

# Overview of Sentinel Asia including reports on JPTM2018Awaji and APRSAF

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12 November 2019  
Takanori MIYOSHI  
Sentinel Asia Executive Secretariat

# APRSAF and Sentinel Asia

The screenshot shows the APRSAF website homepage. At the top left is the APRSAF logo (Asia-Pacific Regional Space Agency Forum). To its right is a banner for the 21st APRSAF event in Japan, held from December 2-5, 2014. Further right is a 'Subscribe' button for APRSAF News Mail and News Letter. Below the header are navigation tabs: About APRSAF, Annual Meetings, Participants, Working Groups, Initiatives, Capacity Building, Interviews & Features, and Event Calendar. A 'HOME' link is also present. The main content area is divided into three columns. The left column is titled 'About APRSAF' and describes the forum's purpose. The middle column features a '21st APRSAF' banner with a 'New Framework of WGs from APRSAF-21' announcement. The right column is titled 'News & Updates' and lists recent events. Below the main content is an 'Initiatives' section with four logos: Sentinel Asia (highlighted with a red border), SAFE, ClimateR3, and KIBO-ABC.

## Sentinel Asia

- Initiative under the Asia-Pacific Regional Space Agency Forum (APRSAF)
- Established in accordance with the recommendation at APRSAF in Kitakyushu, Japan, co-hosted by MEXT/JAXA

# Membership Status

(As of 31 October 2019)

## Space Community

APRSAF

Satellite Image

Promotion of Utilization

Capacity Building

## SENTINEL ASIA

**94** organizations from **28** countries & regions and **16** international organizations  
**In total: 110** organizations

\*Two new members have joined since the last JPTM.

## Joint Project Team (JPT)

## Disaster Reduction Community

ADRC  
Member Countries  
(31 member countries)

Disaster Information

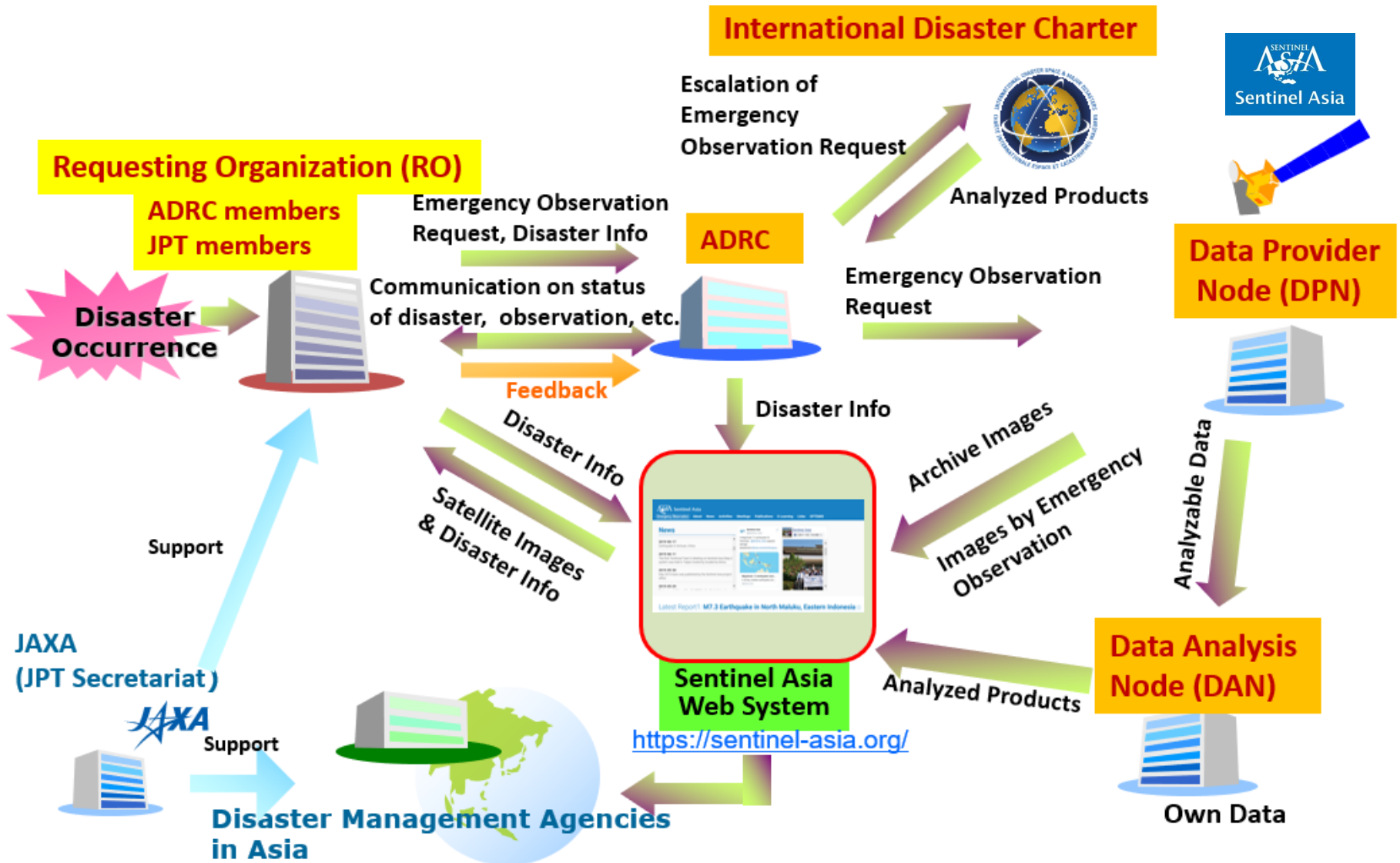
Utilization (User)

## International Community

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

International Cooperation

# Emergency Observation Cooperation between Sentinel Asia and the Charter “Sentinel Asia’s Escalation to the Charter”



# EOR Review, Responded Disaster by Geographical Distribution



# The latest Emergency Observation Typhoon Hagibis in October, Japan

**THAICHOTE (GISTDA)**

13/Oct/2019 00:40



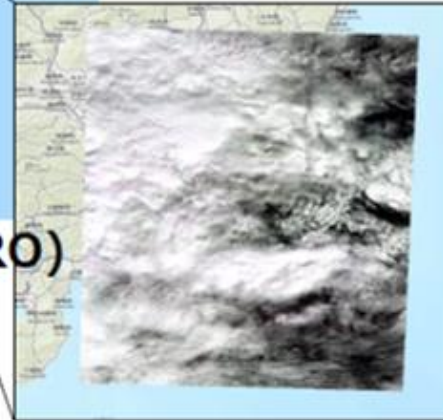
**FORMOSAT-5 (NARL)**

16/Oct/2019 02:08



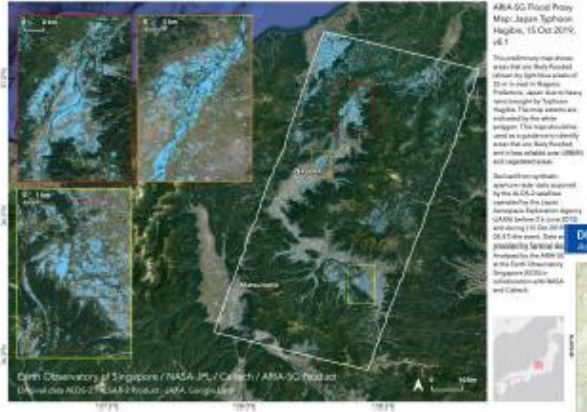
**Resourcesat-2 (ISRO)**

10/Oct/2019 10:30



# The latest Emergency Observation Typhoon Hagibis in October, Japan

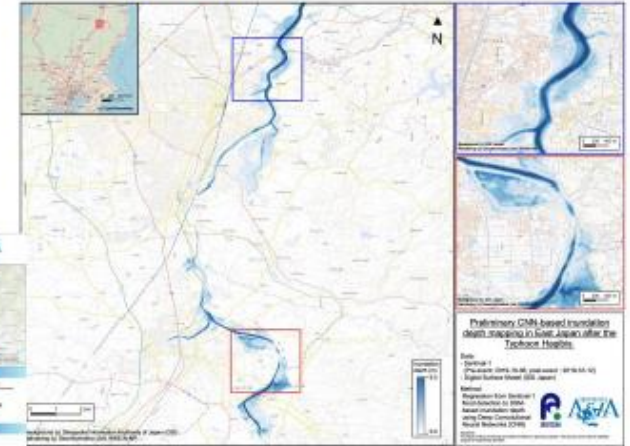
## EOS



## AIT



## RIKEN



## CHIBA



## Sentinel-1 (S1) imagery TerraSAR-X (TSX) imagery

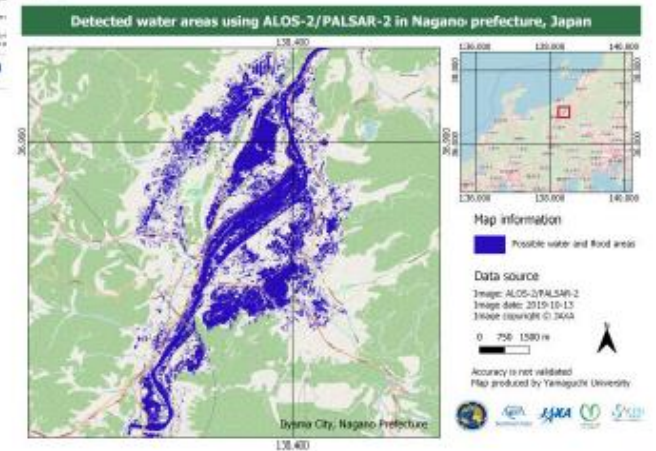
ID: 2019-036-JPN  
Typhoon No. 19 in 2019

Water extraction from three-temporal SAR intensity images.  
Water was extracted by the thresholding value  $W_{dB} > \mu_w + 2\sigma_w$ .  
The water sample was selected from Kasumigaura Lake.

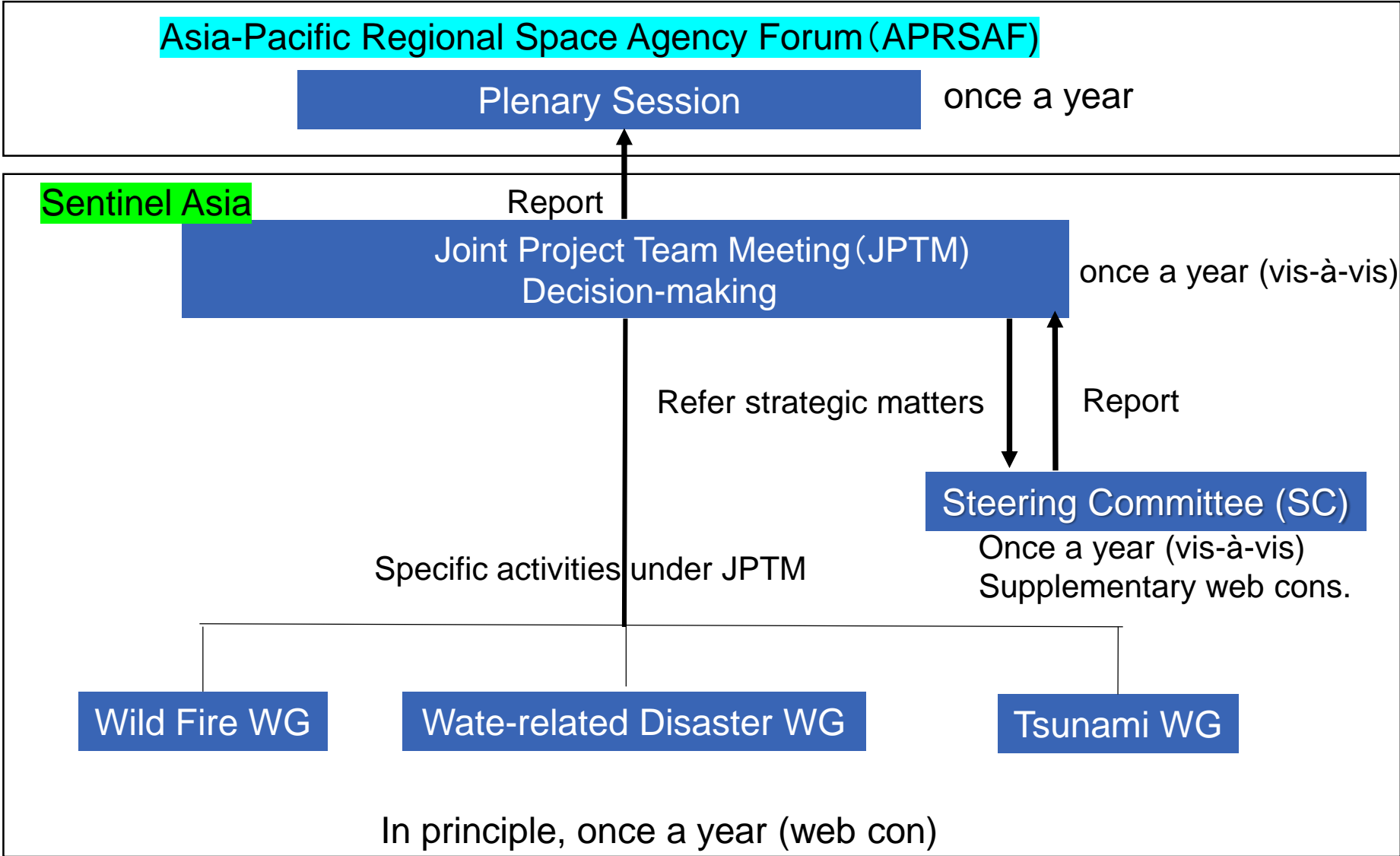
TerraSAR-X/TanDEM-X © DLR e. V. 2019,  
Distribution Airbus DS GEO GmbH  
Sentinel-1 image was owned by ESA,  
downloaded from OpenHub.



## JPYU



# Sentinel Asia's relevant conference bodies





# The 6th Joint Project Team Meeting for Sentinel Asia STEP-3 (JPTM2018Awaji)

- held on 1-2 November 2018 at Awaji Yumebutai, Awaji-island, Hyogo, Japan  
co-organized by Asian Disaster Reduction Center (ADRC) and JAXA.
- number of participants : 51
- number of organizations : 33



# JPTM2018Awaji Agenda (Day 1)

[Day 1] 1st November, 2018		
Time	Program items	
08:30 - 9:00	Registration	
<b>Opening Session</b>		
09:00	5 min	Welcome Remarks: JAXA
	10 min	Adoption of Agenda and Self-introduction of Participants
<b>Session 1 : Overview</b>		
09:15	10 min	<a href="#">1.1 Overview of Sentinel Asia Status: JAXA</a>
	10 min	<a href="#">1.2 Overview of Emergency Observation: ADRC</a>
	10 min	<a href="#">1.3 Report of the Steering Committee: Dr. Lal Samarakoon</a>
	10 min	<a href="#">1.4 JPTM2018 Report: NARL</a>
09:55	25 min	Photo Session & Break
<b>Session 2 : New membership and Working Group Activities</b>		
10:20	2.1 Presentation by new members	
	10 min	- <a href="#">MIMU</a>
	10 min	- <a href="#">VIGMR</a>
	10 min	<a href="#">2.2 Water-related Hazard Working Group: IWMI</a>
	10 min	<a href="#">2.3 Tsunami WG: MMAF</a>
	10 min	<a href="#">2.4 WildFire WG: JAXA</a>
11:30	20 min	Break
<b>Session 3 : Users' session</b>		
11:30	3.1 Presentation by guest speakers from the ACDR community	
	15 min	- <a href="#">National Committee for Disaster Management (Cambodia)</a>
	15 min	- <a href="#">Ministry of Labour and Social Welfare (Lao PDR)</a>
	15 min	- <a href="#">National Disaster Management Agency (Malaysia)</a>
12:15	75 min	Lunch

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	15 min	- <a href="#">National Disaster Management Agency (Malaysia)</a>
12:15	75 min	Lunch
<b>Session 3 : Users' session (continued)</b>		
13:30	3.2 Presentation on good practices	
	10 min	- <a href="#">ADB</a>
	10 min	- <a href="#">ADPC</a>
	10 min	- <a href="#">AHA Centre</a>
	10 min	- <a href="#">EOS</a>
	10 min	- <a href="#">ICIMOD</a>
	10 min	- <a href="#">Manila Observatory</a>
	10 min	- <a href="#">MONRE</a>
	10 min	- <a href="#">MoSWRR</a>
	10 min	- <a href="#">PHIVOLCS</a>
	10 min	- <a href="#">PNGNDC</a>
	10 min	- <a href="#">SUPARCO</a>
	25 min	3.3 Discussion - expectation for Sentinel Asia toward further improvement
15:45	20 min	Break
<b>Session 4 : Local Host's session</b>		
16:05	20 min	<a href="#">4.1 Keynote presentation: Dr. Kaku</a>
	4.2 Presentation by Japanese disaster management organizations and research institutions	
	15 min	- <a href="#">GSI</a>
	15 min	- <a href="#">JMA</a>
	15 min	- <a href="#">Chiba university</a>
	15 min	- <a href="#">NIED</a>
	15 min	- <a href="#">Yamaguchi University</a>
	20 min	<a href="#">4.3 JAXA's Activities for Domestic Disaster Response: JAXA</a>
18:00	Adjourn	
19:00	Dinner	

# JPTM2018Awaji Agenda (Day 2)

[Day 2] 2nd November, 2018

Time	Program items
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## Session 5 : Project Management

09:00		5.1 Reports by Data Provider Nodes (DPN)
	10 min	- <a href="#">GISTDA</a>
	10 min	- <a href="#">ISRO</a>
	10 min	- <a href="#">JAXA</a>
	10 min	- <a href="#">MBRSC</a>
	10 min	- <a href="#">NARL</a>
	10 min	- <a href="#">VAST</a>
		5.2 Primary Data Analysis Node (P-DAN)/DAN Report
	10 min	- <a href="#">GIC/AIT, P-DAN</a>
	10 min	- <a href="#">University of Tokyo, P-DAN</a>
	10 min	- <a href="#">Yamaguchi University, VAP leader</a>
	10 min	<a href="#">5.3 Sentinel Asia documents (TOR): JAXA</a>

10:40 20 min Break

## Session 6 : Sentinel Asia System

11:00	10 min	<a href="#">6.1 Sentinel Asia Step 3 System: JAXA</a>
	10 min	<a href="#">6.2 Contribution to Sentinel Asia regional cloud servers: NARL</a>
	10 min	<a href="#">6.3 OPTEMIS development status: GISTDA</a>
	20 min	<a href="#">6.4 Demonstration of OPTEMIS: GISTDA</a>

12:00 75 min Lunch

## Session 7: Strategic Plan of Sentinel Asia (under the leadership of the Steering Committee)

13:15	10 min	<a href="#">7.1 Introduction of the Strategic Committee: Dr. Lal Samarakoon / Mr. Suzuki</a>
	10 min	<a href="#">7.2 I Satellite Data Provisions and Systems: JAXA / GISTDA</a>
	10 min	<a href="#">7.3 II Value Added Product (VAP): Yamaguchi University</a>
	10 min	<a href="#">7.4 III End-user Enhancement: GIC/AIT</a>
	10 min	<a href="#">7.5 IV Step-3 Activities (Complete DRR cycle): ADRC</a>
	10 min	<a href="#">7.6 V Communication, Collaboration and Cooperation: ADRC</a>
	15 min	7.7 Discussion and adoption of the Strategic Plan

14:30 20 min Break

## Session 8: Special Session - Contribution of Sentinel Asia to achieving global agenda

14:50	20 min	<a href="#">8.1 Keynote Speech: UNISDR</a>
	15 min	<a href="#">8.2 Toward the strengthened link between Sentinel Asia and Sendai Framework and SDGs: IWMI</a>
	15 min	<a href="#">8.3 Toward further global partnership: GIC/AIT</a>
	20 min	8.4 Discussion

16:00 20 min Break

## Session 9: Wrap-up session

16:20	10 min	<a href="#">9.1 Summary of JPTM2018Awaji: JSF/JAXA</a>
	10 min	<a href="#">9.2 Next host organization: ADPC</a>
	10 min	9.3 Closing Remarks: ADRC

17:00 Adjourn

# JPTM2018Awaji Highlight Cooperation with the UNDRR (former UNISDR)

ASA 6th Joint Project Team Meeting  
of Sentinel Asia STEP-3 (JPTM 2018 Awaji)

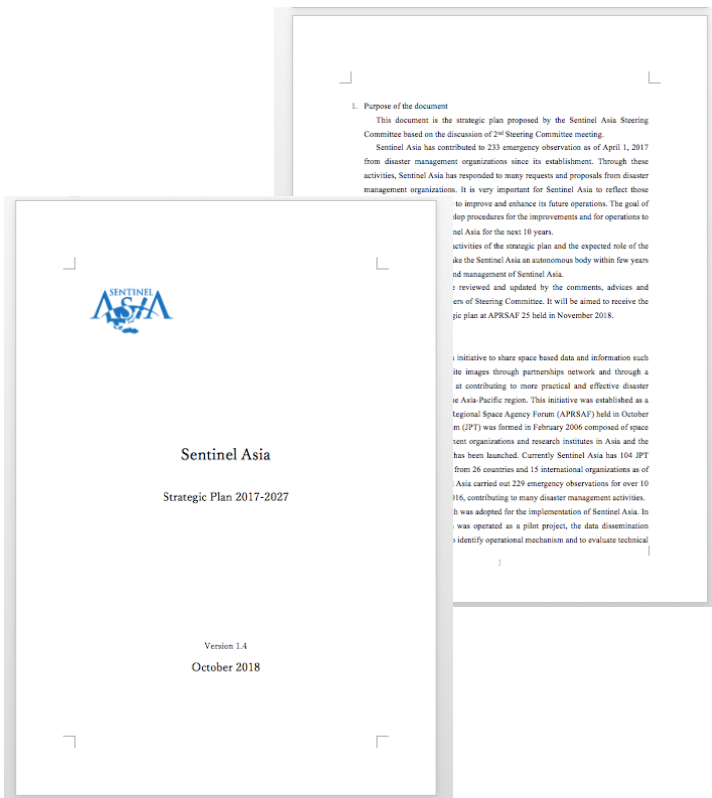
## Sendai Framework - Innovations

- Shift from **disaster loss** to **disaster risk**
- Shift from disaster management to **disaster risk reduction and management**;
- Shift from “**what to do?**” to “**how to do?**”
- Focus on **people-centred** preventive approach to DRR
- **Primary** responsibility of States for DRR
- **Shared** responsibility for DRR with stakeholders “**All of Society Engagement and Partnership**”
- Set of global **targets**;
- Set of guiding **principles**;
- **Four priorities for Action**

In support of the Sendai Framework  
for Disaster Risk Reduction 2015 - 2030



# JPTM2018Awaji Highlight Endorsement of the 10-year Strategic Plan





Sentinel Asia Strategic Plan.

## 5 pillar items ;

1. Satellite Data Provisions and Systems
2. Value Added Product (VAP)
3. End-user Enhancement
4. Step-3 Activities (Complete Disaster Risk Reduction cycle)
5. Communication, Collaboration and Cooperation

# JPTM2018Awaji Highlight ADPC's offer to host JPTM2019 in Thailand

 **6th Joint Project Team Meeting  
of Sentinel Asia STEP-3 (JPTM 2018 Awaji)** 

*The Next Joint Project Team Meeting of Sentinel Asia*

co-organized by  
JAXA/Sentinel Asia  
ADPC  
and partners

Date TBC, Thailand



VUMESUTAI  
HYOGO

# APRSAF-25

held in Singapore, 6-9 November 2019



# APRSAF-25

## Space Applications Working Group

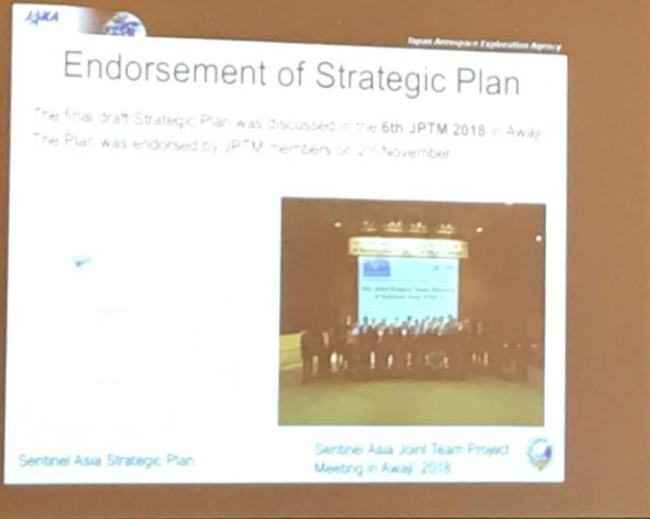
### SAWG Summary Report

### Sentinel Asia and Disaster Management

- Understand significance of multiple satellite data (standard and value added products) provided from the Asia-Pacific region
- Address latency issues in product disseminating to users
- Realize disaster preparedness / recovery period to implement full Sentinel Asia Step-3
- Acknowledgement of organizations contributing to SA, in particular, noting GISTDA's OPTEMIS being a good example to achieve one of the ideals of Sentinel Asia Step-3, "resource sharing and joint implementation"



# APRSAF-25 Plenary Report

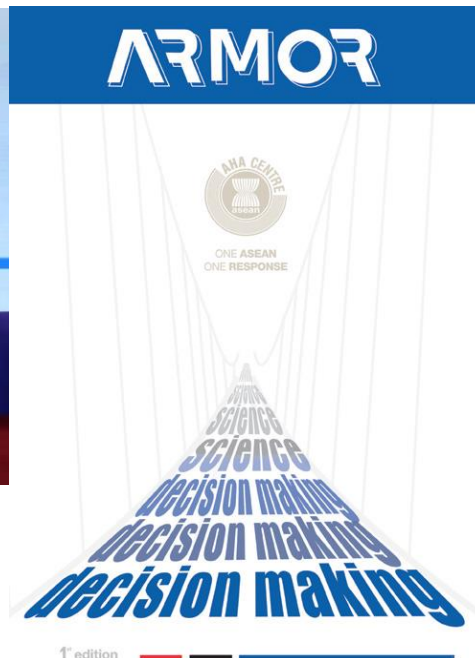


# ASEAN Risk Monitor and Disaster Management Review (ARMOR)

- edited and launched by the AHA Centre in March 2019
- presented good practices of Sentinel Asia
- underlined the importance of Sentinel Asia
- recommended that all DMOs of ASEAN region be exposed to Sentinel Asia



Launch Ceremony of ARMOR  
Attended by higher officials  
including the ASEAN Deputy Secretary-General,  
and the executive director of the AHA Centre



Floods in Lao P.D.R:  
Sentinel Asia's products  
contributed to actual relief  
activities of AHA Centre.

# Sentinel Asia's presence at the UNDRR community ~UNDRR Global Platform High-Level Panel presented by the President of JAXA~



activities. A good example, I would like to highlight is sentinel Asia.

GP2019



United Nations Office for Disaster Risk Reduction

2019

10-12 December 2019

Geneva, Switzerland

www.unisdr.org/gp2019

UNDRR

United Nations Office for Disaster Risk Reduction

# Sentinel Asia's presence at the UNDRR community

- Sentinel Asia's paper "Development of Sentinel Asia as a Platform to Facilitate Space-Based Technology Application to Disaster Management Operations"
- Co-authored by ADRC and JAXA
- Accepted and published as part of Global Assessment Report (GAR) by UNDRR

