

High Resolution Layer: Imperviousness Density 2015 (raster 100m) accounting layer, Jan. 2019

The current resource was derived from original Copernicus High Resolution Layer Imperviousness Density 2015 product for the purposes of imperviousness indicator (LSI002) calculations within the EEA LEAC CUBE environment. The dataset is also input to the imperviousness indicator itself.

The high resolution imperviousness products capture the percentage and change of soil sealing. Built-up areas are characterized by the substitution of the original (semi-) natural land cover or water surface with an artificial, often impervious cover. These artificial surfaces are usually maintained over long periods of time. A series of high resolution imperviousness datasets (for the 2006, 2009, 2012 and 2015 reference years) with all artificially sealed areas was produced using automatic derivation based on calibrated Normalized Difference Vegetation Index (NDVI).

This series of imperviousness layers constitutes the main status layers. They are per-pixel estimates of impermeable cover of soil (soil sealing) and are mapped as the degree of imperviousness (0-100%). Imperviousness change layers were produced as a difference between the reference years (2006-2009, 2009-2012, 2012-2015 and additionally 2006-2012, to fully match the CORINE Land Cover production cycle) and are presented 1) as degree of imperviousness change (100% - +100%), in 20m and 100m pixel size, and 2) a classified (categorical) 20m change product.

The latest version (published: 15/01/2019) of 100m resolution imperviousness status layers represents a time series consistent with 100m resolution imperviousness change layers - the cell by cell difference of the degree of imperviousness status corresponds to the degree of imperviousness change.

The production of the High Resolution Imperviousness products was coordinated by the European Environment Agency in the frame of the EU Copernicus programme.

Simple

Date (Creation)	2019-01-28
Date (Publication)	2019-01-28
Edition	01.03
Citation identifier	eea_r_3035_100_m_imd-2015-acc_p_2014-2016_v01_r03

Point of contact

No information provided.

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No information provided.

Maintenance and update frequency	As needed
EEA topics	<ul style="list-style-type: none"> • Soil • Land use

GEMET - INSPIRE themes, version 1.0	<ul style="list-style-type: none"> • Land cover
Keywords	
Keywords	
GEMET	<ul style="list-style-type: none"> • urban sprawl • land use • environmental accounting • built-up area • soil surface sealing • soil degradation • sealing
Continents, countries, sea regions of the world.	<ul style="list-style-type: none"> • EEA39
Spatial scope	<ul style="list-style-type: none"> • European
Access constraints	Other restrictions
Other constraints	no limitations to public access
Use constraints	Other restrictions
Other constraints	EEA standard re-use policy: unless otherwise indicated, re-use of content on the EEA website for commercial or non-commercial purposes is permitted free of charge, provided that the source is acknowledged (http://www.eea.europa.eu/legal/copyright). Copyright holder: European Environment Agency (EEA).
Aggregate Datasetidentifier	cf18a3c3-6544-47a4-aa49-596a079b0a35
Association Type	Cross reference
Aggregate Datasetidentifier	5daaa945-d1d9-4603-b0e1-7e7ca4a5239d
Association Type	Cross reference
Aggregate Datasetidentifier	8fe3f1dc-80d8-4d2f-b35e-7f26485a65e4
Association Type	Cross reference
Spatial representation type	Grid
Distance	100 m
Language of dataset	English
Topic category	<ul style="list-style-type: none"> • Environment • Imagery base maps earth cover

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Begin date	2014-03-01
End date	2016-12-01
CRS identifier	EPSG:3035
Distribution format	<ul style="list-style-type: none"> • GeoTIFF ()

OnLine resource

No information provided.

Hierarchy level	Dataset
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Conformance result

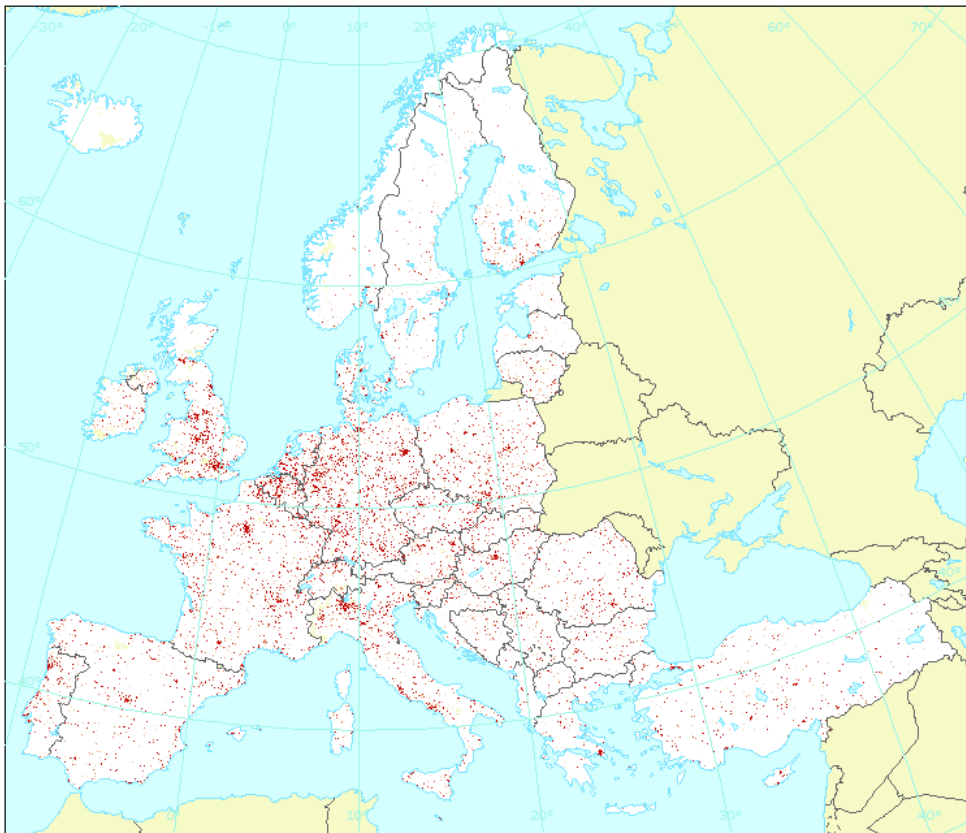
Date (Publication)	2010-12-08
Explanation	See the referenced specification

Statement	<p>The imperviousness HRL captures the spatial distribution of artificially sealed areas, including the level of sealing of the soil per area unit. The separation of artificially sealed areas from non-sealed represents a kind of stratification and is based on a list of included / excluded elements. The level of sealed soil (imperviousness degree 1-100%) is produced using a semi-automated classification, based on calibrated NDVI. Find more detail in the technical document.</p> <p>https://land.copernicus.eu/user-corner/technical-library/hrl-imperviousness-technical-document-prod-2015</p> <p>The latest version of imperviousness products (published: 15/01/2019) were significantly improved compared to the previous versions - see details at</p> <p>https://land.copernicus.eu/pan-european/high-resolution-layers/imperviousness</p> <p>The current resource was derived for the purposes of imperviousness indicator calculations within CUBE environment. The original 100m resolution imperviousness status product was modified:</p> <ul style="list-style-type: none"> - All cells in status layers were excluded (set to "No data") if 254 (unclassifiable) or 255 (out of area) values appeared in any of the status layers of the time series (2006, 2009, 2012, 2015) at the same cell location. - Original imperviousness degree values (0-100%), were modified to values representing sealed area in sqm within the 1ha cells (0-10.000 m2). <p>Detailed information about the LSI002 indicator can be found in the interactive data viewer "Imperviousness in Europe" on https://www.eea.europa.eu/data-and-maps/dashboards/imperviousness-in-europe. The report available on https://forum.eionet.europa.eu/etc-urban-land-and-soil-systems/library/10.-ap-2018/1.8.2.7-support-time-series-update-imperviousness-indicator-lsi002 (Eionet account required) provides a summary of the update and publication of the imperviousness indicator, changes on the 2006-2015 time series, as well as the quality assessment and testing of the robustness of the indicator.</p>
Source	<ul style="list-style-type: none"> • Imperviousness Density 2015 (raster 100 m), Europe, 3-yearly, Marc, 2018

Metadata

File identifier	d9430fe2-70c5-451b-8972-6746b178ccab XML		
Metadata language	English		
Character set	UTF8		
Hierarchy level	Dataset		
Date stamp	2021-04-27T11:33:59.12Z		
Metadata standard name	ISO 19115/19139		
Metadata standard version	1.0		
Metadata author	Organisation name	Individual name	Electronic mail address Role
	European Environment Agency		sdi@eea.europa.eu Point of contact

Overviews



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