



## SPECIAL SESSION 14

### Advances in Global Forest Monitoring - Addressing Evolving User Needs and R&D Priorities

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#### **The goal of the session**

Global forest products have potential to support a number of sustainable development and climate change reporting/ accounting requirements, including the UNFCCC Global Stocktake and related Enhanced Transparency Framework (ETF), for which there is some urgency as the first global stocktake will take place in 2023. Supporting other international mechanisms such as the UN Sustainable Development Goals (SDGs) by providing consistent results across countries could also be achieved using global datasets. Global products also have the potential to be used at a national/sub-national scale, and are particularly useful where they can be adapted to meet the needs of the users and the local conditions (such as national forest definitions used for LULUCF or REDD+ reporting).

As new data streams with global coverage such as those from the ESA Sentinel Satellites become available, and methods such as machine/deep learning are developed and harnessed, new global products are being produced. Stakeholders in the Forest Monitoring domain have different needs for products and data, and these may include analysis-ready satellite time series data and harmonized products (for example Landsat and Sentinel data streams), thematic products for forest changes, forest type products, and those showing forest characteristics (i.e. biomass, canopy cover, etc.), as well as land use, to be used for assessments of drivers of deforestation. Other products of interest to users include those which can show other biotic and abiotic factors affecting forests such as fire, and other disturbances (logging and fuelwood collection), and there is an increasing interest in products which show key habitats and biodiversity indicators in forests.

To promote uptake of such new products, tools, methods and platforms to allow access to and analysis are required. Along with this, capacity building can support users to effectively make use of new data.

Producing global satellite-derived datasets which are useful in different regions around the globe poses challenges, for example production of products with accurate results in both dry and humid tropical forests. The latest novel methods to overcome these difficulties can be showcased in this session.

**Potential topics:**

- Stakeholder / user needs for global EO products to support forest monitoring needs.
- Presentation of new global / continental products that can be operationalized for regular forest monitoring purposes
- Tools, methods and platforms which allow access to and analysis of global (and other) spatial datasets for forest monitoring
- Guidance documents for forest monitoring (for example the Methods and Guidance Document and OpenMRV from the GFOI/World Bank)
- User experiences from existing satellite-derived global forest datasets (e.g. those available from Global Forest Watch).
- Validation of global datasets, and assessing suitability for user needs.
- Guidance on the use of global forest products at local level – uncertainty estimation, and adjustment for local needs.
- R&D gaps related to providing robust EO derived estimates of forest-related variables.