



Digital Earth Africa

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DE Africa Establishment Team

www.digitalearthafrica.org

A continental infrastructure to leverage EO data

Funding to establish:

- Australian Government and The Leona M. and Harry B. Helmsley Charitable Trust

African governance :

- Board, Advisory Committee, Stakeholder Community Group

Delivery through partner organisations :

- UNECA, RCMRD, SANSA, AGRYMET, OSS, CSE etc.

Operational data and services:

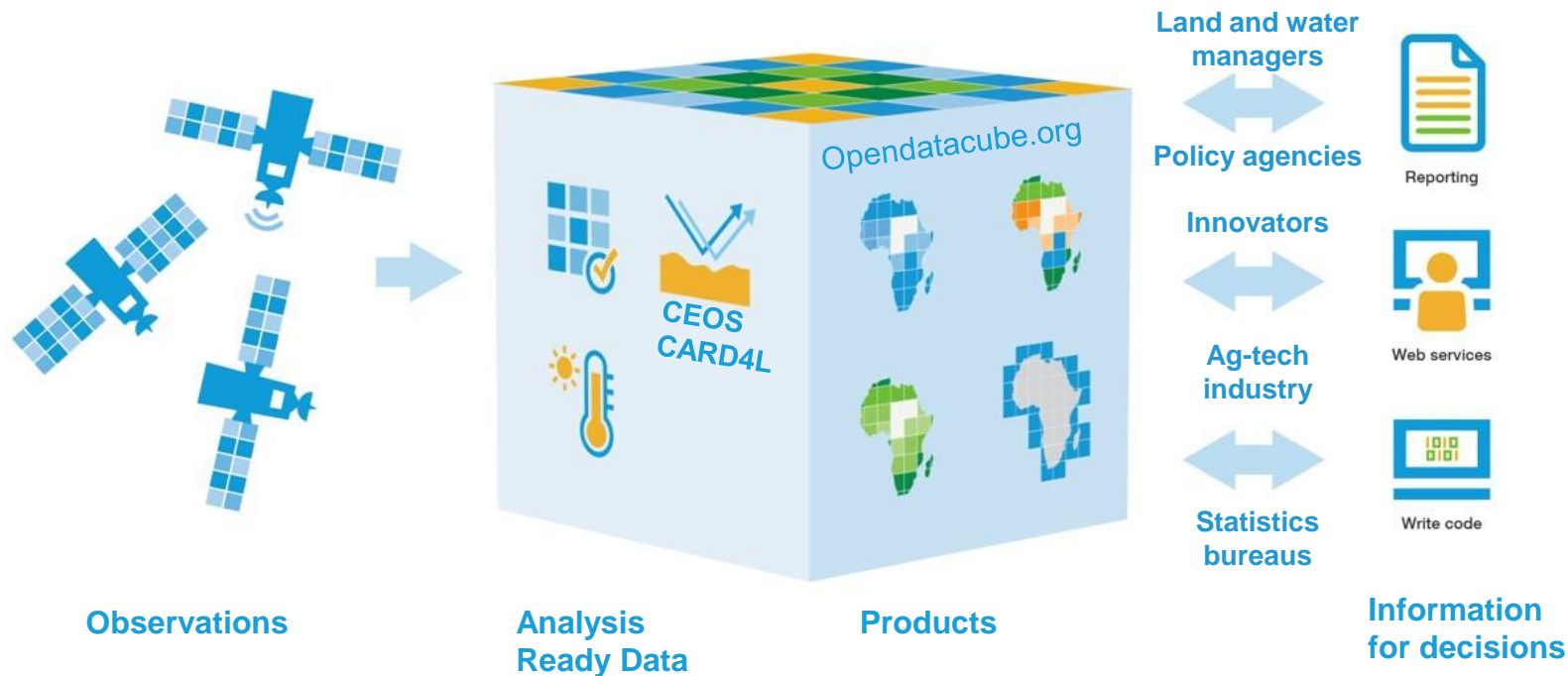
- Access to data for the entire continent, routinely updated, routinely producing data services.
- Amazon cloud storage (Capetown)

Free and open satellite data, software (www.OpenDataCube.org) and products:

- US, Europe, Japan > 200TB per year.
- Products open to all countries, and to all sectors (government, innovators, academia, NGOs)

Supporting a wide range of decisions – land / water / forests / natural resources / coasts / cities

Connecting *observations* to *decisions*



Full Coverage of Africa



Geomedian 2018:
the 'average' image
for Africa from all
available Landsat-8
images in 2018

~ 30,000 scenes
~ 18 TB data
Overnight
processing on
Amazon
< \$200 US

Search for locations

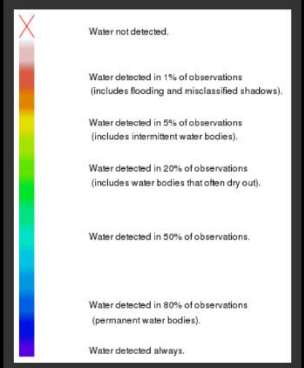
Explore Data

DATA SETS [3] Remove All

Filter by location

Style

Water Summary



Geometric median

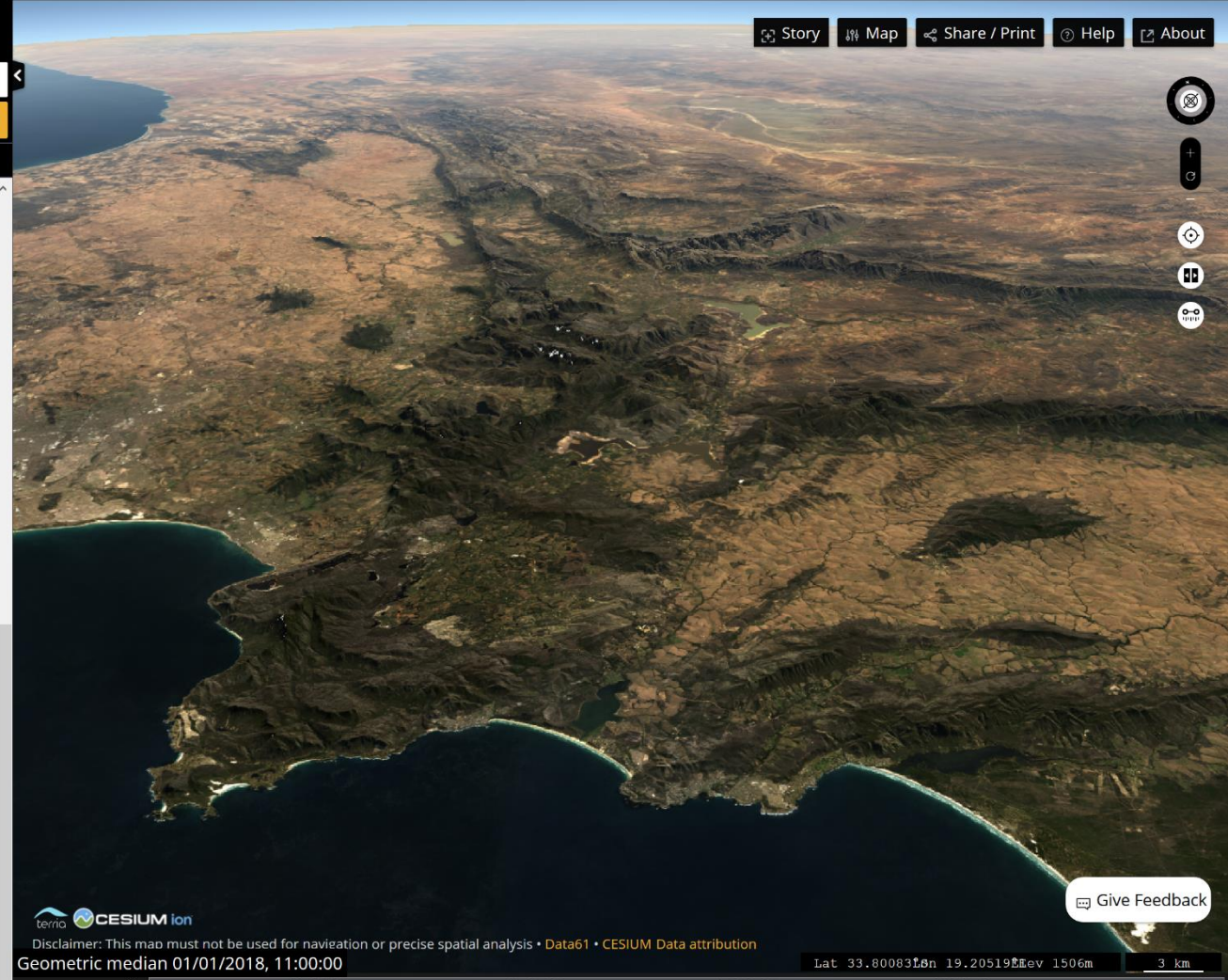
Zoom To About This Split Export Remove
Extent: Data
Opacity: 100%

Time: 01/01/2018, 11:00:00

Filter by location

Style

Simple RGB



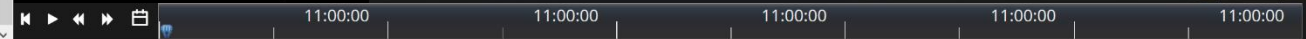
Give Feedback



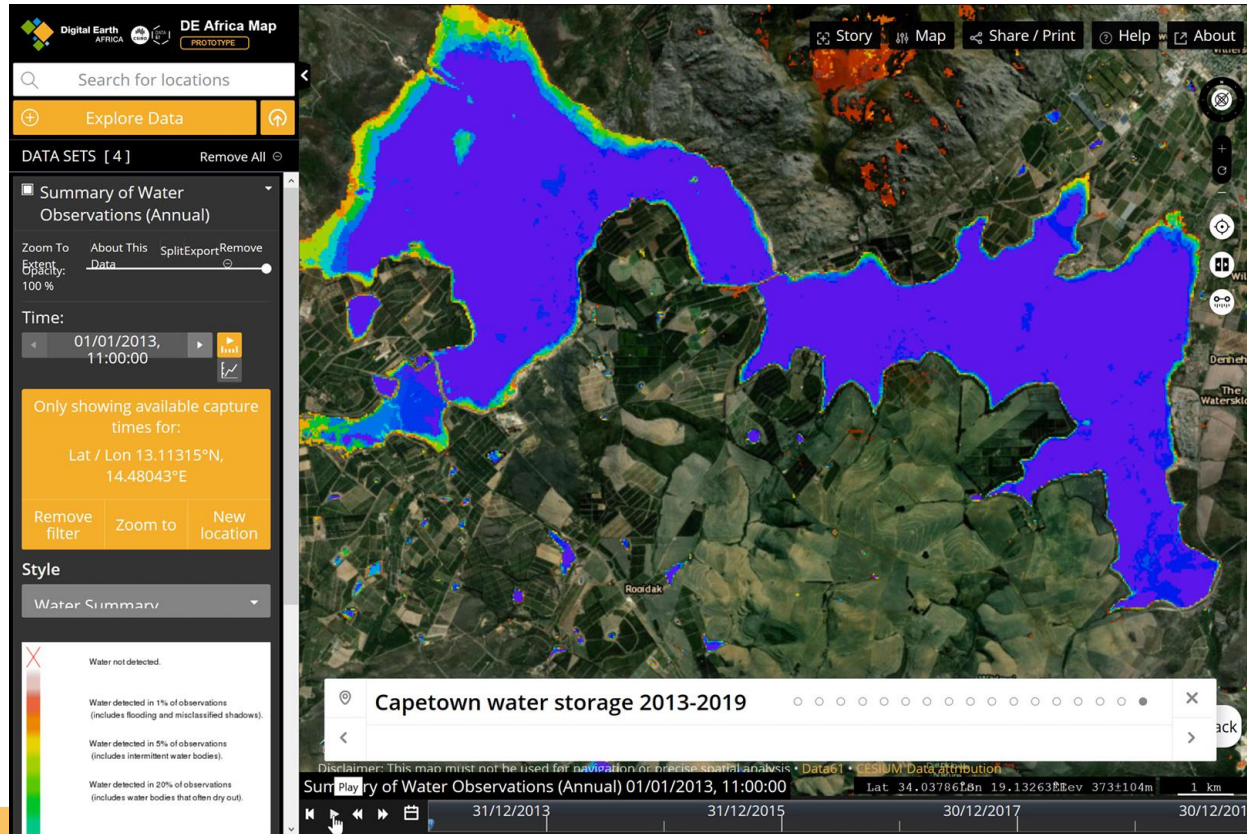
Disclaimer: This map must not be used for navigation or precise spatial analysis • Data61 • CESIUM Data attribution

Geometric median 01/01/2018, 11:00:00

Lat 33.8008316n 19.205195E Ev 1506m 3 km



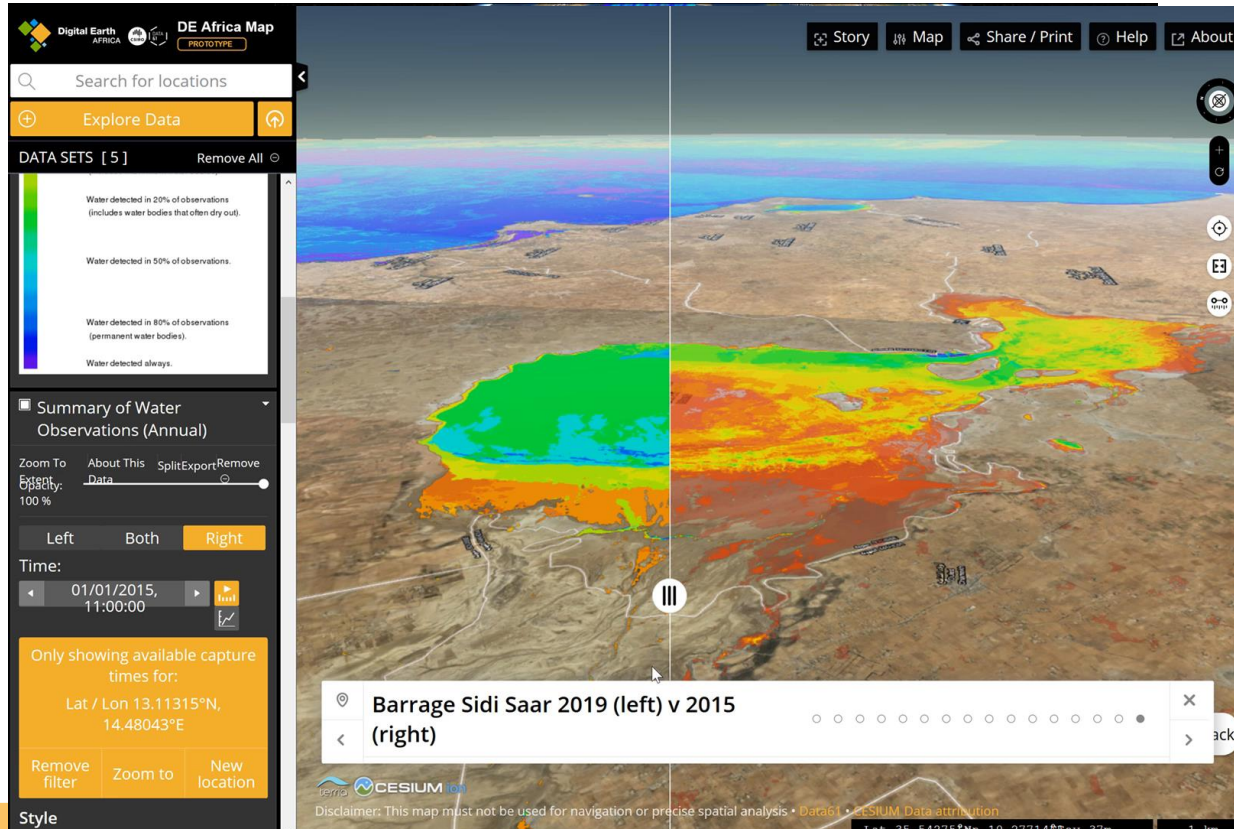
Continental water observations from space (WOfS)



Capetown water storage
2013 to 2019

Colours:
No colour = 0%
Red = *rarely* water
Green = *often* water
Blue = *always* water

Continental water observations from space (WOfS)



Colours indicate the percentage of times water was detected (in that year)

No colour = 0%
Red = *rarely* water
Green = *often* water
Blue = *always* water

Can Digital Earth Africa help with COVID?

We don't measure sick people from space!

Our Advisory Committee says:

- Engage in the conversations, & Don't assume you're not needed!

Sentinel-2 data will be available for all of Africa, from mid May:

- 10 m. resolution, every 5 days
- The community as a whole will be able to explore whether these data are useful – and if an application is found we can scale it

Our focus has been on water and food security (working with GEOGLAM):

- Pandemic impacts are expected to flow through to food security issues due to weakening of supply chains. Hazards (locusts and floods) are exacerbated.
- Water availability is related to Public Health



DE Africa Map - <http://maps.digitalearth.africa/>
OGC Web Services - <https://ows.digitalearth.africa/>
Explorer - <http://explorer.digitalearth.africa/>
Public Data bucket - <https://data.digitalearth.africa/>
Jupyter Hub - <https://sandbox.digitalearth.africa/>
GitHub - <https://github.com/digitalearthafrica>
Slack channel - #de-Africa
<https://opendatacube.slack.com/>
Esri Africa GeoPortal <http://www.africageoportal.com/>