



INDONESIAN RSO ACTIVITIES IN 2020 AND THE NEXT YEAR PLANNING

5 November 2020



Presentation Outlines

- Overview Indonesian RSO (2013 – Now)
- 2020 Activities
 - ▣ Pre-Disaster
 - ▣ Monitoring
 - ▣ Disaster response
 - ▣ Capacity building
 - ▣ Sharing Platform and Stakeholders
- Regional Activities (Covid-19 Response, Smart Cities)
- 2021 Planning

Overview RSO Indonesia Activities



- 1st ASEAN WORKSHOP on "Development of Mechanisms for Acquisition and Utilization of Space-Based Information during Emergency Response", 15-16 April 2014, Yogyakarta Indonesia



- 4th ASEAN WORKSHOP on "Simulation exercise on the procedural guidelines for sharing space-based information during emergency response", 19-21 April 2016, Bogor, Indonesia

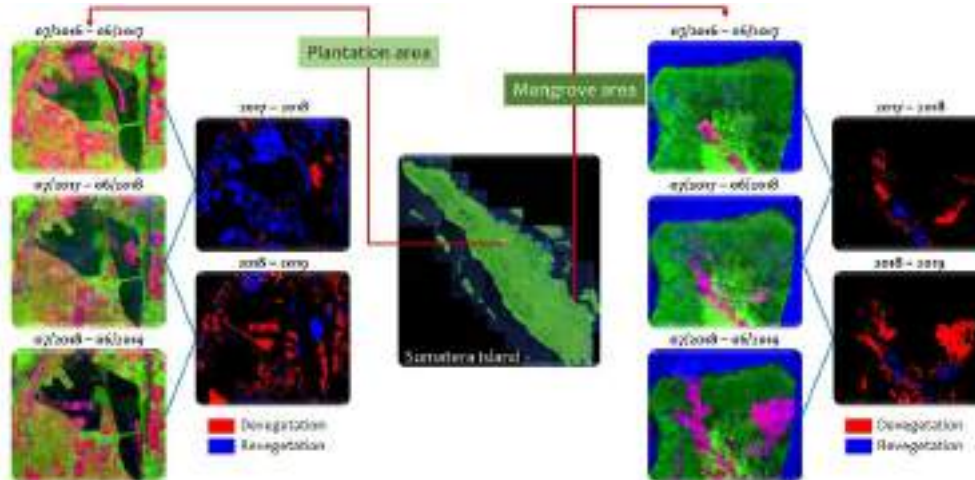
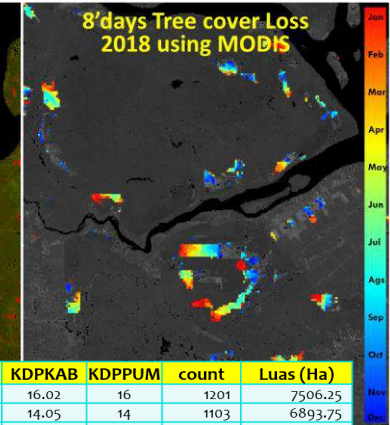
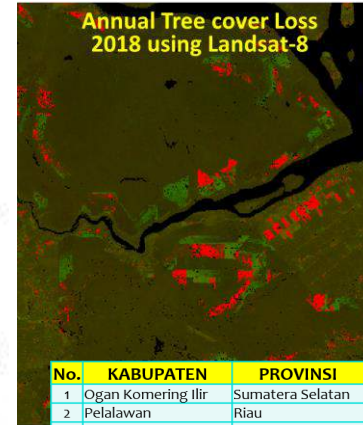
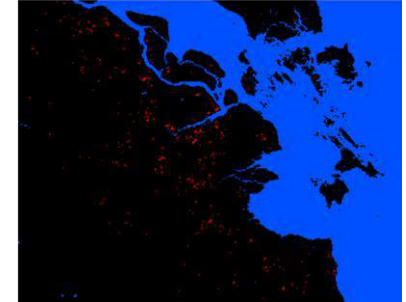
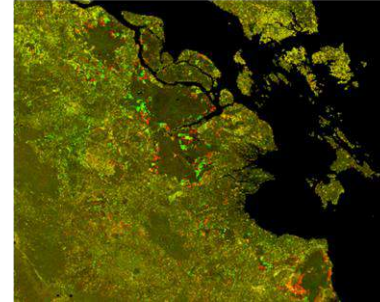


Signed as RSO, 19 February 2013

Pre- Disaster (Devegetation)

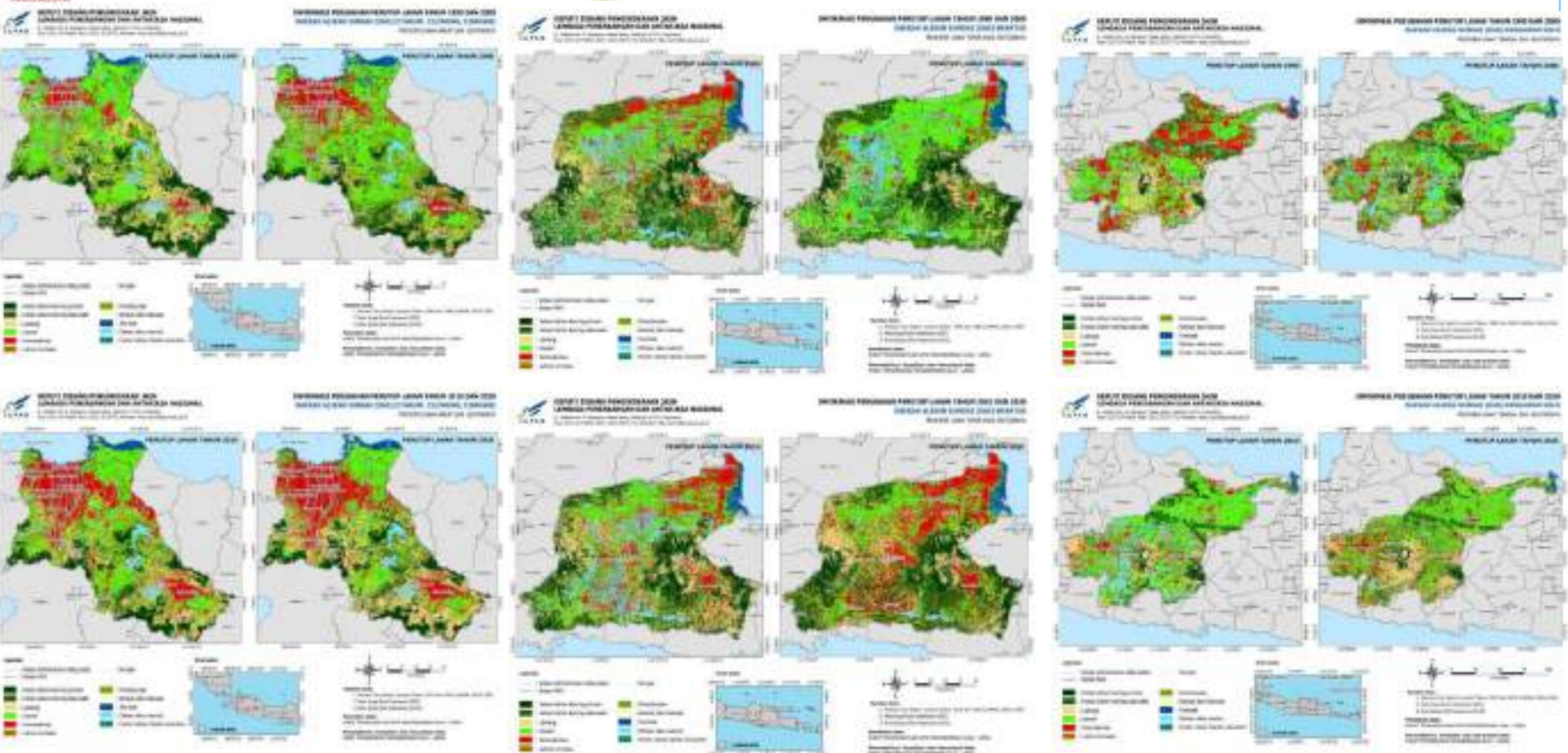
Komposit NBR
Jun'18-Jul'9 dan Jun'19-Jun'20

Klas Devegetasi Juli'19-Jun'20



No.	KABUPATEN	PROVINSI	KDPKAB	KDPPUM	count	Luas (Ha)
1	Ogan Komering Ilir	Sumatera Selatan	16.02	16	1201	7506.25
2	Pelalawan	Riau	14.05	14	1103	6893.75
3	Siak	Riau	14.08	14	595	3718.75
4	Bengkalis	Riau	14.03	14	552	3450.00
5	Kutai Kartanegara	Kalimantan Timur	64.02	64	476	2975.00
6	Kutai Timur	Kalimantan Timur	64.08	64	421	2631.25
7	Indragiri Hilir	Riau	14.04	14	381	2381.25
8	Tanjungjabung Barat	Jambi	15.06	15	321	2006.25
9	Musibanyuasin	Sumatera Selatan	16.06	16	255	1593.75
10	Batanghari	Jambi	15.04	15	236	1475.00

Pre- Disaster (15 Priority Watersheds)

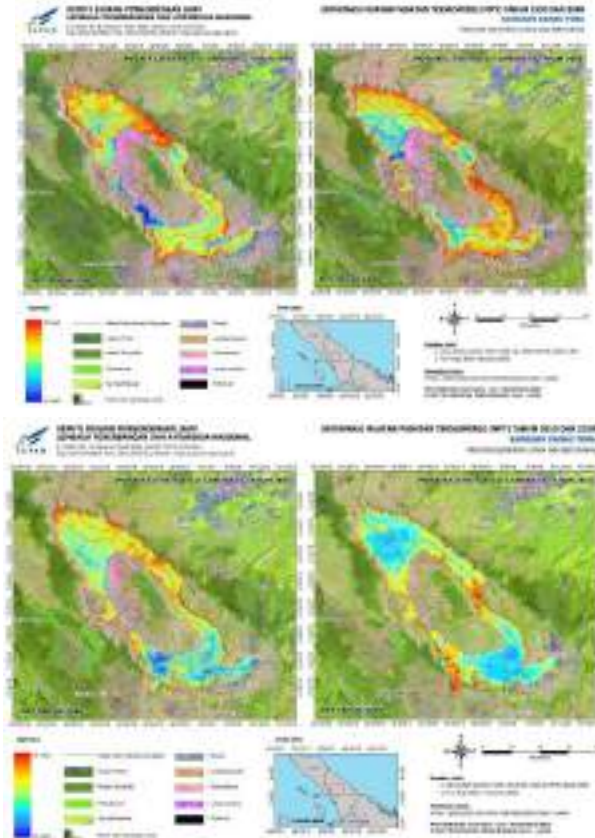


Citarum, Ciliung, Cisadane
1990-2000 and 2010-2020

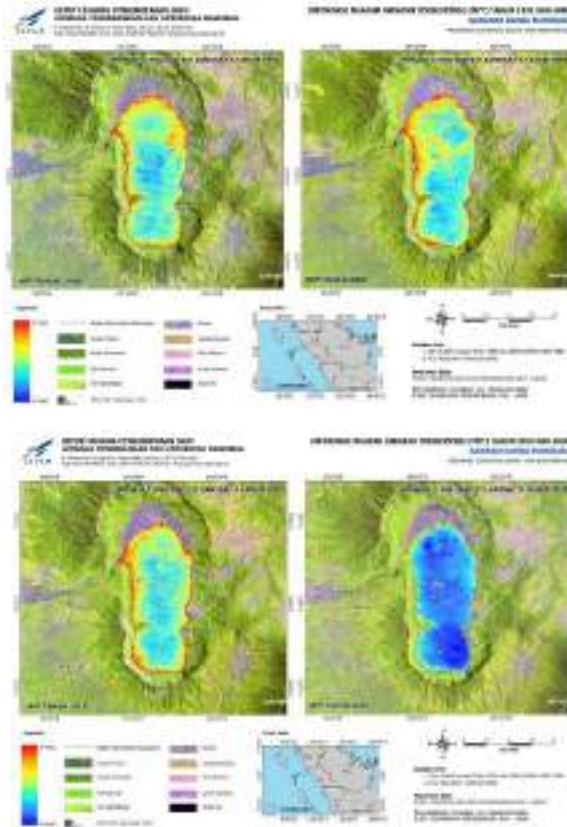
Brantas
1990-2000 and 2010-2020

Bengawan Solo
1990-2000 and 2010-2020

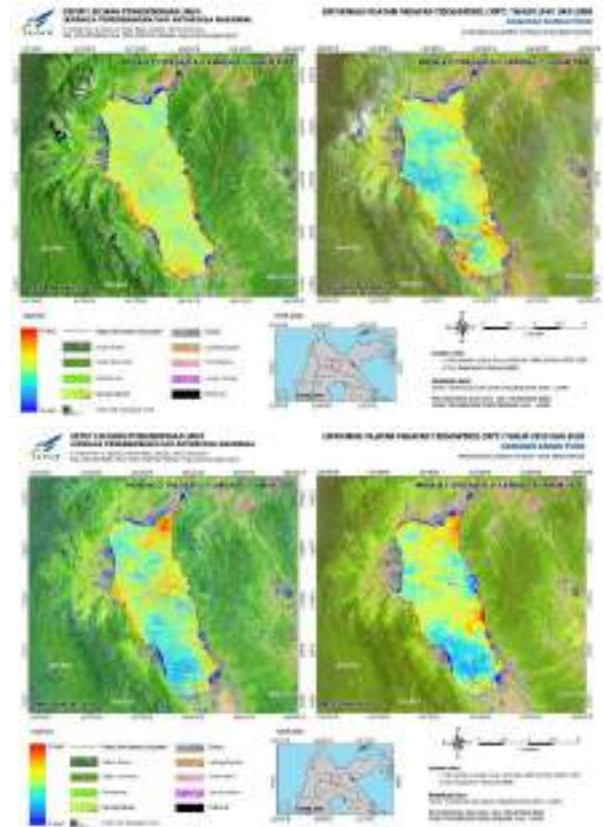
Pre- Disaster (15 Priority Lakes)



Danau Toba
1990-2000 and 2010-2020



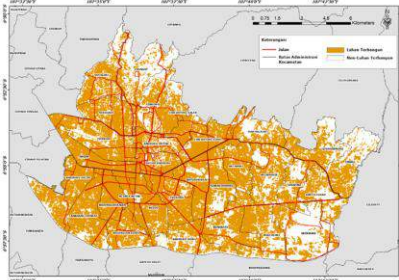
Danau Maninjau
1990-2000 and 2010-2020



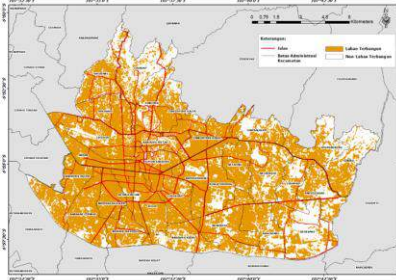
Danau Poso
1990-2000 and 2010-2020

Pre- Disaster (Urban Change)

Tahun 2015

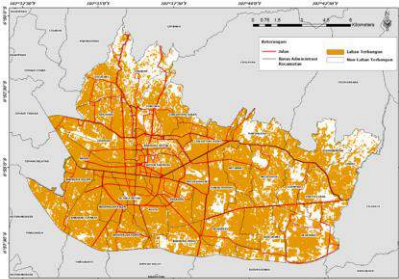


Tahun 2016

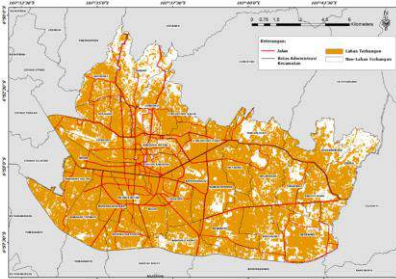


Kelas	Luas Lahan Terbangun (Ha)	
	Tahun 2015	Tahun 2016
Lahan Terbangun	7.115,9	5.977,3
Non Terbangun	9.773,1	10.911,1

Tahun 2019

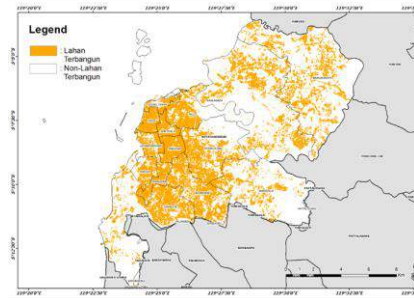


Tahun 2020

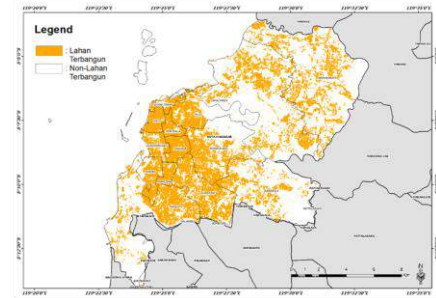


Kelas	Luas Lahan Terbangun (Ha)	
	Tahun 2019	Tahun 2020
Lahan Terbangun	7229,5	6191,1
Non Terbangun	9658,7	10697,9

Tahun 2015

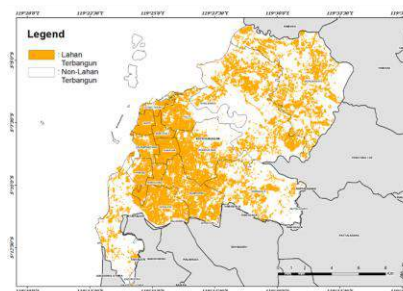


Tahun 2016

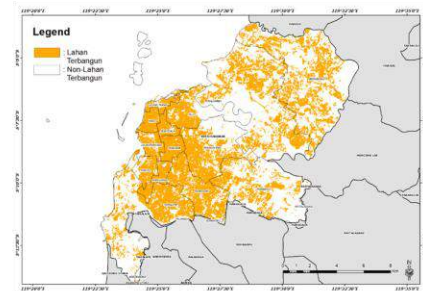


Kelas	Luas Lahan Terbangun (Ha)	
	Tahun 2015	Tahun 2016
Lahan Terbangun	3.717,9	2.933,2
Non Terbangun	13.775,9	1.4561,4

Tahun 2019

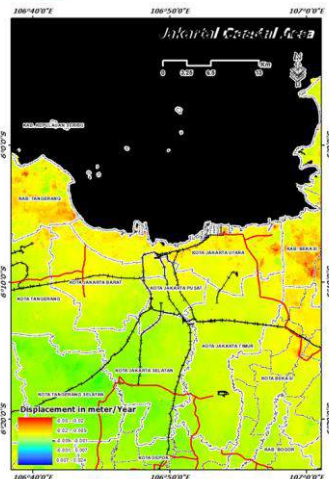


Tahun 2020

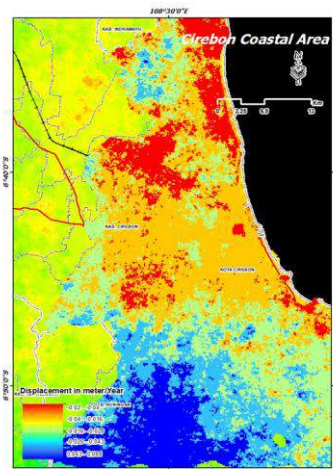
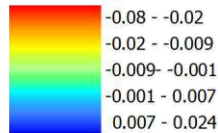


Kelas	Luas Lahan Terbangun (Ha)	
	Tahun 2019	Tahun 2020
Lahan Terbangun	5.151,9	3.116,9
Non Terbangun	12.337,5	14.376,5

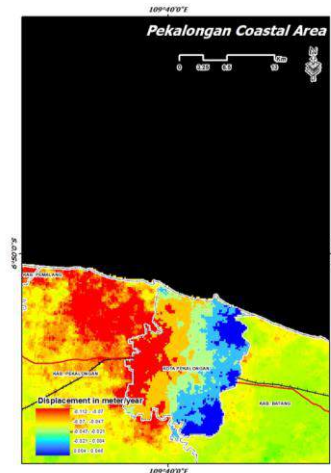
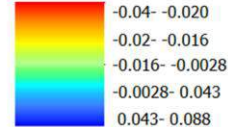
Pre- Disaster (Land Subsidence)



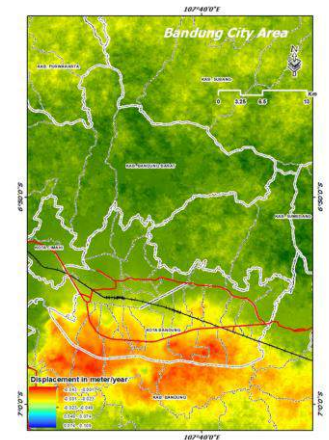
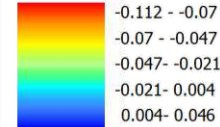
Land subsidence rata-rata (m/tahun)



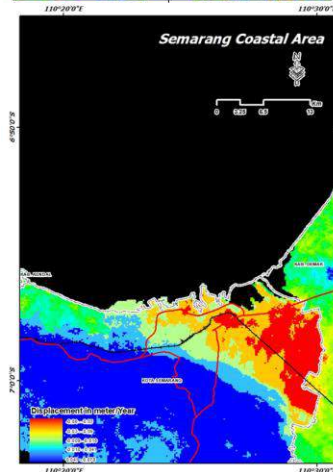
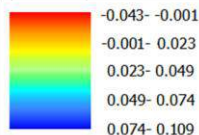
Rata-rata land subsidence (m/tahun)



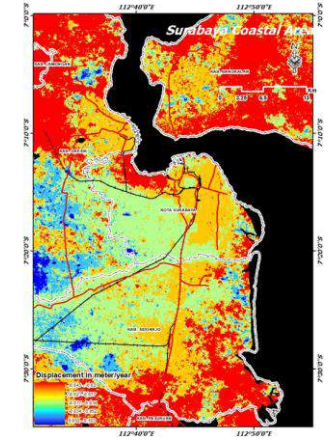
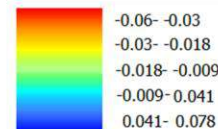
Rata-rata land subsidence (m/tahun)



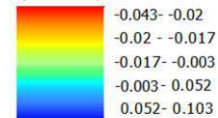
Rata-rata land subsidence (m/tahun)



Rata-rata land subsidence (m/tahun)



Rata-rata land subsidence (m/tahun)





Disaster Monitoring



Fire Danger Rating System (FDRS)



Daily potential flood information



Monthly drought monitoring



Hotspot information as forest fire indicators

Disaster Response

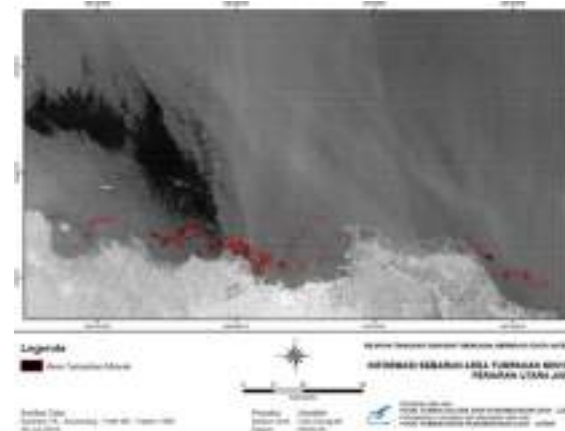
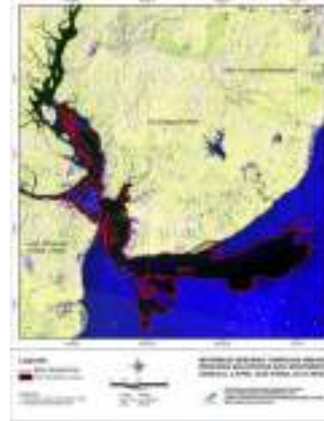
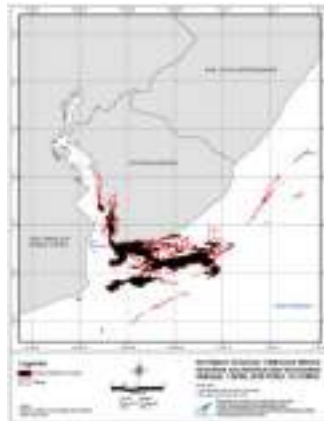
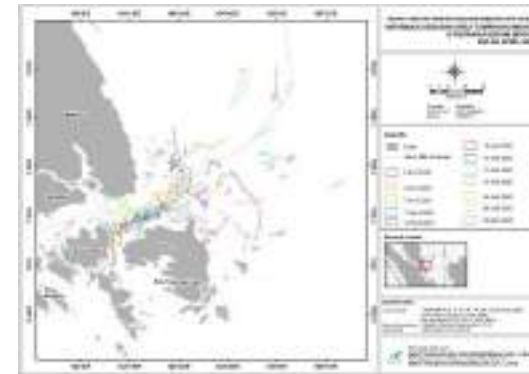
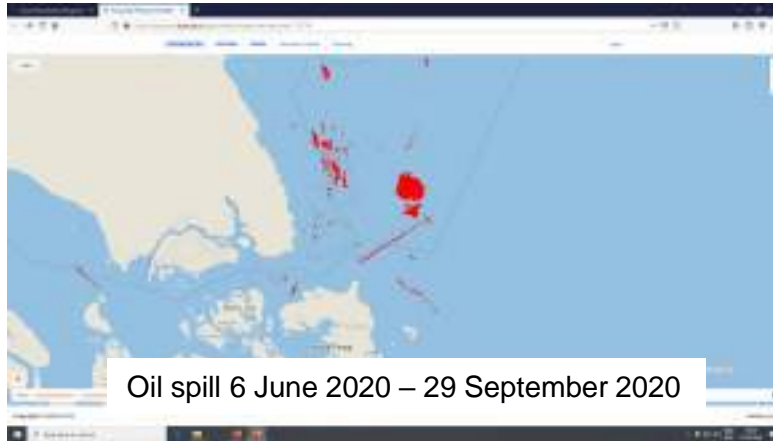


Flood Impact (Luwu, Sulsel, 2020)

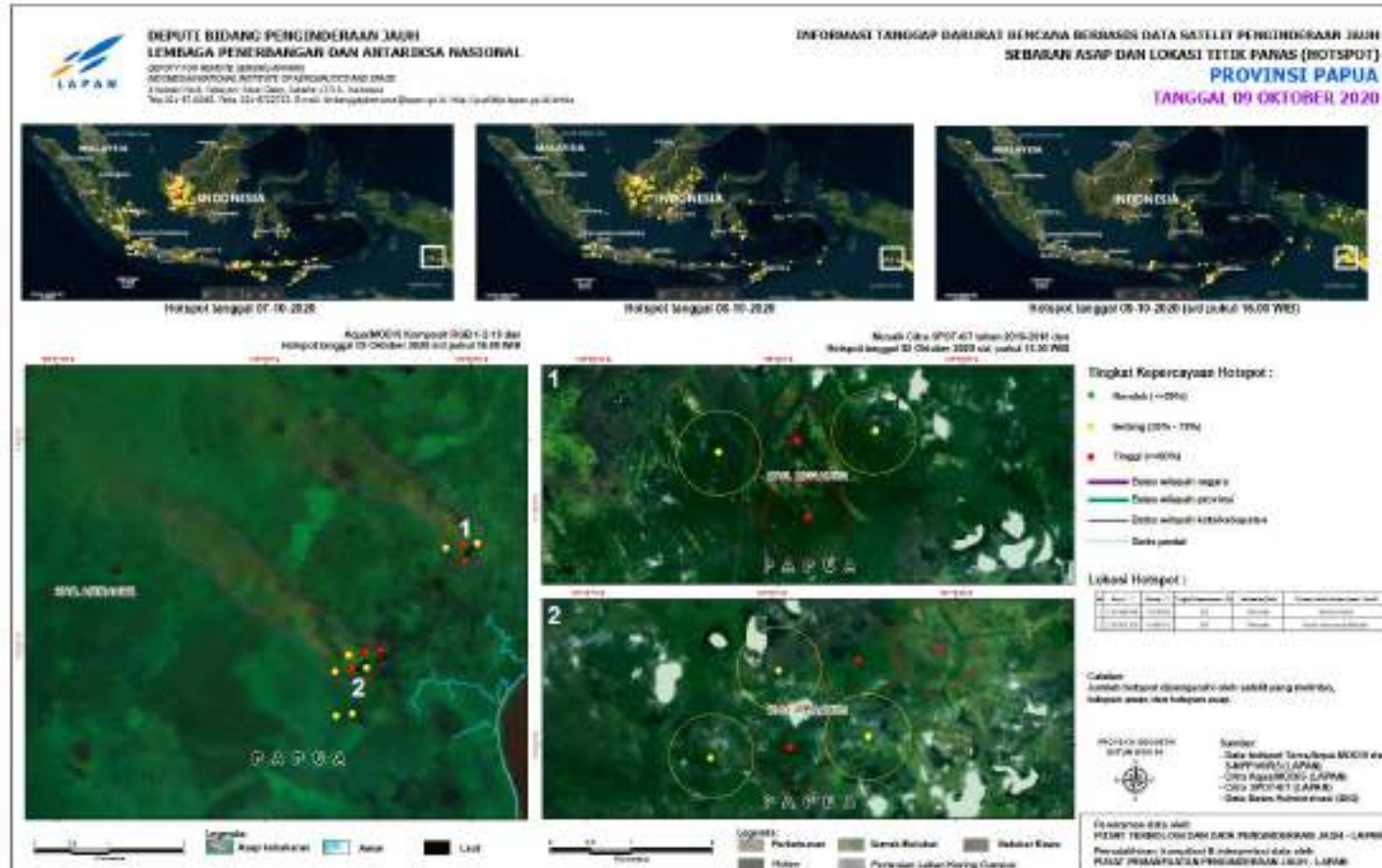


Flood Impact (Lebak, Banten, 2020)

Disaster Response (oil spills monitoring)



Burned Area Mapping



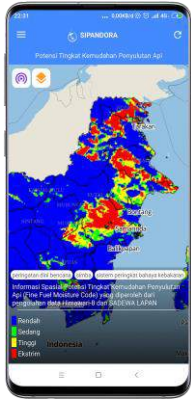
List of disaster response in 2020

No.	Disaster	Number of Products (Internal)	Number of Products (supported by sentinel asia and international charter)
1	Flood	86	58
2	Landslide	2	0
3	Forest fires	22	0
4	Earthquake	0	0
5	Tsunami	0	0
6	Volcano Eruption	3	0
7	Oil Spills	84	0

Digital Services

SIPANDORA

SISTEM PEMANTAUAN BUMI NASIONAL
BERBASIS ANDROID



<http://spbn.pusfatja.lapan.go.id>



Navigasi bagi nelayan

<http://modis-catalog.lapan.go.id/monitoring/>



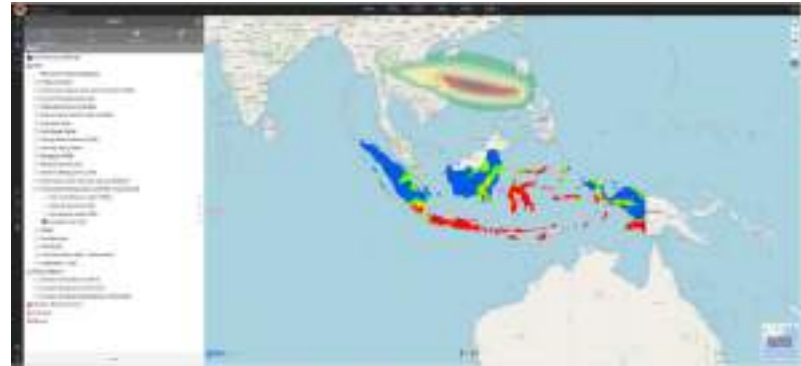
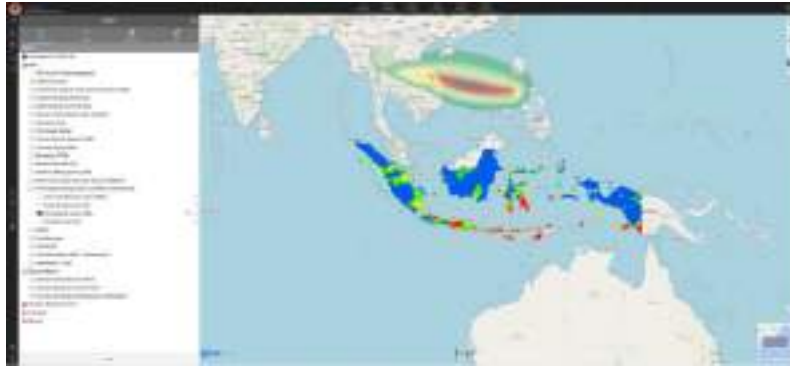
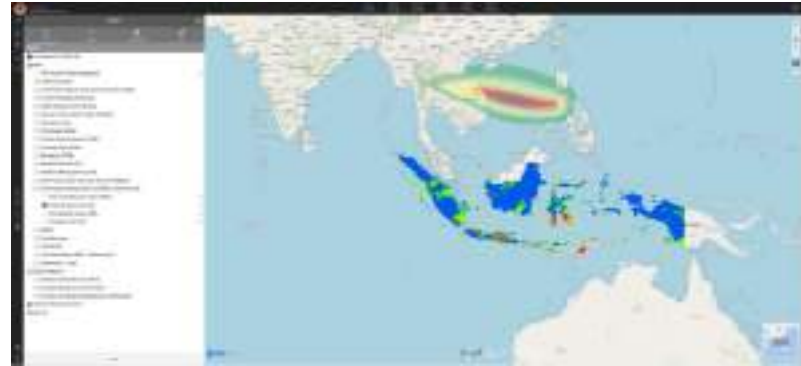
Fire hotspot
monitoring



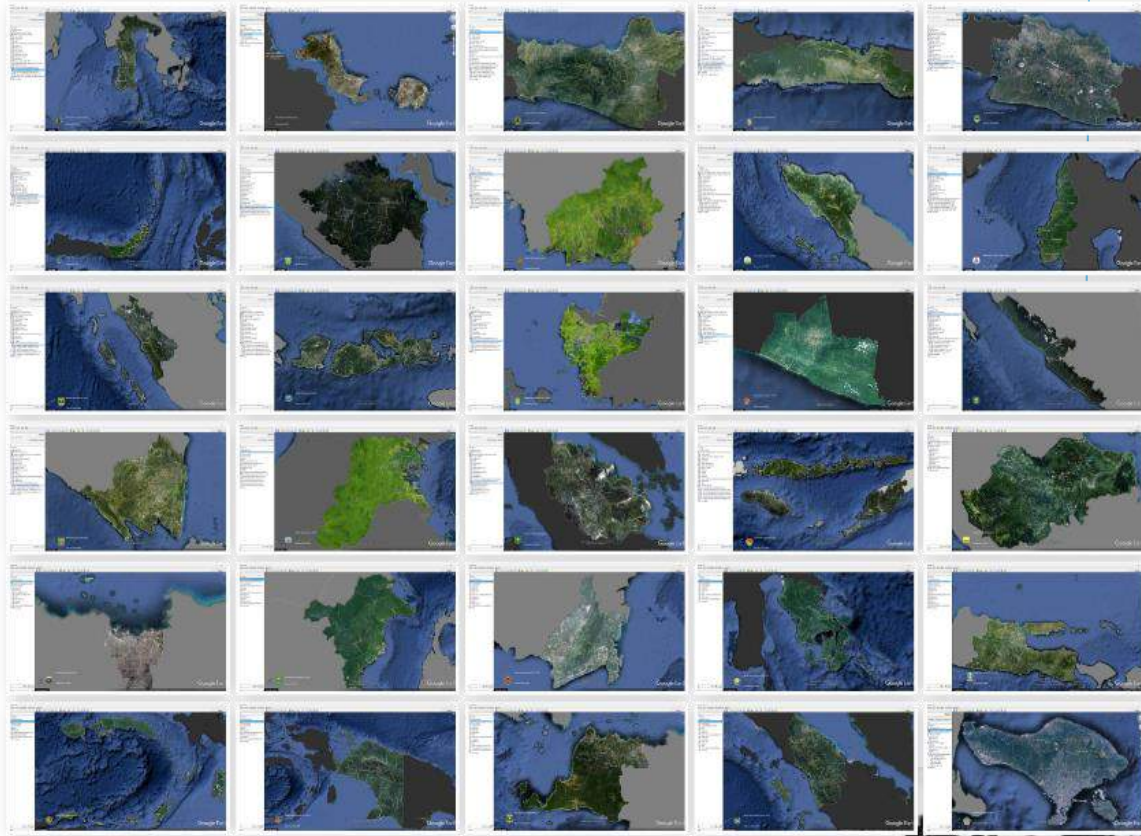
Aplikasi berbasis
Android dan iOS



Integration Products (with BNPB)



Capacity Building (Local governments support)





National Collaborations



BADAN INFORMASI
GEOSPASIAL



BMKG



BNPB



KEMENTERIAN NEGARA LINGKUNGAN HIDUP
DAN KEHUTANAN
REPUBLIK INDONESIA



KEMENTERIAN KOORDINATOR
BIDANG KEMARITIMAN



KEMENTERIAN KEUANGAN
REPUBLIK INDONESIA



KEPOLISIAN NEGARA
REPUBLIK INDONESIA



KEMENTERIAN
KESEHATAN
REPUBLIK
INDONESIA



PLN



KEMENTERIAN
PEKERJAAN UMUM DAN
PERUMAHAN RAKYAT



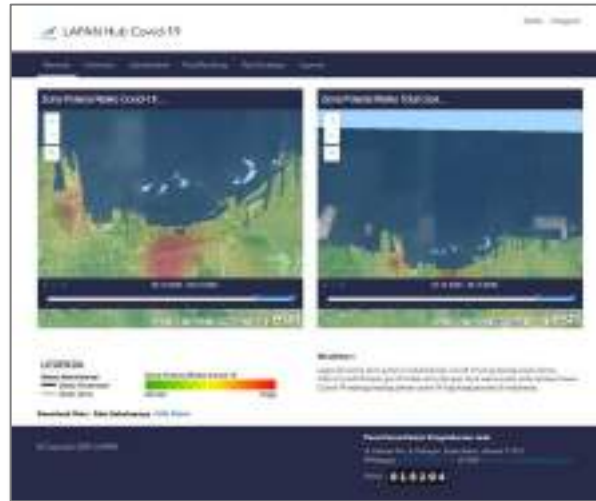
WRI INDONESIA



KEMENTERIAN PERTANIAN
REPUBLIK INDONESIA



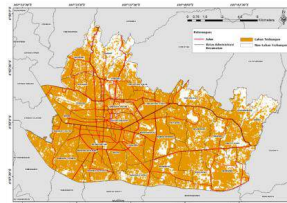
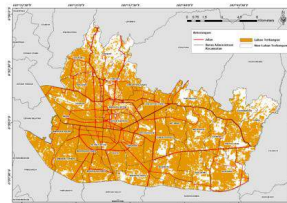
Regional Activities (Covid-19 Response, Smart Cities)



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

Tahun 2019

Tahun 2020



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(https://www.unescap.org/sites/default/files/Space-Technology-Applications-for-Combating-COVID-19-Pandemic-Development-of-LAPAN-Hub-COVID-19_LAPAN.pdf)

2021 Planning

- Continue on pre-, monitoring, disaster response
- Enhance sharing platform with stakeholders
- Continue on capacity building for local government and student
- Conduct training with UN ESCAP (Covid-19 and smart cities)
- Collaborations with DLR, AIT, and ADB on tsunami risk assessment



Terima kasih

www.pusfatja.lapan.go.id