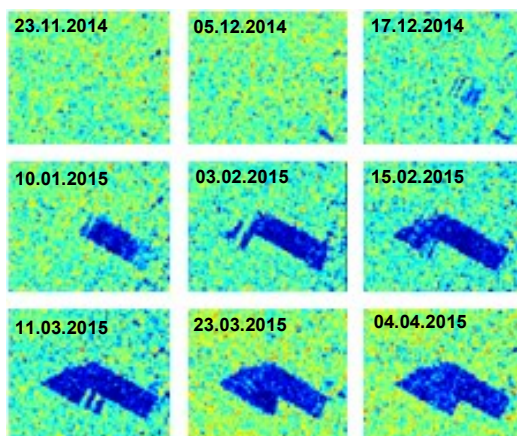




Deforestation of Malawian tropical dry forest caused by fuel wood extraction. Adapted processing algorithms are developed in order to address the specific phenology of tropical dry forests.



Example of the radar backscatter behavior during the evolution of a forest clearing. Dense time series data allows the monitoring of gradual forest degradation and deforestation. Blue colour represents cleared forest areas.

## Planned Method Developments

- Optimised algorithms combining multi-temporal optical and radar data for mapping near real time forest disturbances.
- Improved methods for the calibration, extraction and validation of different biophysical parameters.
- Land cover mapping every 6 months based on temporal trajectories of optical and radar data.
- Enhanced methods for mapping biomass changes (AGB) every 6 months using radar data.

## About Us

The EOMonDis project consortium combines knowledge on the REDD+ policy process and Zero Deforestation programme with the EO technology specific to forest monitoring of humid and dry tropical forests. The consortium is comprised of:



### Service Provider and Consortium Lead

GAF AG is proud to be one of the leading companies in the geo-spatial service market.



### Service Provider

SIRS is an independent company dedicated to valorising aerial and satellite data.



### Research Partner

Joanneum Research is an innovation company focused on applied research and technology development.



### Research Partner

CESBIO aims to develop knowledge on continental biosphere dynamics.



### Service Provider

Telespazio France plays a leading role in the field of space services.

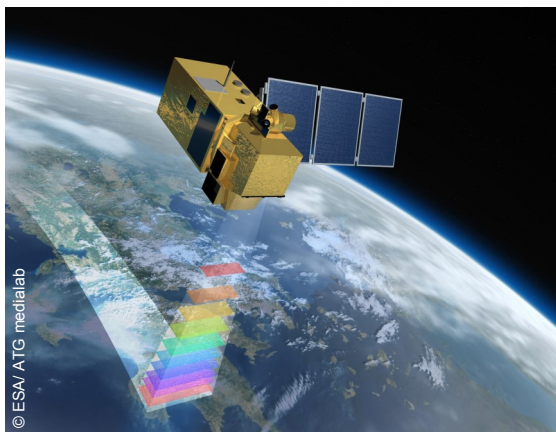


## EOMonDis 2016 - 2019

Bringing **Earth Observation**  
Services for **Monitoring**  
Dynamic Forest  
**Disturbances**  
to the Users



This project receives funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 685761.



## Operational Forest Monitoring Systems Are Needed for National and International Forest Policy Programmes

Tropical forest ecosystems are important for stabilising the global climate. Efforts to monitor and map changes in the forest using Earth Observation technologies has been increasing in the past decade.

This has especially gained momentum due to key developments in the United Nations Convention on Climate Change (UNFCCC) policy process. Countries willing to reduce emissions from deforestation and degradation (REDD) require an accepted and applicable monitoring of forest resources and their changes.

Furthermore, the corporate sector want to ensure the sustainability of their supply chain and therefore are increasingly interested by concepts such as Zero Deforestation (ZD). ZD should be understood as the preservation of high carbon and high biodiversity forests. The identification and monitoring of these areas is seen as a major requirement to prevent forest ecosystems from further deforestation.

## EOMonDis

The EOMonDis project supported by the European Commission H2020 programme, aims to offer operational Earth Observation (EO) based tropical forest monitoring services to support countries and a wide range of users with accurate relevant forest information data for their reporting requirements. The project especially aims at supporting countries implementing the REDD+ policy process as well as stakeholders involved in implementing Zero Deforestation commitments. An investigation into the funding mechanisms supporting the forest monitoring for the REDD+ and ZD as well as a user feedback mechanism will assure the sustainability of project developments. The implementation of the project is comprised of four main tasks:

- **Requirements Assessment:** Identify Users, service demands and technical requirements.
- **Innovation and Development:** Methodological developments for improved forest monitoring services and prototyping a service platform.
- **Demonstration and Validation:** Testing and verification of products in four countries.
- **Service Provision:** Based on user validated results, the project will be ready to provide user-tailored forest monitoring products for roll out.

These tasks are implemented in Cameroon, Gabon, Malawi and Peru.



## EO-Forest Products

Based on dense time series of high resolution satellite imagery (Sentinel-1/2, ALOS, Landsat) and a two phased project design EOMonDis will develop and demonstrate operational forest monitoring. The following main EO-based forest monitoring products will be provided to the stakeholders:

### Forest/Non-Forest

Accurate mapping of forest/non-forest is an urgent requirement for reporting in the frame of REDD+. The EOMonDis Project focuses on further developing methods with a temporal resolution of 6/12 month for forest cover mapping according user specifications.

### Forest Disturbance Maps

Monitoring of forest disturbances caused by selective logging, storm damage, forest fire etc. will be based on optical as well as on radar time series imagery. This multi-sensor approach allows a significant increase in temporal resolution and overall accuracy.

### Forest Biomass

Within EOMonDis, methods and processing chains for pixel based estimates of above-ground woody biomass will be improved to be provided twice a year.

**EOMonDis is developing operational EO based monitoring methods for humid and dry tropical forests.**

Visit our project website: [www.eomondis.info](http://www.eomondis.info)