

## Satellite inspired hydrology in an uncertain future: a H SAF and HEPEX workshop



Contribution ID: 29

Type: **Oral presentation**

# Understanding Water Availability Within Ugandan through the Drought and Flood Mitigation Service

*Wednesday, 27 November 2019 16:10 (20 minutes)*

A consortium led by the RHEA Group, working with the Ugandan Ministry of Water and Environment and local Non-Governmental Organizations (NGOs, AgriTechTalk Uganda and Mercy Corps) has developed a Drought and Flood Mitigation Service (DFMS), funded as part of the UK Space Agency's International Partnership Programme.

DFMS is using satellite Earth observation (EO) data alongside meteorological and hydrological modelling and ground-based data within an innovative cloud computing-based platform. EO products come from multiple missions and are the basis for the onward development of information services with the modelling activities allowing for future predictions to be made.

For EO, related to water availability, this includes:

- 1 km spatial resolution maps of evapotranspiration, Land Surface Temperature (LST) and soil moisture;
- 10 m resolution vegetation indices and water extent maps;
- Point-based water height data.

The different products are being combined to provide insights into the soil / LST / vegetation 'triangle'. The presentation will showcase the products and relationships between them, with the EO data being compared to ERA-Interim / ERA5 and hydrological model outputs.

### Which session would you like to present in?

1. Remote sensing, hydrological modelling and data assimilation

**Primary author:** LAVENDER, Samantha (Pixalytics Ltd)

**Presenter:** LAVENDER, Samantha (Pixalytics Ltd)

**Session Classification:** Session 4: Impacts of hydrological uncertainty, hydrological forecasting and modelling

**Track Classification:** H SAF and HEPEX joint workshop on "Satellite inspired hydrology for an uncertain future"