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The Drought & Flood Mitigation Service in Uganda – First Results

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Since 2017, the governments of Uganda and the United Kingdom have been taking an innovative approach to mitigating the impacts of drought and floods on Ugandan society in the DFMS Project. Recognising both that the only sustainable solution to this issue is the continued capacity development in Uganda's National Meteorological and Hydrological Services, and that it will take time for this capacity development to deliver results, the Drought & Flood Mitigation Service Project developed DFMS, bringing together meteorological, hydrological, and Earth observation information products and making these available to decision-makers in Uganda.

After the DFMS Platform was designed and developed in cooperation between a group of UK organisations that includes the Met Office and is led by the REA Group and five Ugandan government agencies including UNMA, led by the Ministry of Water and Environment (MWE), 2020 saw the start of a 2.5-year Demonstration Phase in which UNMA, MWE, and the other agencies will trial DFMS and DFMS will be fine-tuned to their needs. We will be presenting the first experiences with DFMS, including how it is being used related to SDG monitoring, and will showcase the platform itself in what we hope will be a very interactive session.

DFMS is a suite of information products and access only requires an Internet-connected device (e.g. PC, laptop, tablet, smart phone). Data and information are provided as maps or in graphs and tables, and several analysis tools allow for bespoke data processing and visualisation. Alarms can be tailored to indicate when observed or forecast parameters exceed user-defined thresholds. DFMS also comes with automatic programmable interfaces allowing it to be integrated with other automatic systems. The DFMS Platform is built using Open Source software, including Open Data Cube technology for storing and analysing Earth Observation data. It extensively uses (free) satellite remote sensing data, but also takes in data gathered in situ. By making the platform scalable and replicable, DFMS can be extended to contain additional features (e.g. related to landslides or crop diseases) or be rolled out in other countries in the region and beyond.