

Data Set Number 174: Land use in 2004 obtained from segmentation of Spot 5 image

Identification_Information:

Citation:

Citation_Information:

Originator: Christophe Coq

Publication_Date: September 2005

Title: Land use cover in 2004 obtained from segmentation of Spot 5 image

Geospatial_Data_Presentation_Form: vector digital data

Online_Linkage: \\ENGE-FROUFROU\F\metadata_fakara\Data Set Land Use\Lu2004\Lu2004UCL.shp

Description:

Abstract: Land use vectorial information was obtained in 2004 from the segmentation and object-based classification of a pansharpened orthorectified Spot 5 image taken at the end of the rainy season (28 Sept 2004). The classification used the Land Cover Classification System (LCCS) developed by FAO

Purpose: Production of continuous coverage for multitemporal overlaying of historical (1950, 1965, 1975) and recent (1994, 1995, 1996, 2002, 2004) land use cover

Time_Period_of_Content:

Time_Period_Information:

Single_Date/Time:

Calendar_Date: 20040928

Time_of_Day: 10:28:53

Currentness_Reference: ground condition

Status:

Progress: Complete

Maintenance_and_Update_Frequency: None planned

Keywords:

Theme:

Theme_Keyword_Thesaurus: none

Theme_Keyword: Land use

Theme_Keyword: Spot 5

Theme_Keyword: LCCS

Place:

Place_Keyword_Thesaurus: none

Place_Keyword: Fakara

Place_Keyword: Niger

Place_Keyword: West Africa

Temporal:

Temporal_Keyword_Thesaurus: none

Temporal_Keyword: 2004

Access_Constraints: Available on request

Use_Constraints: Cite when used

Point_of_Contact:

Contact_Information:

Contact_Organization_Primary:

Contact_Organization: Catholic University of Louvain

Contact_Person: BRUNO GERARD

Contact_Position: Visitor Scientist

Contact_Address:

Address_Type: mailing and physical

Address: Faculty of Biological, Agronomic and Environmental
Engineering

Catholic university of Louvain
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City: Louvain-la-Neuve

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Contact_Voice_Telephone: 32 (0) 10 47 92 57

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gerard@enge.ucl.ac.be

Data_Set_Credit: Christophe Coq, Pierre Defourny, Bruno Gerard (UCL,
ICRISAT)

Native_Data_Set_Environment: Microsoft Windows XP Version 5.1 (Build
2600) Service Pack 2; ESRI ArcCatalog 9.2.0.1324

Data_Quality_Information:

Positional_Accuracy:

Horizontal_Positional_Accuracy:

Horizontal_Positional_Accuracy_Report: Spot 5 was orthorectified
using GCP surveyed with a differential GPS and SRTM DEM giving on RMSE
< 5 m

Vertical_Positional_Accuracy:

Vertical_Positional_Accuracy_Report: not relevant

Lineage:

Source_Information:

Source_Citation:

Citation_Information:

Originator: Spot Image

Publication_Date: 20041029

Publication_Time: 09:33:31

Title: Panchromatic scene 5 062-323 04/09/28 10:28:53 1 A and
multispectral scene 062-323/0 04/09/28 10:28:55 1 J

Geospatial_Data_Presentation_Form: remote-sensing image

Online_Linkage: <http://www.spotimage.fr>

Type_of_Source_Media: CD-ROM

Source_Time_Period_of_Content:

Time_Period_Information:

Single_Date/Time:

Calendar_Date: 20040928

Time_of_Day: 10:33

Source_Currentness_Reference: ground condition

Process_Step:

Process_Description:

1) Orthorectification of pan and multispectral scenes using
SRTM MNT and GCP surveyed with differential GPS
2) Pansharpener data fusion to produce multispectral scene with
5 m ground resolution

3) Multiscale segmentation of the image

4) Object based classification using expert knowledge for
ground cover condition and using LCCS classification scheme

Process_Date: 2005

Spatial_Data_Organization_Information:

Direct_Spatial_Reference_Method: Vector

Point_and_Vector_Object_Information:

SDTS_Terms_Description:

SDTS_Point_and_Vector_Object_Type: G-polygon

Point_and_Vector_Object_Count: 117938

Spatial_Reference_Information:

Horizontal_Coordinate_System_Definition:

Planar:

Grid_Coordinate_System:

Grid_Coordinate_System_Name: Universal Transverse Mercator

Universal_Transverse_Mercator:

UTM_Zone_Number: 31

Transverse_Mercator:

Scale_Factor_at_Central_Meridian: 0.999600

Longitude_of_Central_Meridian: 3.000000

Latitude_of_Projection_Origin: 0.000000

False_Easting: 500000.000000

False_Northing: 0.000000

Planar_Coordinate_Information:

Planar_Coordinate_Encoding_Method: coordinate pair

Coordinate_Representation:

Abscissa_Resolution: 0.000000

Ordinate_Resolution: 0.000000

Planar_Distance_Units: meters

Geodetic_Model:

Horizontal_Datum_Name: D_WGS_1984

Ellipsoid_Name: WGS_1984

Semi-major_Axis: 6378137.000000

Denominator_of_Flattening_Ratio: 298.257224

Entity_and_Attribute_Information:

Detailed_Description:

Entity_Type:

Entity_Type_Label: Lu2004UCL

Entity_Type_Definition: Land Cover Classification System (LCCS)

Entity_Type_Definition_Source: FAO

Attribute:

Attribute_Label: FID

Attribute_Definition: Internal feature number.

Attribute_Definition_Source: ESRI

Attribute_Domain_Values:

Unrepresentable_Domain: Sequential unique whole numbers that are automatically generated.

Attribute:

Attribute_Label: Shape

Attribute_Definition: Feature geometry.

Attribute_Definition_Source: ESRI

Attribute_Domain_Values:

Unrepresentable_Domain: Coordinates defining the features.

Attribute:

Attribute_Label: ID

Attribute:

Attribute_Label: GRIDCODE

Attribute:

Attribute_Label: GRIDCODE_1

Attribute:

Attribute_Label: OCCUPATION

Attribute_Definition: Occupation

Attribute_Definition_Source: FAO LCCS

Attribute_Domain_Values:

Enumerated_Domain:

Enumerated_Domain_Value: Plateau ferreux/Croûte latéritique

Enumerated_Domain:
 Enumerated_Domain_Value: Croûte arbustive fermée (fourre) et fragmentée
 Enumerated_Domain:
 Enumerated_Domain_Value: Végétation herbacée ouverte ((70%-60%)-40%)
 Enumerated_Domain:
 Enumerated_Domain_Value: Sable délié et mouvant
 Enumerated_Domain:
 Enumerated_Domain_Value: Champ éparpillé et isolé de culture herbacée
 Enumerated_Domain:
 Enumerated_Domain_Value: Champ éparpillé en amas de culture herbacée
 Enumerated_Domain:
 Enumerated_Domain_Value: Champ continu de culture herbacée
 Enumerated_Domain:
 Enumerated_Domain_Value: Zone bâtie
 Enumerated_Domain:
 Enumerated_Domain_Value: Surface d'eau naturelle
 Enumerated_Domain:
 Enumerated_Domain_Value: Surface d'eau naturelle non permanente (en mouvement)
 Enumerated_Domain:
 Enumerated_Domain_Value: Pas de données
 Attribute:
 Attribute_Label: LANDCOVER
 Attribute_Definition: Land Cover
 Attribute_Definition_Source: FAO LCCS
 Attribute_Domain_Values:
 Enumerated_Domain:
 Enumerated_Domain_Value: Ironpan/Laterie crust
 Enumerated_Domain:
 Enumerated_Domain_Value: Fragmented (tripped) closed shrubland (thicket)
 Enumerated_Domain:
 Enumerated_Domain_Value: Herbaceous open (70%-60%)-40% vegetation
 Enumerated_Domain:
 Enumerated_Domain_Value: Loose and shifting sand
 Enumerated_Domain:
 Enumerated_Domain_Value: Scattered and isolated field of herbaceous crop
 Enumerated_Domain:
 Enumerated_Domain_Value: Scattered clusterd field of herbaceous crop
 Enumerated_Domain:
 Enumerated_Domain_Value: Conitnous herbaceous crop
 Enumerated_Domain:
 Enumerated_Domain_Value: Urban area
 Enumerated_Domain:
 Enumerated_Domain_Value: Natural waterbody
 Enumerated_Domain:
 Enumerated_Domain_Value: Non-perenial natural waterbody (flowing)
 Enumerated_Domain:
 Enumerated_Domain_Value: No data

Attribute:

Attribute_Label: UTIL
Attribute_Definition: Utilisation
Attribute_Definition_Source: FAO LCCS
Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value: Pâturage très extensif
Enumerated_Domain:
Enumerated_Domain_Value: Terre non cultivable
Enumerated_Domain:
Enumerated_Domain_Value: Jachère
Enumerated_Domain:
Enumerated_Domain_Value: Champ sur sol dégradé
Enumerated_Domain:
Enumerated_Domain_Value: Champ sur sol non fumé
Enumerated_Domain:
Enumerated_Domain_Value: Champ sur sol fumé
Enumerated_Domain:
Enumerated_Domain_Value: Zone bâtie
Enumerated_Domain:
Enumerated_Domain_Value: Surface d'eau naturelle
Enumerated_Domain:
Enumerated_Domain_Value: Surface d'eau naturelle non permanente (en mouvement)
Enumerated_Domain:
Enumerated_Domain_Value: Pas de données

Attribute:

Attribute_Label: USE
Attribute_Definition: LAnd use
Attribute_Definition_Source: FAO LCCS
Attribute_Domain_Values:
Enumerated_Domain:
Enumerated_Domain_Value: Very extensive pasture land
Enumerated_Domain:
Enumerated_Domain_Value: Unsuitable for cultivation soil
Enumerated_Domain:
Enumerated_Domain_Value: Fallow
Enumerated_Domain:
Enumerated_Domain_Value: Unsuitable for cultivation soil
Enumerated_Domain:
Enumerated_Domain_Value: Field on damage soil
Enumerated_Domain:
Enumerated_Domain_Value: Unmanure field
Enumerated_Domain:
Enumerated_Domain_Value: Manure field
Enumerated_Domain:
Enumerated_Domain_Value: Urban area
Enumerated_Domain:
Enumerated_Domain_Value: Natural waterbody
Enumerated_Domain:
Enumerated_Domain_Value: Non-perennial natural waterbody (flow)
Enumerated_Domain:
Enumerated_Domain_Value: No data

Overview_Description:

Entity_and_Attribute_Overview: The data set summarize the transhumance, corralling, number of livestock and land tenure of Fulani households settling in Fakara region in 2004, 2005 and 2006. three

villages of Fakara was concerned: Banizoumbou, Tigo Tegui and Kodey.
the attributes are structured as follow:

- Date: the date of interview
- Terre: name of village
- code
- Location of houses: UTM X and UTM Y
- Grazing area
- Corralling
- transhumance
- types of land tenure

Distribution_Information:

Distributor:

Contact_Information:

Contact_Person_Primary:

Contact_Organization: ICRISATSC

Contact_Voice_Telephone: +22720722626

Contact_Facsimile_Telephone: +22720734329

Contact_Electronic_Mail_Address: icrisatsc@cgiar.org

Resource_Description: Land use cover in 2004 obtained from
segmentation of Spot 5 image

Distribution_Liability: Restricted data

Standard_Order_Process:

Digital_Form:

Digital_Transfer_Information:

Transfer_Size: 69.633

Metadata_Reference_Information:

Metadata_Date: 20070122

Metadata_Contact:

Contact_Information:

Contact_Organization_Primary:

Contact_Organization: ICRISATSC

Contact_Person: AMADOU M.Laouali

Contact_Address:

Address_Type: mailing and physical address

City: Niamey

Country: Niamey

Contact_Voice_Telephone: +22720722626

Contact_Facsimile_Telephone: +22720734329

Contact_Electronic_Mail_Address: icrisatsc@cgiar.org

Hours_of_Service: 8h00-16h00 pm z+1

Contact_Instructions: Prefer mailing contact

Metadata_Standard_Name: FGDC Content Standards for Digital Geospatial
Metadata

Metadata_Standard_Version: FGDC-STD-001-1998

Metadata_Time_Convention: local time

Metadata_Access_Constraints: Free acces on Geonetwork

Metadata_Extensions:

Online_Linkage: <http://www.esri.com/metadata/esriprof80.html>

Profile_Name: ESRI Metadata Profile