

NATIONAL FRAMEWORK FOR FLOOD DISASTER MANAGEMENT IN INDONESIA

11th GEOSS ASIA – PASIFIC SYMPOSIUM Kyoto, 24-26 October 2018

OUTLINE

Disasters in Indonesia

The Disaster Management Mechanism

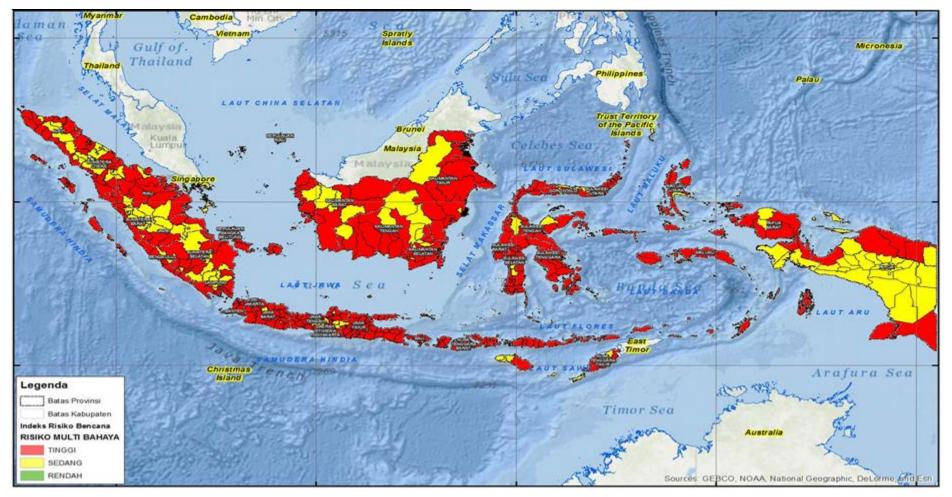
Current Status of Flood Early Warning Systems

Currently and Activity Plan

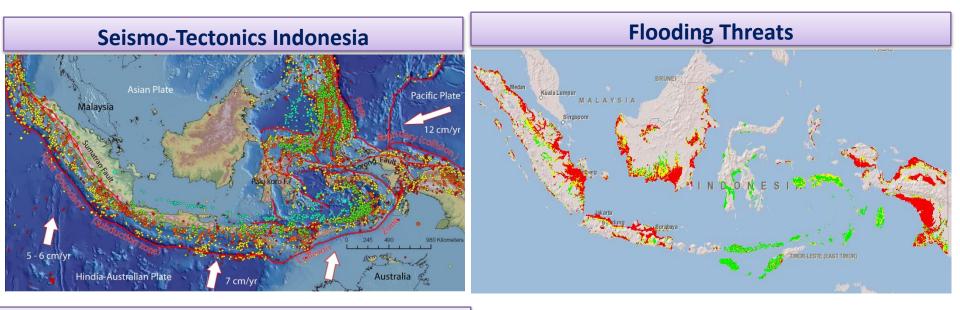
Follow up in The Future

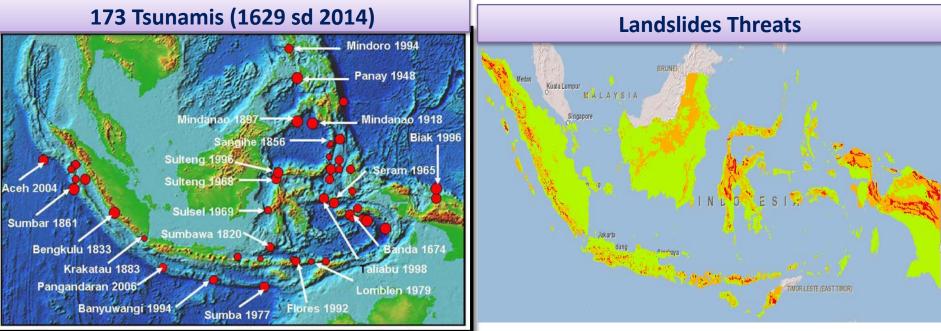
DISASTERS IN INDONESIA

Map of Disasters Risk Index in Indonesia



Source: BNPB









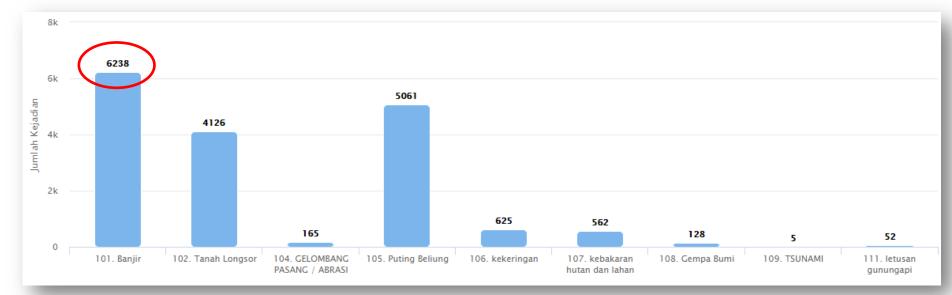


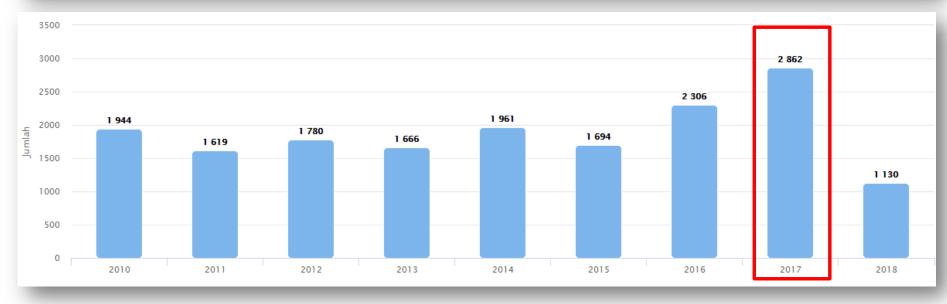


Frequency of Disasters 2010 – Augst 2018

Rank	Disasters	Frequency
1	Flood	6258
2	Putting Beliung (tornado)	5061
3	Landslide	4126
4	Drought	625
5	Forest Fire	562
6	Tidal Wave/Abration	165
7	Earthquake	128
8	Volcanic Eruptions	52
9	Tsunami	5

Source:BNPB





- Flood is the most disaster occurred in 2010 Augst 2018
- So many disasters occurred in year 2017

Source: BNPB

The Factors that Causes The Disasters

- ✓ The high rainfall
- ✓ The land conversion
- ✓ The deforestation
- ✓ The steep slope
- ✓ The condition of Geological and Geotechnical local soil
- The watershed characteristics and river morphology
- ✓ The ring of fire
- ✓ The high temperature
- ✓ Habits of humans

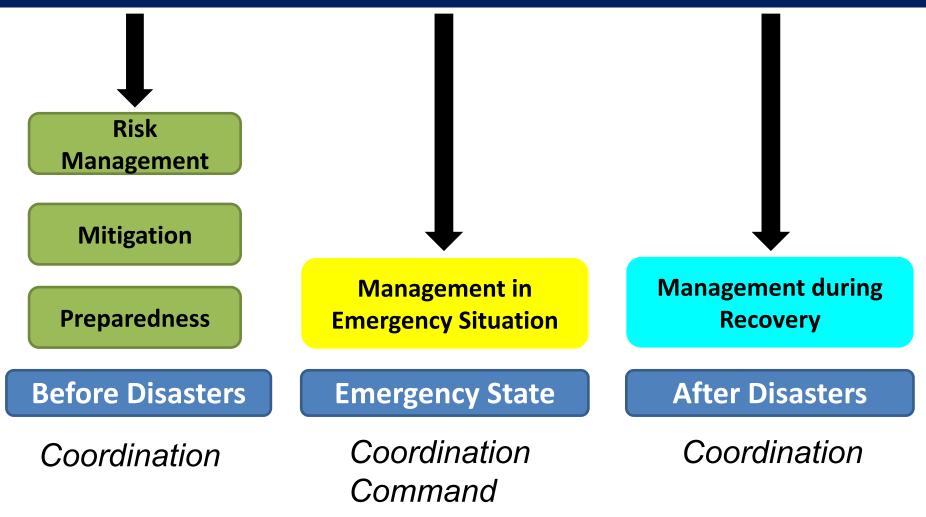








THE DISASTERS MANAGEMENT MECHANISM IN INDONESIA



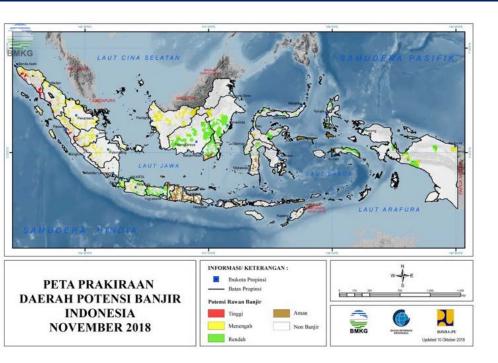
(Flood) Disaster Management need prediction information and early warning

Task and Functions of Ministries/ Institutions retated to Disaster Management Mechanism

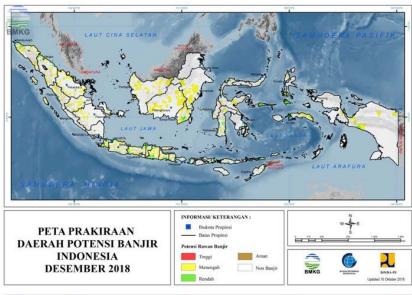
Before Disasters	Emergency State	After Disasters
 Disaster information services – BNPB, BIG MCG information services – BMKG Hotspot monitoring – LAPAN Broadcasting of disaster information - Kemenkominfo 	 Emergency disaster management – BNPB, Kemensos, Kemenkes Handling emergency infrastructure – Kemen PUPR 	 Rehabilitation of infrastructure in disaster area – BNPB, BIG, Kemen PUPR Revitalization of critical river basin – KLHK Rehabilitation of agriculture area – Kementan Rehabilitation epidemic of disease - Kemenkes

Challenge: Need coordinations related to the task and functions of ministries and institutions

CURRENT STATUS OF FLOOD EARLY WARNING SYSTEM



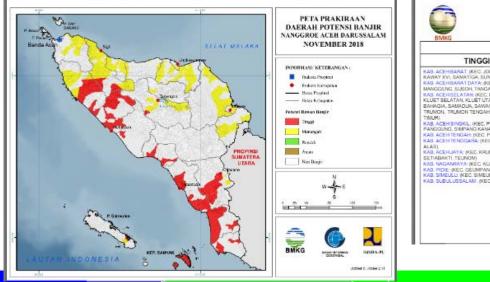
Information flood potential forecasts are made in the legend of high, medium, low, safe and no flood event





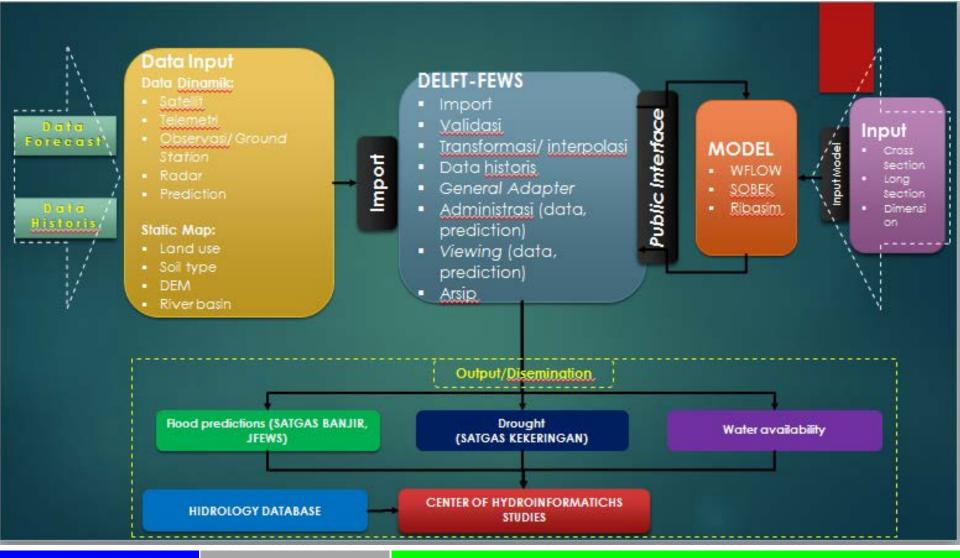
Flood potential forecast is the result of collaboration by 3 Agencies

Agencies	Provide
BMKG	Monthly rainfall forecast
Directorate General of Water Resources – Ministry of Public Works (PSDA-PUPR)	Information of flood prone areas
Geospatial Information Agency (BIG)	Base map (RBI, land system, land cover)

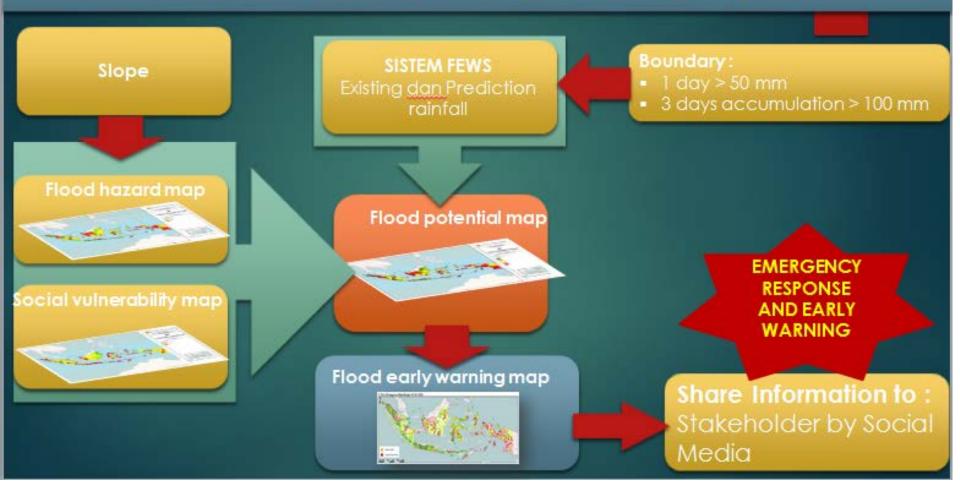


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Scheme of The Central of Hydroinformatichs Studies - PUPR (DELFT - FEWS)



TASK FORCE "FLOOD" PUPR



Flood Early Warning System is a software create by Deltares (Netherland) and developed by PUSAIR through the Joint Cooperation Program (JCP)

Flood Potential Information per District

V. Peta Peringatan Dini Banjir 23-08-2018

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Whatsapp Group

SATGAS Banjir dan Longsor

Bik BMKG, Døder, Hita, Jambi, Mporla,

Selamat pagi. Berikut kami sampaikan laporan satgas banjir 23 Agustus 2018 beserta prediksi 24 Agustus 2018 dan 25 Agustus 2018. Der be





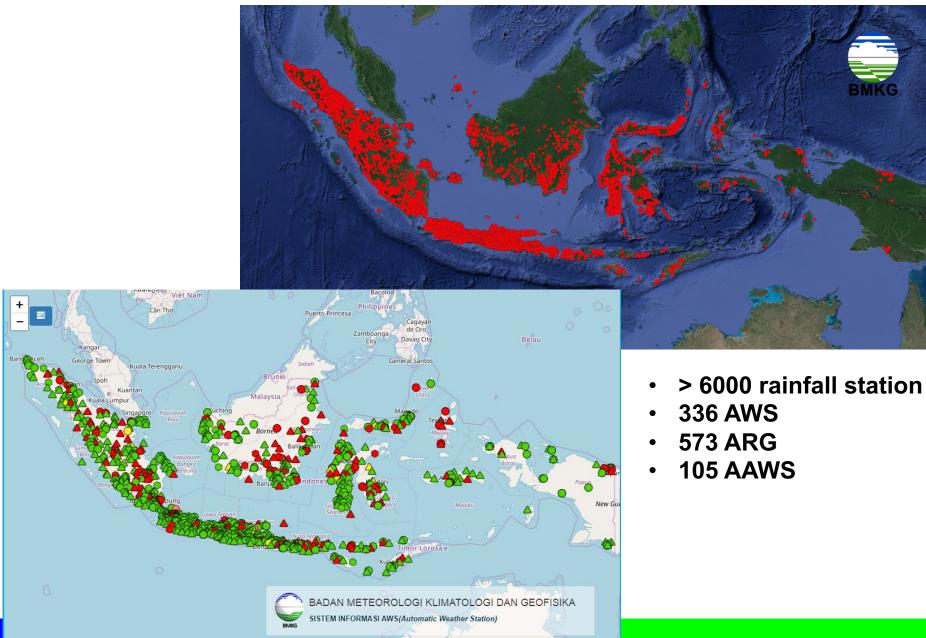
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Data Input	Forecat data	PIC
	Observation data	BMKG
	NWP (National Weather Prediction)	BMKG
	GWP (Global Weather Prediction)	ВМКС
	ECMWF (European Centre for Medium- Range Weather Forecast)	BMKG
	GFS (Global Forecast System)	NASA
	Access-A, R, T	NASA

Historical data	PIC
TRMM (Tropical Rainfall Measuring Mission)	NASA
GPM (Global Precipitation Measurement)	NASA
Radar AWS	BMKG
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Data Input and evaluation (observation)



CURRENT ACTIVITY AND ACTIVITY PLANNING

BMKG	PUPR
Coordination with PUPR, BIG "Flood potential forecast"	Coordination with BMKG, BIG "Flood potential forecast"
Coordination with BNPB about MHEWS	JCP3 J-FEWS
JCP3 climate change	Development web integration about The Central of Hydroinformatichs Studies
SATREPS (Science and Technology Research Partnership for Sustainable Development) about MHEWS (proposal)	etc
etc	

FOLLOW UP (IN MY OPINION)





Thank You



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