



SAHARA  
AND SAHEL  
OBSERVATORY



Digital Earth  
AFRICA

# Digital Earth Africa in North Africa

Land degradation and coastal erosion

**Themes:**

Remote sensing and Land degradation

**Project title:**

Assessment of Land Degradation in the Sahel and Sahara regions using Earth Observation products

**Countries:**

Tunisia, Burkina Faso

**Project duration:**

January 2025 to December 2025

**Implementing entity:**

Sahara and Sahel Observatory (OSS)

**Executing entity:**

Research Institute for Innovation and Sustainability (RIIS)

**Project steering committee:**

OSS and national partners



## Beneficiaries

Decision-makers, experts, and end-users from national institutions responsible for the environment, agriculture, water resources, mapping and remote sensing, research, the private sector:

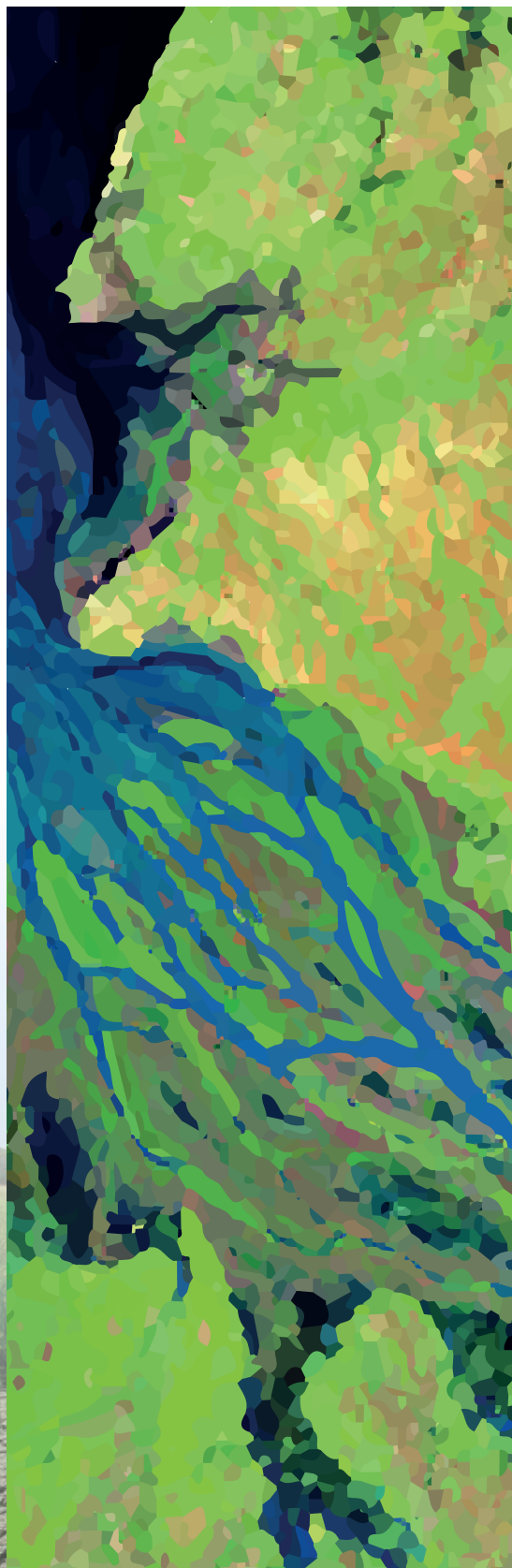
- National Center for Mapping and Remote Sensing (CNCT)
- General Directorate of Agricultural Production (DGPA)
- General Directorate for Land Management and Conservation (DGACTA)
- National Observatory of Agriculture (ONAGRI)
- National Institute for Research in Rural Engineering, Water and Forests (INRGREF)
- National Institute of Agricultural Research of Tunisia (INRAT)
- Faculty of Sciences of Tunis (FST)
- National Institute of Statistics (INS)
- National Agronomic Institute of Tunisia (INAT)
- National Institute of Meteorology (INM)
- Technical departments of the Ministry of Agriculture, Water Resources, and Fisheries, particularly the agricultural statistics services
- Regional Agricultural Development Commissions (CRDAs)
- General Directorate of Water Resources (DGRE)
- Arid Regions Institute of Médenine (IRA)





## Funding

Geoscience Australia (GA)



## Purpose

Leveraging the potential of remote sensing to support research and decision-making in environmental monitoring and land degradation, with the aim of improving the sustainable management of natural resources in Tunisia and Burkina Faso, while also supporting existing mapping and monitoring systems and services through an innovative approach based on cloud computing and multi-source data fusion.



## Objective

Develop land degradation monitoring indicators through a co-production approach with national stakeholders in Burkina Faso and Tunisia. This will involve two key actions:

- Map and monitor land degradation hotspots in both countries, focusing on the SDG 15.3.1 indicator and key national indicators;
- Collaborate with national partners to build their capacities and support them in mapping and monitoring land degradation in their areas of interest by leveraging Digital Earth Africa (DEA) services.



## Flagship products

Geospatial decision-support platforms and solutions providing access to a wide range of operational products and services related to the main themes: remote sensing, land degradation, cloud computing, and decision-making.

These include:

- The DE Africa Sandbox: A cloud computing platform operating in a JupyterLab environment. (<https://sandbox.digitalearth.africa>);
- The Digital Earth Africa (DE Africa) Map: A website for interactive map-based access to DE Africa products and services (<https://maps.digitalearth.africa>);
- A repository of ready-to-use notebooks: User-friendly computational workflows and code for interacting with the DE Africa Sandbox.



[www.oss-online.org](http://www.oss-online.org)

