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## CARBON SINKS ATLAS FOR SOUTH AFRICA

### LADA Land Use

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**Metadata Date Stamp:**

28 February 2017

#### DATASET DESCRIPTION

**File Names:****Data:**

LADA\_South\_Africa\_Land\_use\_DAFF\_Apr2016

**Metadata:**

LADA\_South\_Africa\_Land\_use\_DAFF\_Apr2016\_METADATA

**Dataset Reference Date:**

April 2016

**Data quality:**

Good – During the Land Degradation Assessment in Drylands (LADA) project, the South African National Assessment of Land Degradation and Conservation was done between 2008 and 2011. 728 Contributing specialists throughout the country contribute their knowledge and experience on land degradation and sustainable land management during a series of 34 Participatory Expert Assessment Workshops. It is important to notice that the results of these national assessments are qualitative in nature and based on the perceptions of contributing specialists based on the assumption that they all know their respective assessment areas well enough to report on land degradation and conservation attributes. To improve data quality, the same methodology (LADA-WOCAT Mapping Questionnaire (QM)) was used during all 34 PEA Workshops and one facilitator was used to guide the process and ensure terminology and definitions are used in a constant and repeatable way between workshops. During the PEA workshops the principle of consensus mapping was used as guiding principle to ensure good data quality. Assessment results of different assessment groups within a PEA workshop was discussed and calibrated within a bigger plenary session with all the groups present. This helped in calibrating results between mapping units within an assessment area and the facilitator was then responsible to calibrate results between PEA workshops within and between provinces.

**Dataset Responsible Party:**

Department of Agriculture, Forestry and Fisheries (DAFF), Directorate Land Use and Soil Management, Private Bag X120, Pretoria, 0001. Attention: Scientific Manager: Mr Hein Lindemann e-mail: [HeinL@daff.gov.za](mailto:HeinL@daff.gov.za)

**Geographic Location of the Dataset: RSA**

West: 16.081523

East: 33.484393

North: - 22.098501  
South: - 34.709233

**Keywords:**

LADA, South Africa, Land degradation, Land Use, National level

**Dataset Language:**

English (SOUTH AFRICA)

**Dataset Character Set:**

utf8 - 8 bit UCS Transfer Format

**Dataset Topic Category:**

007 = Environment (ISO 19115 Topic category)

**Data Type:**

Shapefile feature class

**Format:**

ArcGIS Shapefile

**Geometry Type:**

Polygon

**Data Release classification:**

| Release classification | Description      | Time frame       | Example                                 |
|------------------------|------------------|------------------|---|
| OR                     | Official release | 28 February 2017 | LADA_South_Africa_Land_use_DAFF_Apr2016 |

**Citation:**

Lindeque, G.H.L., & Koegelenberg, F.A., 2015. *Perceptions on land degradation and current responses to land degradation problems in South Africa: Local Municipality Fact Sheet Series*. Department of Agriculture, Forestry and Fisheries, Pretoria.

**Abstract:**

In the context of the Land Degradation Assessment in Drylands (LADA) project, the land use system approach for land degradation assessment has as guiding principle that land use is the major driving force of land degradation. Mapping of land use systems has therefore become a major activity within the LADA project at global and national level where land use units are considered the basic units in which land degradation and land improvements are mapped. The following spatial layers were found to be reliable enough and at an acceptable level of detail to be used in the production of the LUS map for South Africa:

- National Land Cover 2000 (NLC Consortium);
- Protected Areas in South Africa 2001 (Biodiversity GIS, South African Biodiversity Institute- SANBI);

- VEGMAP 2006 (Mucina & Rutherford, SANBI);
- Local Municipalities 2005 (Demarcation Board of South Africa).

The LADA Land Use Map for South Africa has 18 land use/cover classes as a result of combining the 4 spatial layers discussed above. In combination with administrative boundaries a total number of 2447 unique combinations (which were equal to the number of LADA-WOCAT Mapping Questionnaires (QM) to be completed) were derived by integrating the Local Municipality (LM) boundaries with the Land Use Systems data.

**Purpose:**

This data was made available for the online Carbon Sinks Atlas courtesy of Department of Agriculture, Forestry and Fisheries (DAFF). The purpose of including the data into the Carbon Atlas was to generate awareness on the state and severity of land degradation in South Africa as a direct driver of lowering soil carbon sink levels.

**Supplemental Information:**

None

**Lineage Statement:**

None

**ATTRIBUTE INFORMATION**

| Field name | Alias Name | Data type | Description  | Example |
|------------|------------|-----------|--|---------|
| LandUse    | Cell value | string    | 1 Desert<br>2 Azonal & Wetlands<br>3 Savanna<br>4 Forest<br>5 Grassland<br>6 Nama Karoo<br>7 Indian Ocean Coastal Belt<br>8 Succulent Karoo<br>9 Fynbos<br>10 Albany Thicket<br>11 Open water<br>12 Urban<br>13 Cultivated Commercial Rainfed<br>14 Cultivated irrigated<br>15 Cultivated Subsistence Rainfed<br>17 Plantations<br>18 Mines<br>19 Protected Area | 5       |

**SUPPLEMENTARY INFORMATION**

None

**DATA MAINTENANCE**

**Dataset last updated:**

February 2017

**Time Period of Content:**

2008-2011

**Maintenance and update frequency:**

No updates.

## DISTRIBUTION AND CONSTRAINTS

**On/line Resource:**

The South African Environmental Observation Network (SAEON)

<http://www.saeon.ac.za/>

**Distribution Format:**

ArcGIS shapefile

**Copyright:**

Department of Agriculture, Forestry and Fisheries (DAFF), Directorate Land Use and Soil Management, Private Bag X120, Pretoria, 0001. Attention: Scientific Manager: Mr Hein Lindemann e-mail: [HeinL@daff.gov.za](mailto:HeinL@daff.gov.za)

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**Acknowledgments:**

None

## METADATA INFORMATION

**Metadata Contact and owner of data:**

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0084

**Additional Extent information for the Dataset (Vertical & Temporal):**

N/A

**Spatial Representation Type:**

Polygon - Area

**Spatial Reference:**

Coordinate Reference: GCS\_WGS\_1984  
Projection - Albers\_Conic\_Equal\_Area

**Projection:**

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PROJCS["Albers_Equal_Area_Conic_South_Africa",  
  GEOGCS["GCS_WGS_1984",  
    DATUM["D_WGS_1984",  
      SPHEROID["WGS_1984",6378137,298.257223563]],  
    PRIMEM["Greenwich",0],  
    UNIT["Degree",0.0174532925199433]],  
  PROJECTION["Albers"],  
  PARAMETER["False_Easting",0],  
  PARAMETER["False_Northing",0],  
  PARAMETER["central_meridian",24],  
  PARAMETER["Standard_Parallel_1",-18],  
  PARAMETER["Standard_Parallel_2",-32],  
  PARAMETER["latitude_of_origin",0],
```

**Metadata File Identifier:**

LADA\_South\_Africa\_Land\_use\_DAFF\_Apr2016\_METADATA

**Metadata Standard Name:**

SANS 1878

**Metadata Standard Version:**

SANS 1878/1:2005

**Metadata Language:**

English

**Metadata Character Set:**

US/Ascii