EEA geospatial data catalogue

Reference Land Cover Change in Garamba-Lantoto-Bili-Uere-Chinko-Southern 2015-2019 (vector) - version 1, Dec. 2020

This metadata refers to the Land Cover Change vector data generated over Garamba-Lantoto-Bili-Uere-Chinko-Southern (Africa) in the framework of the Copernicus Global Land Hot Spot Mapping (C-GL-HSM) contract under the coordination of JRC. This area of interest is either mapped with the generic 8 classes dichotomus legend (CAF_05_lcc_a) or the detailed modular legend (CAF_05_lcc_b).

The mapped area of interest (AOI) represents a large Key Landscape for Conservation area (KLC). This transboundary KLC has a total size of slightly over 29,533,900 million ha (295,339 km²) and is situated between the borders of the Democratic Republic of Congo (DRC), South Sudan and the Central African Republic (CAR).

Reference time: 2015 - 2019

Simple

Date (Creation)	2020-12-11
Date (Publication)	2020-12-11
Date (Revision)	2020-12-11
Edition	01.00
Citation identifier	jrc_v_4326_30_m_c-gl-hsm-c-africa-sudan_p_2015-2019_v01_r00

Point of contact

No information provided.

Point of contact

No information provided.

Point of contact

No information provided.

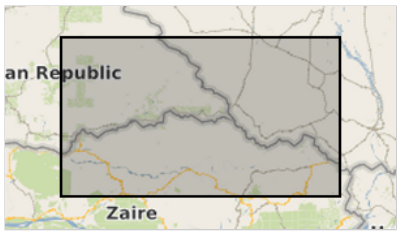
Point of contact

No information provided.

Maintenance and update frequency	Not planned
GEMET - INSPIRE themes, version 1.0	• Land cover • Human health and safety
Keywords	
Continents, countries, sea regions of the world.	• Africa • South Sudan • Democratic Republic of the Congo • Central African Republic
Keywords	
GEMET	• land cover • landscape

	• land • land use • landscape alteration
Spatial scope	• Regional
EEA topics	• Environmental health impacts • Land use
Temporal resolution	• Not planned
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/Copernicus users. Free, full and open access to this data set is made on the conditions that: 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. 2. Users shall make sure not to convey the impression to the public that the user's activities are officially endorsed by the Union. 3. Where that data or information has been adapted or modified, the user shall clearly state this. 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”.
Spatial representation type	Vector
Distance	30 30 m
Denominator	30000
Language of dataset	English
Character set	UTF8
Topic category	• Geoscientific information • Environment • Imagery base maps earth cover

7.54	N	2.83	S	30.58	E	22.29	W



Begin date	2015-01-01
End date	2019-12-31
Additional Information	The Key Landscape for Conservation (KLC) includes several areas under protection including: Garamba National Park in DRC in the Northeast of the country, bordering South Sudan. The National Park with a size of approximately 5,000 km² represents a UNESCO world heritage site. It is home to the four largest land mammals in the world, the elephant, the white rhinoceros, the giraffe, and the hippopotamus. The landscape is characterised by immense savannahs, grasslands, and woodlands, interspersed with gallery forests along the riverbanks and the swampy depressions. The park is often referred to as ground zero in the elephant poaching wars in Africa. Once home to 22,000 elephants, militarised poachers reduced the population to fewer than 1,200 (https://www.africanparks.org/the-parks/garamba). However, thanks to an extensive law enforcement strategy, elephant poaching has dropped by 90% in recent years. The park continues into the Lantoto National Park in South Sudan, which extends for an area of about 760 km². The southern national park, South Sudan's largest protected area was established in 1939 and has a size of about 23,000 km². No recent information is available on this park. The Zemongo Faunal Reserve in CAR was established in 1925 and has a size of about 13,675 km². The reserve contains dense savannah woodland and gallery forests and supports eastern chimpanzees and other primate species. The reserve formerly held a large elephant population and a diverse antelope community. The Bangassou Forest Reserve, an area of 12,001.96 km², is classified under the current CAR forest code (code forestier de la Republique Centrafricaine) as a permanent forest. The forest code recognizes customary rights to forest resources, granting local communities use-rights to forest land and forest products. The CAR has signed the Yaounde declaration of 1999 and is hence part of the Central African forests commission (COMIFAC), the governance body for the Congo basin forests (https://land-links.org/country-profile/central-african-republic/#1529085957870-1867d850-edb6). The Chinko Nature Reserve (Chinko) covers an area of almost 20,000 km² and is somehow located between the Zemongo and Bangassou areas. It is one of the last remaining strongholds for elephants in CAR. It is however not (yet) listed within the world database on protected areas (WDPA, UNEP-WCM). Chinko is rich in biodiversity and characterised by a mosaic of sparsely inhabited medio-Sudanian and Sudano-Guinean savannah with some patches of Congolian lowland rainforest. The area is home to large antelopes such as the giant eland and the bongo, more than 10 species of primates, both forest and savannah elephants, 23 even-toed ungulates, four ant-eating mammals and 21 carnivores including the African wild dog, lion and nine species of mongoose. In addition, it is an important site for birds. However up to the recent past Chinko has suffered from massive increases in poaching pressure on elephants and other species. Armed poachers and rebel groups take advantage of the instability generated by conflict and the lack of strong government presence in the area (https://www.africanparks.org/the-parks/chinko). The World Database on Protected Areas (WDPA 2019) has been used in the Copernicus Global Land Hot Spot mapping (C-GL-HSM) contract under the coordination of JRC to obtain statistics on land cover changes inside and outside the protected areas. To see how much of the Key Landscapes for Conservation area is a Protected Area, consult the WMS service found at the Service section of this metadata.
Coordinate reference system identifier	EPSG:4326
Distribution format	• SHP (1.0)

OnLine resource

Protocol	Linkage	Name
WWW:URL	https://land.copernicus.eu/en/products/lclcc-hot-spots/land_cover_change#download	Garamba-Lantoto-Bili-Uere-Chinko-Southern - Dichotomous and Modular Reference Land Cover Change

WWW:LINK-1.0-http--link	https://hsm.land.copernicus.eu/	HotSpot Land Cover Change Explorer
OGC:WMS	https://geospatial.jrc.ec.europa.eu/geoserver/hotspots/wms	all_lcc_a_pol
OGC:WMS	https://geospatial.jrc.ec.europa.eu/geoserver/hotspots/wms	all_lcc_b_pol
WWW:DOWNLOAD-1.0-http--download	https://land.copernicus.eu/en/technical-library/garamba-bili-uere-chinko-southern-klc-area-report-file-2000-2015/@@download/file	Report file for download
OGC:WMS	https://geospatial.jrc.ec.europa.eu/geoserver/hotspots/wms	protected_areas

OnLine resource

No information provided.

Hierarchy level	Dataset

Conformance result

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

Statement

e-GEOS Production Site produced this product by satellite analyses in the context of the Copernicus Global land Hot Spot Mapping (C-GL-HSM) framework.

Data and products are based on medium to high and very high resolution satellite images (from approximately 1 to 30m spatial resolution) with a change assessment frequency between 1 to 20 years. The Image data sources used for mapping are Landsat 7 and 8. The validation process made use of Spot-6 and Sentinel-2 images as reference data. Images temporal range: 2015-2019. It is the time frame that has been accepted to collect the satellite images useful to produces the vector data. The Reference year is included in this time frame and correspond to mean year considering all the image's year used. It is the year on which the majority of the used images are.

The classification scheme follows the Land Cover Classification System (LCCS) developed by the United Nations Food and Agriculture Organization (FAO).

Since LCCS is a hierarchical system, the modular legend can be aggregated to the dichotomus legend.

The FAO LCCS handbook which describes each class in detail, can be downloaded here: http://www.fao.org/3/a-i5232e.pdf

This LCCS Land Cover map includes the following land cover classes (associated raster code in [ ]):

A11 - Cultivated and Managed Terrestrial Area(s) [3]

A12 - Natural And Semi-Natural Primarily Terrestrial Vegetation [4]

A23 - Cultivated Aquatic or Regularly Flooded Area(s) [6]

A24 - Natural And Semi-Natural Aquatic or Regularly Flooded Vegetation [7]

B15 - Artificial Surfaces and Associated Area(s) [0]

B16 - Bare Area(s) [11]

B27 - Artificial Waterbodies, Snow and Ice [13]

B28 - Natural Waterbodies, Snow and Ice [14]

The produced and independently validated Land Cover and Land Cover Change maps and statistics are available to global users.

The report file can be downloaded from the link section.

Basic image processing: Cloud/Shadow masking, Data Selction (based on occlusion and sesonality considerations), Atmospheric correction (TOA) of satellite data, Coregistration.

	Automatic classification: Feature extraction from Dense Multitemporal Time Series (D MTS), statistics generation, automatic classificaiton (ROI based or decision tree) and labeling according to the required output LCCS legend schema. Visual inspection and refiment: check and refinement of the LCCS product generated through the automatic procedure in order to corrected classification errors and to refine borders where necessary. Internal validation: independent validation of the LCCS product based on external reference data (where available) and on other datasets for intercomparison. The scope of the internal validation is to make a qualitative and quantitavie check of the declared Thematic and Positional accuracies.

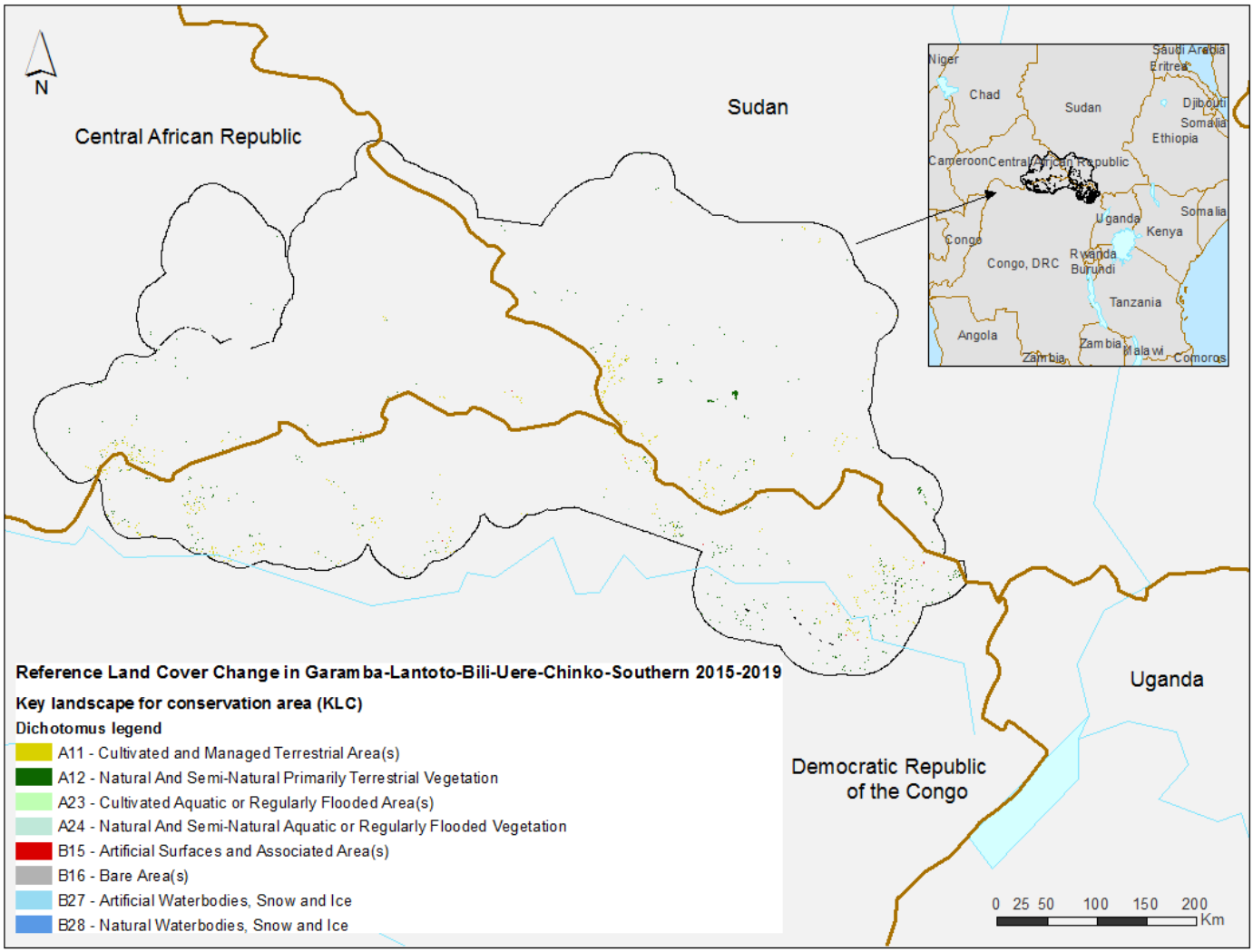
Metadata

File identifier	ada873c6-5023-410b-a3c9-a28fa2e19a79 XML
Metadata language	English
Character set	UTF8
Hierarchy level	Dataset
Date stamp	2024-07-22T09:23:18.676245Z
Metadata standard name	ISO 19115/19139
Metadata standard version	1.0

Metadata author

No information provided.

Overviews



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