GEOSS Asia-Pacific Symposium
4th Parallel Session

Mapping Forests and Tracking Carbon

April 15 (Tue)
Room XX

Chairs:
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&
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European Commission JRC

Fate of Anthropogenic CO_2 Emissions

+

Atmosphere
45%

Land
30%

Oceans
25%

Canadell et al. 2007, PNAS

Trees are worth more dead than alive

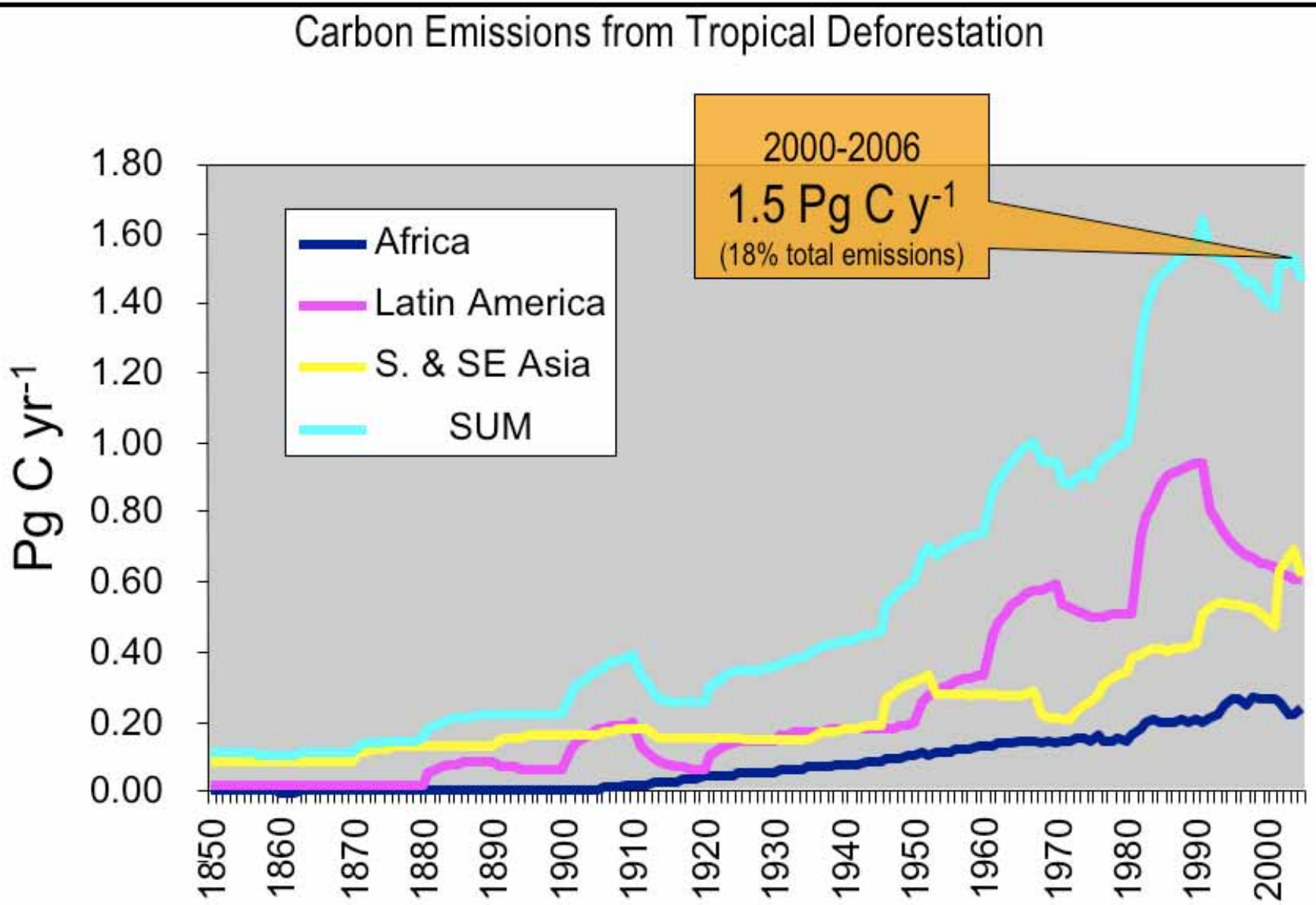
Tropical deforestation

13 Million hectares each year

	2000-2005
Tropical Americas	0.6 Pg C y^{-1}
Tropical Asia	0.6 Pg C y^{-1}
Tropical Africa	0.3 Pg C y^{-1}
	1.5 Pg C y^{-1}

FAO 2006; Canadell et al. 2007, PNAS

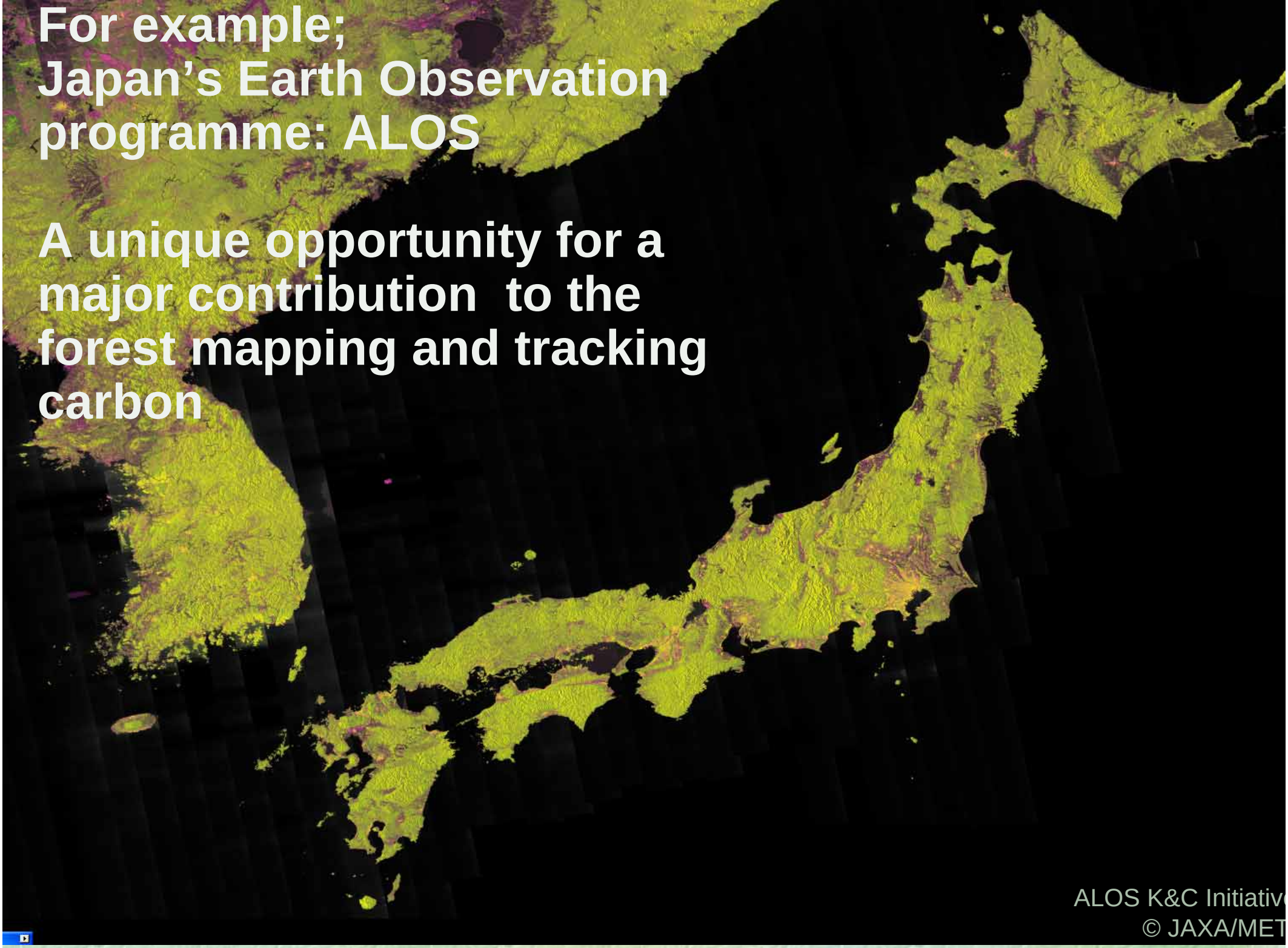
Anthropogenic C Emissions: Land Use Change



Houghton, unpublished; Canadell et al. 2007, PNAS

Critical requirements for systematic ES strategies

1. Spatial (wall-to-wall) consistency over regional scales;
2. Temporal consistency over regional scales;
3. "Adequate" temporal repetition;
5. Consistent sensor configuration;
6. Long-term continuity.


For example;
Japan's Earth Observation programme: ALOS
A unique opportunity for a major contribution to the forest mapping and tracking carbon
ALOS K&C Initiativ
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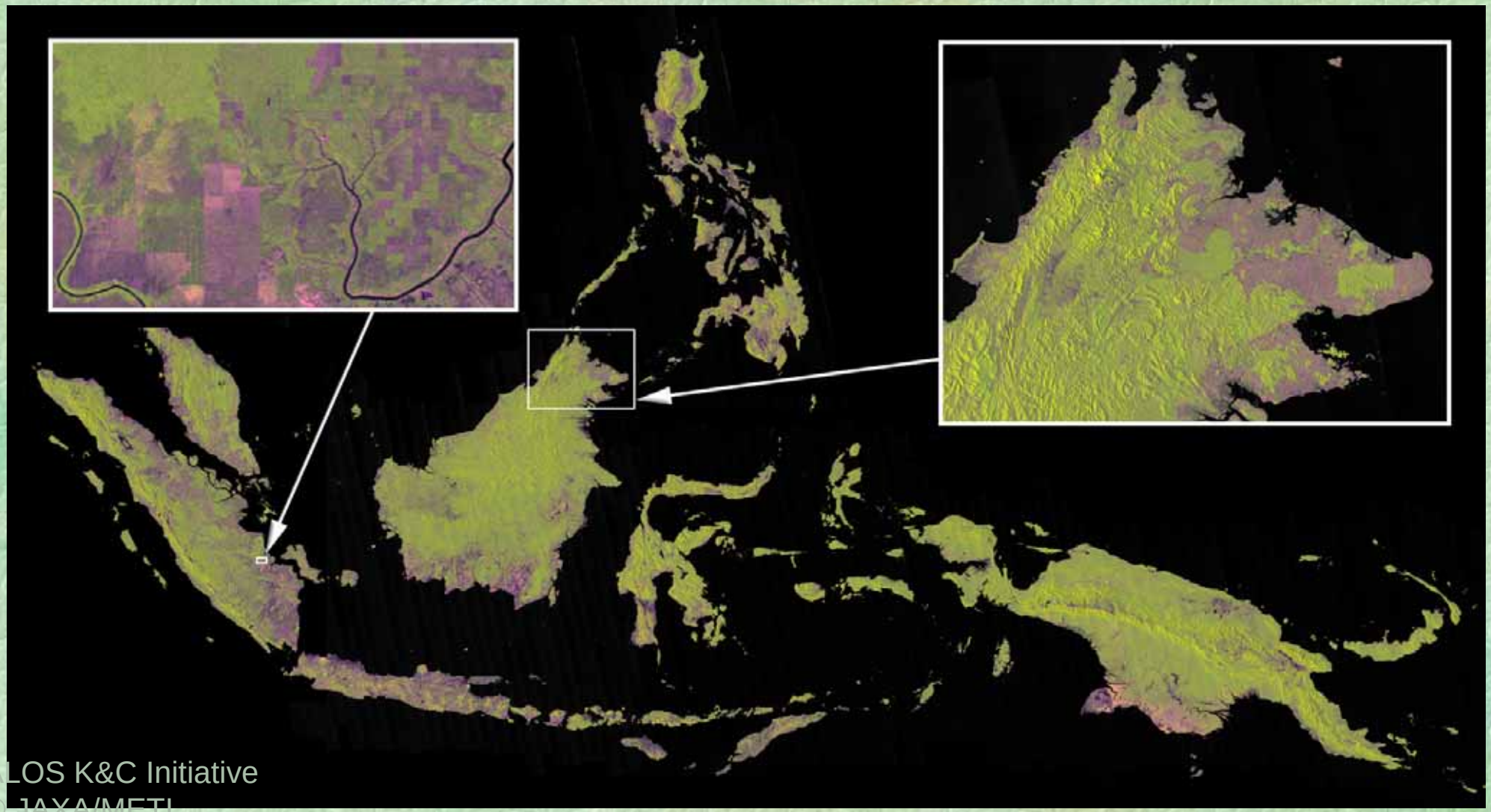
ALOS/PALSAR can detect land use changes: Semi-annual, national level wall-to-wall coverage at fine resolution



ALOS K&C Initiative

Mapping Forests and Carbon Session objectives (1/3)

- Address the need for integrated observations from diverse instruments and from various fields

- Overview of the available tools and methodologies for forest monitoring and tracking of carbon

- Address the requirements for systematic satellite observations.

Mapping Forests and Carbon Session objectives (2/3)

- Overview of on-going activities for addressing the issue at different geographical levels
- Inputs for a strong GEO initiative on this subject
- Discuss implementation aspects of GEO initiative, and identify potential contributors.

Mapping Forests and Carbon Session overview (2/3)

- GEO Workplan Tasks Working on Forest Mapping and Carbon Tracking
- Global Observations - Requirements and contributions
- Initiatives and projects on Carbon Monitoring
- Round table: How GEOSS could support global carbon measurements