

Earth Observations Contributing to “The 2030 Agenda for Sustainable Development” -Perspective of Japan -

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Japan's contribution to the 2030 Agenda



◆ Prime Minister Shinzo Abe declared following contribution in the statement.

1. **“Quality Growth”**; inclusive, sustainable and resilient growth for all.
2. **The protection and empowerment of people** for “no one will be left behind”
3. **Sustainable environment and society**
4. Japan's Government Pension Investment Fund (GPIF) has just signed the **United Nations Principles for Responsible Investment**

Contribution of Earth Observations

◆ The 2030 Agenda's components

- 5“P”s: “People”, “Planet”, “Prosperity”, “Peace”, and “Partnership”
- SDGs: 17 Goals and 169 Targets



◆ Earth Observations

- Various data and information; space-based, ocean, and in-situ observation
- Providing science-based data and information

Contribution of Earth Observations

◆ How Earth Observation can support SDGs?

- Follow up and Review of the goals
- Support decision making to achieve the goals
(eg. policy, plan, project)

Good Practices of Japan

◆ Sentinel Asia

➡ **Goal 11:** Make cities and human settlements inclusive, safe, resilient and sustainable

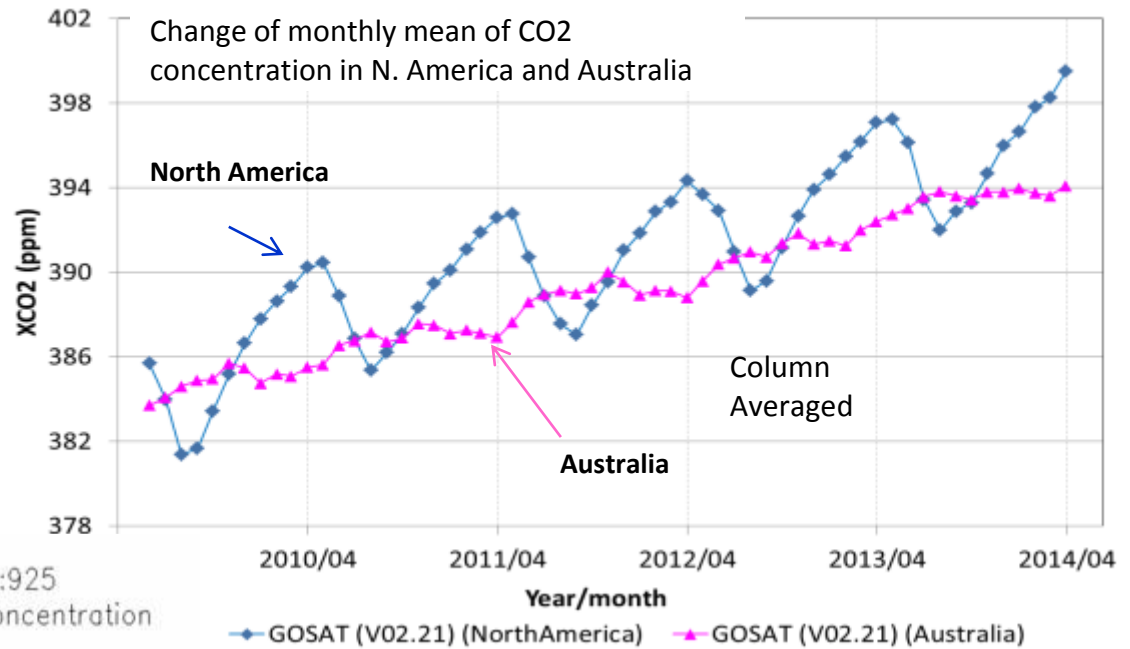
◆ Carbon monitoring by GOSAT

➡ **Goal 13:** Take urgent action to combat climate change and its impact

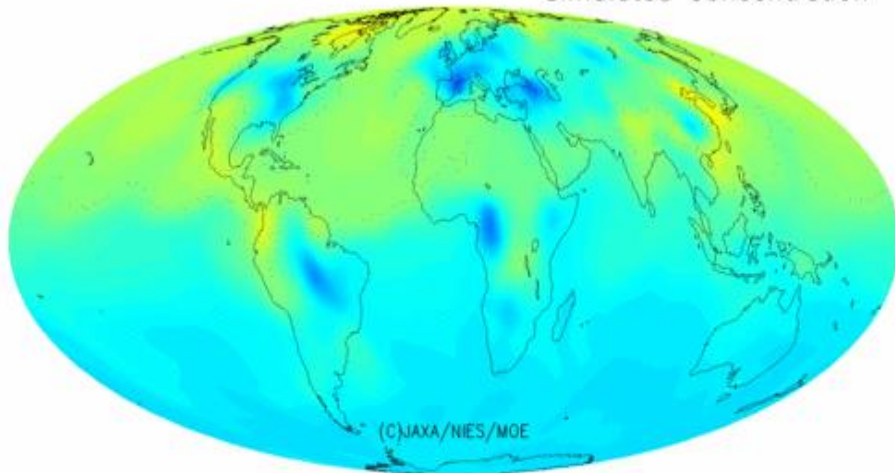
◆ Global Forest/ Non- Forest Map

➡ **Goal 15:** Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss

CO₂ Concentrations by GOSAT



GOSAT L4B V02.02 CO₂ (2009/06/01) ETA:925
Simulated Concentration



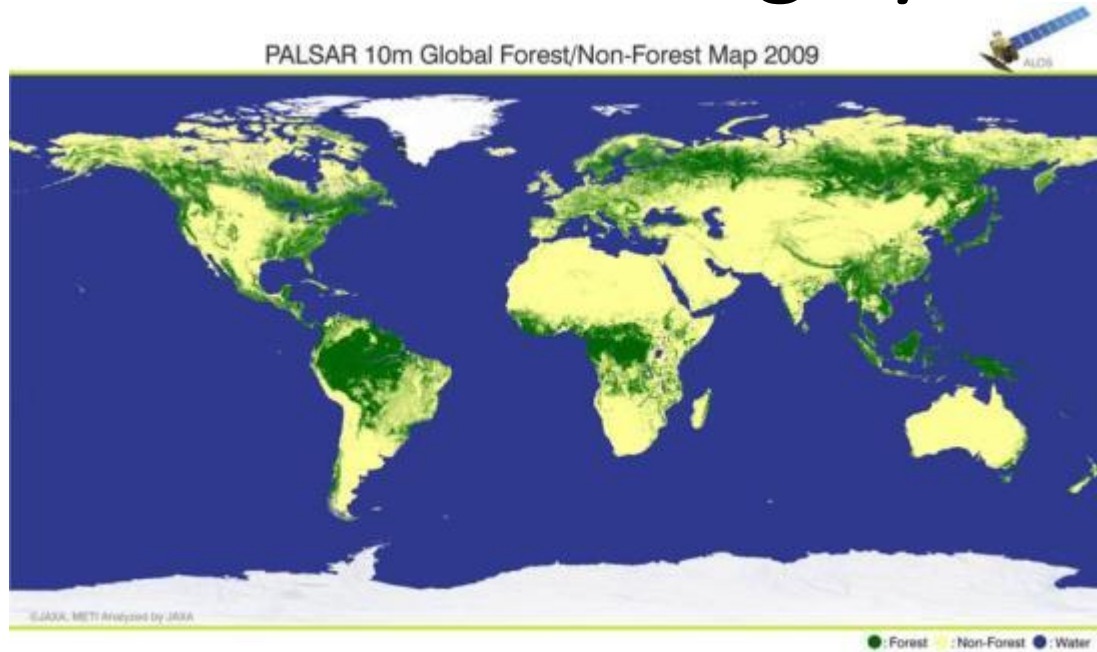
Dr. Yokota (NIES)

Animation of daily mean of CO₂ concentration
(June 2009 - May 2011, at 800 m altitude)

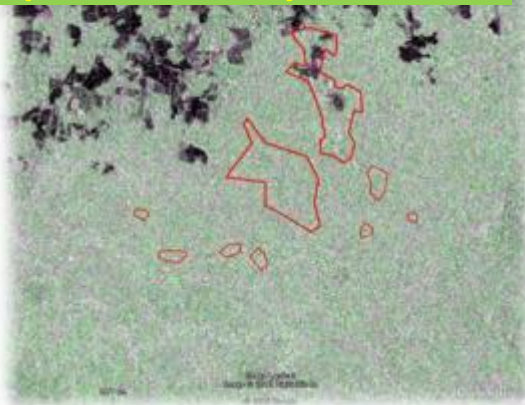
(c) MOE/NIES/JAXA



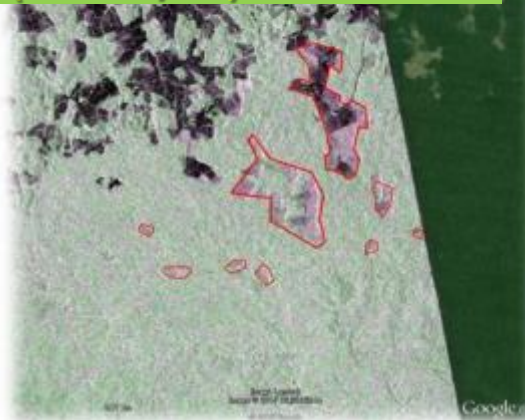
Forest Monitoring by PALSAR



PALSAR (HH/HV, 25m)
(2010 Mosaic)



PALSAR-2 (HH/HV, 10m)
(2015 1/24)



L-band SAR (PALSAR, PALSAR-2) is more suitable for forest monitoring than C- and X-band SAR, since L-band SAR is not affected by the fine structure on the ground and can readily distinguish forested and deforested areas

Conclusion and Expectations to GEO

- ◆ Earth Observations can contribute to the achievement of SDGs.
- ◆ Japan expects GEO to achieve followings by using its “convening power”
 1. Strengthened the engagement of observation communities such as space based, ocean, and in-situ observations.
 2. The collaboration with organizations which address the global challenges