# AN INTRODUCTION TO GEOMAD

Digital Earth AFRICA

**Digital Earth Africa (DE Africa) has released GeoMAD, a powerful new information source for visualisation and analysis of changes across the African landscape.**

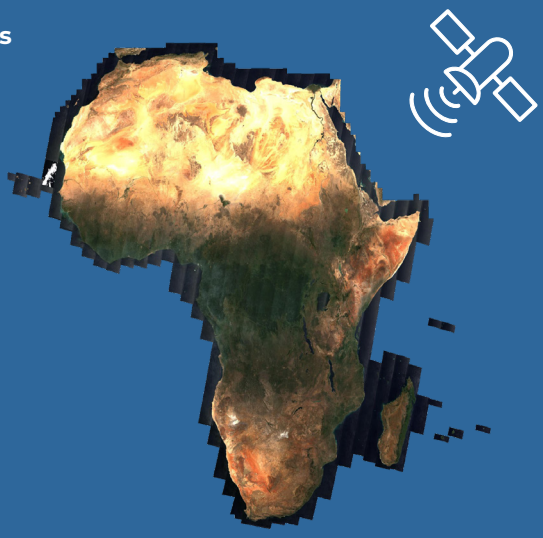
**In a typical year, satellites such as Sentinel-2 capture over 60 images of every part of Africa generating a vast amount of data.**

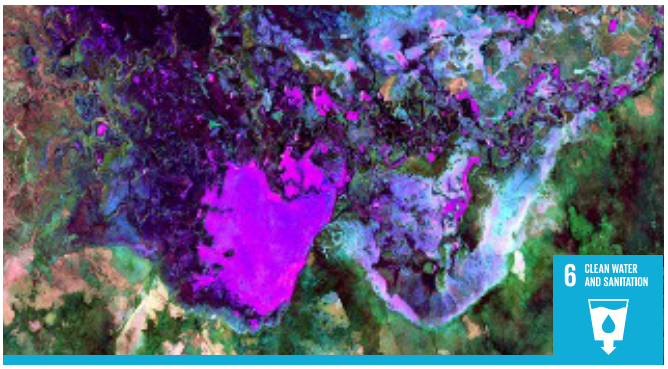
The GeoMAD service produces a rich new data service by:

- **Condensing an entire year's worth of satellite viewing into a handful of images;**
- **providing a cloud-free mosaic of the African landscape; and**
- **allowing users to view statistical variation over time.**

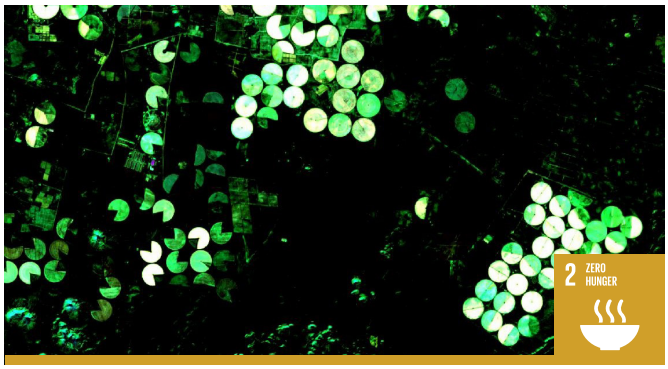
The GeoMAD service provides a free and practical evidence base for a vast range of studies and down-stream products.

It is particularly impactful when analysing areas with heavy cloud cover. The GeoMAD service can be used to inform decision making on crucial sustainability issues such as water resourcing, flooding, coastal erosion, land degradation, food security and urbanisation.

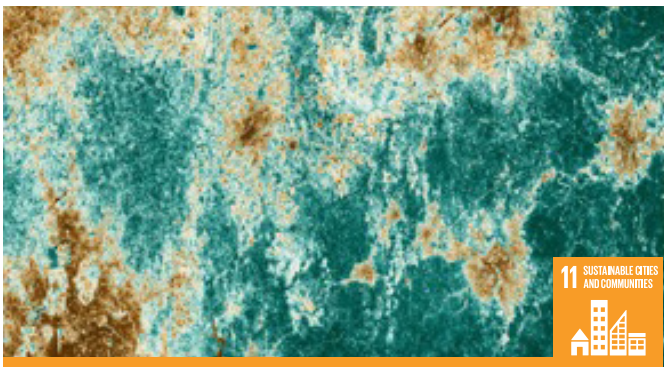





GeoMAD over **Lochinvar National Park, Zambia,** showing open lagoon in magenta, swamp in dark purple and seasonally inundated floodplain in pastel blue and pink.




Growth patterns of crops are highlighted in GeoMAD near **Bahariya Oasis, Egypt.**




Expanding urban centres in southwestern **Nigeria** can be mapped by applying urban index calculation on GeoMAD - shown here in brown.


True colour GeoMAD time series tracing the rapidly changing coastline of **Sierra Leone** from 2018 to 2020 (left to right).

**To experience GeoMAD for yourself, use the DE Africa Maps Portal, explore the DE Africa Sandbox or visit our website.**

*Image credit: Sentinel-2 GeoMAD imagery 2017–2020. Processed by Digital Earth Africa*