CARBON SINKS ATLAS FOR SOUTH AFRICA
Dynamic vegetation model 2100

Metadata Date Stamp:

1 October 2016

DATASET DESCRIPTION

File Names:

Data:

2100_Simulated_Biomes_of_South_Africa_SAEON_2016-10-01

Metadata:

2100_Simulated_Biomes_of_South_Africa_SAEON_2016-10-01_OR_2017_Q1_METADATA

Dataset Reference Date:

01/10/2016

Data quality:

Very good (if you believe the models): Simulations run for South Africa from aDGVM (adaptive dynamic global vegetation model) version 1.1. Model description is available at Scheiter, S., & Higgins, S. I. (2009). Impacts of climate change on the vegetation of Africa: an adaptive dynamic vegetation modelling approach. Global Change Biology, 15(9), 2224-2246, with updates describe in: Scheiter, S., Higgins, S.I., Osborne, C.P., Bradshaw, C., Lunt, D., Ripley, B.S., Taylor, L.L. and Beerling, D.J., 2012. Fire and fire-adapted vegetation promoted C4 expansion in the late Miocene. New Phytologist, 195(3), pp.653-666

Dataset Responsible Party:

SAEON

Geographic Location of the Dataset: RSA

West: 16.667

East: 32.867

North: -22.15

South: -34.75

Keywords:

Biomes, South Africa, DGVM

Dataset Language:

English (SOUTH AFRICA)

Dataset Character Set:

utf8 - 8 bit UCS Transfer Format

Dataset Topic Category:

007 = Environment (ISO 19115 Topic category)

Dimensions:

63 rows, 81 cols, 1 band

Spatial Resolution of the Dataset:

0.2 degrees

No Data Value:

-Inf

Data Type:

two-byte signed integer

Raster Format:

GeoTiff

Data Release classification:

Release classification	Description	Time frame	Example
OR	Official release	Quarter 1 28 February 2017	_OR_2017_Q1_METADATA

Citation:

Moncrieff, G. R., Scheiter, S., Slingsby, J. A., & Higgins, S. I. (2015). Understanding global change impacts on South African biomes using Dynamic Vegetation Models. *South African Journal of Botany*, *101*, 16-23.

Abstract:

The biomes of South Africa are simulated using a dynamic vegetation model – the aDGVM- designed specifically for tropical and subtropical African ecosystems. Biomes distribution is simulated using climate simulations. Simulations were forced with projected changes in climate given by the Max Planck Institute for Meteorology's (Hamburg) ECHAM5 IPCC projections with atmospheric CO2 from IPCC (2007) SRES A1B projections. Biomes distribution are output for 1990/2100.

Supplemental Information:

None

Lineage Statement:

None

ATTRIBUTE INFORMATION

Field name	Alias Name	Data type	Description	Example
Cell value	Cell value	two-byte signed integer	This field contains values associated with names of biomes 1: woodland 2: C4 savanna 3: C3 savanna	2

			4: C4 grassland 5: C3 grassland 6: forest 7: desert	

SUPPLEMENTARY INFORMATION

None

DATA MAINTENANCE

Dataset last updated:

01/10/2016

Time Period of Content:

2100

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:

GeoTiff

Copyright:

Terms of use:

Please cite:

Moncrieff, G. R., Scheiter, S., Slingsby, J. A., & Higgins, S. I. (2015). Understanding global change impacts on South African biomes using Dynamic Vegetation Models. *South African Journal of Botany*, *101*, 16-23.

Acknowledgments:

None

METADATA INFORMATION

Metadata contact and owner of data:

Dr Glenn Moncrieff
glenn.moncrieff@gmail.com

Postal Address:

Private Bag X7
Rhodes Drive, Claremont
7735
Cape Town, South Africa

Physical Address:

South African Environmental Observation Network (SAEON)
Centre for Biodiversity Conservation, Kirstenbosch Gardens
Cape Town, South Africa

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

N/A

Spatial Representation Type:

Raster – Area

Spatial Reference:

Coordinate Reference: GCS_WGS_1984
Projection - latlong

Projection:

Proj.4: "+proj=longlat +ellps=WGS84 +datum=WGS84 +no_defs +towgs84=0,0,0"

Metadata File Identifier:

2100_Simulated_Biomes_of_South_Africa_SAEON_2016-10-01_OR_2017_Q1_METADATA

Metadata Standard Name:

SANS 1878

Metadata Standard Version:

SANS 1878/1:2005

Metadata Language:

English

Metadata Character Set:

US/Ascii