



INTEGRATED USE OF MULTISOURCE REMOTE SENSING DATA FOR NATIONAL SCALE AGRICULTURAL DROUGHT MONITORING IN KENYA

ADM-KENYA Workshop

20-24 May, 2024

Regional Centre For Mapping Complex, Kasarani Road, P. O. Box 632 Kasarani Mwiki Rd, Nairobi, Kenya

Background

ADM-Kenya is a two year project aiming to co-develop solutions for monitoring crop condition and cropping systems with Earth Observation (EO) data to derive evidence-based quantitative vegetation condition estimates with high spatial and temporal resolution. The project is part of the European Space Agency (ESA) EO AFRICA (African Framework for Research, Innovation, Communities and Applications) initiative. The objective of the ESA EO AFRICA initiative is to build an African-European R&D partnership to facilitate the sustainable adoption of Earth Observation and related space technology in Africa. EOAFRICA follows a long-term vision (>10 years) for the emergent digital era in Africa. ADM-Kenya is one of the four EO AFRICA 'National Incubators' projects that investigate how sustainable agriculture and drought monitoring at a national scale can be achieved in the African continent, by co-developing innovative EO-based solutions with African experts.

Further information is provided on the project [website](#).

Scope

The workshop aims to present the results of the EO Africa ADM-Kenya project, which focuses on developing solutions for agricultural drought monitoring using Earth Observation (EO) time series.

During the workshop, several presentations will focus on national-scale drought hazard and impact-related products, as well as farming systems mapping and evapotranspiration estimation.

We will examine the use of this data and conduct several hands-on sessions where participants will have the opportunity to test the developed processing chains.

Preliminary Schedule

The workshop is split over five consecutive days with distinct foci:

20 May (10:00 - 17:00)

- Welcome and Opening Remarks
- Introduction to EO Africa Initiative – Fabrizio Ramoino and Clement Albergel
- Introduction of ADM –Kenya project, partners and aims – Gohar Ghazaryan
- Short introduction from RCMRD, *icipe* and Ministry of Agriculture & Livestock Development – Rose Malot Waswa, Tobias Landmann, Tom Dienya

Lunch Break

- ADM –Kenya output and the main usage – Gohar Ghazaryan
- Discussion on the potential use of the output

21 May (9:00 - 17:00)

- Detailed Presentations on Products: Focus on Data and Methods –S. Mohammad Mirmazloumi and Maximilian Schwarz

Lunch Break

- Introduction to the Tech Stack –Gohar Ghazaryan

22 May (hands-on) (9:00 - 17:00)

- Drought hazard and risk assessment –Maximilian Schwarz

Lunch Break

- Crop condition mapping with Sentinel-2 –S. Mohammad Mirmazloumi
Wrap-up and feedback on session

23 May (hands-on) (9:00 - 17:00)

- Irrigation mapping with Sentinel-2 –Maximilian Schwarz

Lunch Break



- ET-Evapotranspiration based on downscaled Sentinel-3 data –S. Mohammad Mirmazloumi

Wrap-up and feedback on the session

24 May (10:00 - 14:00)

- Overall Feedback (National incubators)
- Discussion on the potential use & next steps for solution integration