



Japan's Activities for GEOSS

The 9th GEOSS Asia-Pacific Symposium

- Earth Observations Supporting the Implementation of the SDGs in the Asia Pacific Region –

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Shinichi Higuchi

GEO Principal Alternate of Japan

Director for Environmental Science and Technology

Environment and Energy Division, Research and Development Bureau



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Recent Activities for GEOSS Development (1)

Advanced Land Observing Satellite-2 (ALOS-2)

Launch: 2014.5.24
Missions: Global Land monitoring (Radar)

Greenhouse gases Observing SATellite (GOSAT/IBUKI)

Launch: 2009.1.23
Mission: Greenhouse Gases Monitoring (CO₂, CH₄)
(GOSAT-2 is planned to launch in FY2018)

Global Precipitation Measurement (GPM)/Dual-frequency Precipitation Radar

(DPR)

Launch: 2014. 2. 28
Mission: Global Precipitation Monitoring
(Japan develop DPR on board GPM)

Global Change Observation Mission (GCOM)

<GCOM-W/SHIZUKU>
Launch: 2012.5.18
Mission: Global Sea Surface Temperature, Precipitation, Sea Ice etc
<GCOM-C>
Launch: FY2017~
Mission: Global Cloud, Moisture, Vegetation, etc

Oceanographic Research Vessel M/V Mirai

Missions: Water temperature, Salinity, Current Speed etc

Geostationary Meteorological Satellite (Himawari-8/9)

Missions: Weather observation

EarthCARE/ Cloud Profiling Radar (CPR)

Launch: FY2018~
Mission: cloud and aerosol particles observation
(Japan develop CPR on board ESA's EarthCARE mission.)

Algo Floats

Missions: Water temperature, Salinity, Dissolved oxygen etc

Earth Observation Missions



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Recent Activities for GEOSS Development (2)

Data Integration and Analysis System (DIAS)

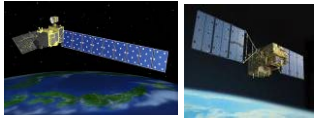
GOALS

- *To create knowledge to be shared among different disciplines*
- *To create knowledge to be shared throughout the world*
- *To disseminate data and information that brings awareness*

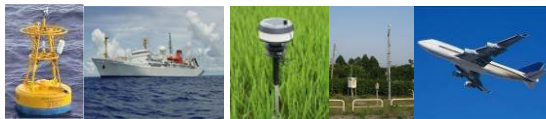


The mission of DIAS is to produce the scientifically and socially valuable information by integrating and analyzing earth observation data, numerical model outputs and socio-economical data effectively.

Satellite Observation



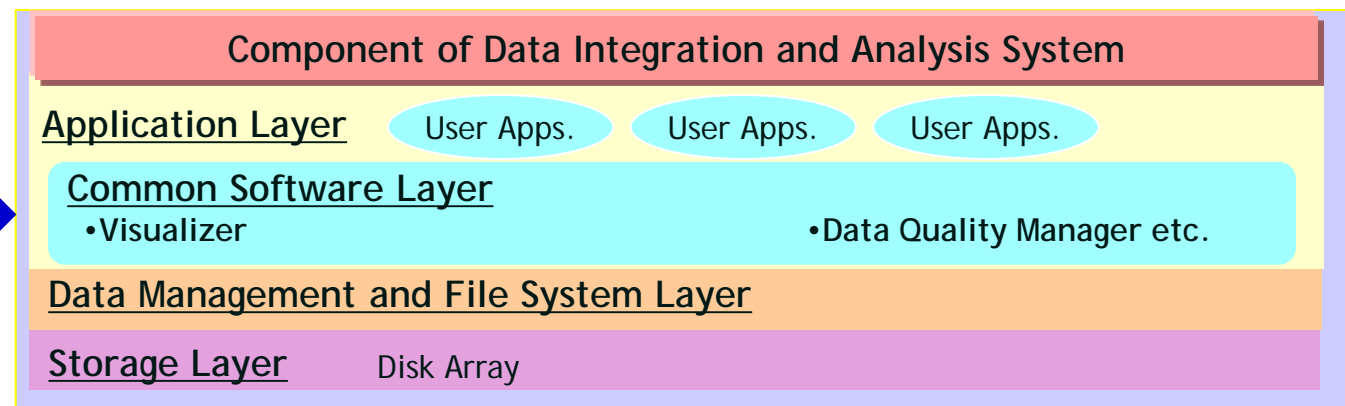
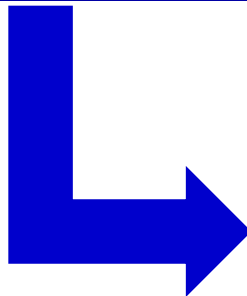
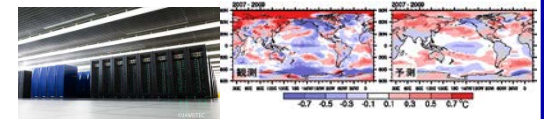
In-situ Observation



Socio-Economical Data



Weather and Climate Model



Recent Activities for GEOSS Development (3)

GEOSS Asia-Pacific Symposium “Regional Convening Power”

Total over 1,600 participants (as of the 8th Symposium)



Purpose

To provide researchers, engineers and practitioners from the AP region a forum to exchange information and to discuss cooperation on specific initiatives and other activities in each thematic area, to promote the effort of GEOSS and to make further cooperation in the AP region.

Composition

WG1: Asian Water Cycle Initiative (AWCI),
WG2: Asia-Pacific Biodiversity Observation Network (AP-BON)
WG3: GEO Carbon and GHG Initiative
WG4: Ocean Observation and Society
WG5: Agriculture and Food Security to respond to GEOGLAM).

Organizers

Co-organized by the GEO Secretariat, Japan and the Host Organizer of the year when the Symposium is held in other countries of the Asia-Pacific region.

History

1 st : Tokyo, Japan	6 th : Ahmedabad, India
2 nd : Tokyo, Japan	7 th : Tokyo, Japan
3 rd : Kyoto, Japan	8 th : Beijing, China
4 th : Bali, Indonesia	9 th : Tokyo, Japan
5 th : Tokyo, Japan	



Recent activities for GEOSS Development (4)

G7 Leaders' Declaration (Ise-Shima, May 2016)

“Support scientific work to enhance **global ocean observation** and assessment for science-based management, conservation and sustainable use of marine resources. “



G7 S&T Ministers' Communiqué (Tsukuba, May 2016)

“Fundamental to the progress of open science is the continued investment by governments and others, such as **the Group on Earth Observations' Global Earth Observation System of Systems (GEOSS)**, in suitable infrastructures and services for data collection, analysis, preservation and dissemination.. “

G7 Environment Ministers' Communiqué (Toyama, May 2016)

“We recognize the necessity of robust **earth observations** to enhance our ability to measure and monitor GHG emissions.”



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Recent Activities for GEOSS Development (5)

Japan's Contribution to GEO Work Programme 2017-2019

4 Flagships



[MOE, NIES, JAMSTEC]



[JAXA]



Global Forest Observations Initiative

[JAXA, JAMSTEC, NIES]

**Global Observation
System For Mercury
(GOS4M)**

[NIES]



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Recent Activities for GEOSS Development (6)

9 Initiatives

Asia Oceania GEOSS

(Univ. of Tokyo, JAMSTEC, JAXA,
NIES, MOE, Kyusyu Univ.)

**Earth Observations in Service of
the 2030 Agenda for Sustainable
Development [JAXA]**

**GEO Geohazard
Supersites and Natural
Laboratories**



(JAXA)

**GEO Global Network for
Observation and Information in
Mountain Environment (GEO-
GNOME) [Tsukuba Univ.]**

**Data Access for Risk Management
(GEO-DARMA) [JAXA]**

**Global Carbon and GHG Initiative
[NIES, JAXA, JAMSTEC, JMA, Gifu
Univ.]**

**GEO Cold Region Initiative
(GEOCRI) [JAMSTEC, NIPR,
Hokkaido Univ.]**

**Global Wild Fire Information
System [JAXA]**



(JAMSTEC,
JMA, JAXA)



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Recent Activities for GEOSS Development (7)

2 Community Activities

**Data Analysis and
Integration System**



[Univ. of Tokyo]

Land Cover and Land Cover Change [JAXA, JAMSTEC]

Promotion of SDGs Implementation in Japan (1)

◆ SDGs Promotion Headquarter

- Established in the Cabinet on 20 May 2016
- Headed by Prime Minister
- Attended by all Cabinet Ministers
- Senior official level steering committee



◆ SDGs Implementation Guiding Principles

- Decided by SDGs Promotion Headquarter on 22 December 2016
- Define Vision, Priority areas, Major principles for implementation, Implementation framework and Follow-up & review

Promotion of SDGs Implementation in Japan (2)

“SDGs Implementation Guiding Principles”

◆ Implementing Principles

(1) Universality, (2) Inclusiveness, (3) Participatory, (4) Integration, (5) Transparency and Accountability

◆ 8 Priority Areas and 140 Policies

- (1) Empowerment of All People
- (2) Achievement of Good Health and Longevity
- (3) Creating Growth Market, Revitalization of Rural Areas and Promoting Technological Innovation
- (4) Sustainable and Resilient Land Use, Promoting Quality Infrastructure
- (5) Energy Conservation, Renewable Energy, Climate Change Measures and Sound Material-Cycle Society
- (6) Conservation of Environment, including Biodiversity, Forests and Oceans
- (7) Achieving Peaceful, Safe and Secure Societies
- (8) Strengthening the Means and Frameworks of the Implementation of the SDGs

◆ Follow-up

- For monitoring, relevant statistical, E0 and other data will be used
- Expected to conduct a first follow-up by 2019

Expectation to GEO

1. **Contribute** formulating and implementing **global policies (SDGs, Paris Agreement, etc.)** through further engagement with relevant organizations and foster concrete actions
2. **Produce good practices** using Earth Observation data for solving challenges
3. **Gather and integrate various Earth Observation data** (including in-situ) to meet user needs
4. **Encourage regional activities and connect them to global activities** (Initiatives/Flagships)

