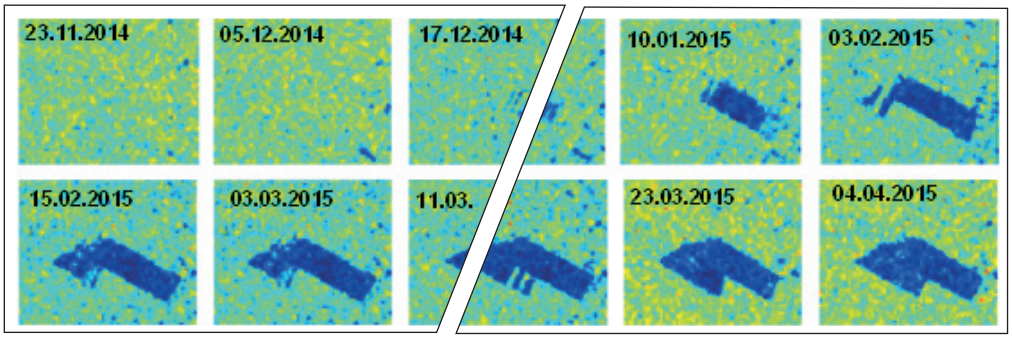
EOMonDis (2016-2019)

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

The EOMonDis Project offers 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 is supporting countries implementing the REDD+ policy process as well as stakeholders involved in implementing Zero Deforestation commitments. An assessment of the Users feedback will assure continuous service improvements which are the basis for the sustainability of the developments.

EOMonDis is integrating innovative methods to overcome existing challenges of monitoring tropical humid and dry forests; current problems for EO-based assessment of forest disturbances are related to heavy cloud cover and leaf phenology impacted by seasonality. The European Sentinel-1 and Sentinel- 2 satellite constellations have multiple benefits such as very high frequency revisit times and high spatial resolutions which are ideal for resolving these problems.

The methods developed are tested and demonstrated on selected sites in Cameroon, Gabon, Malawi and Peru in order to take account of the phenological variety of tropical biomes.



Example of the radar backscatter behavior during the evolvement of a forest clearing (*images by CESBIO*). Dense time series data allows the monitoring of gradual forest degradation and deforestation. Blue colour represents cleared forest areas.

Project Activities:

The implementation of the project is comprised of four main tasks:

- **Requirements Assessment**
  The EOMonDis services are based on the collection of functional requirements, building an optimal trade-off between environmental and climate policy requirements, the related potential markets, operational User needs and technological constraints.

- **Innovation and Development**
  The mapping of forest disturbances and forest degradation is based on the use of Sentinel data in dense time series which requires innovative algorithms and cloud based technology.

- **Demonstration and Validation**
  The experiences and feedback acquired during the demonstration and validation phase is the basis for further improvements and customisations of the products and the service platform.

- **Service Provision**
  The project provides customised forest monitoring products, such as Forest Cover Maps, Near Real-Time Forest Disturbance Maps and respective change products. The access to the products is through a web based service platform.

Acknowledgements

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

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