



## Overviews of Sentinel Asia Status



#### March 2017

Sentinel Asia Steering Committee Secretariat Japan Aerospace Exploration Agency





### **Member Status**

(As of Feb 20, 2017)

#### **Space Community**

#### **APRSAF**

Satellite Image

**Promotion of Utilization** 

**Capacity Building** 

#### SENTINEL ASIA

**89**organizations from **27** 

countries & regions and 15 international organizations

In total: 104 organizations

\*Three members are increased from last meeting

Joint Project Team (JPT)

#### **International Community**

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

**International Cooperation** 

## Disaster Reduction Community

#### ADRC

Member Countries (30 member countries)

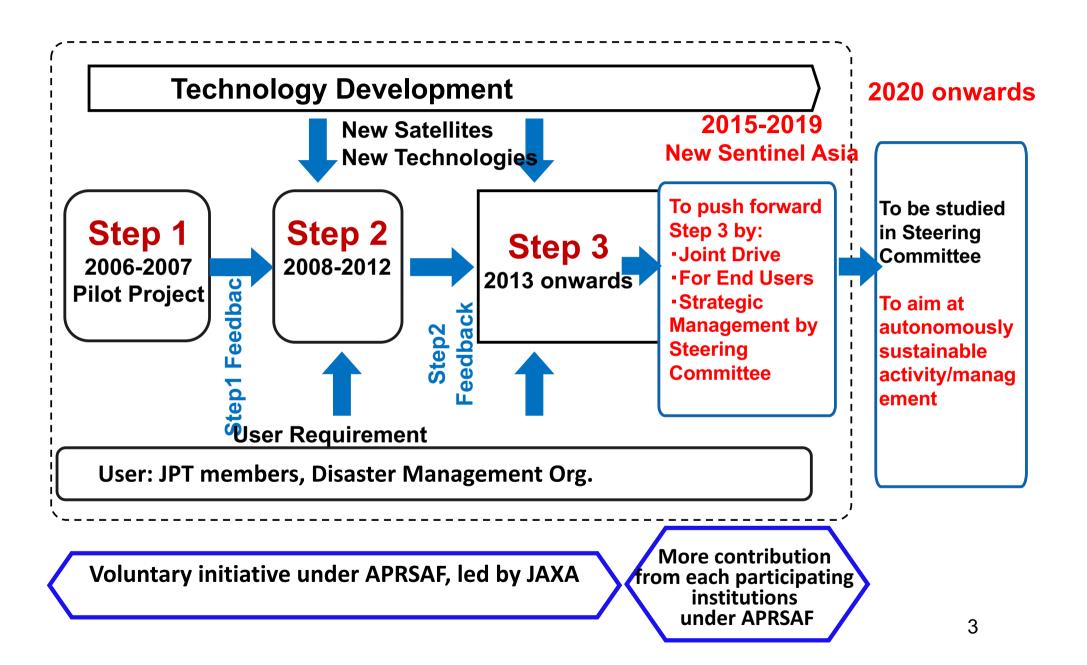
(30 member countries)

**Disaster Information** 

**Utilization (User)** 











- (1) 2016 March
- Ministry of Works and Human Settlement (MoWHS) in Bhutan
- (2)2016 May
- Ministry of Emergency Situation (MES) in Armenia
- (3) 2016 July
- Department of Hydrology and Metrology (DMH) in Myanmar
- Asian Disaster Preparedness Agency (ADPC) as DAN
- (4) 2016 **December**
- National Research Institute of Earth Science and Disaster Resilience (NIED) in Japan



# Joint Project Team (JPT) of SA

Step1 JPTM	Number of JP	TM								
#1 Feb. 2006	27									
#2 June 2006	51		100			3 Org	ganiza	tions p	er year	•
#3 March 2007	52	SA								
Step2 JPTM		Ë	80	-						
#1 June 2008	59	The number of Joint Program Team in SA	00	-			•		-	
#2 July 2009	62	yram	60	-						
#3 July 2010	68	Prog	00	-					-	
#4 July 2011	77	oint	40							
Step3 JPTM		of J	40	-					-	
Jan.2013	86	ıber	20		•					
Jan.2014	91	nun	20						-	
Jan.2015	96	The	0							
Jan.2016	99		20	04 20	06 20	08 20	10 20	12 20	14 20	16
Nov. 2016 (10	<sup>th</sup> year) 103					Υe	ear			
March 2017	104									





- ➤ Asia Pacific Space Agency Forum (APRSAF)-23 November 14-18, 2016 in Manilla, Philippine
- Sentinel Asia Steering Committee meeting, Jan 19-20, 2017, in Bangkok, Thailand
- ➤ Sentinel Asia Joint Project Team Meeting March 7-9, 2017 Hanoi, Vietnam



### **Promotion Activities**

(1) Contribution to the Universal Access

SA to find more PM resources in this region to conduct SA escalation to the Charter:

➤ PM training in LAPAN Indonesia (2016 September), and ADRC Japan (2017 February) including COS-2 training.





Country	Region	Туре	Date of Implementation		Requester
Taiwan	Southern Taiwan	Earthqua ke	2016/2/6	YES	NARL
Myanmar	Notern part of Myanmar	Flood	2016/2/25		DMH
Fiji	Throughout Fiji	Cyclone	2016/2/29		NDMO
Indonesia	West Java provinces	Flood	2016/3/1		LAPAN
Indonesia	West Java provinces	Flood	2016/3/14		LAPAN
Taiwan	North coast of Taiwan	Oil spill	2016/4/1		NARL
Philippines	Mt.Apo, Mindano	Forest Fire	2016/4/1		University of the Philippines





Country	Region	Type	Date of	Charter	Requester
			Implementation	Escalation	
Pakistan	Dana Kachili area of Muzaffarabad district	Landslide	2016/4/16		ADRC
Japan	Kumamoto prefecture, Kyushuu district	Earthquake	2016/5/16	YES	IWMI
Sri Lanka	The whole area of Sri Lanka	Flood	2016/5/23	YES	LAPAN
Indonesia	Mt. Shinabung, Sumatora Island	Volcanic Eruption	2016/5/25	YES	SPARSSO
Bangladesh	Coastal area of Bangladesh	Cyclone	2016/6/20		LAPAN
Indonesia	Yogyakarta	Landslide, Flood	2016/7/6		Department of Hydrology and Meteorology
Nepal	Koshi river	Flood, etc	2016/7/11		NARL
Taiwan	Taitung city	Typhoon	2016/8/1	YES	SPARSSO
Bangladesh	Nouthern part of Bangradesh	Flood	2016/4/16		MOWHS(BT) 9





Country	Region	Туре	Date of Implementation		Requester
Myanmar	9 region along Ayeyarwady river	Flood	2016/8/5		RRD
Laos	Luang Phabang	Flash Flood	2016/8/26		UNESCAP / Ministry of Science and Technology
India	Bihar and Uttar Pradesh	Flood	2016/8/26	YES *not requested via SA	IWMI
Myanmar	Central Myanmar	Earthquake	2016/8/26		MEC
Taiwan	southern part of Taiwan	Typhoon	2016/9/15		NARL
Philippines	islands of northern Philippines	Tropical cyclone	2016/9/20		PHIVOLCS
Indonesia	near the Bandung city	Landslide	2016/9/23	YES *not requested via SA	LAPAN
Indonesia	near the Bandung city	Flash Flood	2016/9/23		LAPAN
Taiwan	Kaohsiung city	Typhoon	2016/9/29		NARL 10



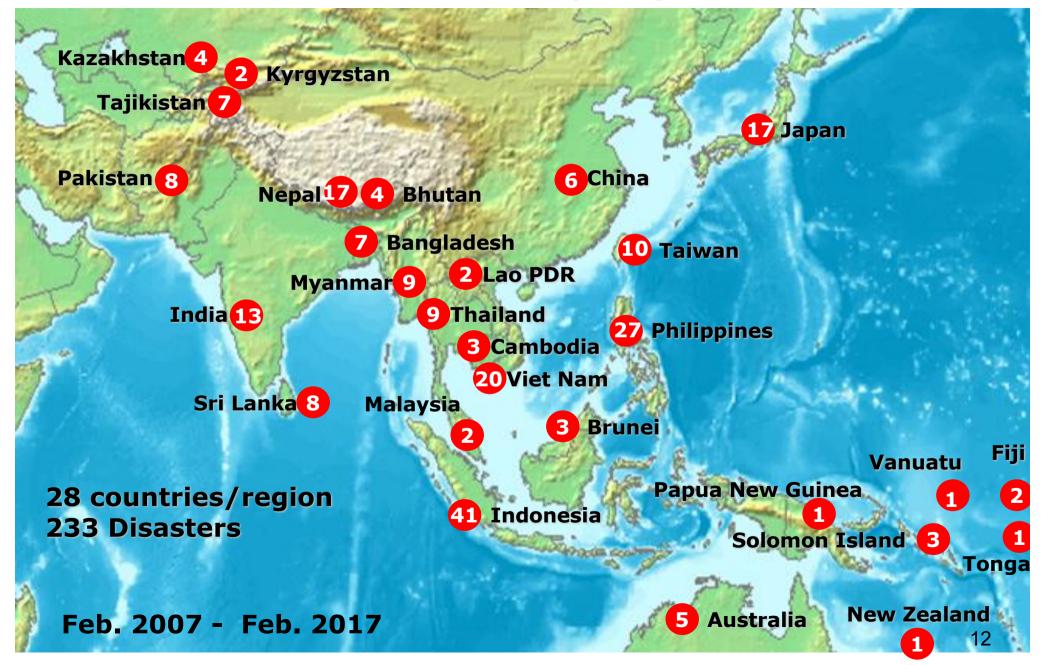


Country	Region	Туре	Date of Implementation	Charter Escalation	Requester
Vietnam	Quang Binh Province	Flood	2016/10/17		MONRE
Philippines	Cagayan Province	Typhoon	2016/10/21	YES *not requested via SA	PAGASA
Vietnam	Hà Tĩnh province and other	Flood	2016/11/1		MARD, DMC(Vietnam)
Indonesia	AcehProvince	Earthquake	2016/12/7	YES	LAPAN
India	Chennai	Cyclone	2016/12/14	YES *not requested via SA	ISRO
Nepal	Mountain area in northern part of Nepal	Flash Flood	2016/12/25		Department of Hydrology and Meteorology, Nepal
Philippines	Around Mt. Mayon	Other	2016/12/28		PHIVOLCS
Thailand	Southern part of Thailand	Flood	2017/1/11		GISTDA
Philippines	Mindanao, Ruzon	Flood	2017/1/24	YES	PAGASA 11
Philippines	Mindanao, Surigao City	Earthquake	2017/2/12		PHIVOLCS





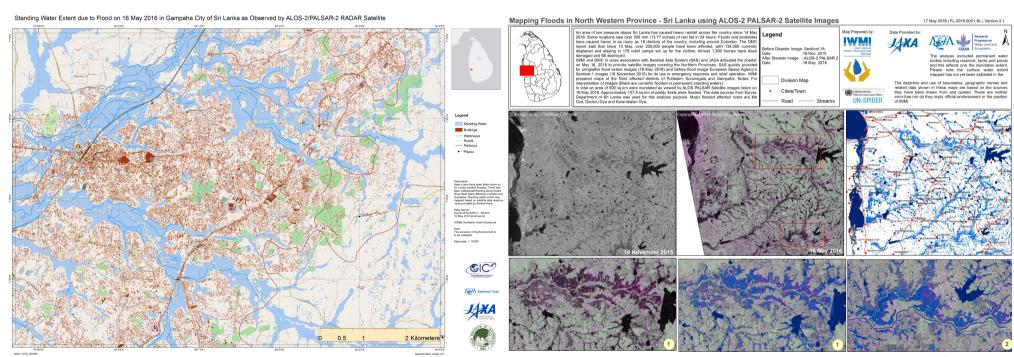
### **EOR Review, Responded Disaster by Geographical Distribution**





## Flood in Sri Lanka, May 2016

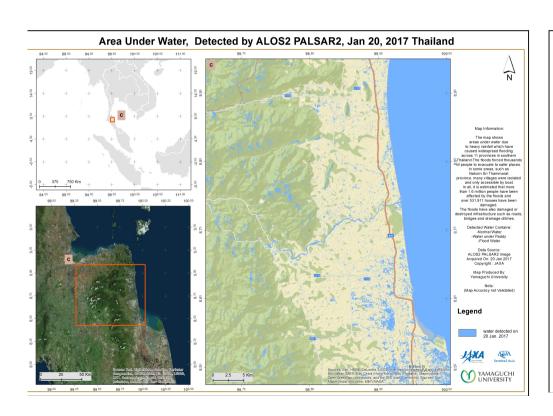
 A tropical cyclone has brought torrential rains over southern parts of the Bay of Bengal. Meanwhile Over 100,000 people were expected to be affected by severe flooding in the North-East of Sri Lanka following heavy rainfall over the last four days. In Jaffna alone, over 76,673 people have been affected by the floods, with at least 254 houses suffering damage. The refugee camps in Lonappulam and Valigamam north were also severely affected according to sources on the ground.

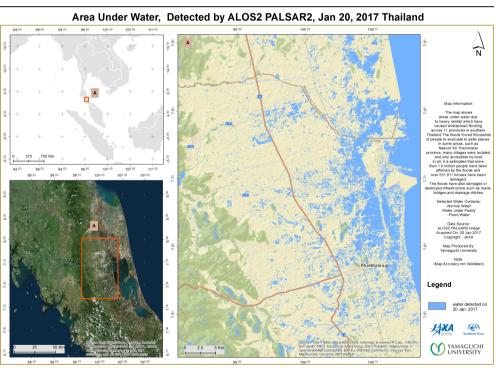




## Flood in Thailand, Jan. 2017

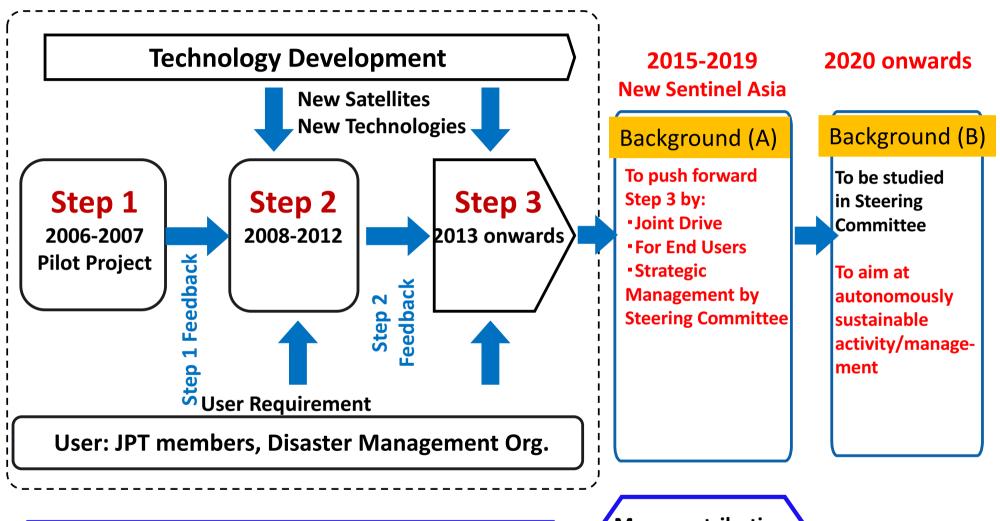
 Widespread flooding in Thailand's south has killed 21 people, hit rubber production in the region and shut down infrastructure, officials said on Monday, as the military government increased aid to flood-affected areas.







## Sentinel Asia Evolution Image



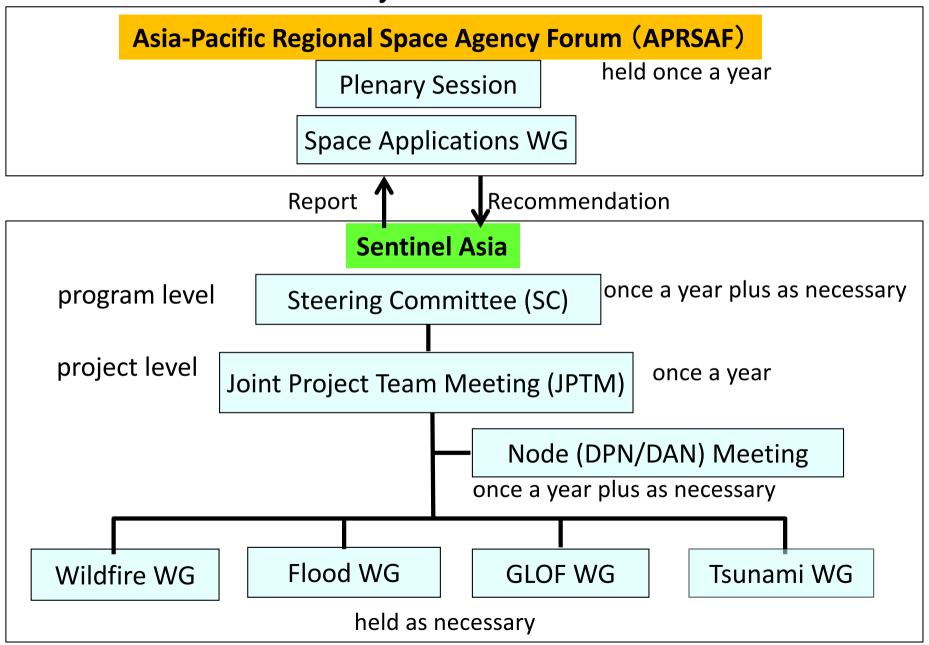
Voluntary initiative under APRSAF, led by JAXA

More contribution from each participating institutions under APRSAF





### Coordination Hierarchy of Sentinel Asia under APRSAF







# Steering Committee (SC)

- 2<sup>nd</sup> Steering committee was held in Bangkok last January.
- It was shown some proposals to improve the system of SA,
- It was discussed about "how to realize the Step3 of SA", "Long-term Plan" etc.









- JPT members is over 100 organizations.
- 37 emergency observation requests were implemented in Sentinel Asia since last JPTM-2016. Six requests also were escalated to International Disaster Charter.
- Steering Committee functionally works to make a big progress in Sentinel Asia.





## backup





 Sentinel Asia has been operated from 2006 and reached Step 3 from 2013, which was originally planned as Sentinel Asia long-term plan adopted at APRSAF-12 in 2005.

http://www.aprsaf.org/data/aprsaf12 data/day3/5 sswg%20sumrepo. pdf

- (A) It is now on the stage to phase Step 3 by activating and reinforcing its activities through increasing contribution of each participating organization by each role and contributing furthermore to the community.
- (B) At the same time, the next long-term plan following the first one is requested, in order to promote Sentinel Asia 20 strategically.