



Overview of Submodule Contents

- a) Information about Copernicus Land Monitoring Service (CLMS) products
 - The three components: Global, Pan-European, Local
 - Access to specific products
 - Product specifications and characteristics
 - Usage of the CLMS Web Map Service (WMS)
 - Additional information (Publications, Technical Library, etc.)
- b) Download Copernicus products, e.g. for further analysis
 - User registration and product download
 - Integration of the Web Map Service into a GIS environment









Global Component

- Series of bio-geophysical products
 - addressing status and evolution of land surface at global scale
 - with focus on monitoring Vegetation, Water and Energy & Cryosphere
- at medium/low spatial resolution (e.g. 300m-1 km)
- at high temporal frequency (every ten days)
- coordinated by Joint Research Centre (JRC)







CLMS Portfolio and Data Access

Bio-geophysical Products of Global Land Surface

Vegetation

- Burnt Area (BA)
- Dry Matter Productivity (DMP)
- Fraction of Absorbed Photosynthetically Active Radiation (FAPAR)
- Fraction of green Vegetation Cover (FCover)
- Leaf Area Index (LAI)
- Land Cover
- Normalized Difference Vegetation Index (NDVI)
- Soil Water Index
- Vegetation Condition Index (VCI)
- Vegetation Productivity Index (VPI)

Cryosphere

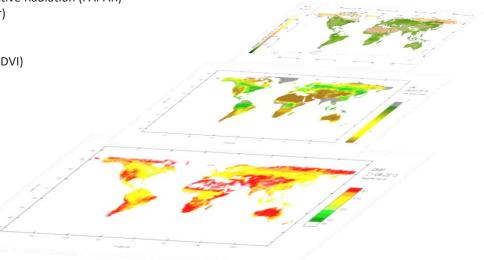
- Lake Ice Extent
- Snow Cover Extent
- Snow Water Equivalent

Energy

- Land Surface Temperature (LST)
- Surface Albedo (SA)
- Top Of Canopy Reflectances (TOC-r)

Water

- Water Bodies (WB)
- Water Level
- Lake Surface Water Temperature
- Lake Water Quality











Pan-European (Continental) Component

- Land cover/land use products at European extent
 - CORINE Land Cover (1990, 2000, 2006, 2012, 2018 upcoming)
 - High Resolution Layers (2012; 2015; 2018 planned)
- Image mosaics and reference data at European scale
 - Image Mosaics (2000, 2006, 2009, 2012)
 - Reference Data: EU-DEM, EU-Hydro
- allowing to monitor status, changes, developments, trends
- high spatial resolution (e.g. 20 m, 2018: 10m)
- regular update cycle of three/six years
- coordinated by the European Environment Agency (EEA)









Local Component

- monitoring hot spots of human activity and biodiversity
 - Urban Atlas (2006, 2012)
 - Riparian Zones (2012, 2018 planned)
 - Natura2000 (2006, 2012)
- Land cover/land use information with very detailed class nomenclatures (up to 65 classes)
- Based on very high spatial resolution pan-European satellite coverages (2012: 1.5m - 2.5m; 2015: < 1m; 2018 planned: 2-4m)
- Regular product update cycle of six years
- Coordinated by the European Environment Agency (EEA)









CLMS Portfolio and Data Access





Monitoring

CLMS SUBMODULE

