CARBON SINKS ATLAS FOR SOUTH AFRICA
Limpopo MODIS Above Ground Herbaceous Biomass (gC/m²)

Metadata Date Stamp:

27 November 2015

DATASET DESCRIPTION

File Names:
Data:
Limpopo_MODIS_Herbaceous Biomass_(gC_sq.m)_DEA_CSIR_1.1-2015-11-20
Metadata:
Limpopo_MODIS_Herbaceous Biomass_(gC_sq.m)_OR_2015_Q4_METADATA

Dataset Reference Date:

2015/11/20

Data quality:

Good – The product was developed through the relationship between biomass and leaf area index (LAI). Accuracies of this layer are dependent on the accuracy of a base layer used, especially the LAI.

Dataset Responsible Party:

Department of Environmental Affairs / Director Enterprise Geospatial Information Management

Geographic Location of the Dataset:

Limpopo , Mpumalanga, KwaZulu Natal, North West, Free State and Gauteng, South Africa
West 21.543000
East 33.916000
North -22.163000
South -30.032000

Keywords:

Herbaceous Biomass, LAI, MODIS, Carbon

Dataset Language:

English (SOUTH AFRICA)

Dataset Character Set:

utf8 - 8 bit UCS Transfer Format

Dataset Topic Category:
007 = Environment (ISO 19115 Topic category)

Dimensions:
X: 1811 Y: 2404 Bands: 1

Spatial Resolution of the Dataset:
500 Meter

No Data Value:
-1

Data Type:
   Float32 – Thirty two bit floating point

Raster Format:
   GeoTiff

Data Release classification:

Release classification	Description	Time frame	Example
OR	*Official release*	**Quarter 4** 30 November 2015	*LimpopoMODISAboveHerbaceousGroundBiomass_gC_sq.m_DEA_CSIR_1.1-2015-11-20*

Citation:
Citation Information:
   Originator: *CSIR Natural Resources and Environment (unpublished).*

Abstract:
   The Above Ground Herbaceous Biomass (AGB_{herb}) product was empirically derived from the existing CSIR's MODIS LAI products for 13 years. The first step was to determine the maximum or peak productivity period; the maximum biomass values in the month of January and February were computed. The ABG_{herb} was determined by halving the averaged computed maximum values in January and February to represent the annual average values. The herbaceous carbon content (gC/m^2) was then derived by multiplying the annual average biomass by 0.5.

   Units: gram of herbaceous carbon content per square meter at 500m x 500m resolution

Purpose:
   This data set is part of a series of output data layers generated by CSIR for DEA as part of the South African Carbon Sinks Atlas. The data demonstrate a potential for improving existing herbaceous carbon content layer using field herbaceous biomass and remote sensing data.

Supplemental Information:
   None

Lineage Statement:
   The data was produced in November 2015, and is being released on-line for the first time in Nov 2015

ATTRIBUTE INFORMATION

Attribute Description:

Field name	Alias Name	Data Type	Description	Example
Cell value	*Cell value*	*32-bit Floating point*	*This field contains Above Ground Herbaceous Biomass (gC/sq.m)*	*25*

SUPPLEMENTARY INFORMATION

None

DATA MAINTENANCE

Dataset last updated:

2015/11/20

Time Period of Content:

Calculated to represent average Above Ground Herbaceous Biomass from 2001 to 2014

Maintenance and update frequency:

No updates

DISTRIBUTION AND CONSTRAINTS

On/line Resource:

The Environment GIS (EGIS) Website
http://egis.environment.gov.za/
The Department of Environmental Affairs (DEA) must be acknowledged in the use of the data as per citation information.

The South African Environmental Observation Network (SAEON)
http://www.saeon.ac.za/

Distribution Format:

GeoTIFF

Copyright:

Copyright:
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Acknowledgments:

The development of the online South African Carbon Sinks Atlas and website was funded by Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ). Visit https://www.giz.de for more information on GIZ.

The models for estimation of herbaceous carbon content layer was done by CSIR as a demonstration of using MODIS data for estimating improved Above Ground Herbaceous Biomass (ABG_{herb}) data.

METADATA INFORMATION

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Additional Extent information for the Dataset (Vertical & Temporal):
N/A

Spatial Representation Type:
Raster – Area

Spatial Reference:
Coordinate Reference: GCS_WGS_1984
Projection - Albers_Conic_Equal_Area

Projection:
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",25],
PARAMETER["Standard_Parallel_1",-12],
PARAMETER["Standard_Parallel_2",-31],
PARAMETER["latitude_of_origin",0],

Metadata File Identifier:

Limpopo_MODIS_Herbaceous Biomass_(gC_sq.m)_OR_2015_Q4_METADATA

Metadata Standard Name:

SANS 1878

Metadata Standard Version:

SANS 1878/1:2005

Metadata Language:

English

Metadata Character Set:

US/Ascii