



#### Asia-Oceania GEOSS

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

www.earthobservations.org www.geoportal.org

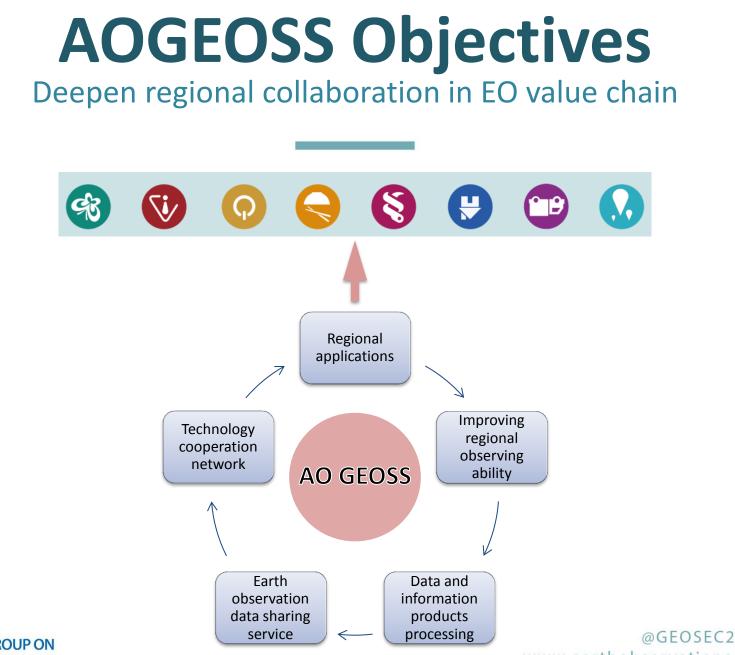
### **Asia-Oceania Region**

#### 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



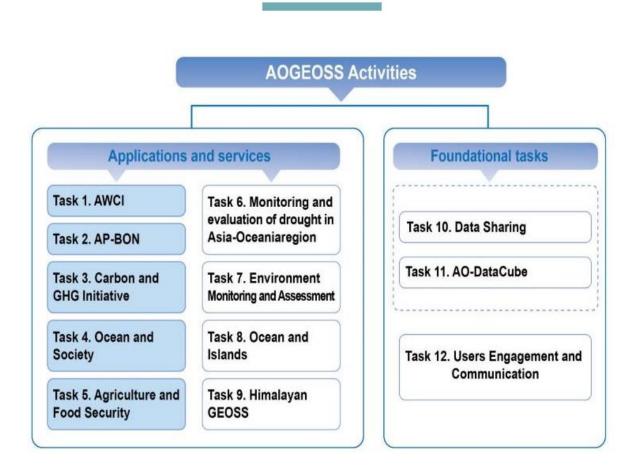




**ROUP ON EARTH OBSERVATIONS** 

### **AOGEOSS** Acitivties

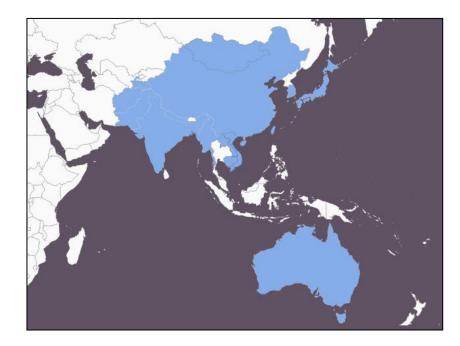
#### Priorities of the region





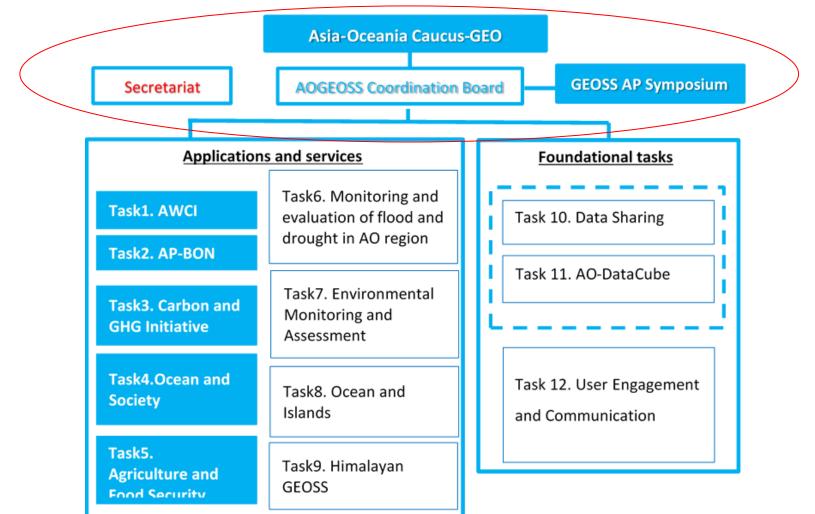
### Participation

- 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





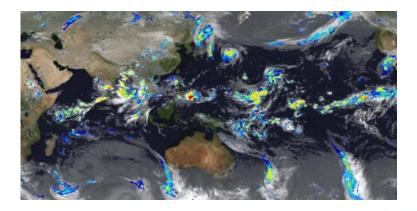
#### **Case Study**

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

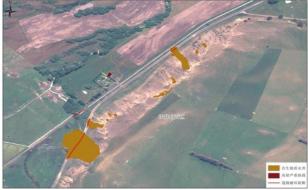




# AOGEOSS in Action

- 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 )



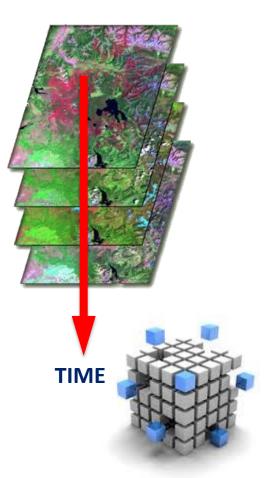
@GEOSEC2025 www.earthobservations.org



# **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:



