**GOSAT-GW** (Global Observing SATellite for Greenhouse gases and Water cycle)

**TANSO-3** (*Total Anthropogenic and Natural emissions mapping SpectrOmeter-3*)

- **Project:** NIES, funded by MoE-Japan
- **Development:** JAXA, Mitsubishi
- **Expected Launch:** FY2023 (Apr 2023 – Mar 2024)
- **Lifetime:** 7 yrs
- **Orbital altitude:** 666 km
- **Sensor:** grating imaging spectrometer
- **Band:** VIS, NIR 0.7, SWIR 1.6 um
- **Species:** CO₂, CH₄, NO₂
- **Swath:** 911 km/90 km
- **Spatial resolution:** 10 km/1-3 km
- **Global coverage:** 3 days
- **Local time:** 13:30

**Toward Global Stocktake 2023/2028:**
- Monitoring of global-mean atmospheric column of GHGs, on monthly basis
- Evaluation of national inventories of anthropogenic emissions of GHGs
- Identification of large point sources

**NO₂ Team:**
- Joint NIES-JAMSTEC-NICT project (NIES-algorithm, JAMSTEC-validation, NICT-data processing) – H. Tanimoto, Y. Kanaya, Y. Kasai
- NIES-JAMSTEC-JAXA collaboration on aircraft obs., power plants, modeling, etc. – A. Kuze
- NIES’s CC-AQ program for 2021-2025