

Reflections on status and trends in REDD+ tools and data

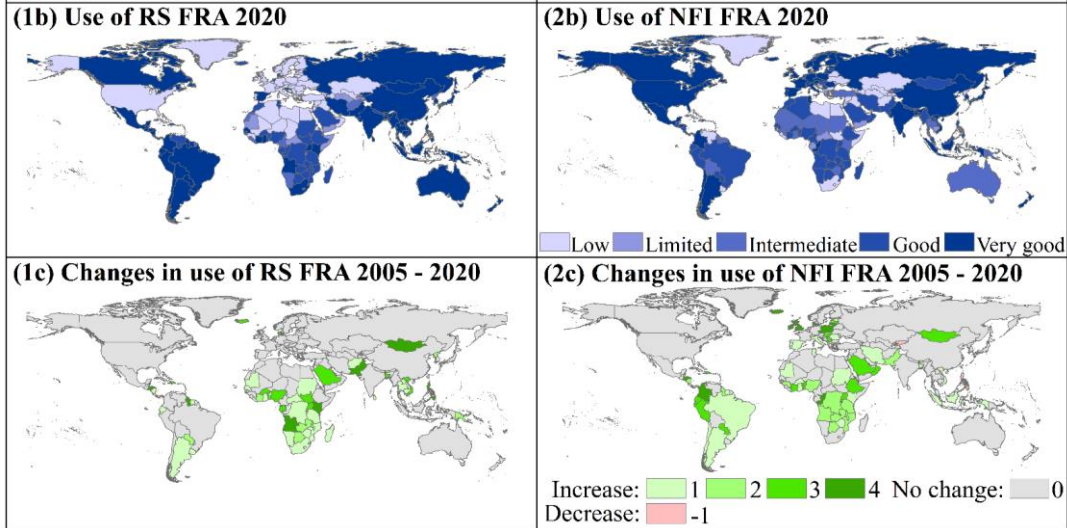
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(with contributions by many)

UNFCCC COP 26 side event presentations, 5. Nov. 2021

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National Forest Monitoring/Data Assessment based on FAO's FRA 2020

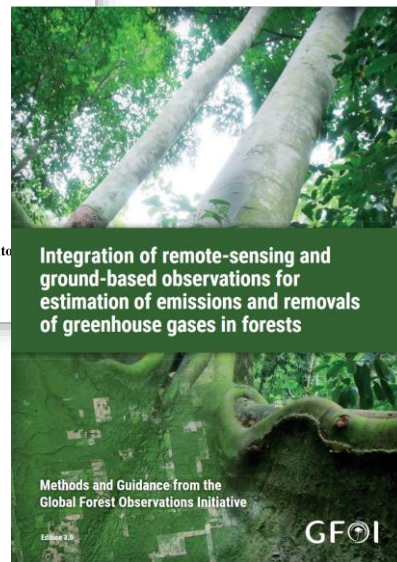
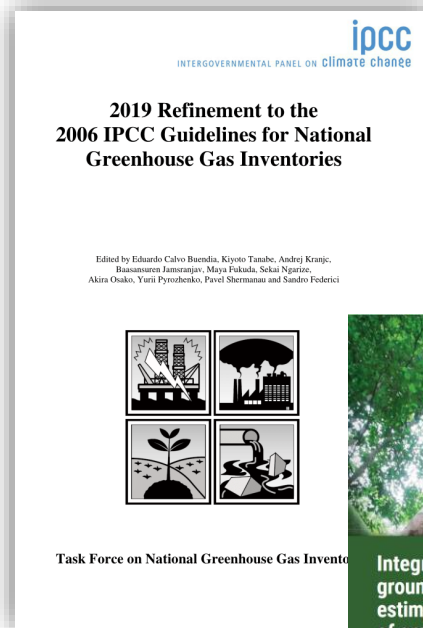


- Continuous improvement in the use of RS for area change estimation
- NFI data improvements widespread in tropics, mostly one-time NFI's
- Importance of both international support and countries own investments
- Key issues for future:
 - Sustain this progress
 - Fill remaining gaps
 - Respond to evolving needs

Improved guidance to countries

- Attribute land cover change to specific **disturbances** (e.g. harvesting, fire etc)
- **Stratification** of LU categories to facilitate the estimation of emissions and removals
- **Allometric models**
- Use of **biomass density maps**
- **Enhanced Tier 1 data** (for tropical regions in particular)
- **Estimation of uncertainties**

[GFOI Methods and Guidance Doc \(v3\)](#)

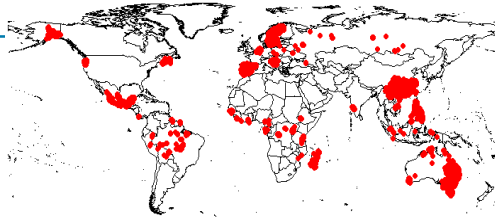
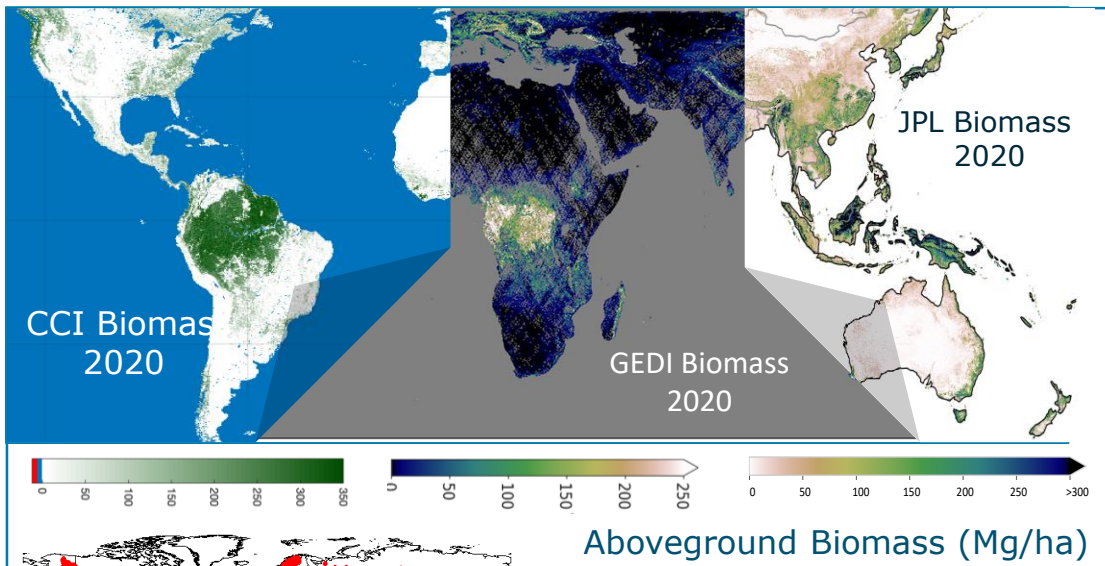


Satellite data sources for filling remaining gaps

(in particular for degradation, forest regrowth, fire, land use change ...)

1. High resolution Planet mosaics and data – free and open for REDD+ purposes (<https://www.planet.com/nicfi/>)
2. European commission/ESA Copernicus – Sentinel satellite data and future forest monitoring service (<https://www.reddcopernicus.info>)
3. Cloud-penetrating, rapid forest disturbance alerts (RADD - <http://radd-alert.wur.nl>)

Harmonizing biomass estimation for the UNFCCC Global Stocktake



Global plot reference database(s)

UNFCCC COP 26 dashboard:

<https://ceos.org/gst/>

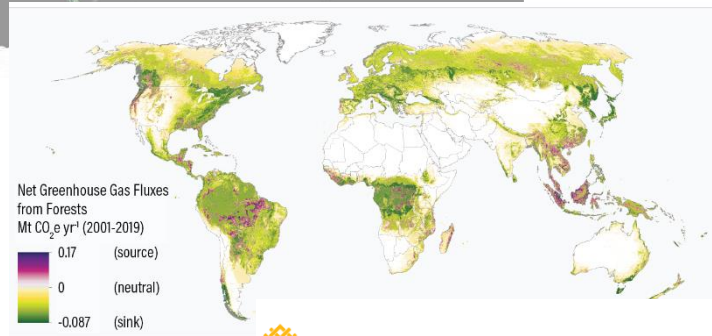
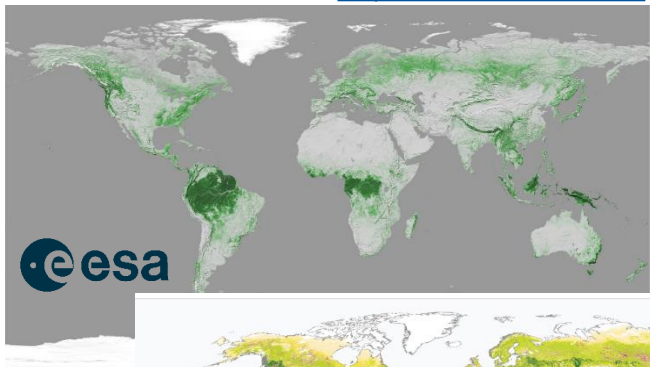
<https://earthdata.nasa.gov/maap-biomass>

- Including several country examples on combining NFI/ground-based and space-based biomass data for improving national estimation
- Joint in-situ monitoring (GEOTREES)
- Improved agreement between national and global data sources

Towards more spatial and temporal detail for GHG inventories

- Better understand spatio-temporal patterns
- Make GHG inventories more policy relevant and actionable:
 - With national policy development and targeting implementation
 - Provide timely information supporting land management
 - GHG assessments at scale of actions for tracking progress of mitigation activities
- Integration of ground-based and space-based data
- Statistical versus spatial approaches

<http://cci.esa.int/biomass>



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Concluding remarks

1. Significant improvements in data quality underpinning national estimation and reporting in tropical countries:
 - Uptake of satellite data for activity data estimation
 - Many countries with progress in NFIs
 - Achieved through partnership
2. Important to sustain progress and fill remaining gaps:
 - Permanent national institutions, data, capacities and country ownership
 - Better position to take advantage of new data streams and approaches to stepwise progress on monitoring critical issues like degradation, regrowth, land use, biomass, fire, wetlands ...
3. Respond to evolving needs:
 - Make GHG inventories more policy-relevant and actionable
 - UNFCCC Global Stocktake – better linking national and international efforts