**CARBON SINKS ATLAS FOR SOUTH AFRICA**

**Dynamic vegetation model 1990**

**Metadata Date Stamp:**

1 October 2016

**DATASET DESCRIPTION**

**File Names:**

**Data:**

1990\_Simulated\_Biomes\_of\_South\_Africa\_SAEON\_2016-10-01

**Metadata:**

1990\_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  4: C4 grassland  5: C3 grassland  6: forest  7: desert | 2 |

**SUPPLEMENTARY INFORMATION**

None

**DATA MAINTENANCE**

**Dataset last updated:**

01/10/2016

**Time Period of Content:**

1990

**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

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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:**

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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:**

1990\_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