



Asia-Oceania GEOSS

Wenbo Chu,GEO Secretariat CEOS WGCapD-7 Meeting 8 March 2018

www.earthobservations.org www.geoportal.org

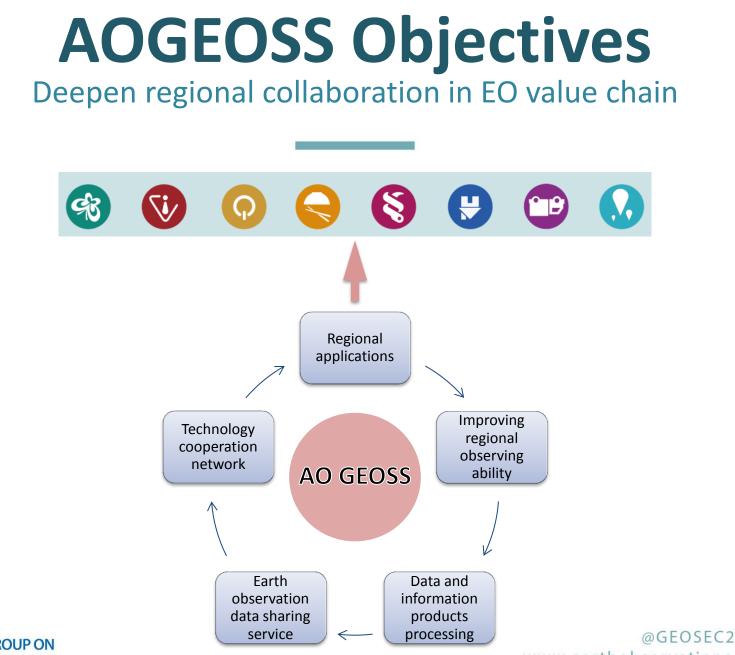
Asia-Oceania Region

High demand in EO for decision-making

- Complex geography
- 70% of world's population
- Unbalanced socioeconomic development
- Vulnerable to climate change
- 70% of world's Natural disasters
- Deteriorating ecological environment



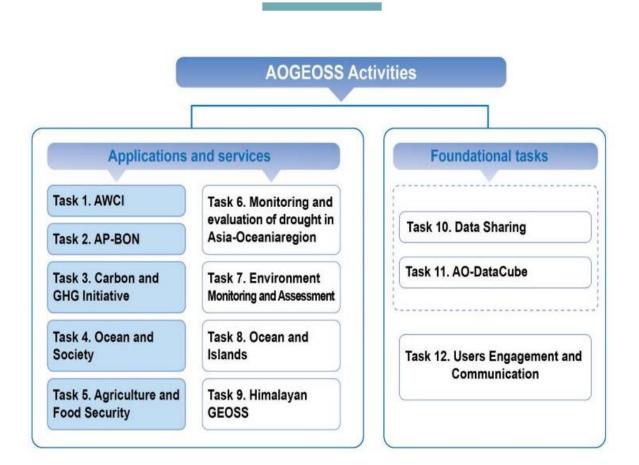




ROUP ON EARTH OBSERVATIONS

AOGEOSS Acitivties

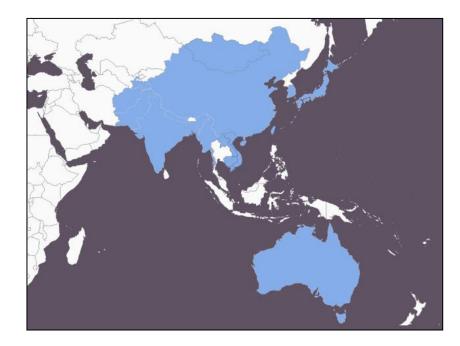
Priorities of the region





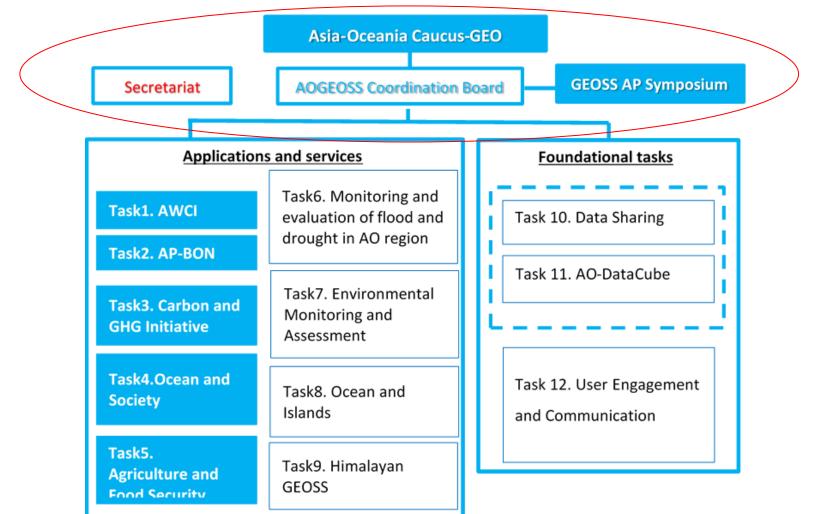
Participation

- Co-chaired by Australia, China, Japan and Korea
- 13 Member Countries
- 12 Participating Organizations:
 - APSCO
 - GRSS
 - ICIMOD
 - ICSU/Future Earth
 - ICSU/IRDR
 - ISDE
 - ISPRS
 - POGOUNEP-IEMP
 - UNESCAP
 - UNESCO-HIST
 - WMO





Governance structure



GEO GROUP ON EARTH OBSERVATIONS

Conbribution from China

Regional capacity

Policy Mandate

Advance international data sharing and service of satellite remote sensing in the framework of the Group on Earth Observations (GEO)

-- Medium and Long Term Development Plan for China's Civil Space Infrastructure

Open data shared through GEOSS

- 100T+ EO data from major satellites (HJ,ZY & GF)
- Cbers-4 data (5m resolution) collected from July 2015 to now with continuous further update
- Data from the newly lauched TanSat

High performance computing and cloud service

• National Supercomputing Center in Wuxi with peak performance over 100pflops



Conbribution from Japan

Regional capacity

Continuouly sponsor GEOSS Asia-Pacific Symposia. Around 2000 participants in total





Data Integration and Analysis System Program

Open EO data from Japan







 Portal Name and URL

 G-Portal

 (GPM, TRMM, JERS-1, AQUA/AMSR-E, JERS-1, ADEOS, ADEOS- II, MOS-1/1b)

 https://www.gportal.jaxa.jp/gp/top.html

 *Free and Open Data

 GCOM-W: Global Change Observation Mission-Water

 http://suzaku.eorc.jaxa.jp/GCOM_W/data/data_w_index.html

 *Free and Open Data

 GSMaP: Global Satellite Mapping of Precipitation

 http://sharaku.eorc.jaxa.jp/GSMaP_crest/index.html

 *Free and Open Data

 Precise Global Digital 3D Map "ALOS World 3D" Homepage (30m resolution)

 http://www.eorc.jaxa.jp/ALOS/en/aw3d/index_e.html

 *Free and Open Data

 Global PALSAR-2/PALSAR/JERS-1 Mosaic and Forest/Non-Forest map

http://www.eorc.jaxa.jp/ALOS/en/palsar_fnf/fnf_index.htm

*Free and Open Data



Conbribution from Australia

Regional capacity

DataCube

- Time-series multi-dimensional (space, time, data type) stack of spatially aligned pixels ready for analysis
- Analysis Ready Data (ARD) ... Dependent on processed products to reduce processing burden on users
- Open source software approach allows free access, promotes expanded capabilities, and increases data usage.
- Copernicus Data Regional Hub



AOGEOSS for SDGs

AOGEOSS in Action

Two Symposia held in 2017 on the theme





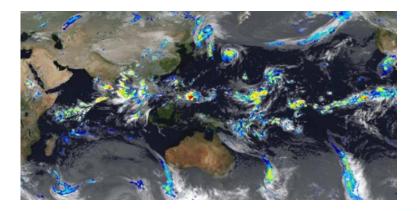
Case Study

6.5.1 Degree of integrated water resources management implementation (0-100)

Flood Prediction System using

- Global Satellite Map of Percipitation (GSMaP) and
- Rain-gauge data for correction and validation

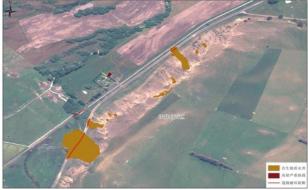




AOGEOSS in Action

- Assistance in emergency response when disater events occur
 - Provide high-resolution & real-time satellite imagery by both public sectors and commercial sectors
 - Among the AO region (2016 Kaikoura Earthquake in New Zealand, 2017 Iran/Iraq Earthquake) or for other regions (2017 Qiapas Earthquake in Mexico)through the regional GEOSS nextwork
- Long-term collaboration mechanisms in discussion
- Publication of historical data on disaster events in the region

Kaikoura Earthquake Emergency Response



Data Source: BJ-2 (Image date:14 Nov 2016; Resolution 0.8m) and Jilin-1 (Image date:16 Nov 2016; Resolution: 0.72m)



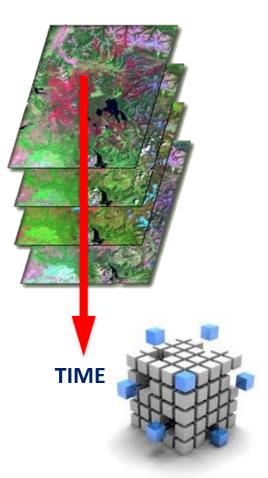
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AO DataCube

AOGEOSS in Action

- Landsat and Copernicus data already deployed
- GF-1 data in testing
- More datasets from AO Countries will be tested and integrated
- Training centers for AO DataCube are planned



Engagement AOGEOSS in Action

Had Pacific Island Countries and Organizations attend AOGEOSS Meeting









GEO and AOGEOSS made way to be included in the draft outline of *the Asia-Pacific Plan of Action for Space Applications (2018-2030)*

Upcoming Meetings AOGEOSS in Action

- AOGEOSS International Conference and Training Workshop, 16-19 May 2018, Deqing, Zhejiang, China
- 11th GEOSS Asia-Pacific Symposium, the week before GEO-V Plenary, October 2018, Kyoto, Japan
- Asia-Oceania Day at the GEO-XV Plenary, Kyoto, Japan



Asia-Oceania Global Earth Observation System of Systems International Conference and Training Workshop

> 16-19 May 2018 Deqing, Zhejiang, China



http://aogeoss2018.csp.escience.cn/



Thank You

Communicate and Collaborate with GEO:



