

LEMBAGA PENERBANGAN DAN ANTARIKSA NASIONAL



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





Signed as RSO, 19 February 2013









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

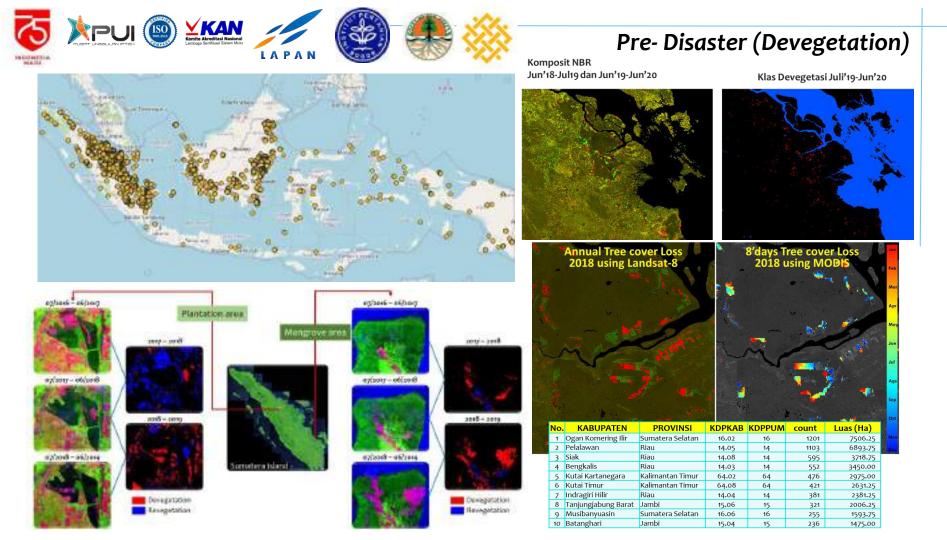


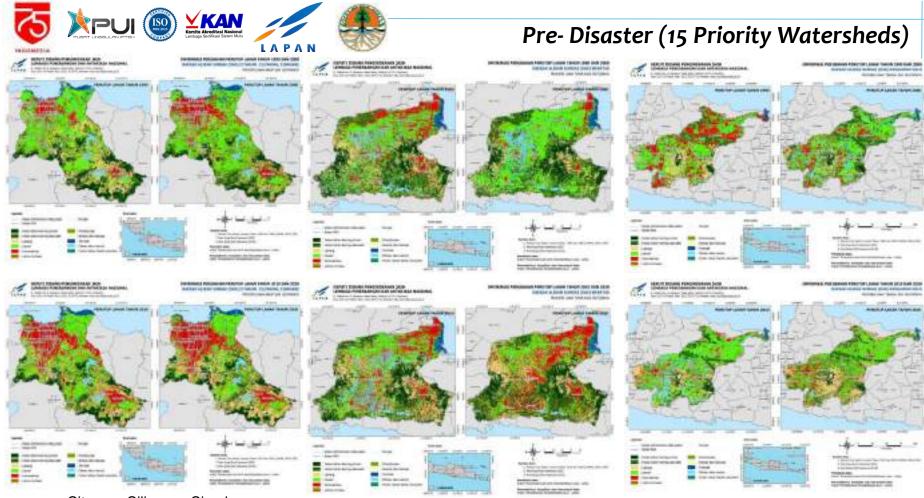
 4 nd ASEAN WORKSHOP on 'Simulation exercise on the procedural guidelines for sharing space-based information during emergency response', 19-21 April 2016, Bogor, Indonesia





Sharing Space-based Information Procedural Guidelines for Disaster Energentry Response in ASEAN Countries



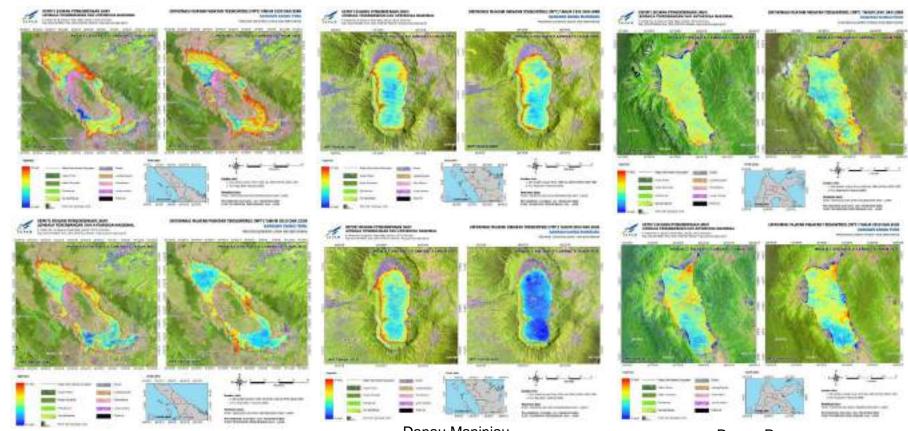


Citarum, Ciliwung, Cisadane 1990-2000 and 2010-2020

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

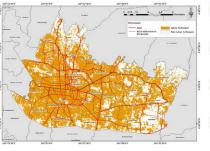
Danau Poso 1990-2000 and 2010-2020



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

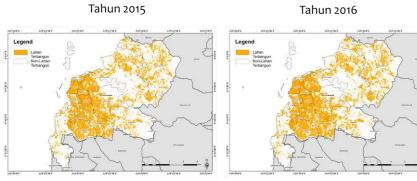
Tahun 2019

Tahun 2020





Kelas	Luas Lahan Terbangun (Ha)	
	Tahun 2019	Tahun 2020
Lahan Terbangun	7229.5	6191.1
Non Terbangun	9658.7	10697.9



Kelas	Luas Lahan Ter	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



Lahan Terbangun Non-Lahan Terbangun	\$0 F7	Te) - ć
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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



(m/tahun)

-0.08 - -0.02 -0.02 - -0.009

Rata-rata land subsidence

-0.043- -0.001

-0.001- 0.023

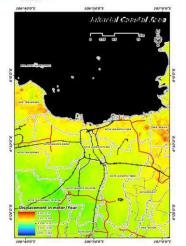
0.023-0.049

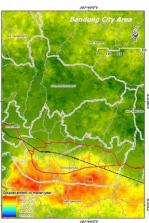
0.049- 0.074

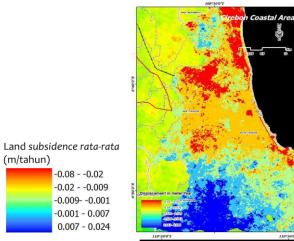
0.074-0.109

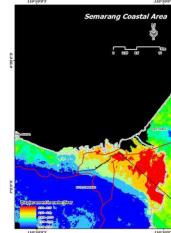
(m/tahun)

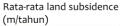
Pre- Disaster (Land Subsidence)

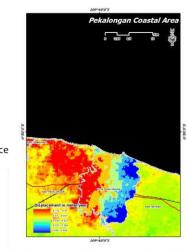


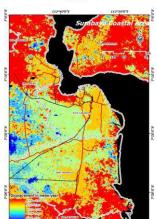












Rata-rata land subside	ence
m/tahun)	

-0.1120.07
-0.070.047
-0.0470.021
-0.021- 0.004
0.004- 0.046

Rata-rata land subsidence (m/tahun)

-0.043- -0.02 -0.02 - -0.017 -0.017- -0.003 -0.003 - 0.052 0.052-0.103

0.041- 0.078

Rata-rata land subsidence

-0.06- -0.03

-0.03- -0.018

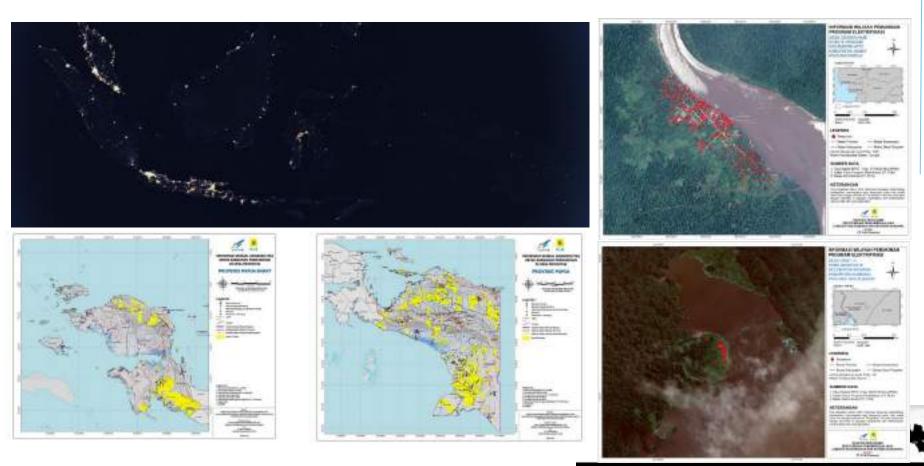
-0.018- -0.009

-0.009-0.041

(m/tahun)



Electricity program at Papua





Disaster Monitoring



Fire Danger Rating System (FDRS)



Daily potential flood information



Monthly drought monitoring



Hotspot information as forest fire indicators



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Contra -----102

Disaster Response

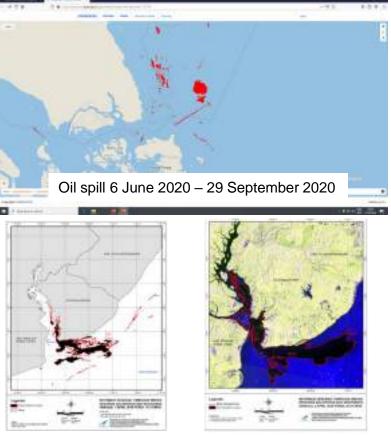


Flood Impact (Luwu, Sulsel, 2020)

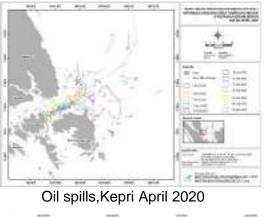
Flood Impact (Lebak, Banten, 2020)

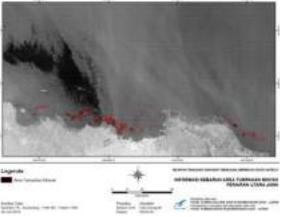


Disaster Response (oil spills monitoring)



Oil spills in Balikpapan 2018





Oil spills in North Coast of Java 2019



LAPAN

SYLNDARI.

Burned Area Mapping

INFORMAST TANGGAP DARLIKAT BENCANA BERBASES DATA SATELET PENETHDERAAR BUSH SEBARAN ASAP DAN LOKASI TITUK PANAS (HOTSPOT) PROVINSI PAPUA

TANGGAL 09 OKTOBER 2020



18 (19 pot) for ggod (28-19-20 20 (b) () public 16:00 WEST

Calabat

Tingkat Kepercayaan Hotepot : Rendel (~200) tectors conv. - TEN. Engal smithting menter from who at most to Dates whigh a provinci ---- Detter without kettakonbapata-a Danks parental shasi Hotopot I



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DEPUTE BIDANC PENGINDERAAN JAUH

ADDRESS ADDRESS OF ADD

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LEMBAGA PENERBANGAN DAN ANTARDISA NASIONAL

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Hotspiel Sengoli 07.10-2828

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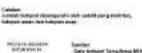


Links





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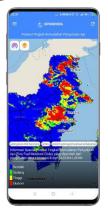
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List of disaster response in 2020

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/



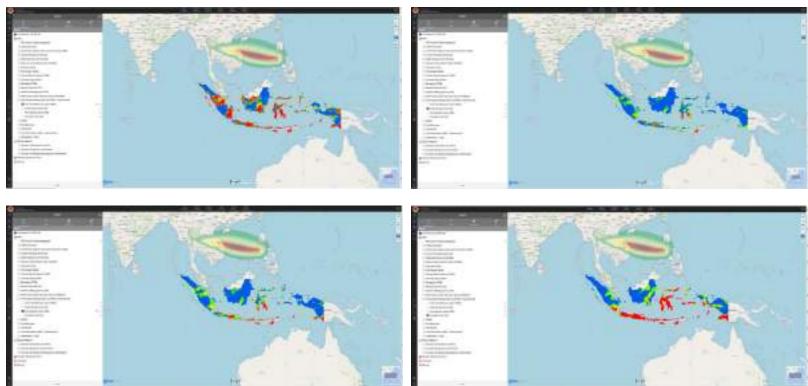
Fire hotspot monitoring







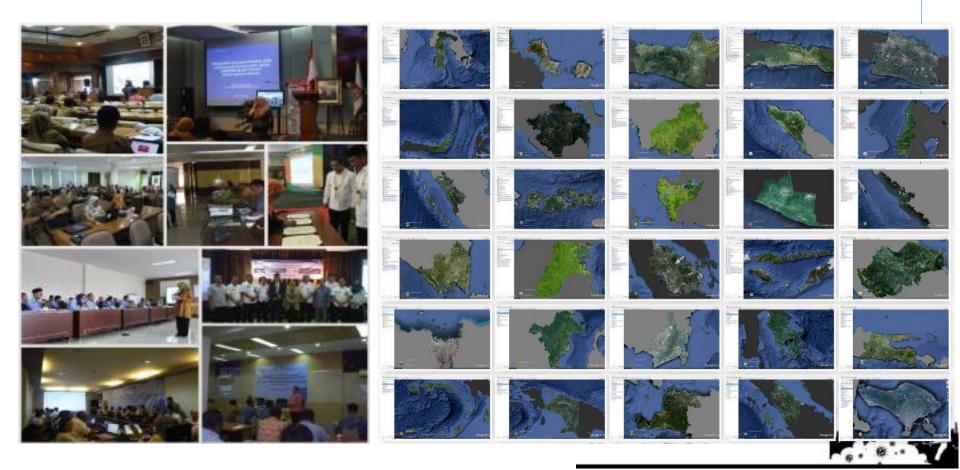
Integration Products (with BNPB)



https://inaware.bnpb.go.id/inaware/



Capacity Building (Local governments support)





National Collaborations



BADAN INFORMASI **GEOSPASIAL**





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KEMENTERIAN

PEKERJAAN UMUM DAN

Kementerian PPN/

PERUMAHAN RAKYAT

Bappenas



KEMENTERIAN KOORDINATOR **BIDANG KEMARITIMAN**



KEMENTERIAN KEUANGAN REPUBLIK INDONESIA





KEMENTERIAN NEGARA LINGKUNGAN HIDUP DAN KEHUTANAN REPUBLIK INDONESIA













KEMENTERIAN



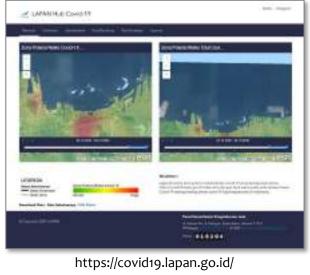








Regional Activities (Covid-19 Response, Smart Cities)



Tahun 2019

Tahun 2020





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(https://www.unescap.org/sites/default/files/Space-Technology-Applications-for-Combatting-COVID-19-Pandemic-Developmentof-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