

**58<sup>th</sup> Session of the Committee on the  
Peaceful Uses of Outer Space (COPUOS)**

**Technical Session**

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# **Japan's contribution to Post MDGs through Earth Observation**

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# Japan's contribution to Post MDGs in COPUOS

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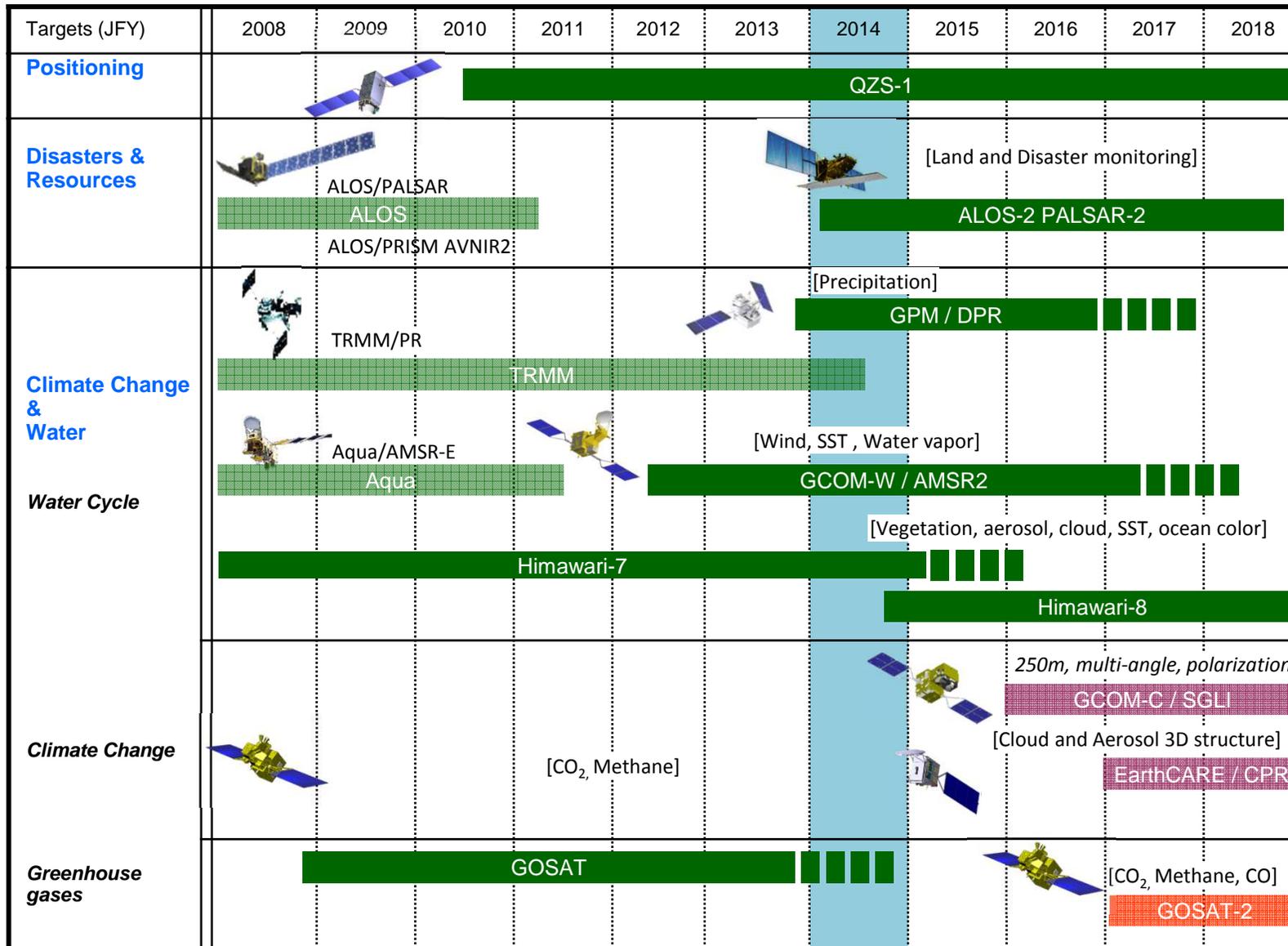
In COPUOS, Japan has contributed to the Post MDGs discussion.

*Next Phase in Global Governance for Space research and Utilization (A/AC.105/2012/CRP.4) .*

*Draft Proposed Work Plan for a mechanism of cooperative deliberation for "Space and Sustainable Development": Bridging COPUOS and STSC (A/AC.105/C.1/2014/CRP.22).*

*Revised Draft Proposed Work Plan for a mechanism of cooperative deliberation for "Space and Sustainable Development": Bridging COPUOS and STSC (A/AC.105/C.1/2015/CRP.15).*

# Japan's Recent Earth Observation Satellites



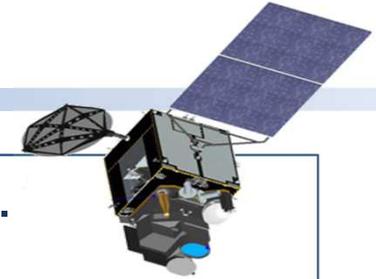
Mission status

 On orbit

 Phase C/D

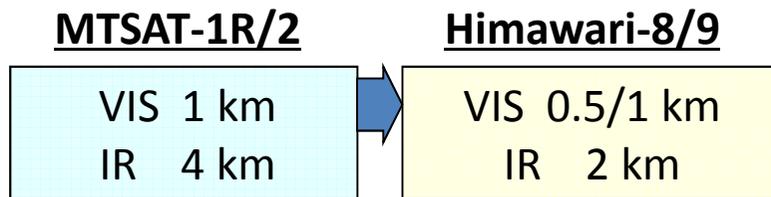
 Phase A/B

# Himawari-8

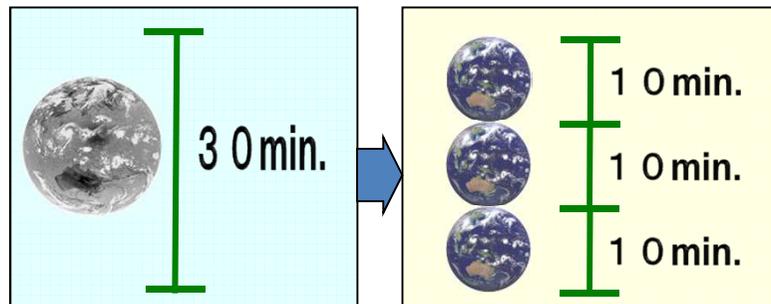


- Himawari-8 was successfully launched on 7 October 2014.
- The satellite will start operation in July 2015.
- Himawari-8 features the new Advanced Himawari Imager (AHI).

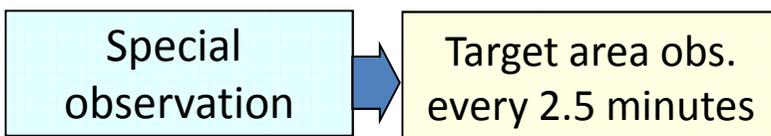
## Improved spatial resolution



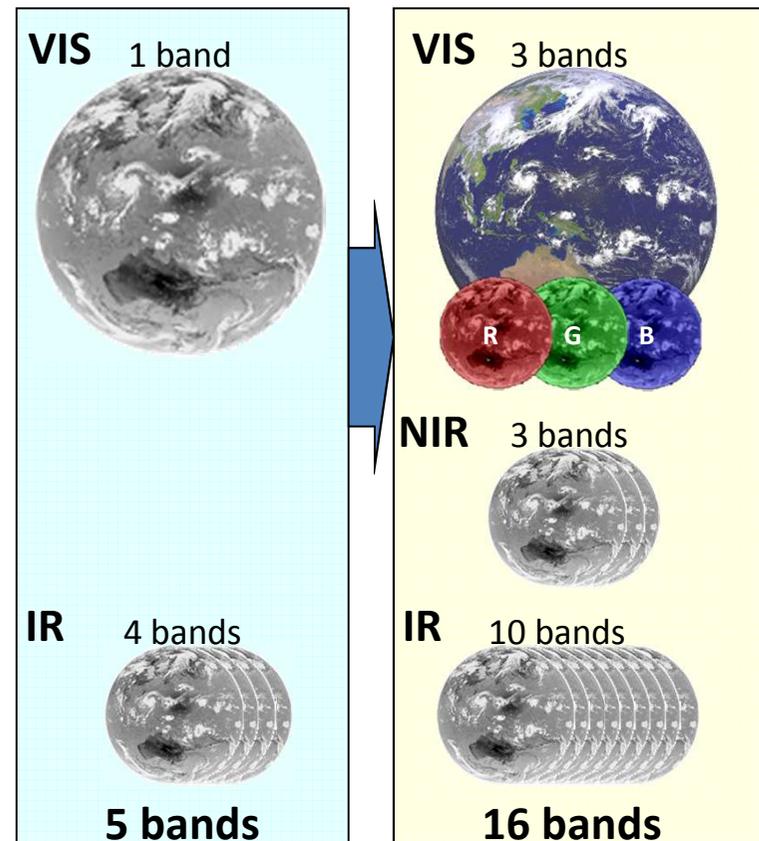
## More frequent observation



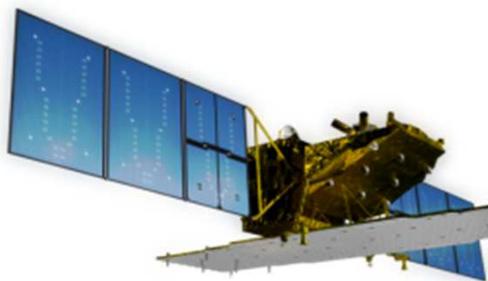
## More flexible regional observation



## More spectral bands

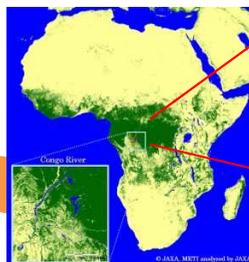


# Application Examples of ALOS-2 Data

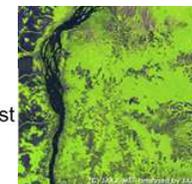


## Environment

Forest - Non-Forest Mapping using SAR data



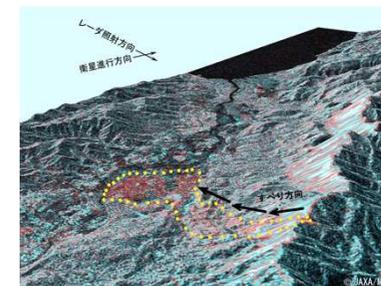
- Forest
- Non-Forest
- Water



- R: HH
- G: HV
- B: HH/HV

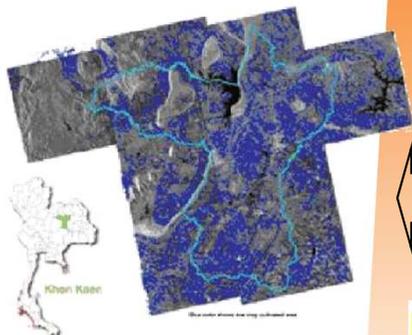
## Public Safety

Monitoring geological hazards



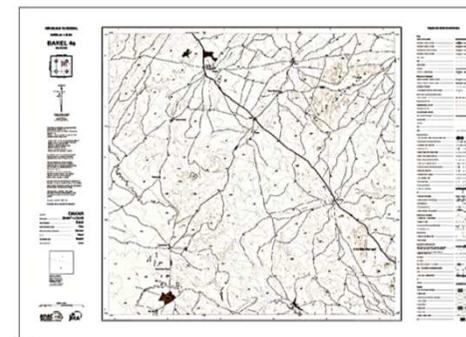
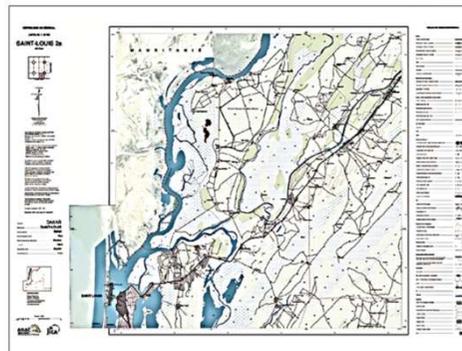
## Society and Economy

Extraction of Crop Acreage / Detection of Yield Amount



## Land and Sea

Mapping Project with JICA

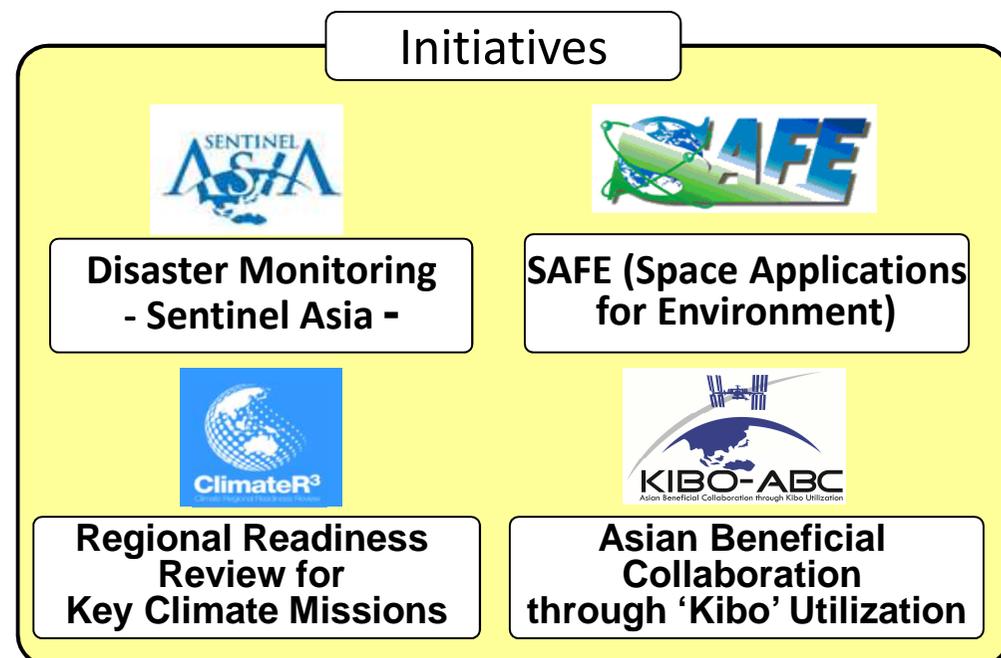
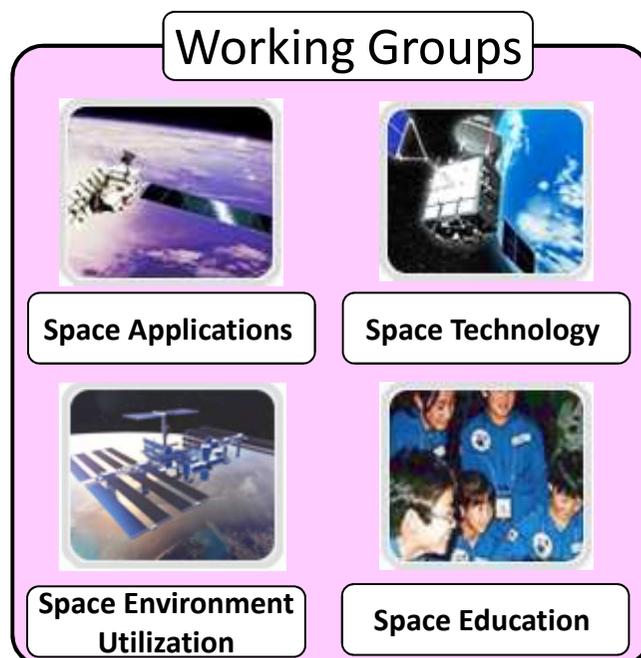


# Contribution through regional framework-APRSAF



- Japan has hosted APRSAF(Asia-Pacific Regional Space Agency Forum) to promote space activities for socio-economic development in the region.
- Through APRSAF, various regional cooperation utilizing space-based technologies have been promoted.
- In APRSAF-22 (Bali, Indonesia, 1-4 December 2015), topics include disaster management, environmental monitoring, weather and climate.

[http://www.aprsaf.org/annual\\_meetings/aprsaf22/meeting\\_details.php](http://www.aprsaf.org/annual_meetings/aprsaf22/meeting_details.php)



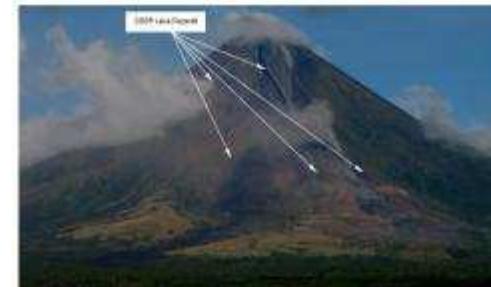
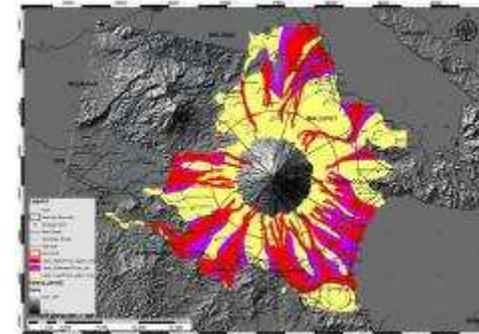
# APRSAF Activities (Sentinel Asia)



**APRSAF**  
ASIA-PACIFIC REGIONAL  
SPACE AGENCY FORUM

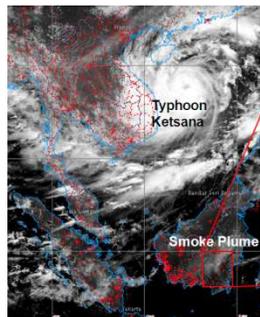


- Project-based activity toward the practical use of space technology



Study of landslide warning and volcano monitoring for Mt. Mayon

- **Emergency Observation**



Typhoon



Flood



Landslide

- **Capacity Building**

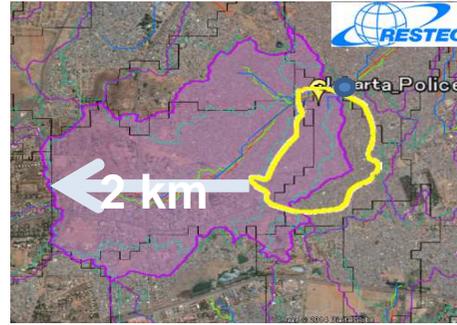


# Future Contribution, *Earth Observation & Health*

## Polio eradication



(A) Analysis by Gates Foundation and ESRI using 30 m-resolution DEM

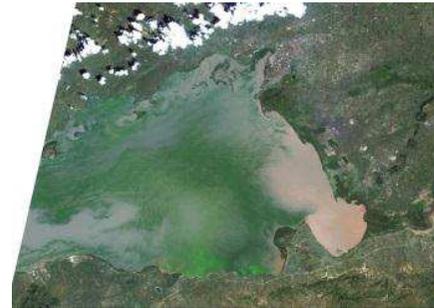


(B) Analysis by RESTEC using 5 m-resolution DEM

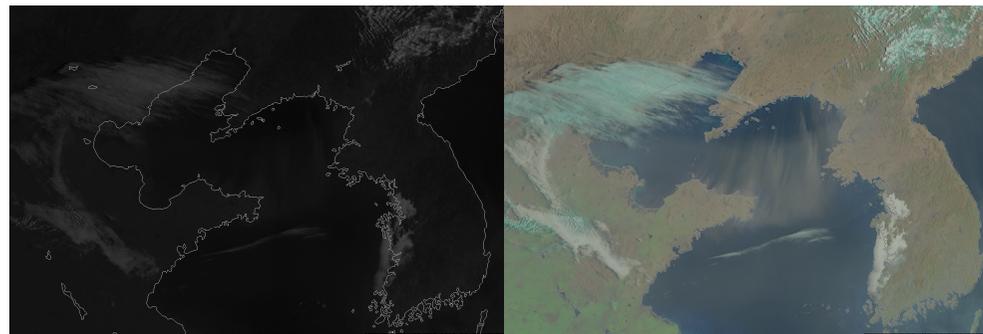
**Catchment area of B is wider than yellow-lined A by 5 times**

Courtesy of WHO/JAXA/RESTEC

## Malaria prediction



## Dust prediction



JMA HP  
[http://www.jma-net.go.jp/sat/data/web89/parts89/himawari8\\_sample\\_data/original/20150322\\_dust\\_NC.gif](http://www.jma-net.go.jp/sat/data/web89/parts89/himawari8_sample_data/original/20150322_dust_NC.gif)

## Conclusion

- For COP21 initiated by France, *Climate Change* is receiving increasing attention and this momentum will put the spotlight on *Post MDGs*.
- Through the preparatory work on the 2018 “UNISPACE+50” with which the *Post MDGs* discussion was integrated, Japan will contribute to the global development agenda in cooperation with the international community.