JGR: Biogeosciences

Supporting Information for

Spatial patterns of vegetation activity related to ENSO in northern South America

Lina M. Estupinan-Suarez[1,2], Miguel D. Mahecha[3,4,5], Alexander Brenning[2], Guido Kraemer[3], Germán Poveda[6], Markus Reichstein[1,5], and Carlos A. Sierra[1]

[1] Max Planck Institute for Biogeochemistry, Jena, Germany

[2] Friedrich Schiller University Jena, Department of Geography, Jena, Germany

[3] Leipzig University, Remote Sensing Centre for Earth System Research, Leipzig, Germany

[4] Helmholtz Centre for Environmental Research – UFZ, Leipzig, Germany

[5] German Centre for Integrative Biodiversity Research (iDiv) Halle–Jena–Leipzig, Germany

[6] Universidad Nacional de Colombia, Department of Geosciences and Environment, Sede Medellin, Colombia

Contents of this file

How to access the RegESDL?

Introduction

The Colombian Data Cube is freely available as S3 compatible object stores. The low resolution version has a 0.83° while the high resolution version has a spatial resolution of 0.0083°. There are different chunkings offered, optimized for timeseries and spatial analysis.

The data can be accessed through any S3 compatible software under the following addresses:

- General repository: https://s3.bgc-jena.mpg.de:9000/esdl-esdc-v2.0.1
- Low resolution-temporal chunking: https://s3.bgc-jena.mpg.de:9000/esdl-esdc-v2.0.1/Cube2019lowColombiaCube184x60x60.zarr
- Low resolution-spatial chunking: https://s3.bgc-jena.mpg.de:9000/esdl-esdc-2.0.1/Cube2019lowColombiaCube1x336x276.zar
- High resolution-temporal chunking: https://s3.bgc-jena.mpg.de:9000/esdl-esdc-v2.0.1/Cube2019highColombiaCube184x120x120.zarr
- High resolution-spatial chunking: https://s3.bgc-jena.mpg.de:9000/esdl-esdc-v2.0.1/Cube2019highColombiaCube1x3360x2760.zarr

The cubes are stored in the Zarr [1] format and can be analyzed in the cloud with Python xarray [2] and Julia 'YAXArrays.jl' [3]. The Julia package 'EarthDataLab.jl' [4] contains a convenience function tso access the data. The following code exemplifies how to read the RegESDL using the 'EarthDataLab.jl' in julia.

```
julia
using EarthDataLab
esdc(region = 'Colombia', res = 'low', version = 2)
```

References

[1] https://zarr.readthedocs.io

[2] https://docs.xarray.dev/

[3] https://juliadatacubes.github.io/YAXArrays.jl

[4] https://juliadatacubes.github.io/EarthDataLab.jl