

# Sentinel Asia Overview



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# Sentinel Asia Member Status

(As of December 17, 2015)

## Space Community

APRSAF

Satellite Image

Promotion of Utilization

Capacity Building

SENTINEL ASIA

**84 organizations** from  
**25 countries & regions** and  
**15 international organizations**  
In total: **99\*** organizations  
*Joint Project Team (JPT)*

## Disaster Reduction Community

ADRC  
Member Countries  
(30 member countries)

Disaster Information

Utilization (User)

## International Community

UNESCAP, UNOOSA  
ASEAN, AIT and  
International Disaster Charter  
etc.

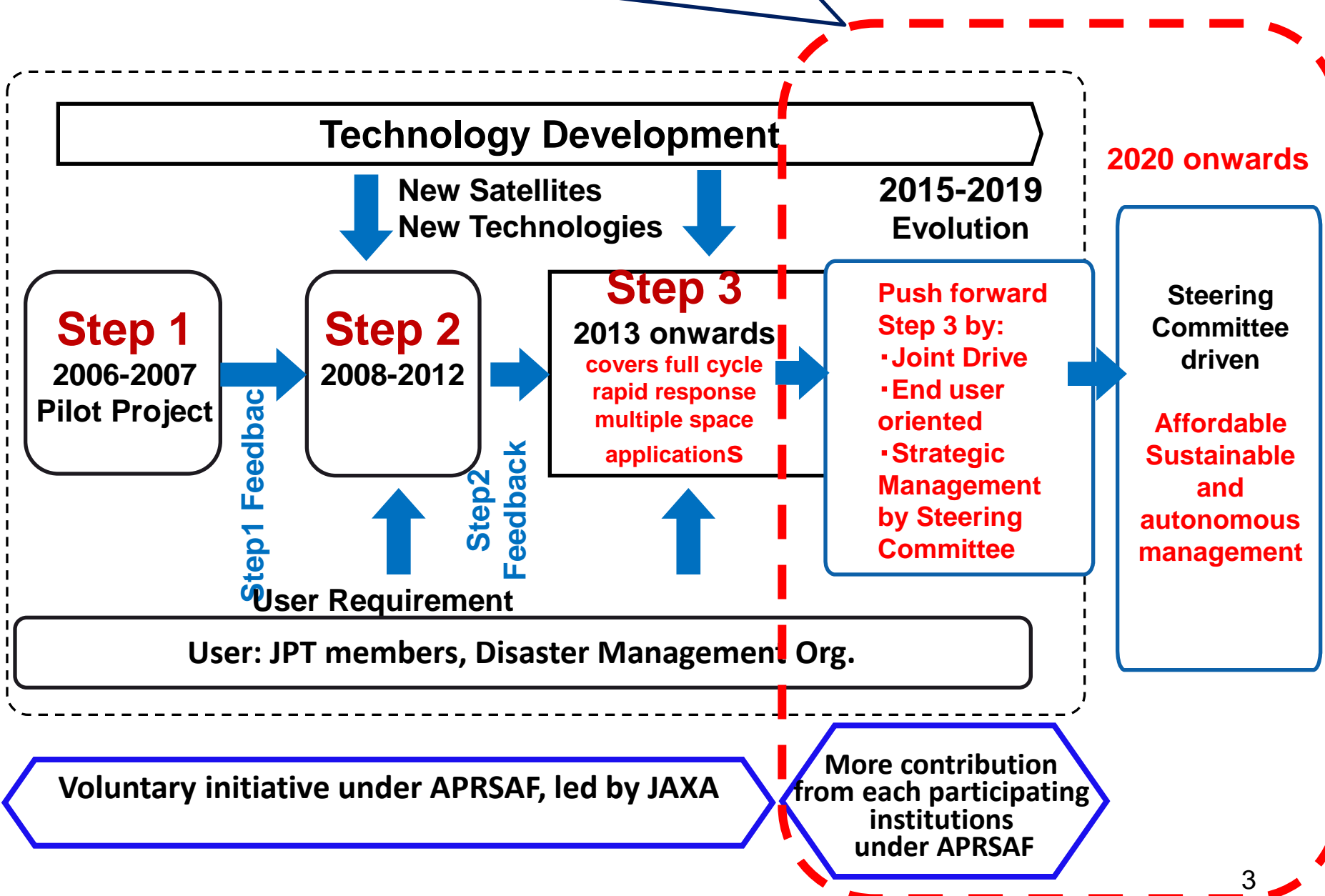
International Cooperation

\*) JPT includes **7** Data Provider Nodes (DPN)  
CRISP, GISTDA, ISRO, JAXA,  
KARI, NARL **and VAST**

\*) JPT includes **42** Data Analysis Nodes (DAN)

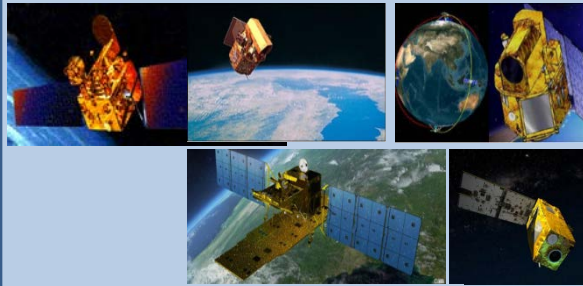
\*) Each **disaster management ministry of ADRC member countries** is the member of JPT (out of the count of 98)

# Evolution of Sentinel Asia Step 3



**Sentinel Asia step 3 is the platform on which SGO and DMO collaborate to utilize space technology and GIS to contribute to disaster risk and damage reduction with the pursuit of win-win relationship**

**Space and GIS relevant organizations (SGO)**



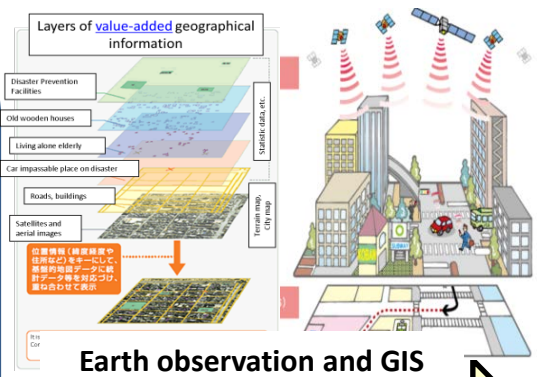
Space Agencies



Academy and research institutes



GIS Organizations



Space technology & Geospatial Information to contribute to disaster management (DM)



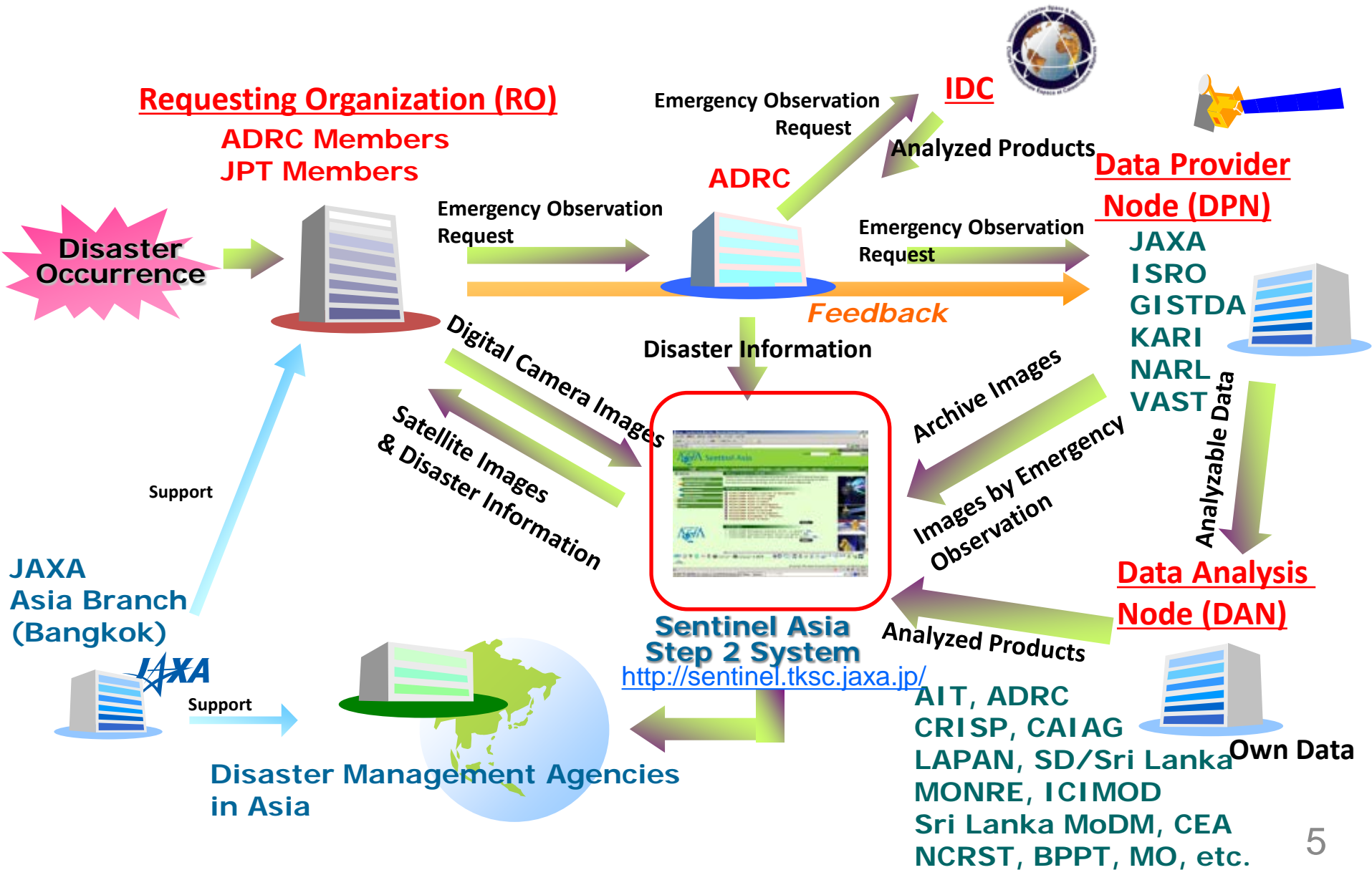
Opportunity of social demonstration and validation of advanced technology for DM

**Asia-Pacific countries and their Disaster Management Organizations (DMO)**



**SENTINEL ASIA Step 3 (Platform)**

# Emergency Observation



# Strategy for Evolution (1/3)

1. Strengthen the collaboration between SGO and DMO
  - **Strengthen communication** with disaster management users of Sentinel Asia member countries **through ADRC**
  - **Improve EOR** for substantial contribution to disaster management
  - Joint organize of the **WGs** with SGO and DMO
  - **Capacity building** both for **DAN** and **the users of the information**
2. Strengthen/reconfigure WGs to contribute to Sentinel

Asia activity

FROM(- 2015)

GLOF WG  
FLOOD WG  
Wild Fire WG  
Tsunami WG



TO(2016-)

**Earthquake and Volcano WG (EVLWG)**  
**Forest Fire WG (FFWG)**  
**Flood and Meteorological Disaster WG (FMWG)**  
**GLOF and Landslide WG (GLWG)**  
Tsunami WG (TWG)  
**In-situ Warning and Emergency Response WG (IWERWG)**

# Strategy for Evolution (2/3)

## 3. Strengthen capacity building and training

- Capacity building for trainers (trainers training)
- Capacity building for DAN
- Capacity Building for users

## 4. Improvement of infrastructure for rapid data provision and information exchange

As soon as possible : ( 2016-2020)

- Enhancement of meeting opportunity – SC, WGs, DPNM, DANM, etc.- by **introducing WEB-meeting system**
- Re-allocation of **Sentinel Asia Regional Servers** and effective utilization of WINDS high speed, 150Mbps, satellite data transportation system.

Sentinel Asia Step 3 system: (2020-)

- Develop/construct cloud server system enabling each country/organization can access the information rapidly regardless of the ability of the facility of each country

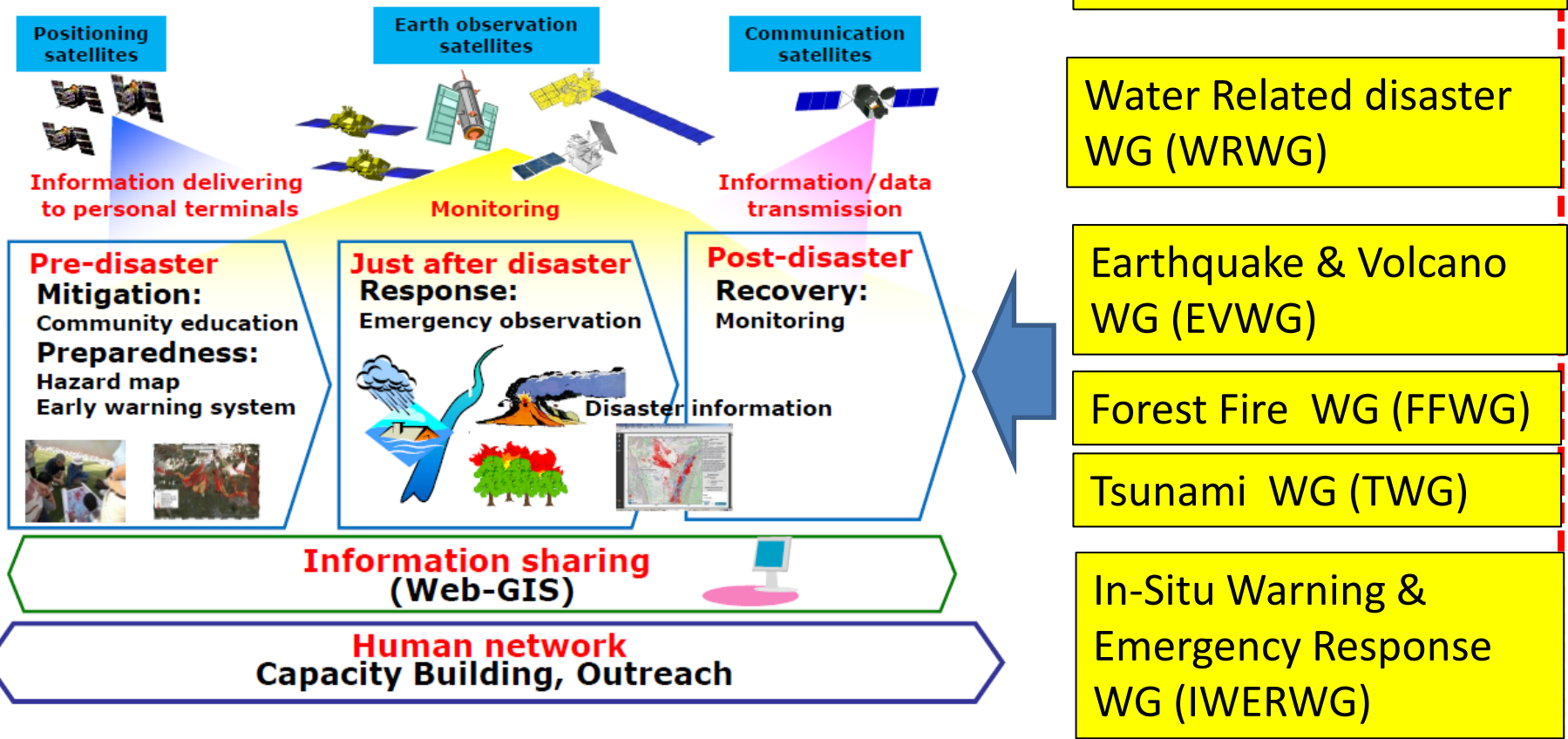
# Strategy for Evolution (3/3)

5. Development of Sentinel Asia Archiver System
  - To support DAN's emergency analysis with base maps and reference information
  - To support trend analysis and post disaster management; recovery/reconstruction planning, hazard mapping.
  
6. Strengthen cooperation among DAN
  - Improve DAN procedure and training
  - Increase P-DAN to coordinate DAN activity



# Establish/reconfigure disaster type dedicated 6 WGs to contribute to total cycle of disaster management

## Concept of Sentinel Asia Step3 (2013 onwards)



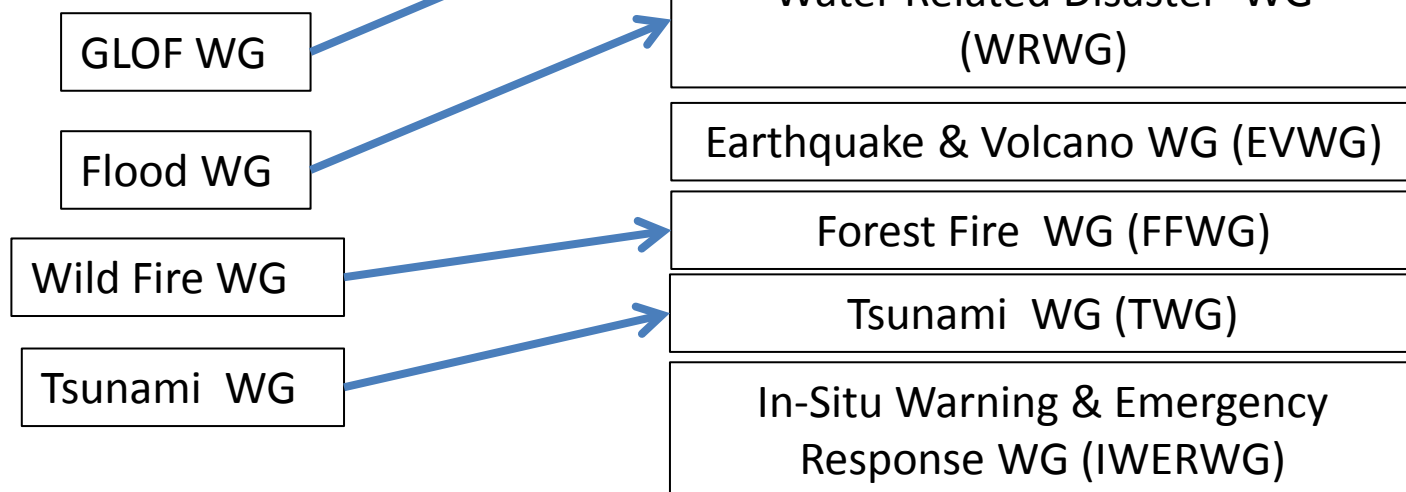
# Re-configuration of WGs (1/2)

## FROM ( - 2015)

WG supports a project funded by a researcher.

Issue 1: No WG activity without sponsored researcher

Issue 2: Difficulty in substantial contribution to the Sentinel Asia activity (Success story, capacity building, emergency observation)



## TO ( 2016 - )

WG supports Sentinel Asia activities with the cooperation of researchers and users. WG members consists of Sentinel Asia members and invited organizations/expertise by Sentinel Asia members.

# Expected Members of WG

## <Permanent member>

- Expertise on WG specific disaster management
- Researchers on WG specific disaster management
- Expertise on satellite remote sensing and analysis
- **Representatives from disaster management organizations of WG specific disaster prone countries/districts**
- Representatives from DPN
- Representatives from DAN
- Representatives from Steering Committee
- Secretariat
- Others

## < Non-permanent member>

- Success story related countries/organizations (under request)
- Expertise on topics
- Others

# Role and expected outcome of WGs

## Role of Working Group

- To Plan, review and evaluate emergency observation scenario and the products to contribute to disaster management.
- Feed back the result of the review/evaluation to subsequent activities.
- To support the capacity building of Sentinel Asia members (Lecturer)
- To support emergency response activities
- To propose, plan and support implementation of Sentinel Asia success stories
- Others

## Expected outcome through the WGs activities

- Members of the WGs can utilize satellite observation data for their research on disaster management .
- WGs can utilize Sentinel Asia as a platform and a testbed for social validation and demonstration of their research and technology for disaster management.
- Continuous improvement of emergency observation and analysis to contribute to substantial disaster risk and damage reduction
- Success stories

# WELCOME

## JPT/DAN member :

- Ministry of Marine Affairs and Fisheries ( **Indonesia** )

## DPN member :

- VAST (**Vietnam**)

## Under registration procedure for DAN member :

- Udayama University (**Indonesia**)

## Under registration procedure for JPT member :

- Malaysia Japan International Institute of Technology (**Malaysia**)
- Mara Institute of technology (**Malaysia**)
- National Survey for Seismic Protection, Ministry of Emergency Situations of the Republic of Armenia (**Armenia**)
- Ministry of Works and Human Settlement (**Bhutan**)
- National Research Institute for Earth Science and Disaster Prevention (**Japan**)