



Implementation of Asia-Pacific Plan of Action on Space Applications for Sustainable Development (2018 – 2030) in Indonesia in 2018 - 2020

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the Regional Space Applications Programme for Sustainable Development (RESAP)”*

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SDGs focused activities in LAPAN

Focused activities



SDGs-related monitoring activities

SDG#02

- Updating rice fields areas
- Monitoring paddy fields growth
- Monitoring floods and drought in paddy fields

SDG#06

- Monitoring land cover change in watershed areas
- Monitoring water quality of lakes

SDG#11

- Monitoring land subsidence in the cities
- Monitoring Green Areas and Blue Areas in the cities

SDG#13

- Monitoring drought and fire hotspot
- Monitoring potential floods and landslides
- Monitoring impact of earthquake, tsunami
- Monitoring atmospheric env. (air pollution, acid rain, ozone, GHGs, aerosols, weather/ climate)

SDG#14

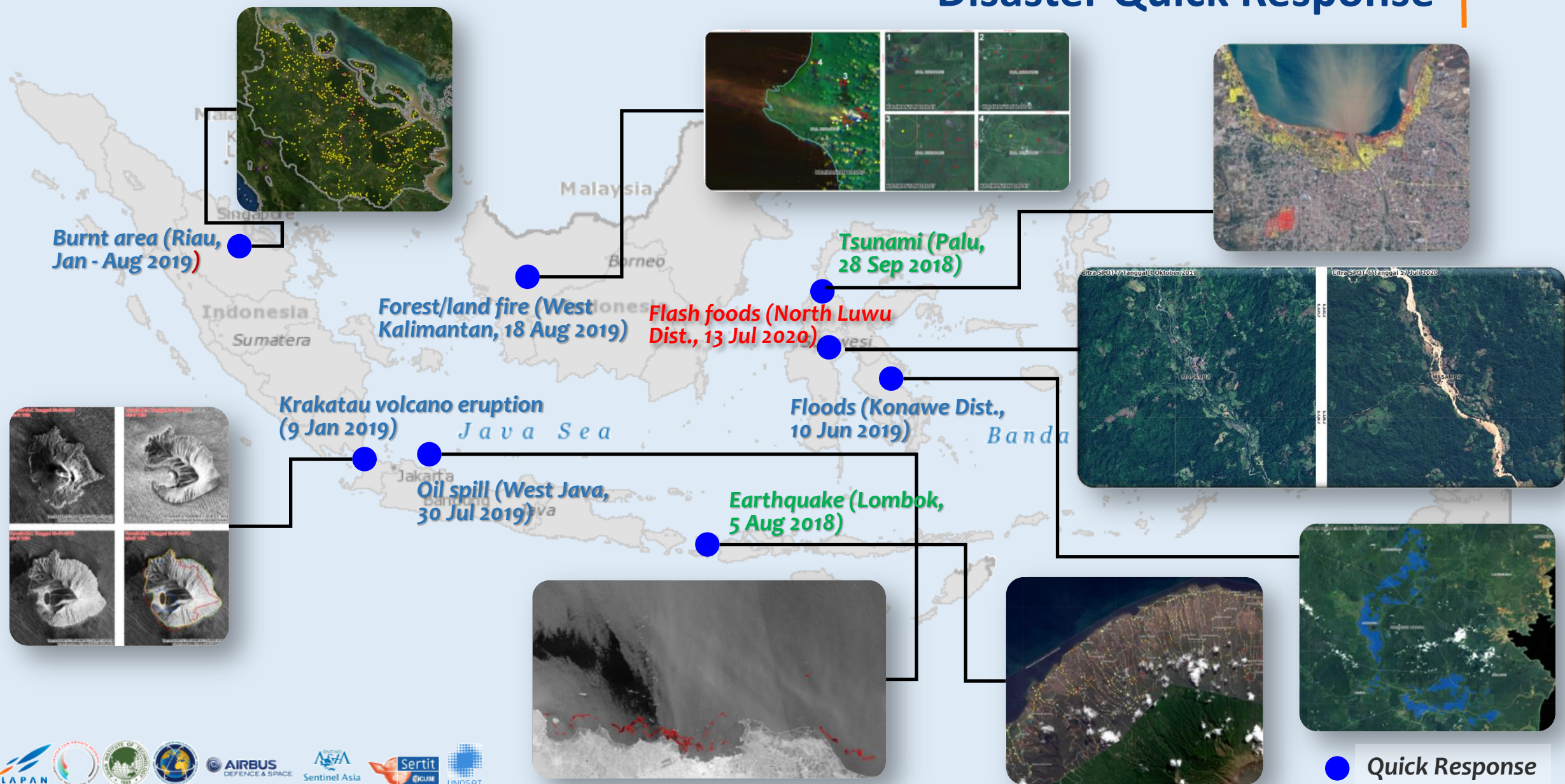
- Monitoring potential fishing ground
- Monitoring mangrove
- Monitoring bathymetry
- Monitoring coral reefs

SDG#15

- Monitoring devegetation/ revegetation
- Monitoring land cover/use change

Disaster Risk Reduction and Resilience

Disaster Quick Response



Management of natural resources

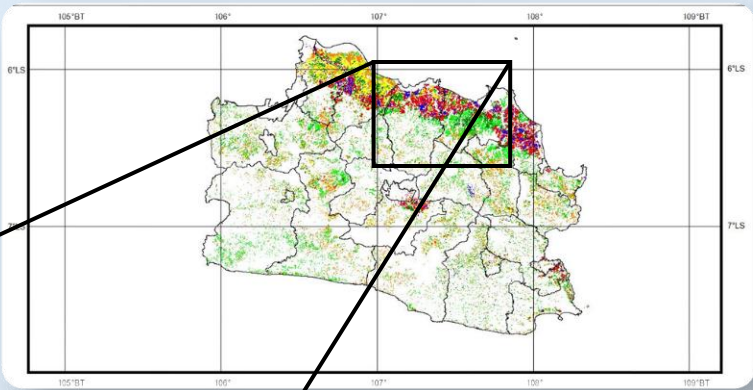
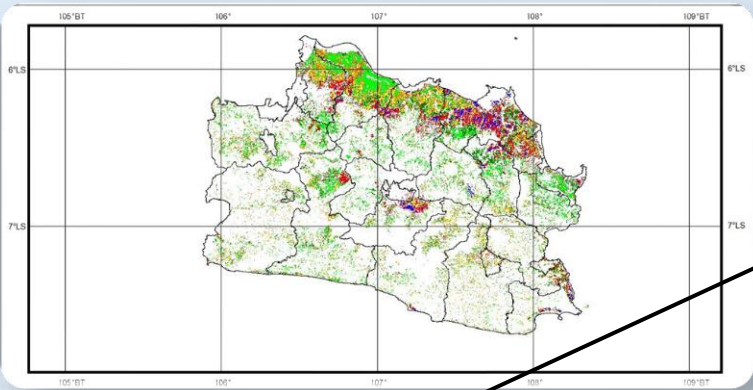
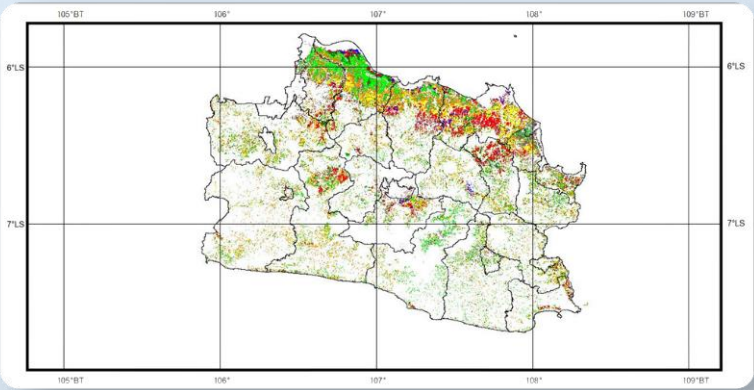
Paddy fields growth monitoring

30 Apr– 7 May 2020

24 – 31 May 2020

25 Jun – 2 Jul 2020

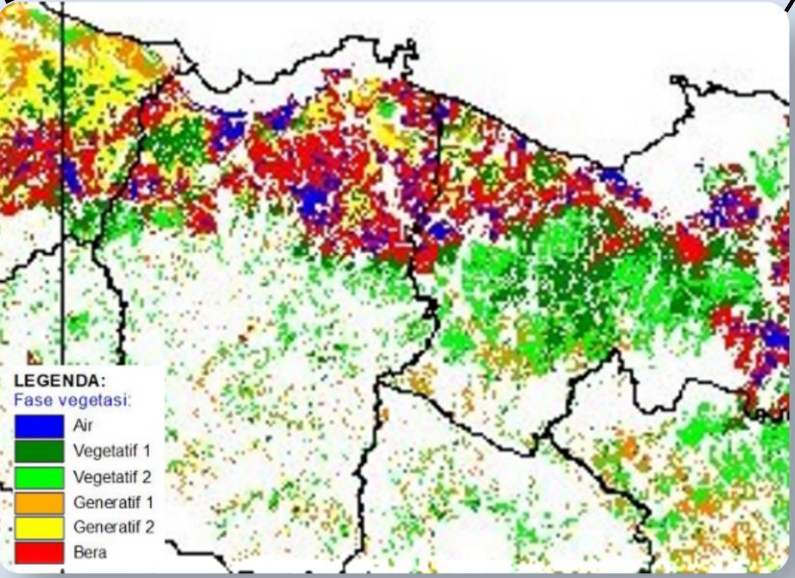
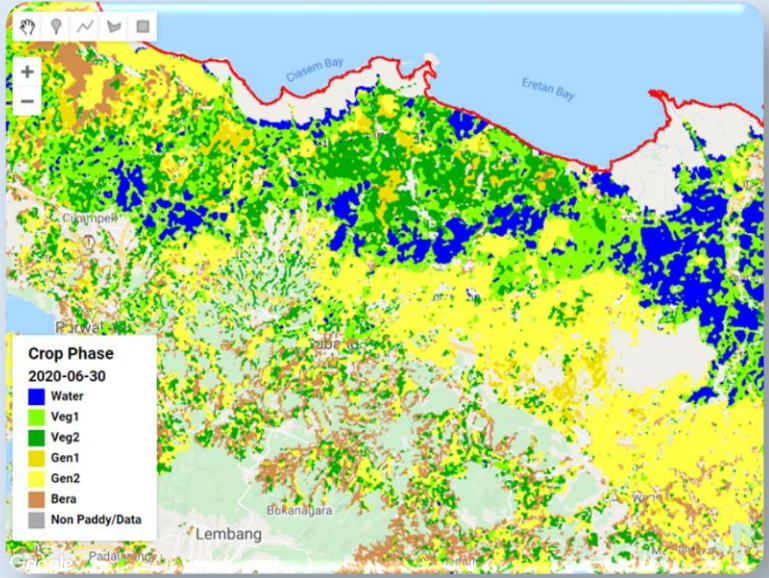
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21 - 31 Jul 2020

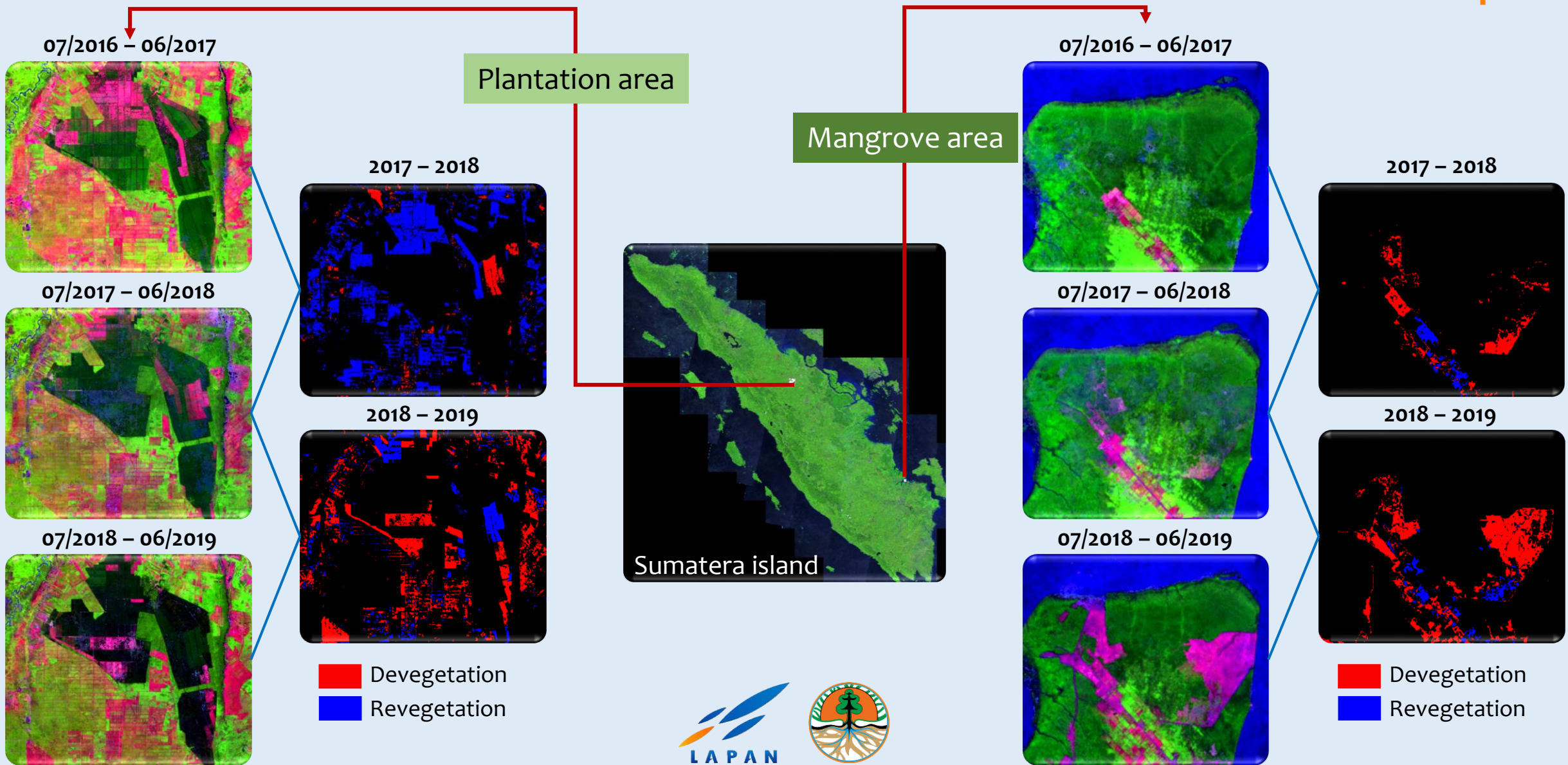
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Management of natural resources

Devegetation and revegetation monitoring



Management of natural resources

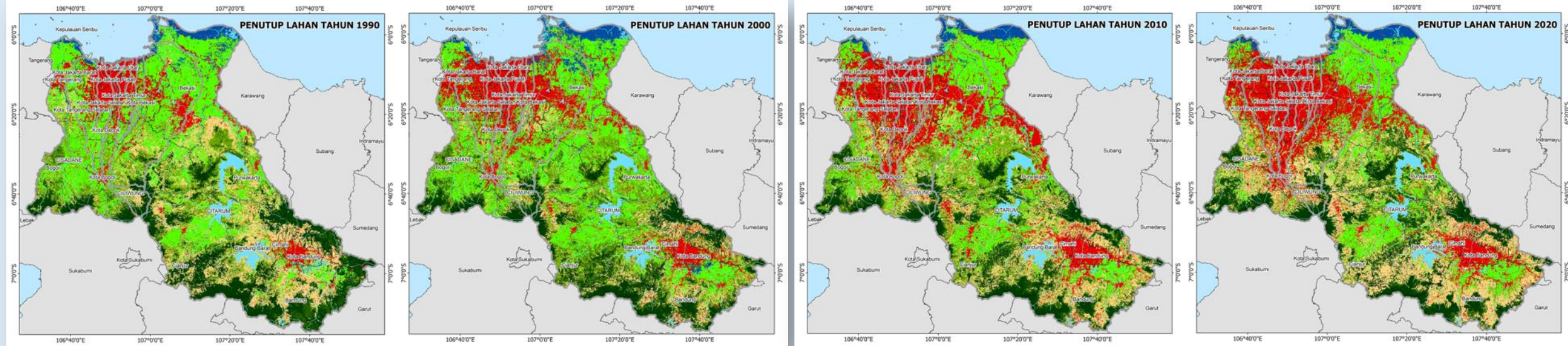
Land cover change monitoring in watershed area

1990

2000

2010

2020



Land cover change in Citarum, Ciliwung and Cisadane watershed



Validation and verification
activities



Good practice in combating Covid-19 and lessons learnt

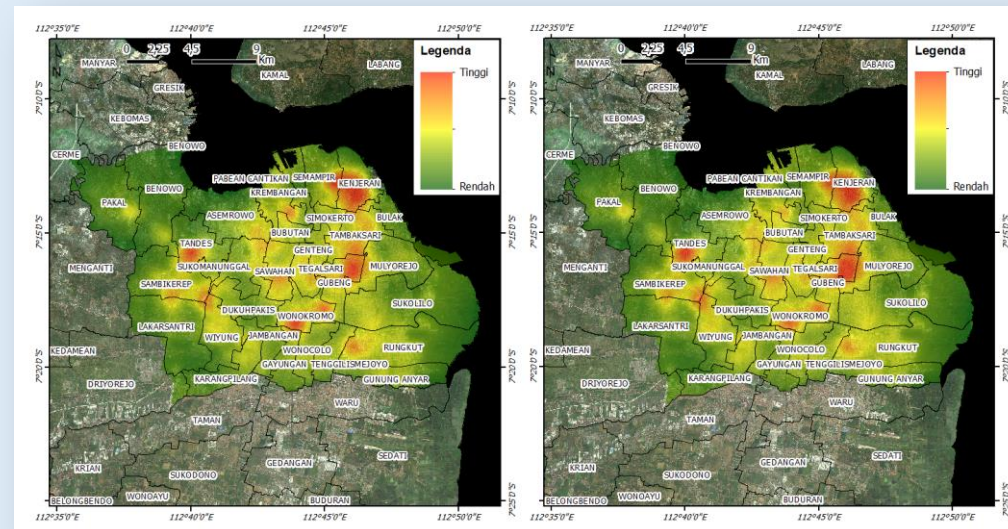
LAPAN website platform of Covid-19 potential risk

$$\text{Risk} = \text{Hazard} * (\text{Vulnerability}/\text{Capacity})$$

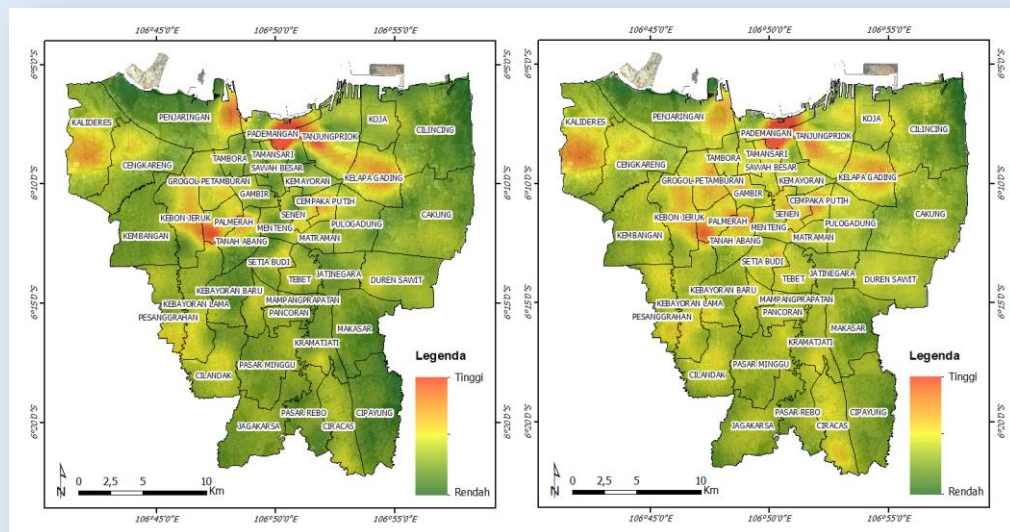
- **Hazard** taken from confirmed data provided by Covid-19 Jakarta Task Force.
- **Vulnerability** derived from satellite remote sensing data.
- **Capacity** taken from the large-scale social restriction policy.

Potential risk of Covid-19 in Surabaya

30 June 2020 (left)
30 July 2020 (right)

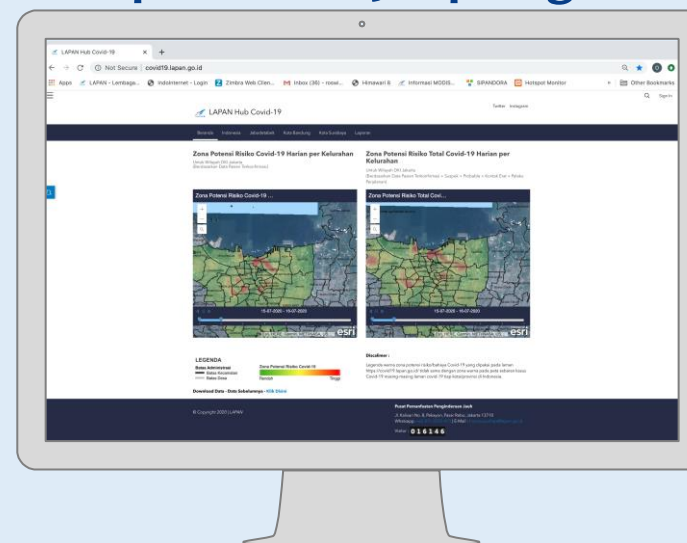


<https://covid19.lapan.go.id>



Potential risk of Covid-19 in Jakarta

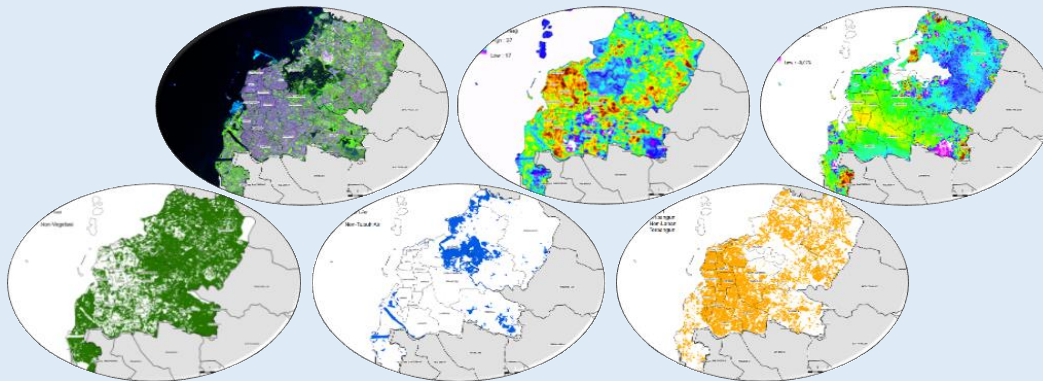
30 June 2020 (left)
30 July 2020 (right)



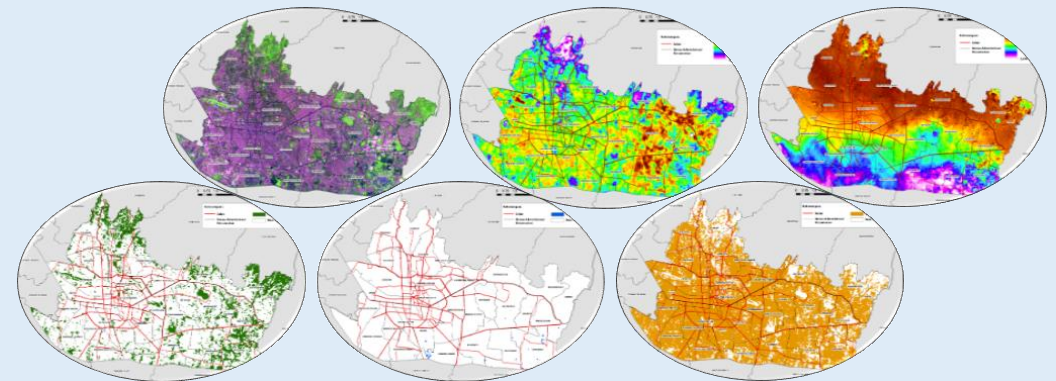
Plans and partnerships

- LAPAN and GISTDA under the UN ESCAP project on *“Improving the use and sharing of geospatial information for resilient and sustainable development (2018-2020)”* undertake the collaboration on preparing the guidelines on implementing common data formats for integrating geospatial information for urban development/smart city.
- LAPAN and GISTDA are requested by UN ESCAP after the webinar on *“How space technology applications contributed to combatting Covid-19 pandemic”* on 30 June 2020 to share good experiences and operational tools through regional and sub-regional training, and specific capacity building events to support member States of Southeast Asia in using satellite imagery to analyze the impact of Covid-19 in December 2020.
- LAPAN would participate in UN ESCAP new project of *“Building partnership for geospatial air pollution information”* together with NIER and Korea International Cooperation Agency (2020-2023).

Makassar City



Bandung City



Thank You



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