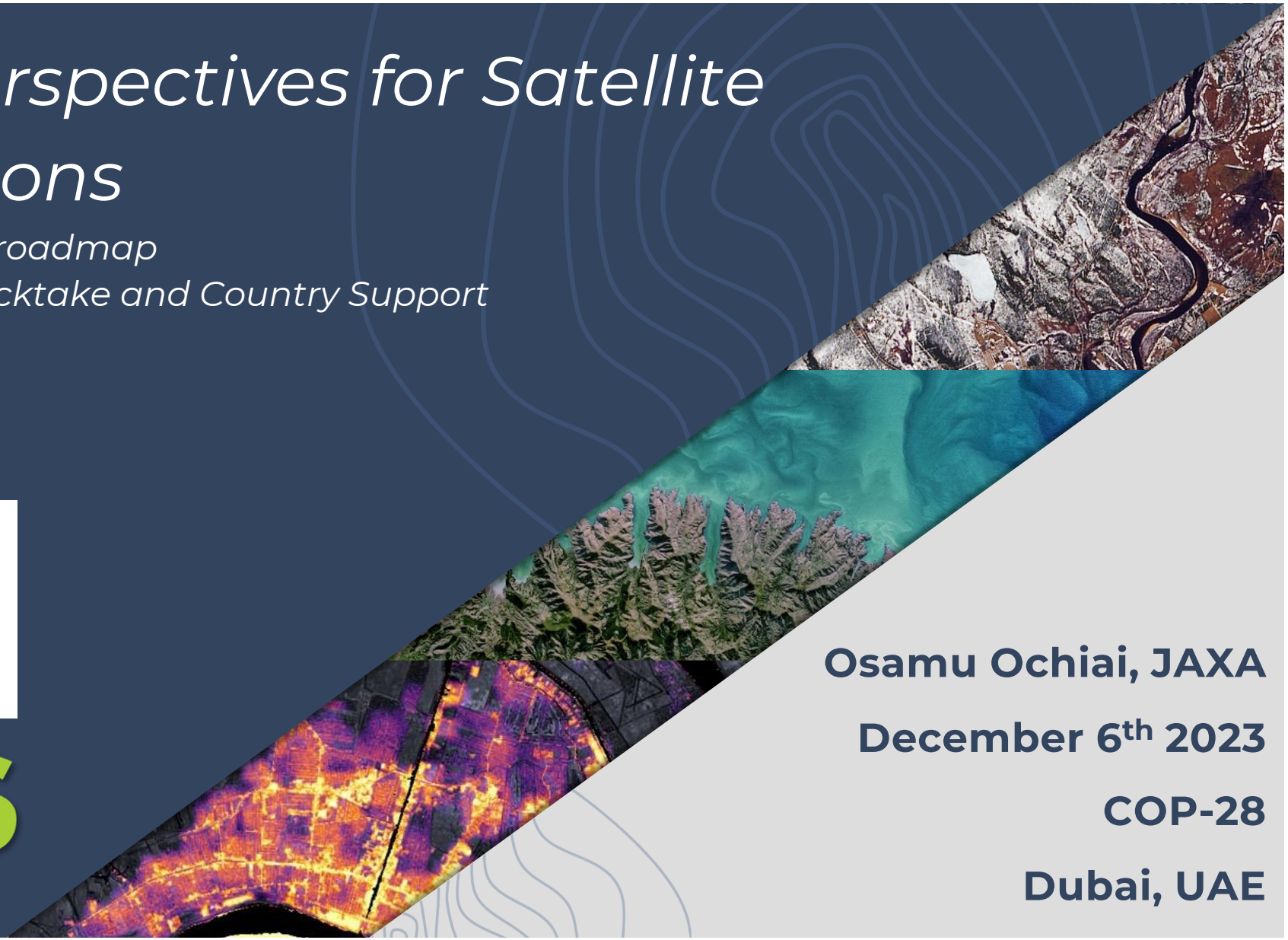
Future perspectives for Satellite Observations

Space-based data roadmap
towards Global Stocktake and Country Support



JAXA Explore to Realize

CEOS Committee on Earth Observation Satellites

Osamu Ochiai, JAXA

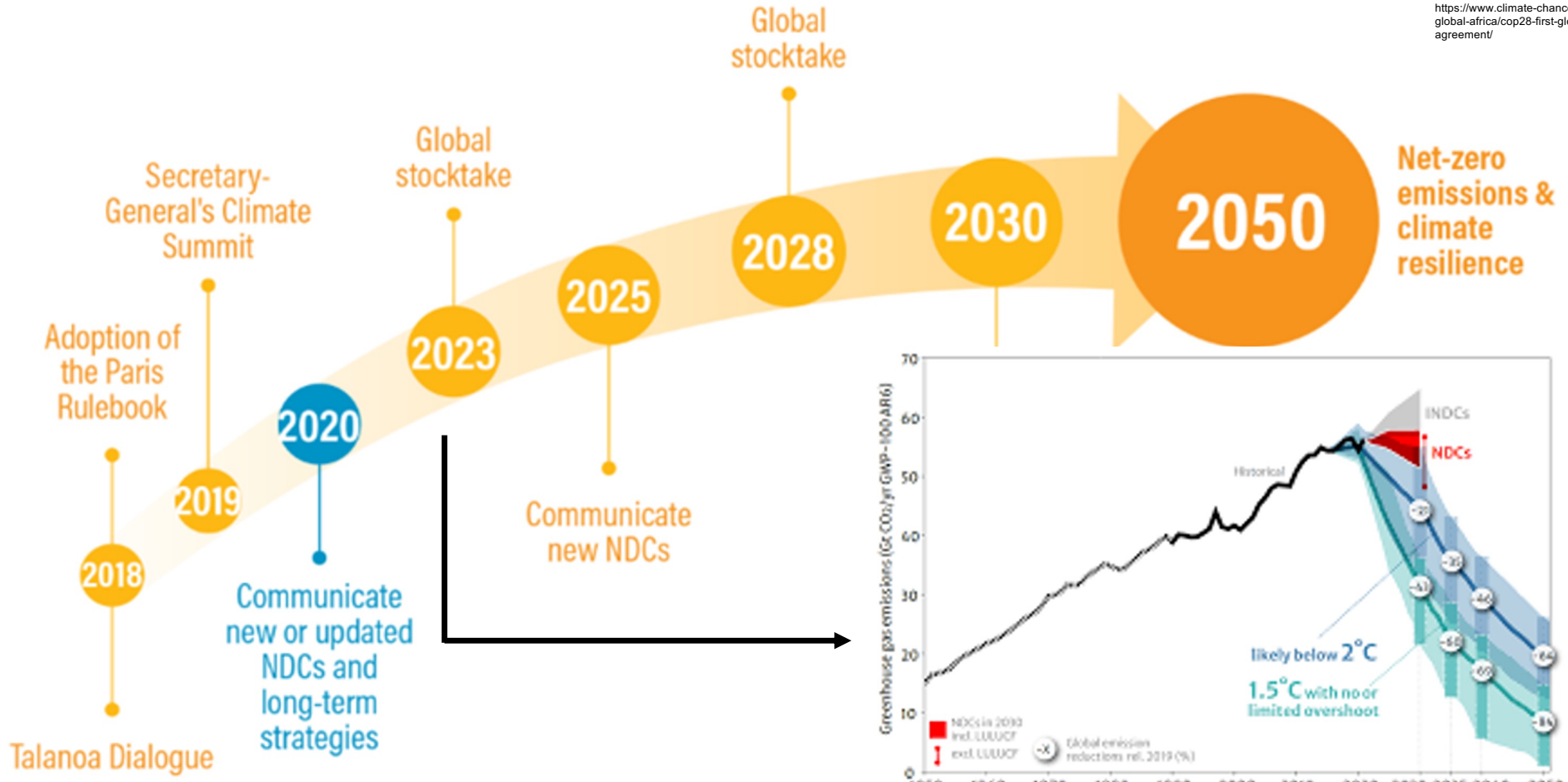
December 6th 2023

COP-28

Dubai, UAE

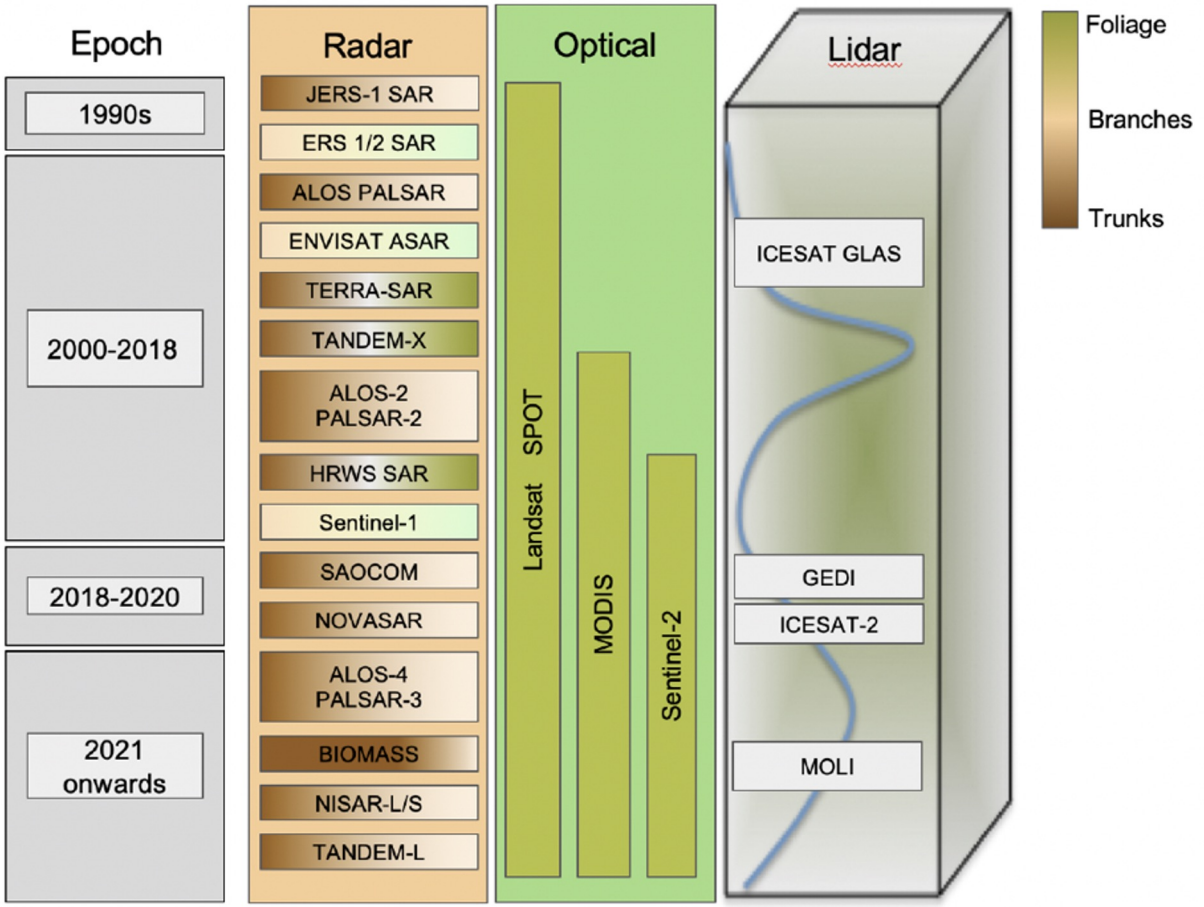
The Global Stocktake of the Paris Agreement

https://www.climate-chance.org/en/comprehend/blog-observatory-global-africa/cop28-first-global-stocktake-what-to-expect-paris-agreement/

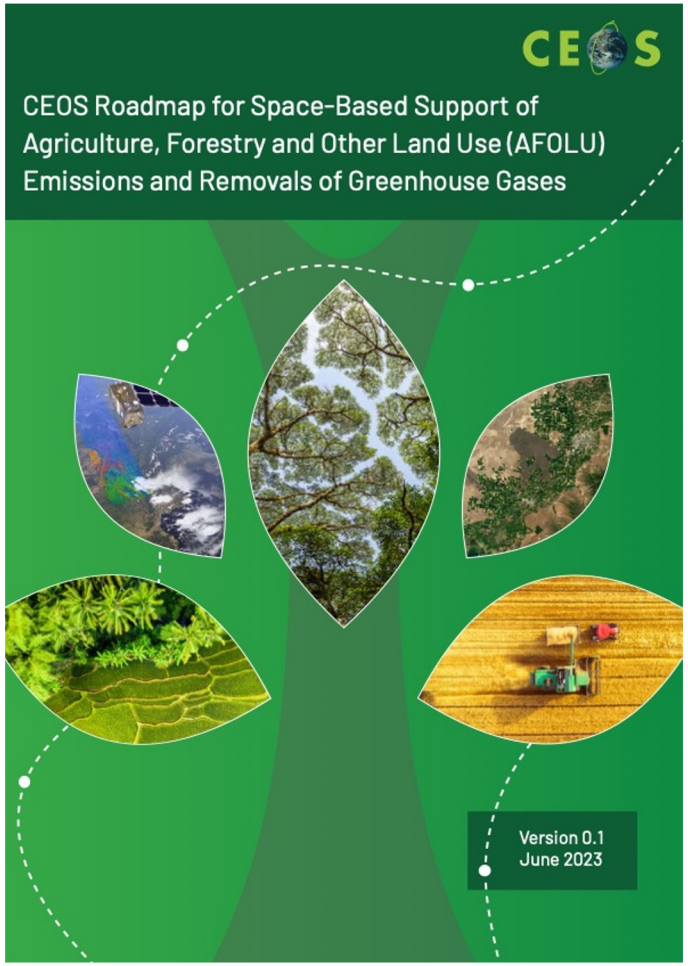


Assessed contributions of radar, optical and lidar missions

- Reviewed the use of Earth observations in national GHG inventories
- Identified thematic areas where EO data are successfully used, i.e., forests, agriculture, wetlands, or biomass
- Identified challenges and opportunities in using EO data in national GHG inventories as basis for Recommendations and actions

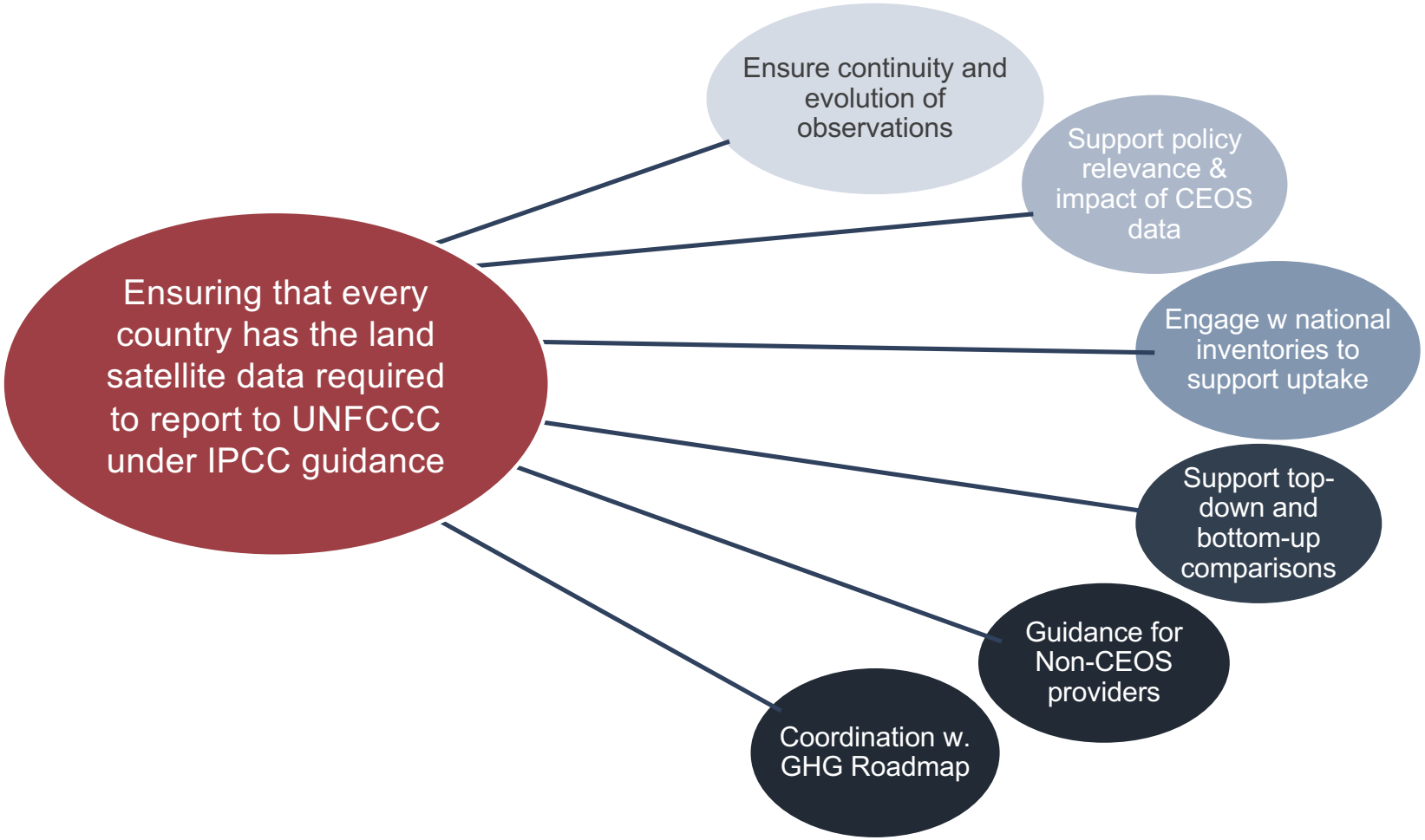


CEOS AFOLU Roadmap



- Overview of IPCC methodologies
  - Stock change
  - Gain loss
- EO for Activity Data
  - Land cover change working group
- EO for Emissions Factors
  - Biomass harmonization working group
- Capacity Building and Stakeholder Engagement
- Integrated Monitoring and Verification System
- Recommendations (& actions)

Recommendation principles



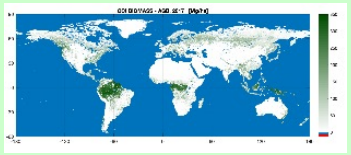
Our Priority Work 2024-2025

- **Climate Policy Impact – addressing obstacles and opportunities for space agency data, particularly AFOLU/Biomass map datasets, to have maximum impact in the key climate policy processes such as the Global Stocktake of the Paris Agreement**

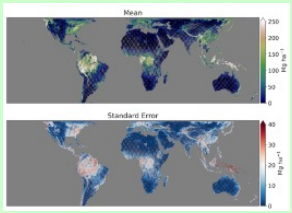
- **GHG observations from space – addressing coordination for data continuity challenges ahead and developing good practices so that operators of all kinds may contribute to societal needs**

Biomass Datasets in Cooperation with Asian Countries

Global Biomass Maps



ESA CCI Biomass



NASA GEDI Biomass Map

NASA JPL Biomass Map

Capacity Building

SilvaCarbon

Collaboration

New!! JAXA Biomass Mapping Initiative

- 3years fund granted by Japanese Government
- Space-based aboveground biomass map supporting for country reporting
  - ✓ To develop accurate satellite-based biomass maps.
  - ✓ To use maps to support national policies and carbon credit.
- Challenges for Asian forest biomass mapping:
  - ✓ Uneven reference data distribution.
  - ✓ Errors from ground slope.
- Engagement Stakeholders:

Potential Partners:
GISTDA (Thailand), MoE DIGS (Department of Geospatial Information Service) (Cambodia), ICIMOD (Nepal)

Thank you!

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