

### WMO

The **World Meteorological Organization** (WMO) is a specialized agency of the [United Nations](#). It is the UN system's authoritative voice on the state and behaviour of the Earth's atmosphere, its interaction with the oceans, the climate it produces and the resulting distribution of water resources. Established in 1950, WMO became the specialized agency of the United Nations in 1951 for meteorology (weather and climate), operational hydrology and related geophysical sciences.

### FAO

The aim of the **Food and Agriculture Organization** (FAO) is to take full advantage of remotely sensed data to strengthen crop and vegetation monitoring work of FAO's Global Information and Early Warning System (GIEWS) and increase the resilience (Strategic Objective 5). The Climate, Energy and Tenure Division (NRC) and GIEWS developed a system for detecting agricultural areas with a high likelihood of water stress (drought) at global level.

### EUMETSAT

Created in 1986, EUMETSAT is the European Organisation for the Exploitation of Meteorological Satellite. Its primary objective is to establish, maintain and exploit European systems of operational **meteorological satellites**. EUMETSAT is responsible for the launch and operation of the **satellites** and for delivering satellite data to end-users as well as contributing to the operational monitoring of **climate** and the detection of **global climate changes**.

### EU-JRC

As the Commission's in-house science service, the Joint Research Centre's mission is to provide EU policies with independent, evidence-based scientific and technical support throughout the whole policy cycle. Through its Institute for Environment and Sustainability in Ispra, Italy, the JRC conducts research in the field of agriculture, food security, natural hazards, climate change (among other topics) in various regions and in particular in Africa for Directorate General Development and Cooperation (DG DEVCO).

# Training course on the use of satellite products for agro meteorological applications

**For more information please contact:**

**M. José Camacho**  
**Scientific Officer**  
**Agricultural Meteorology Division**  
**Climate and Water Department**  
**World Meteorological Organization**  
**7bis, Avenue de la Paix**  
**1211 Geneva 2, Switzerland**  
**Phone: +41 22 730 8357**  
**Fax: +41 22 730 8042**  
**Email: [jcamacho@wmo.int](mailto:jcamacho@wmo.int)**

**M. José Prieto**  
**Training Officer**  
**EUMETSAT**  
**Eumetsat-allee 1**  
**64295 Darmstadt**  
**Germany**  
**Phone: +49 6151 807 5440**  
**Fax: +49 6151 807 3040**  
**Email: [jose.prieto@eumetsat.int](mailto:jose.prieto@eumetsat.int)**



## Announcement

## Training course on the use of satellite products for agro meteorological applications

**Addis Ababa, Ethiopia**  
**23 - 27 March 2015**

## **INTRODUCTION**

Satellite data and products play a key role into the development of agro meteorological information and in the provision of effective services on food security and enhanced food production. In particular, tropical regions could better benefit from rainfall estimations, vegetation development and seasonal evolution, soil moisture monitoring, changes in solar radiation due to cloudiness based from satellite products. Plants, trees, grass cover for livestock evolves according the distribution of rains and solar heating modulated by the season but also by inter annual climate variations. From the beginning of the eighties, geostationary satellites over Africa have provided monitoring of clouds and an increasingly number of data and products to estimate rainfall, vegetation cover, radiation and soil properties.

Modern geostationary satellites provide a high data and product flow for a wide range of users. For the sake of resource optimization in Africa, which is the best monitored continent by EUMETSAT satellites, this organization along with joint efforts of WMO and the support of the Ethiopian Meteorological Agency is organizing a training course on the use of satellite products for agrometeorological applications from 23 to 27 March 2015 in Addis Ababa, Ethiopia

This activity initially belonged to the second component of the Project METAGRI OPERATIONAL project which includes technical improvements and training. The main objective of this project is the provision of convenient weather and climate information for the benefit of rural food producers in West Africa. The specific objective is the capacity building of the National Meteorological Services staff to provide better products and services in

agrometeorology based on the use of remote sensing data and products. This information must be coupled with other tools such as seasonal forecasts, crop models and geographical information systems.

Since there are other WMO projects in Eastern Africa such as the Severe Weather Forecast Demonstration Project, this training course is targeting participants from that region.

## **SPECIFIC OBJECTIVES**

- Expand the use of Land-SAF products among the African agrometeorologists to enhance the benefits derived and to collect and exchange experience from that use;
- Develop capacity building at the NMHSs in Sub-Saharan Africa in relation with vegetation status monitoring, soil moisture, rainfall estimations, radiative balance and land use;
- Build institutional cooperation between EUMETSAT, WMO, EU-JRC, FAO and the National Meteorological and Hydrometeorological Services of Sub-Saharan Africa in terms of satellite product utilization and reception stations optimization;
- Develop the technical component of the METAGRI OPERATIONAL project and other WMO projects in Africa for a better provision of climate services in agriculture and food security;
- Develop an effective partnership with the National Meteorological Agency of Ethiopia in the use and development of agrometeorological products and services based in satellite derived information.

## **EXPECTED RESULTS**

A better use of satellite products on vegetation monitoring, soil moisture evaluation, radiative balance and rainfall estimations. Reports about the activity would be provided after closing the activity. It is expected that an improvement in the the agrometeorological bulletins of the region by including relevant products based in satellite information as well as vegetation status changes or mixed satellite and ground based rainfall estimations in every participant country. A permanent dialog among EUMETSAT as data provider and the NMHSs will be established.

## **PARTICIPATION**

This course is devoted to experts in agrometeorology in the NMHSs, with special attention to the Severe Weather Forecast Demonstration Project, METAGRI OPERATIONAL and countries in relation with other WMO projects. It is expected to have the participation of experts from Gambia, Nigeria, Uganda, Kenya, Tanzania, Rwanda, Burundi, South Sudan, Malawi, Zambia and Zimbabwe.

## **LOCAL ORGANISER**

The government of Ethiopia established the National Meteorological Services Agency on 31 December 1980. The objectives of the Agency include to investigate and study the weather and climatic condition of Ethiopia in order to exploit the beneficial effects for economic and social development, to operate a national network of meteorological stations, disseminate advice and educational information to public on weather, provision of early warnings regarding the adverse effects weather and climate to pertinent institutions and the general public.