

Capacity building on Africa Drought Advisory system.

African Centre of Meteorological Application for Development (ACMAD) is implementing a Drought Advisory system- namely the Mukau system- at the continental level. The system is being developed by ACMAD as part of the **Intra-ACP Climate Services Project** in collaboration with the Drought group of the Natural Disaster Risk Unit at the **Joint Research Centre** of the European Commission (funder) and NORCAP.

The Mukau system is a web application that manages monitoring, forecasting, and historic drought-related data; and is an adoption of the EDO and GDO by JRC adapted to the conditions in Africa.

It is to be a public online near-real-time system that uses Earth Observation and Weather information to monitor drought conditions in the African Continent.

It is an Open-Source software package that delivers Content Management and Web-map services optimised for geographical data representing long time series. It is used in the European Drought Observatory, the Global Drought Observatory, the South and Central American Drought Observatory and the Catchment Characterization system. It is based on PHP, Python, MapServer and PostgreSQL or Oracle.

When installing MUKAU in a regional meteorological agency the system offers the possibility to automate data-inception, control, interpolation, computation of anomalies and high-quality web mapping.

As part of the project implementation, a 5-day capacity building of 20 staff (Internal, Interns, on-the-job training and Secondments) on the use of the Mukau system is organized from the 27th of February to the 3rd of March 2023.

The main objective of this workshop is to equip ACMAD staff with skills and knowledge as well as giving the hands-on experience on how to use the Mukau system. At the end the staff will be familiar with how the system work, be able to interact, process data and generate the products required to achieve their daily work.

Workshop Agenda, Web mapping Service for ACMAD and automation of Mapping Data. From 27th of February to 3rd of March 2023.

Day 1 Preparation of the Workshop, coaching of ACMAD personnel on the system, and assessment of the work done so far.

Presence of Collins, Alfred, Romeo, Ali

Day 2 Workshop with thematic users in ACMAD

Time	Topic	Presenter / Moderator
9.00 – 9.30	Welcome and Introduction	Romeo
9.30 – 10.30	Presentation of GDO and Drought watch MUKAU systems	Alfred, Collins
10.30-10.45	Break	

10.45-11.30	Presentation data flows at ACMAD: Rainfall data, SPI, Agricultural Season computation	Pierre, Mduuzi
11.30-12.30	ACMAD Geoportal & Web presence developments	Sunshine, Ali
12.30-13.30	Lunch	
13.30-14.30	Presentation data flows at ACMAD: Forecasts	Pierre, Mduuzi
14.30-15.30	Presentation data flows at ACMAD: Meningitis, NDVI, Soil moisture	Pierre, Mduuzi
15:45-17.00	Introduction to Spatial Databases	Alfred

Day 3 Connection of the MUKAU system with desktop GIS

Time	Topic	Presenter / Moderator
9.00 – 9.45	(Predicted) Time series analysis for seasonal droughts	Pierre, Mduuzi
9.45 – 10.30	Using Spatial Databases	Alfred
10.45 – 12.00	GIS Automation with Python	Alfred
12.00 – 13.30	Lunch	
13.30 – 15.00	Drought Knowledge Caps	Romeo
15.00 – 17.00	User Needs inventory ACMAD	Romeo/Ali/Collins

Day 4 Feedback with the Development team