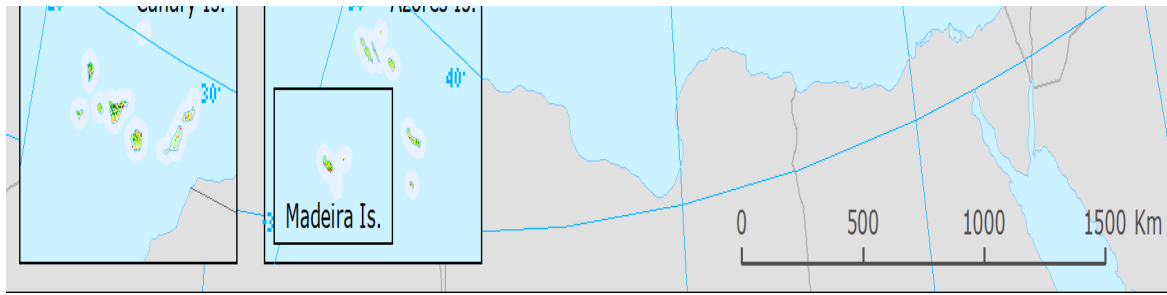
Resource type	Dataset
Metadata linkage	https://sdi.eea.europa.eu/catalogue/srv/api/records/5a5f43ca-1447-4ed0-b0a6-4bd2e17e4f4d
Date info (Creation)	2019-07-19T09:35:12Z
Date info (Revision)	2025-10-09T10:52:10.462504Z

Metadata standard

Title	ISO 19115/19139
Edition	1.0

Overviews





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