
CARBON SINKS ATLAS FOR SOUTH AFRICA

Net Primary Production (gC/m²/yr)

Metadata Date Stamp:
25 October 2015

DATASET DESCRIPTION

File Names:

Data:
NetPrimaryProduction_gC_sq.m_yr_DEA_CSIR_1.1.9-2015-10-06
Metadata:
NPP_gC_per_sq.m_per_yr_OR_2015_Q4_METADATA

Dataset Reference Date:
2015/09/23

Data quality:
Good – data modelled in Carbon Flux Model and accuracies of this layer is dependent on the accuracies of various base layers used in modelling

Dataset Responsible Party:
Department of Environmental Affairs / Director Enterprise Geospatial Information Management

Geographic Location of the Dataset: RSA
West 15.637661
East 33.655553
North -21.918463
South -35.027407

Keywords:
Carbon flux, NPP, Net Primary Production

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: 1406 Y:1207 Bands: 1

Spatial Resolution of the Dataset:
1189.318433 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	NPP_gC_per_sq.m_per_yr_OR_2015_Q4

Citation:**Citation Information:**

Originator: *Department of Environmental Affairs*

Publication Date: *May 2015*

Title: *South African National Terrestrial Carbon Sink Assessment*

Location: *Pretoria, South Africa*

Geospatial Data Presentation Form: *Raster digital data*

Other Citation Details: *Data of the South African National Terrestrial Carbon Sink Assessment is published on the SAEON shared platform. Link to detailed report:*

https://www.environment.gov.za/sites/default/files/docs/nationalterrestrial_carbon_sinksassessment_sect1.pdf

Abstract:

Net Primary Production (NPP) is GPP minus autotrophic respiration (Ra).

$NPP = GPP - Ra$

In the version of NPP and Ra was assumed to be 0.5 GPP. A more elaborate calculation of Ra is under development by CSIR.

Purpose:

This data set is part of a series of output data layers generated by CSIR for DEA as part of the South African National Terrestrial Carbon Sink Assessment.

Link to detailed report:

https://www.environment.gov.za/sites/default/files/docs/nationalterrestrial_carbonsinksassessment_sect1.pdf.

Link to synopsis report:

https://www.environment.gov.za/sites/default/files/reports/nationalterrestrial_carbonsinks_synopsisreport.pdf

Supplemental Information:

None

Lineage Statement:

The first version of the data was generated in 2013, but not released.

The data were released on-line for the first time in Nov 2015

ATTRIBUTE INFORMATION

Attribute Description:

Field name	Alias Name	Data Type	Description	Example
Cell value	<i>Cell value</i>	<i>32-bit Floating point</i>	<i>This field contains a Net Primary Production (NPP) value of carbon flux as measured in gC/m²/yr</i>	380.73

SUPPLEMENTARY INFORMATION

None

DATA MAINTENANCE

Dataset last updated:

2015/10/06

Time Period of Content:

Carbon fluxes were calculated to represent the long-term mean conditions. The Gross and Net Primary Production (GPP, NPP) was calculated monthly and summed to a year using climatology of monthly weather for the period 1960 to 1990, and mean monthly FAPAR and PAR for period 2000 to 2012.

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

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Acknowledgments:

The development of the online 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 the National Terrestrial Carbon Sinks Assessment for South Africa and the online Carbon Sinks Atlas were developed by CSIR for the South African Department of Environmental Affairs (DEA).

The National Terrestrial Carbon Sink Assessment (2015) was conducted for and published by Department of Environmental Affairs, Pretoria, South Africa. Link to report: https://www.environment.gov.za/sites/default/files/docs/nationalterrestrial_carbonsinksassessment_sect1.pdf.

The National Terrestrial Carbon Sink Assessment for South Africa was funded by UK Department for International Development (DfID). Visit <https://www.gov.uk/government/organisations/departement-for-international-development> for more information on DfID

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:

NPP_gC_per_sq.m_per_yr_OR_2015_Q4_METADATA

Metadata Standard Name:

SANS 1878

Metadata Standard Version:

SANS 1878/1:2005

Metadata Language:

English

Metadata Character Set:

US/Ascii