



Developing Flood Information ***Indonesian Experience***

Marjuki

Indonesia Agency for Meteorology Climatology and Geophysics (BMKG)

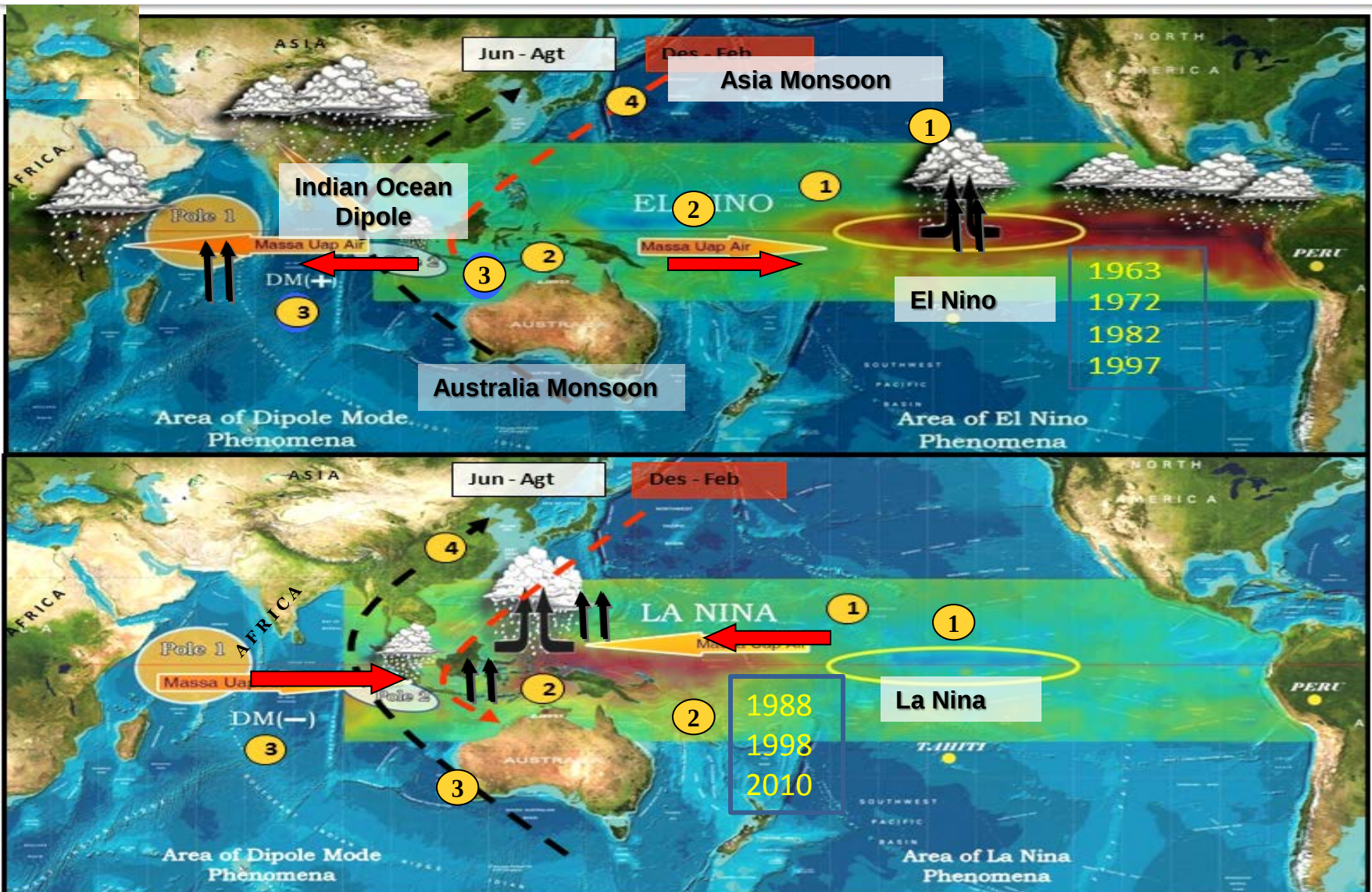


*Presented in: 9th GEOSS Asia-Pacific Symposium
11-13 January 2017- Tokyo, Japan,*

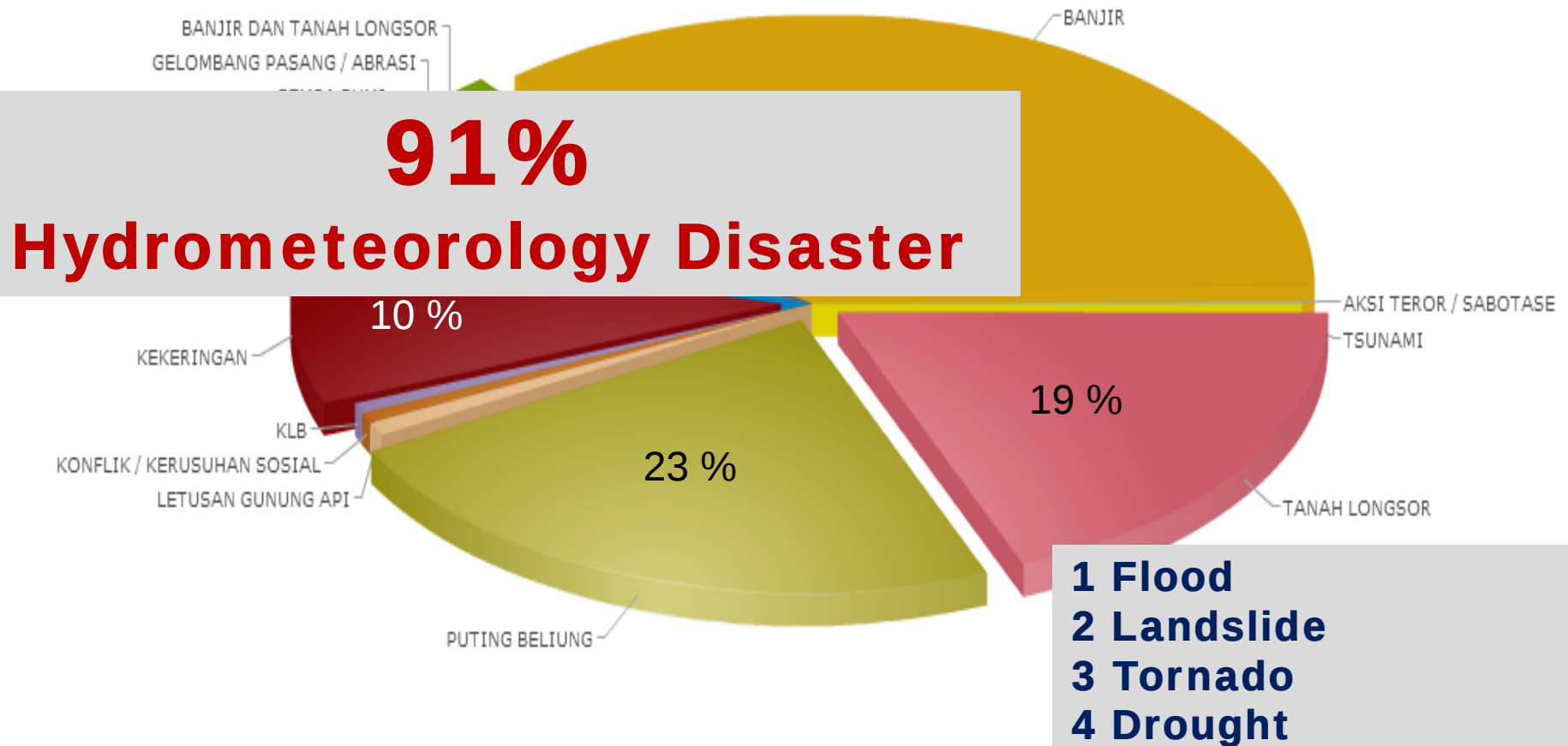
OUTLINE

- Overview of INDONESIAN CLIMATE
- BMKG Flood Information
- Rainfall data observation
- Open data Policy

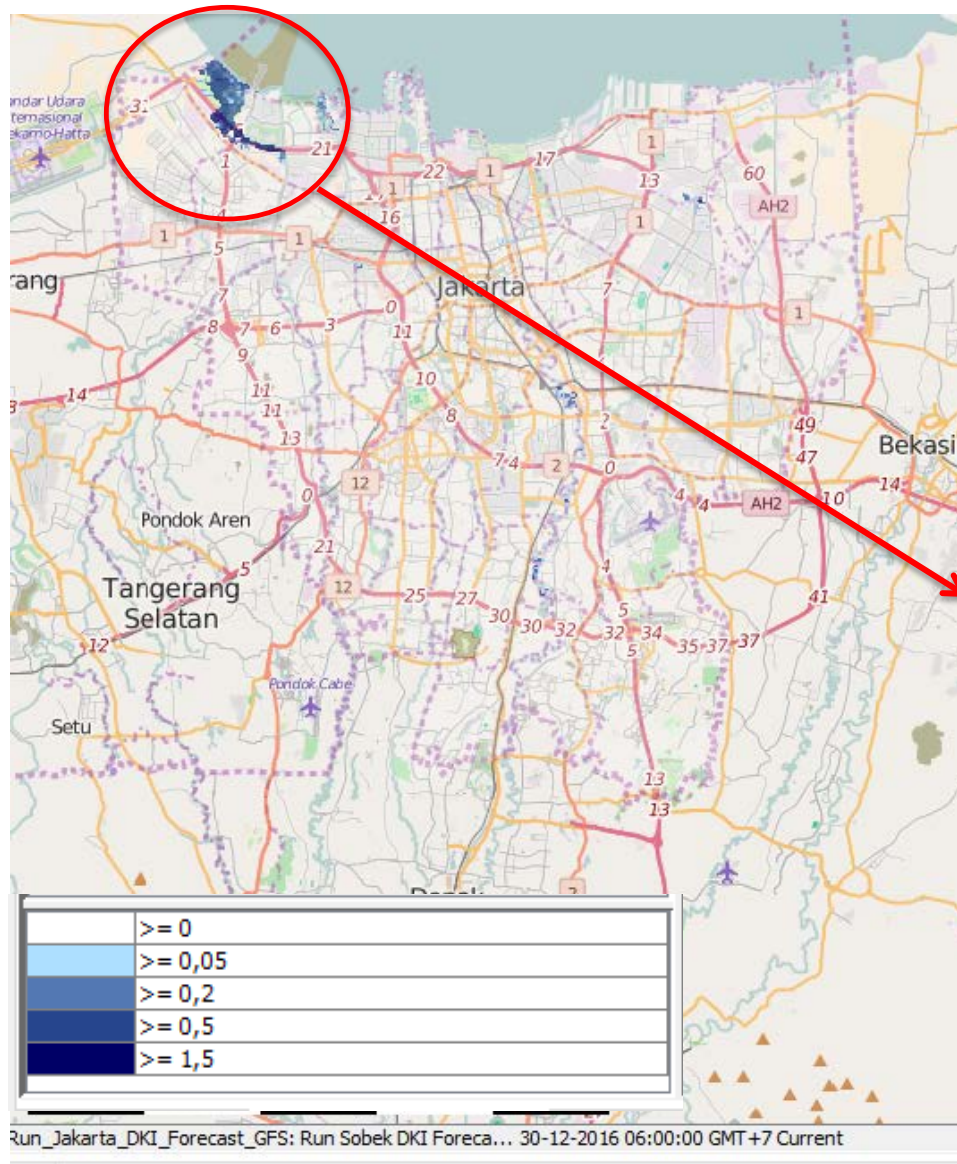
Climate Driving Force di Indonesia



COMPARISON OF TOTAL DISASTER EVENTS In INDONESIA on 1815-2016

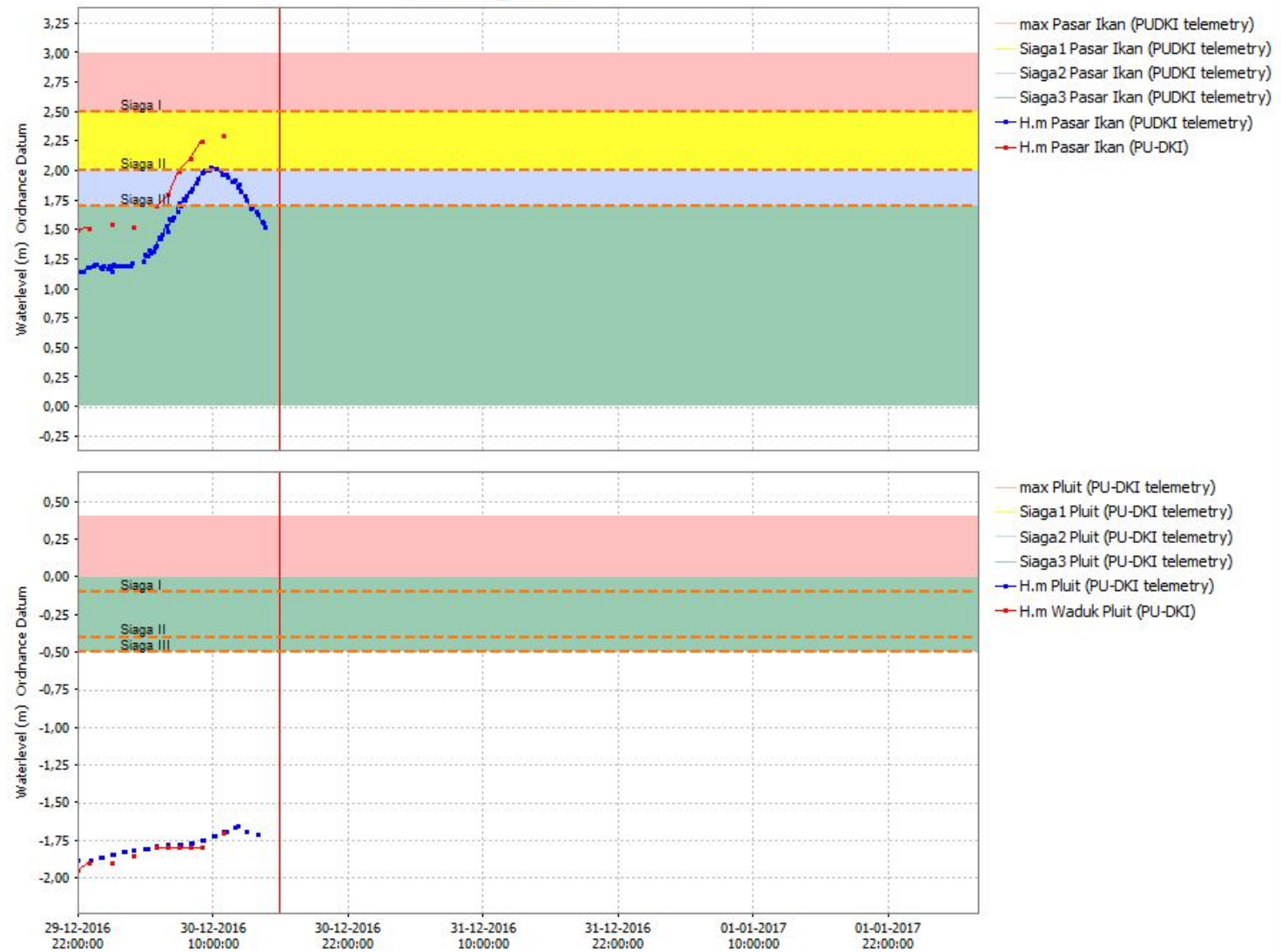


PRODUCT ANALYSIS OF JAKARTA FLOOD EARLY WARNING SYSTEM (J-FEWS) 30 DECEMBER 2016



FLOOD POTENTIAL AREA	THE WATER LEVEL ABOUT
LUAS (WIDE) AREA	
Kamal Muara, Pantai indah utara	0.18 m to 1.23 m
KECIL (SMALL) AREA	
Bukit Duri, Kampung Melayu	0,03 m to 0,59 m
Tanjung Duren Utara, Daan Mogot, Bojong Indah, Kembangan, Kedaung Kali Angke	0.2 m s/d 0.44 m
Pejaten Timur, Pasar minggu	0,05 m to 0.72 m
Duren Kalibata, Kebon Baru, Cipinang melayu	0.05 m to 0.59 m
Kartini, Gunung Sahari	0.04 m to 0.11 m
Kelapa Gading	0.11 m to 0.63 m

Ciliwung Lama

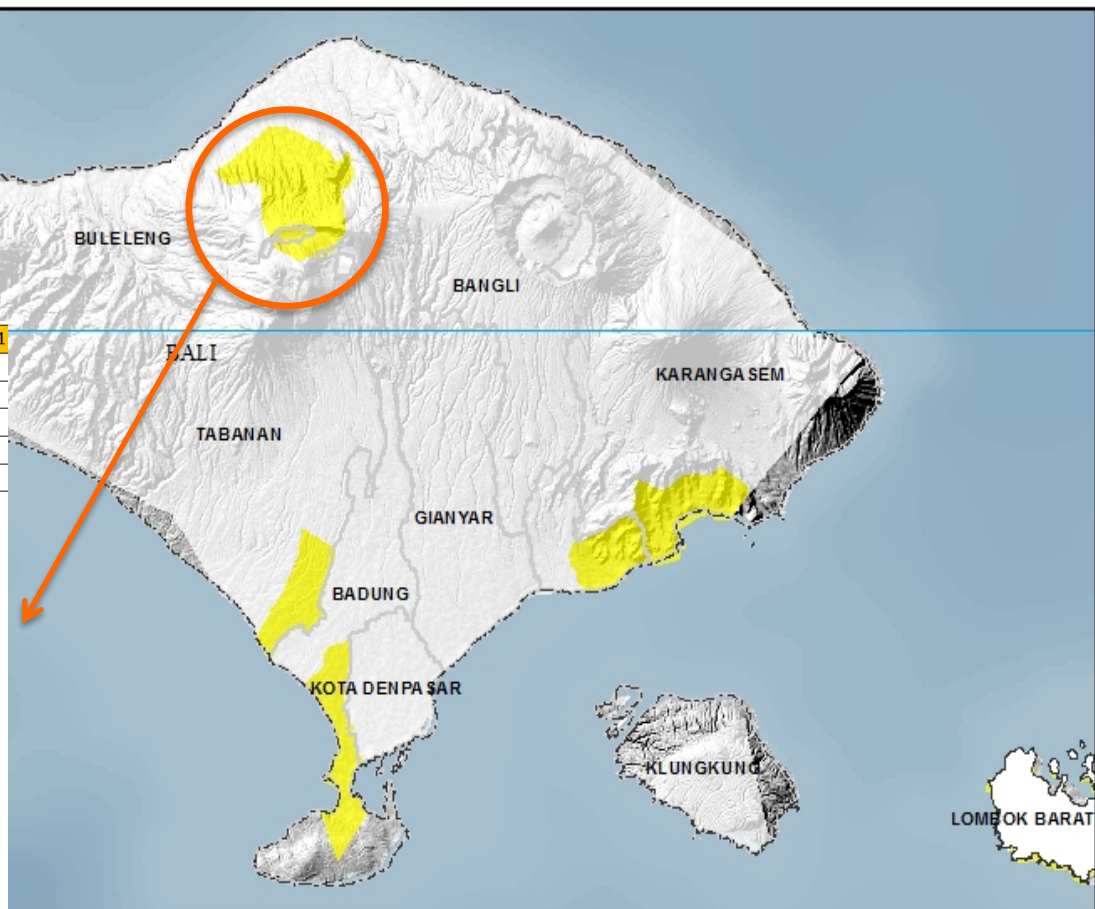
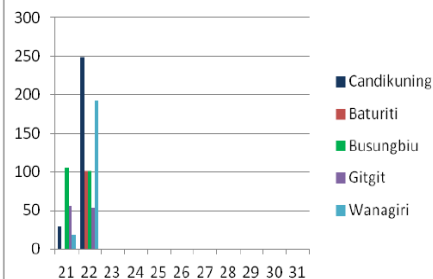


8°20'0"S

8°20'0"S

	21	22	23	24	25	26	27	28	29	30	31
Candikuning	29	249									
Baturiti	0	101									
Busungbiu	105.5	101.5									
Gitgit	56	54									
Wanagiri	18	192									

Grafik Curah Hujan Pos Kerjasama di
Lokasi Kejadian
21 - 22 Desember 2016



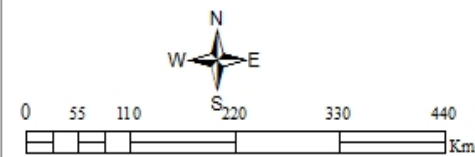
Potential Flood BALI DESEMBER 2016

Potensi Rawan Banjir

- Tinggi
- Menengah
- Rendah
- Aman
- Non banjir

KET :

- Batas Propinsi
- Batas Kabupaten



Kota Palu(Sulawesi Tengah)

PETA RAWAN BANCA KOTA PALU
PROVINSI SULAWESI TENGAH
DAKARAN (SULAWI JANGRAI)

Skala: 1 : 10.000

Proyeksi: UTM
Datum: WGS 1984
Elevasi: 1 Tahun 2014

LEGENDA

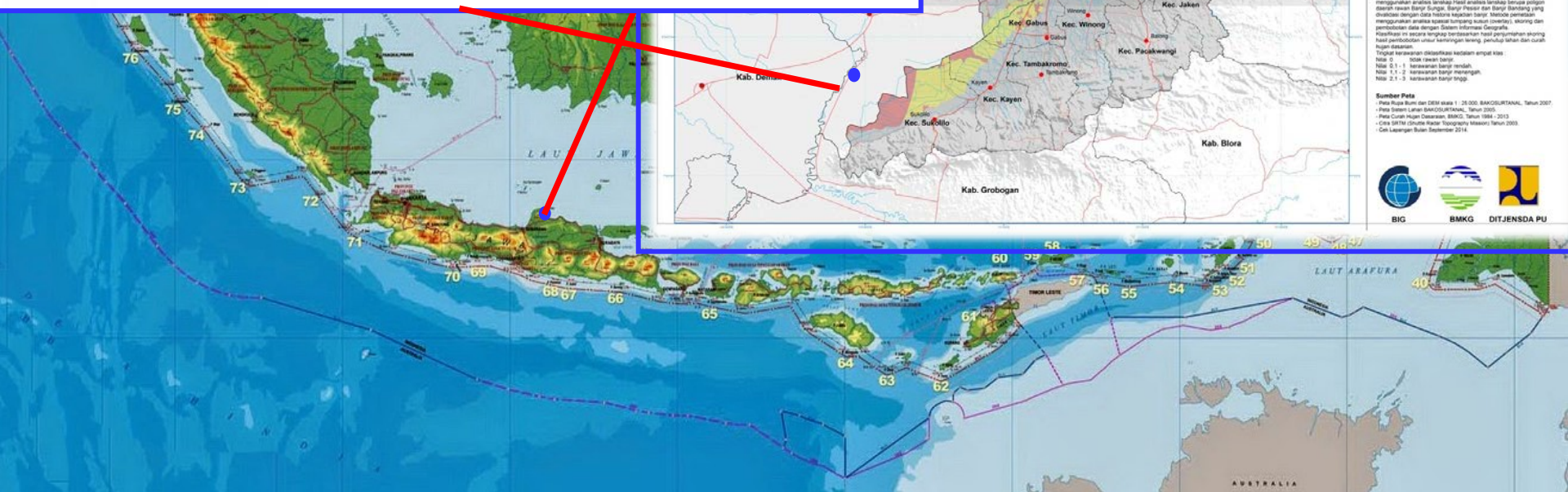
Kenampakan Topografi

- Ibu Kota Provinsi
- Ibu Kota Kabupaten
- Kota Lain
- Gunung
- Batas Provinsi
- Batas Kabupaten
- Batas Kecamatan
- Jalan Tol
- Jalan Arteri
- Jalan Kolektor
- Jalan Lokal
- Pantai, Sungai, Danau

Tingkat Kerasan

- 100m
- 200m
- 300m
- 400m
- 500m
- 600m
- 700m
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- 900m
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Pati (Jawa Tengah)



FLOOD INFORMATION ON NATIONAL COLLABORATION PLATFORM

DATA SOURCE

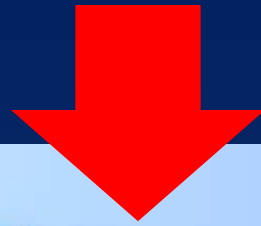
- Data of Monthly Rainfall Forecast (BMKG)**
- Historical Flood Event Data (Public Work Ministry)**
- Basemap (Geospatial Information Agency)**

SOFTWARE

Arc GIS & Ms. Excel

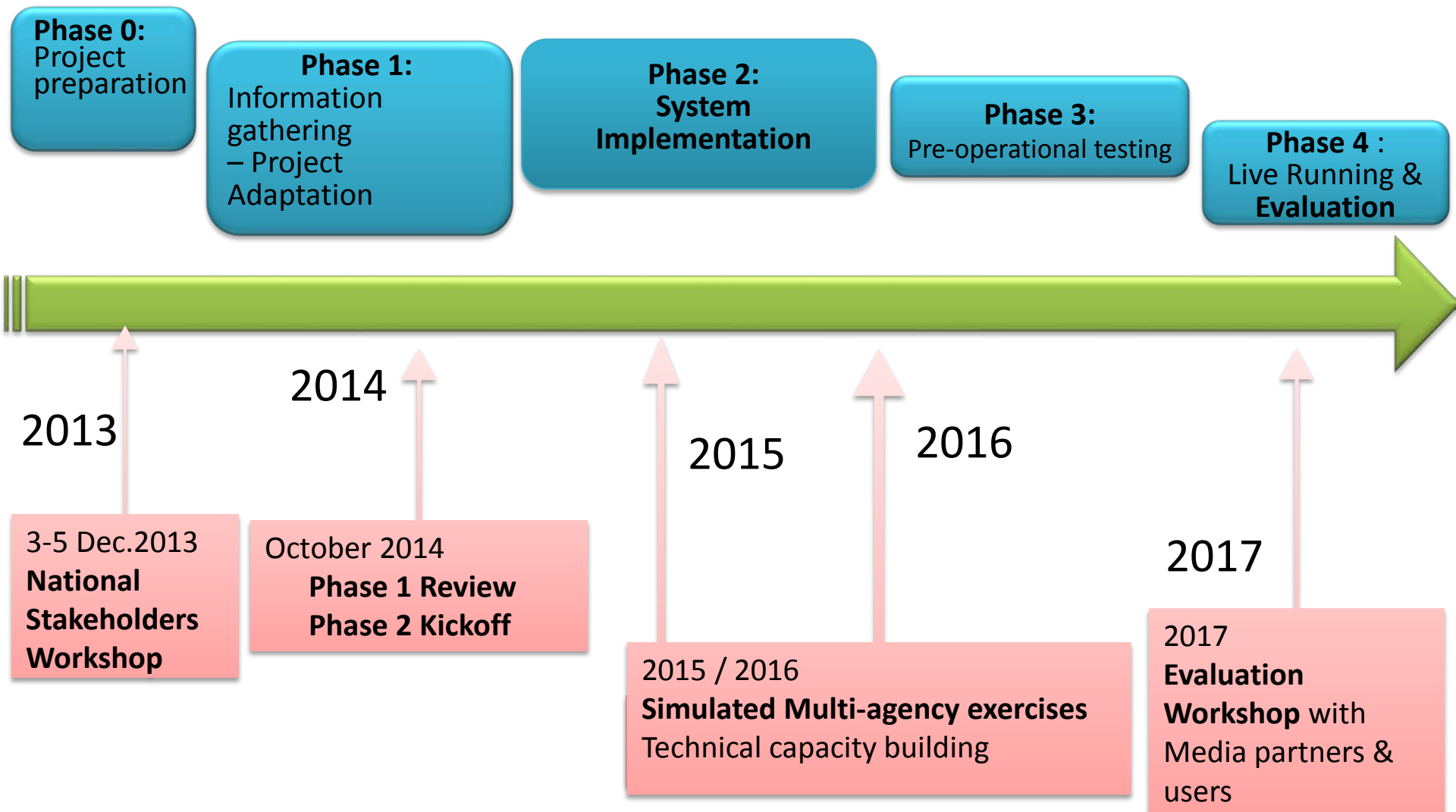
COASTAL INUNDATION FORECASTING DEMONSTRATION PROJECT INDONESIA (CIFDP-I)

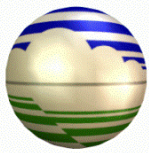
PILOT PROJECT



**BOTH LOCATIONS HAVE FREQUENT FLOOD FROM
COASTAL INUNDATION**

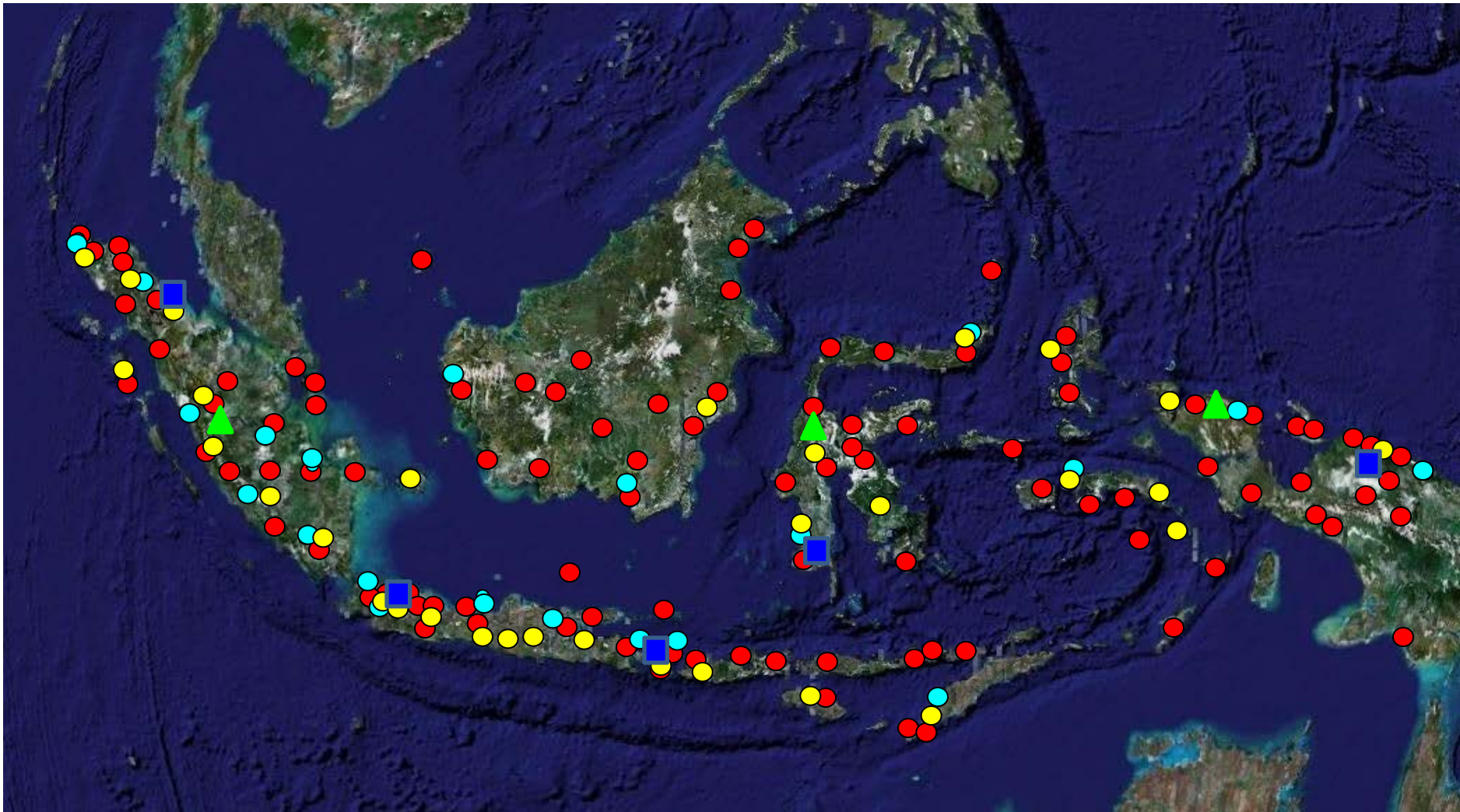
INDONESIAN CIFDP PHASE PROGRESS





BMKG

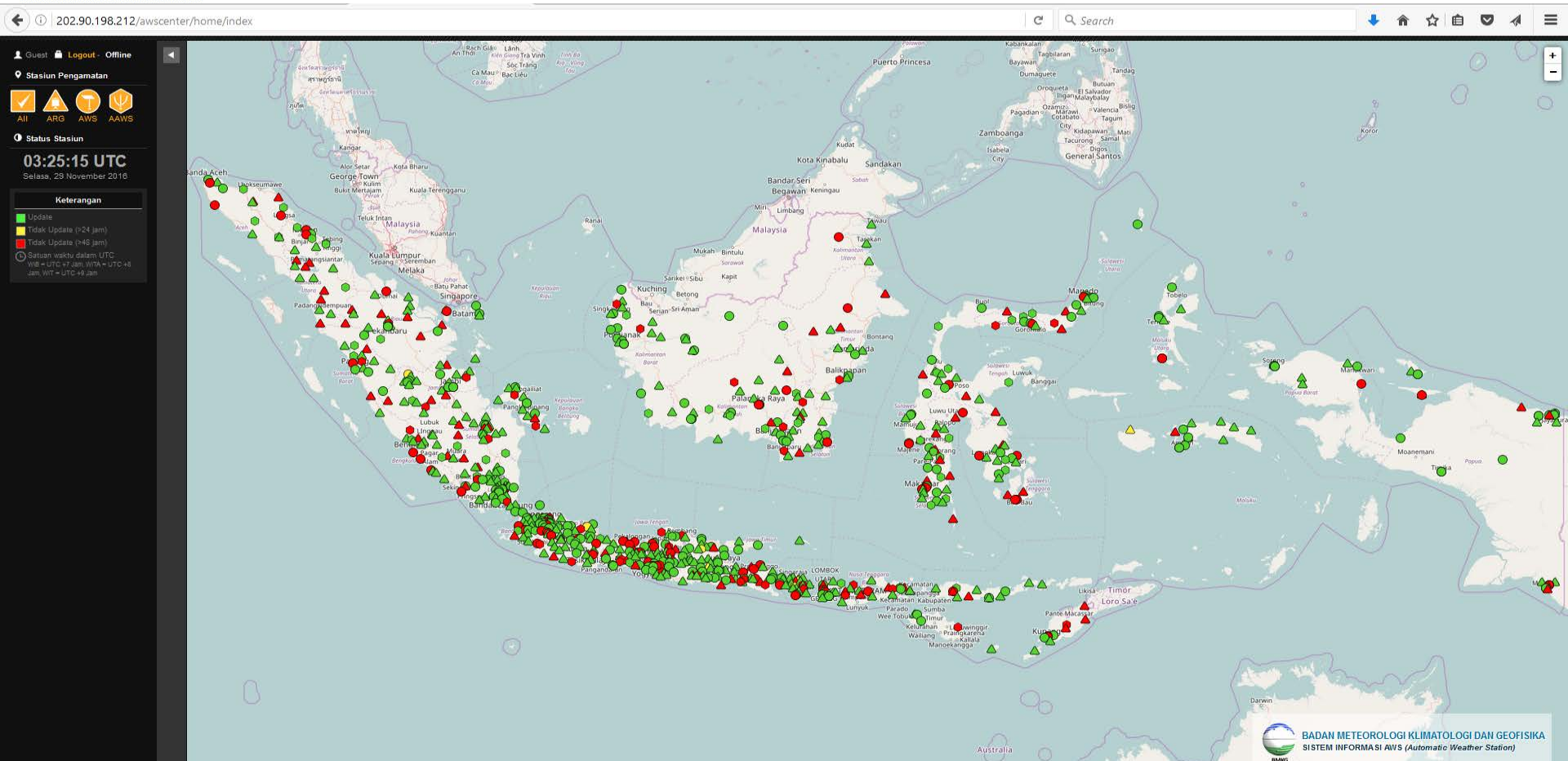
BMKG STATION



Regional Office(5) GAW (3) Meteorology (120) Geophysic (31) Climatology (21)



BMKG AUTOMATIC WEATHER STATIONS



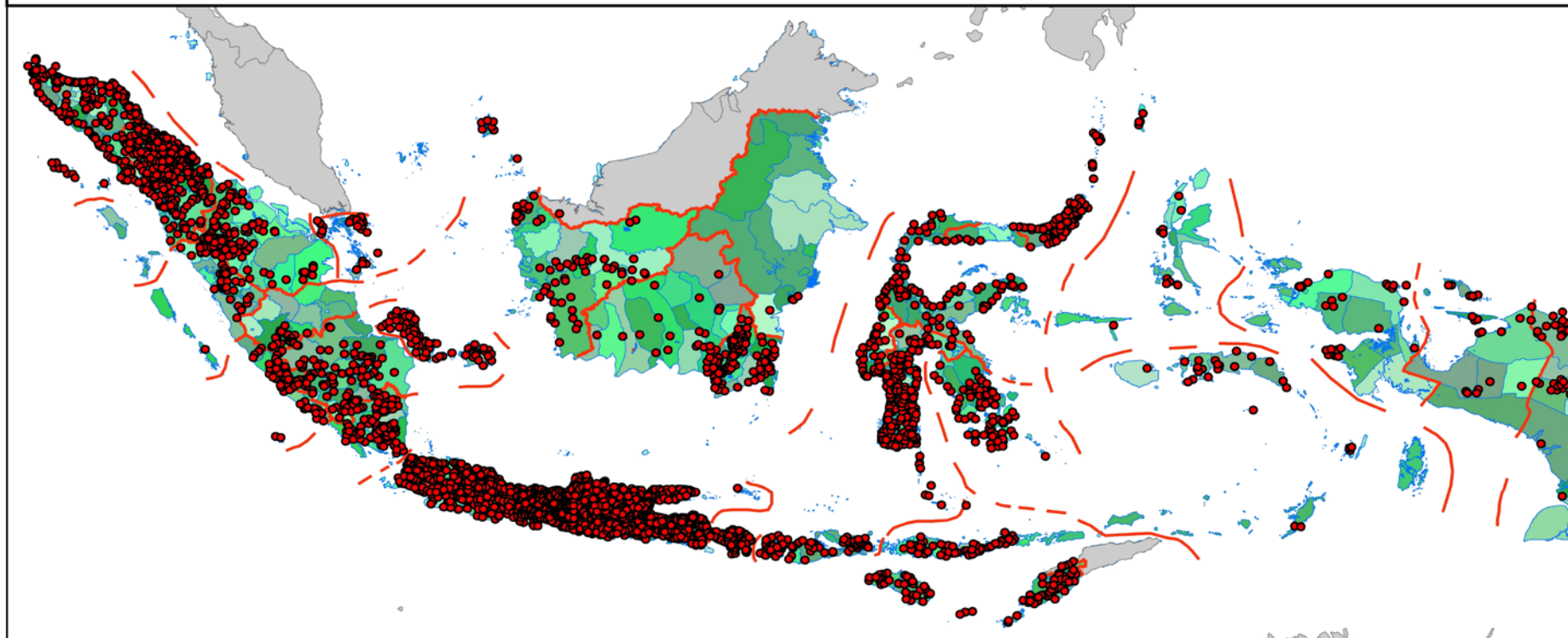
- Others:
- Automatic Weather Stations **217 unit**,
 - Collocated stations with agriculture dept. **102 statio**
 - Automatic rain gauges **177 units**
 - Agriculture AWS **103 units**



BMKG

RAINFALL OBSERVATION STATIONS NETWORK

PETA JARINGAN STASIUN KERJASAMA INDONESIA



LEGENDA

- Batas Provinsi
- Batas Kabupaten
- STASIUN KERJASAMA

KETERANGAN

JUMLAH ALAT YANG TELAH TERINVENTARISASI
PH OBS 6607 LOKASI

SUMBER DATA



OPEN DATA POLICY

Open Data Meteorological Station Distribution



Source : <http://dataonline.bmkg.go.id>

Way Forward

- To improve Flood Information warning system, thought involving more national institutions who produce hydrometeorological information
- In supporting WMO mandatory of providing climate impact-based information and risk-based warning, BMKG will start the climate services provision for water and DRR.



THANK YOU

Terima Kasih

