



# ANTISIPASI EL NINO DAN KEKERINGAN



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**Webinar Institut Teknologi Sepuluh Nopember**  
**20 Mei 2023**

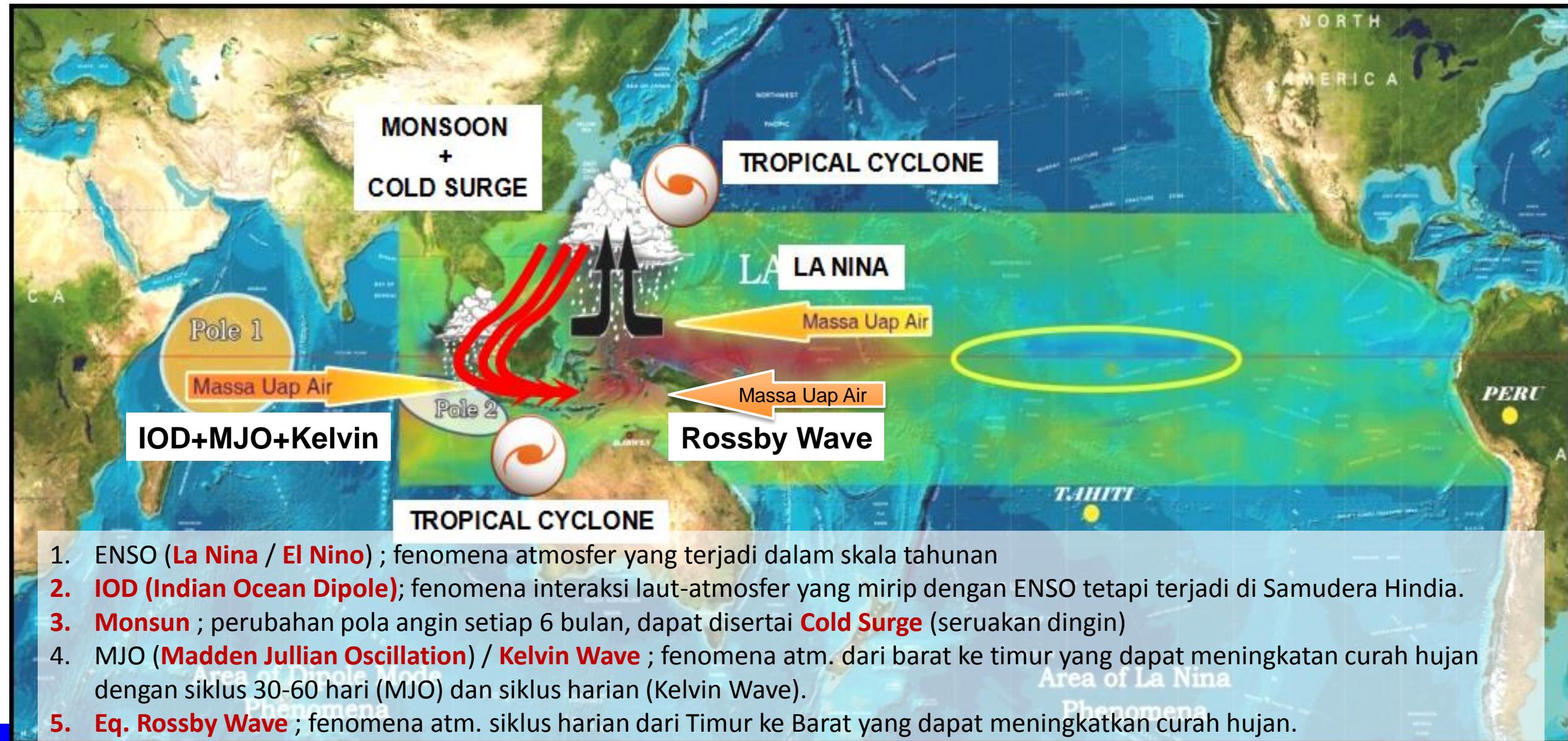
# OUTLINE

FAKTOR PENGENDALI IKLIM INDONESIA

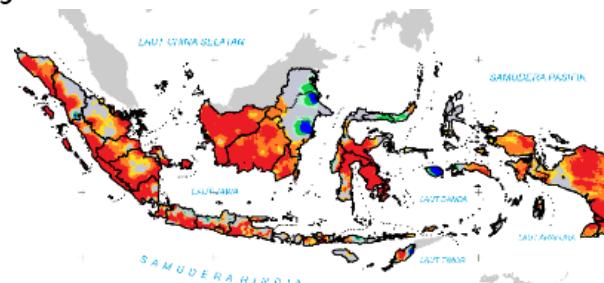
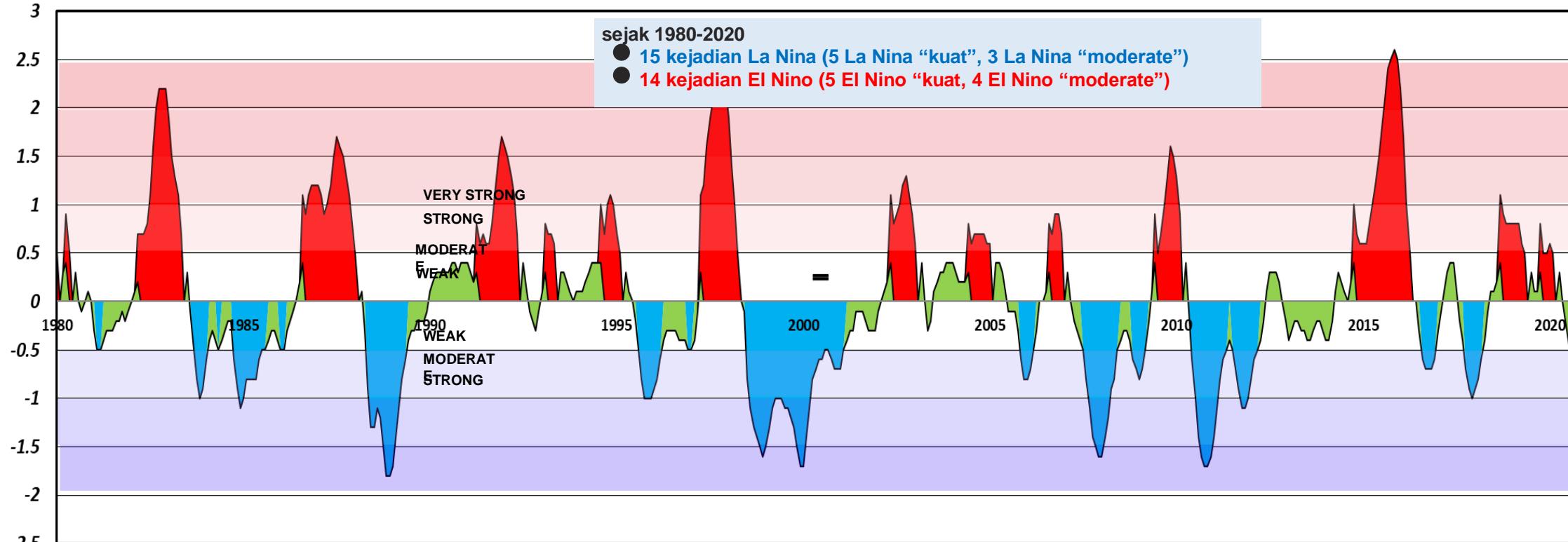
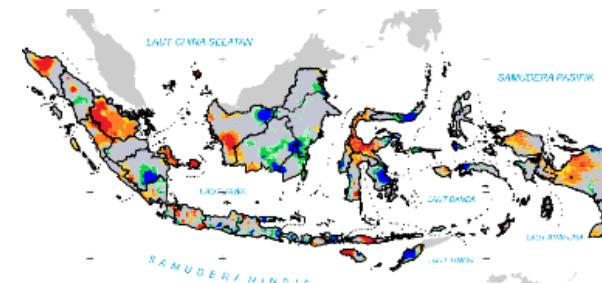
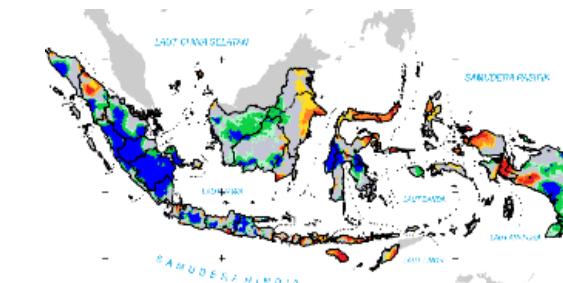
STATUS DAN PREDIKSI EL NINO

ANALISIS DAN PREDIKSI CURAH HUJAN

# FAKTOR PENGENDALI IKLIM DI INDONESIA

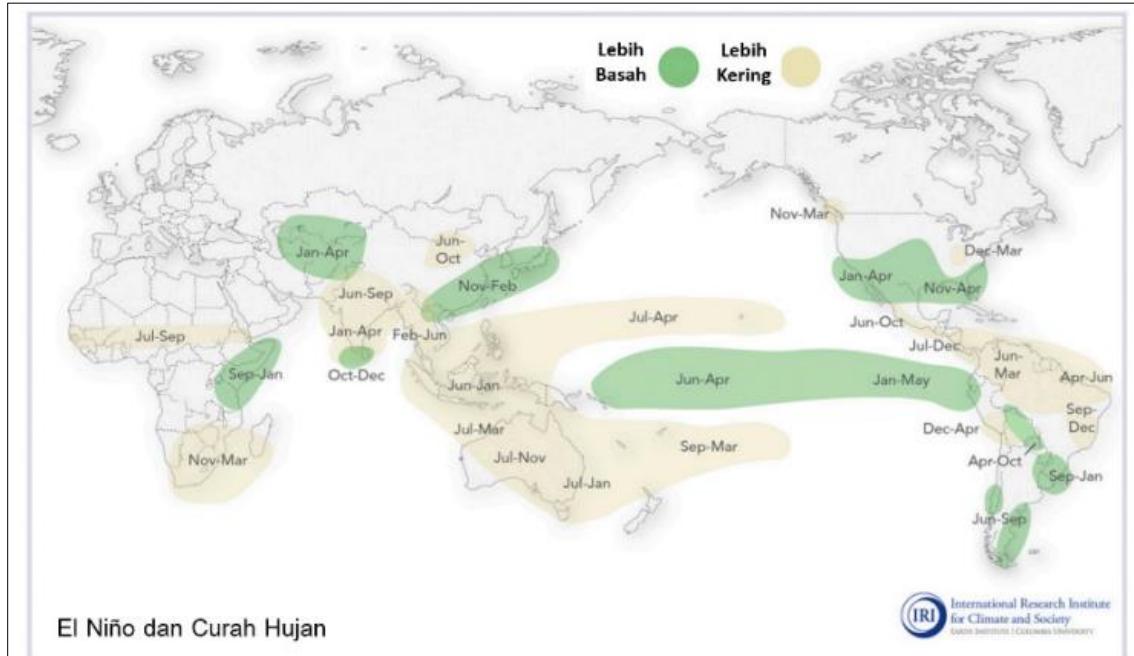


# HISTORIS CH PERIODE LA NINA VS EL NINO VS NORMAL


**El Nino**

**Normal**

**La Nina**

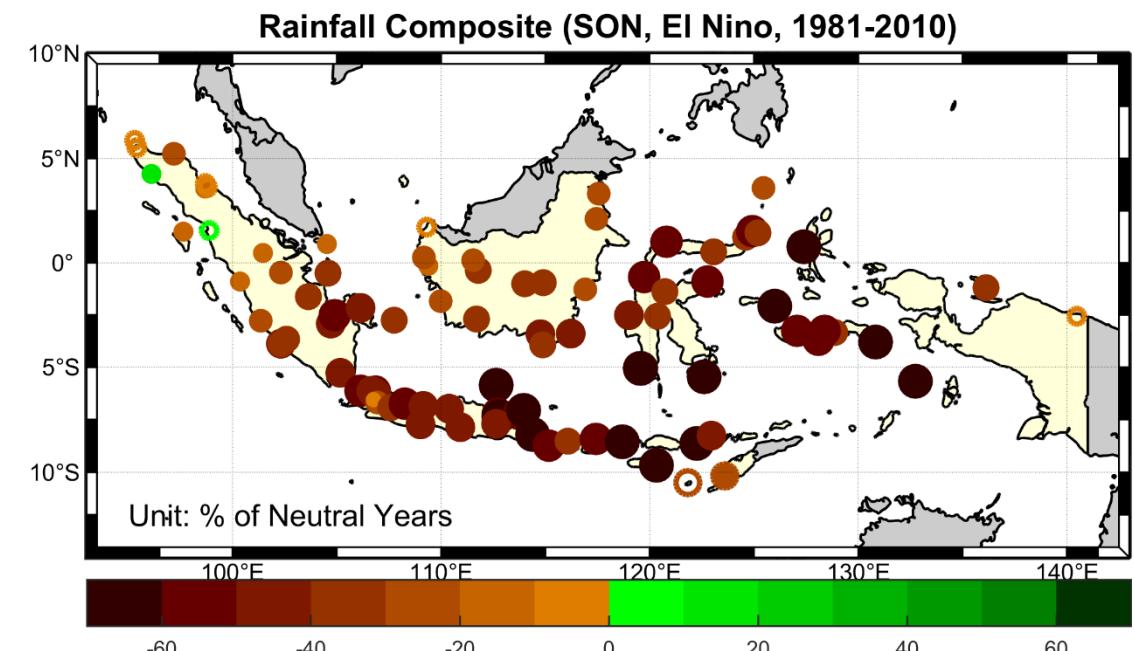
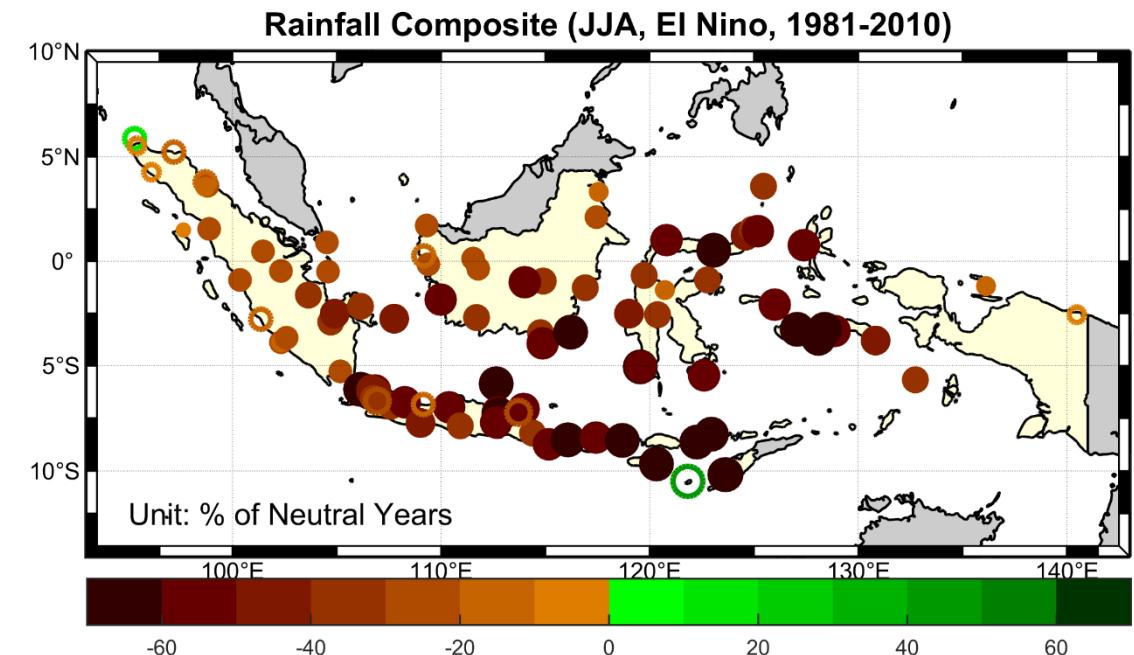
P90-100	Ekstrem Basah
P80-90	Sangat Basah
P70-80	Lebih Basah
P30-70	Normal
P20-30	Lebih Kering
P10-20	Sangat Kering
P0-10	Ekstrem Kering

# DAMPAK EL NIÑO



Secara umum El Niño berdampak pada berkurangnya curah hujan, tapi tergantung pada:

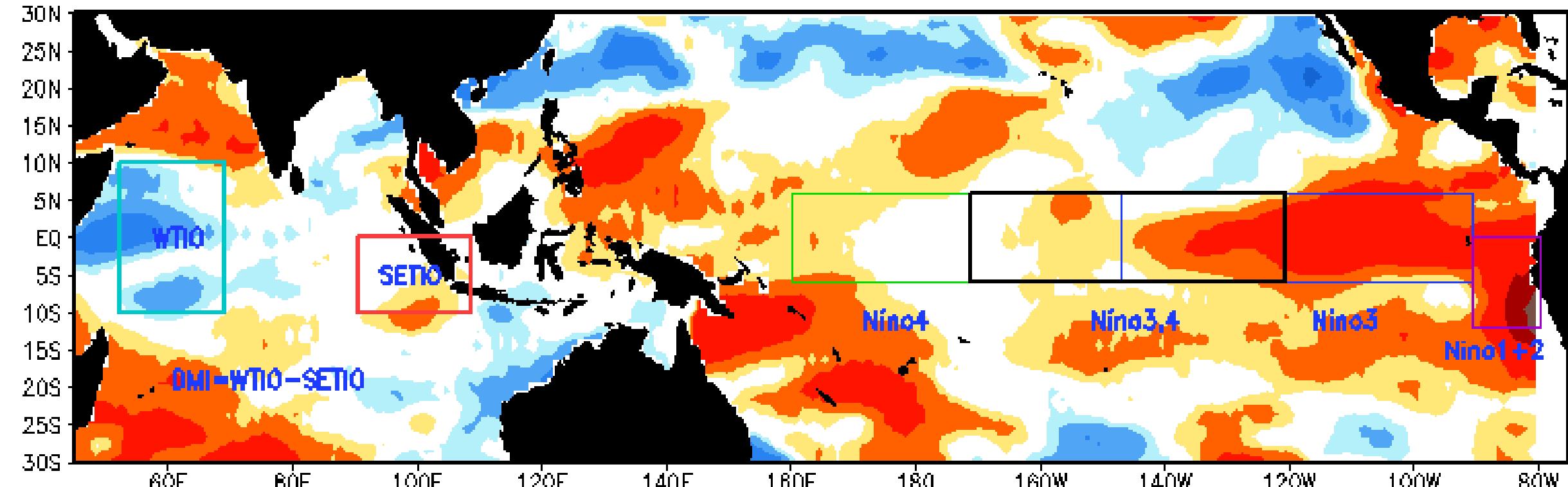
1. Intensitas El Niño
2. Timing/season yang berlangsung
3. Kombinasi dengan faktor lain (IOD, SST Indonesia)



A photograph of a massive forest fire at night. The sky is filled with a bright orange glow from the flames and smoke. Silhouettes of tall evergreen trees are visible against the light. A thick diagonal band of grey and orange runs across the slide, partially obscuring the image.

# STATUS DAN PREDIKSI ENSO dan IOD

# Anomali Suhu Muka Laut Dasarian II Mei 2023



SSTA Nino3.4 : 0.529

Dipole Mode : -0.60

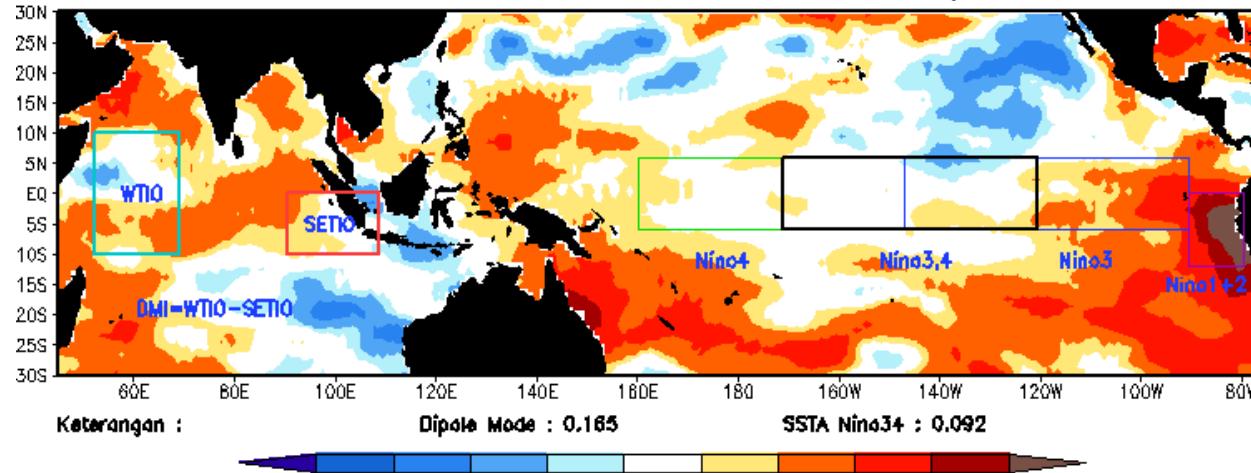


Indeks Dipole Mode : -0.60; Indeks Nino3.4 : +0.53

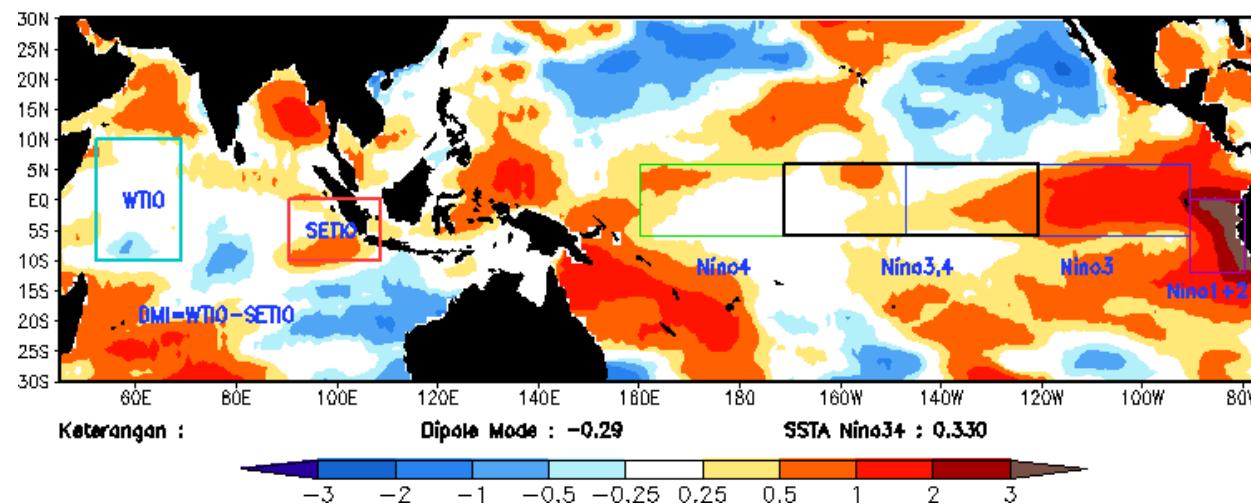
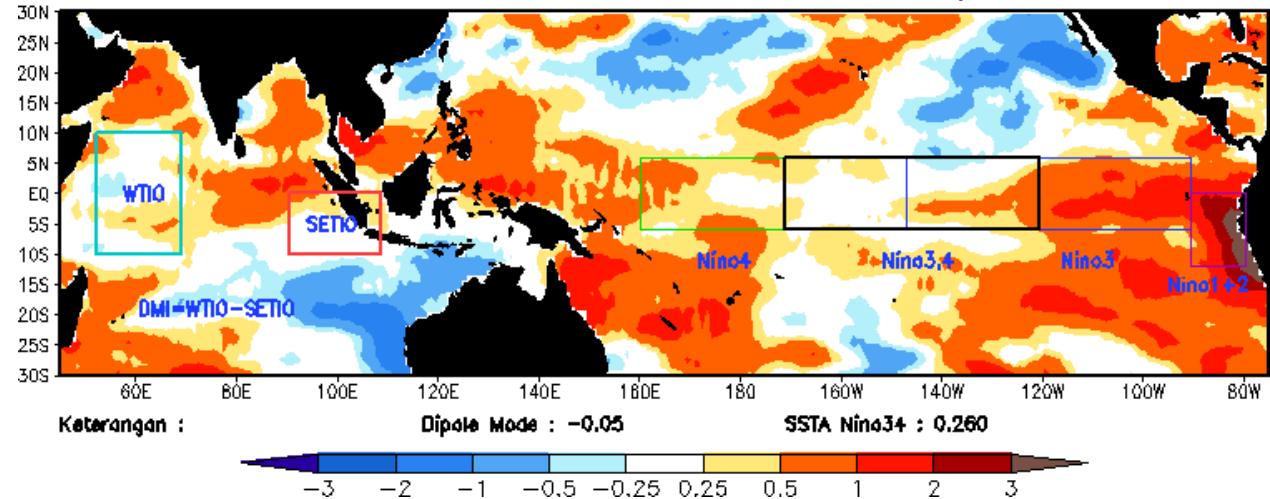
Pada Dasarian II Mei 2023, Anomali SST di wilayah Nino3.4 (Pasifik Tengah dan Timur) menunjukkan prasyarat kondisi El Nino (namun baru berlangsung satu dasarian) dan Anomali SST di Samudra Hindia menunjukkan Indian Ocean Dipole (IOD) berada pada fase Negatif (namun juga baru berlangsung satu dasarian).

# Perkembangan suhu muka laut

Anomali Suhu Muka Laut Dasarian II April 2023



Anomali Suhu Muka Laut Dasarian III April 2023

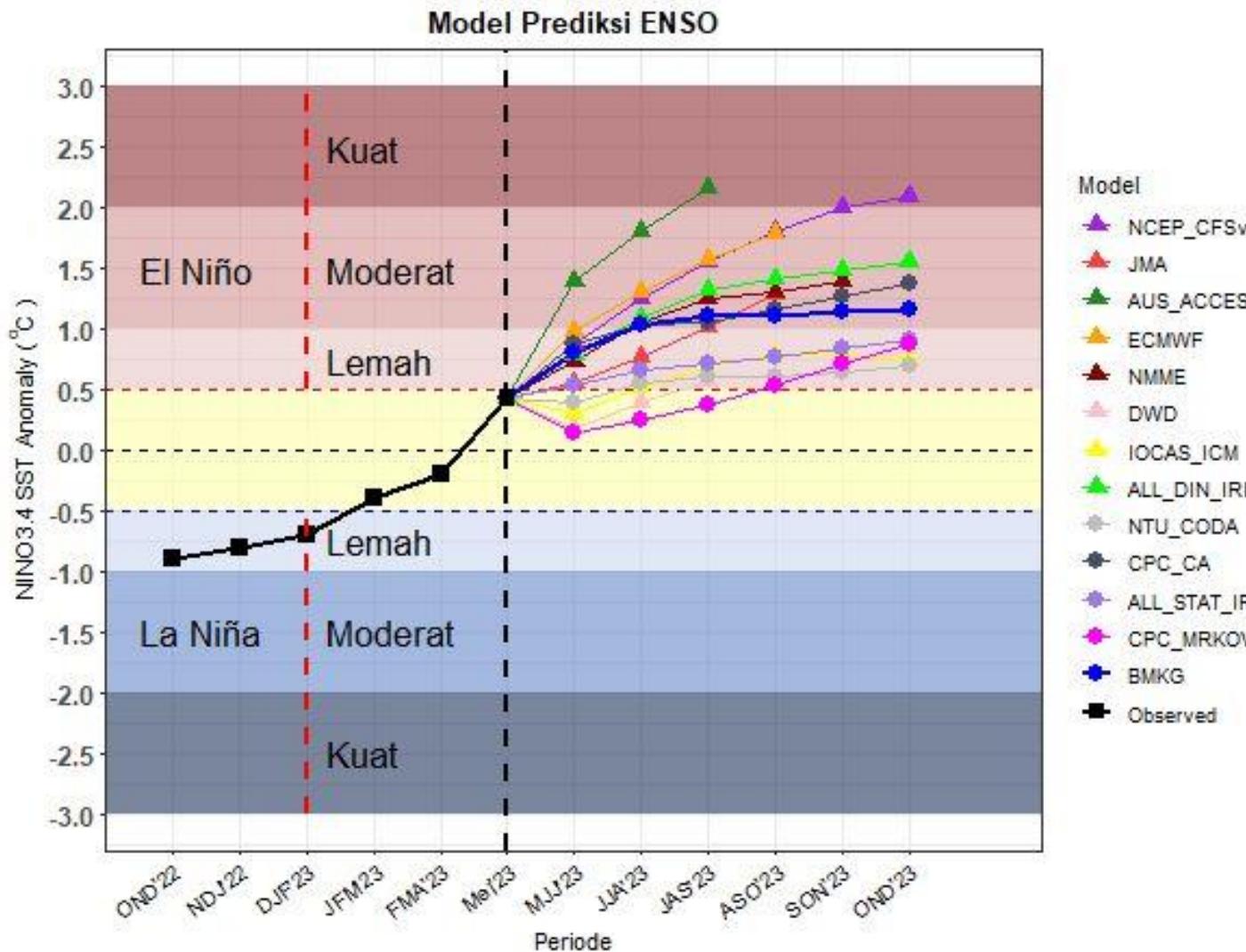


SST hangat di Pasifik Timur terus meluas (dan menghangat)

Nilai indeks Nino3.4 terus meningkat

- Das II April : 0.092
- Das III April : 0.260
- Das I Mei : 0.330
- Das II Mei : 0.53

# PREDIKSI EL NIÑO (PER DASARIAN II MEI 2023)



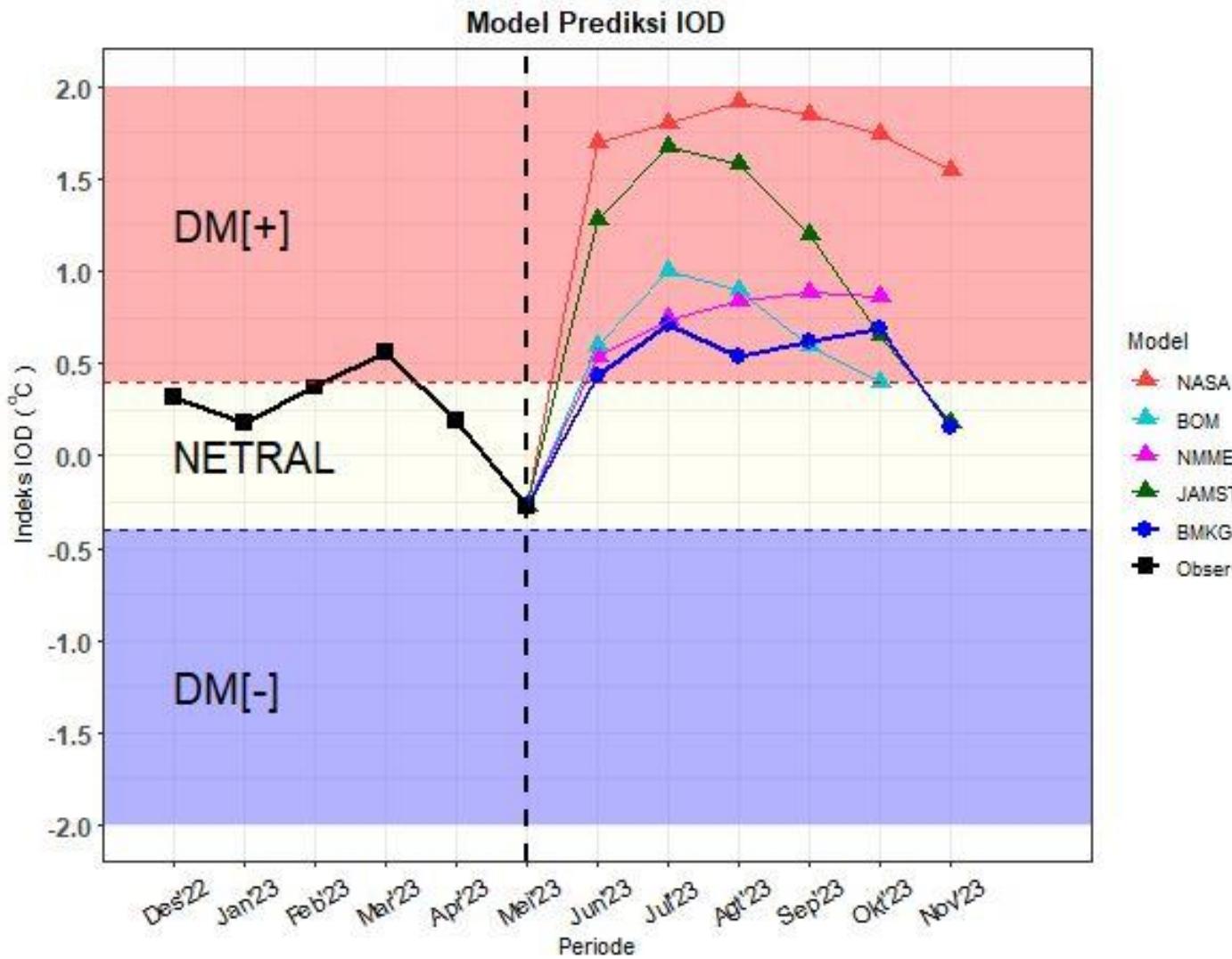
- Indeks ENSO bulanan pada Mei 2023\* sebesar +0.53 (El Niño)
- BMKG dan beberapa Pusat Iklim Dunia memprediksi adanya peluang El-Nino pada semester II 2023.

Prediksi ENSO BMKG					
MJJ'23	JJA'23	JAS'23	ASO'23	SON'23	OND'23
0.81	1.05	1.11	1.11	1.15	1.16

\*Mei 2023 = pemutakhiran hingga 18 Mei 2023

# ANALISIS & PREDIKSI IOD

(PEMUTAKHIRAN DASARIAN II MEI 2023)



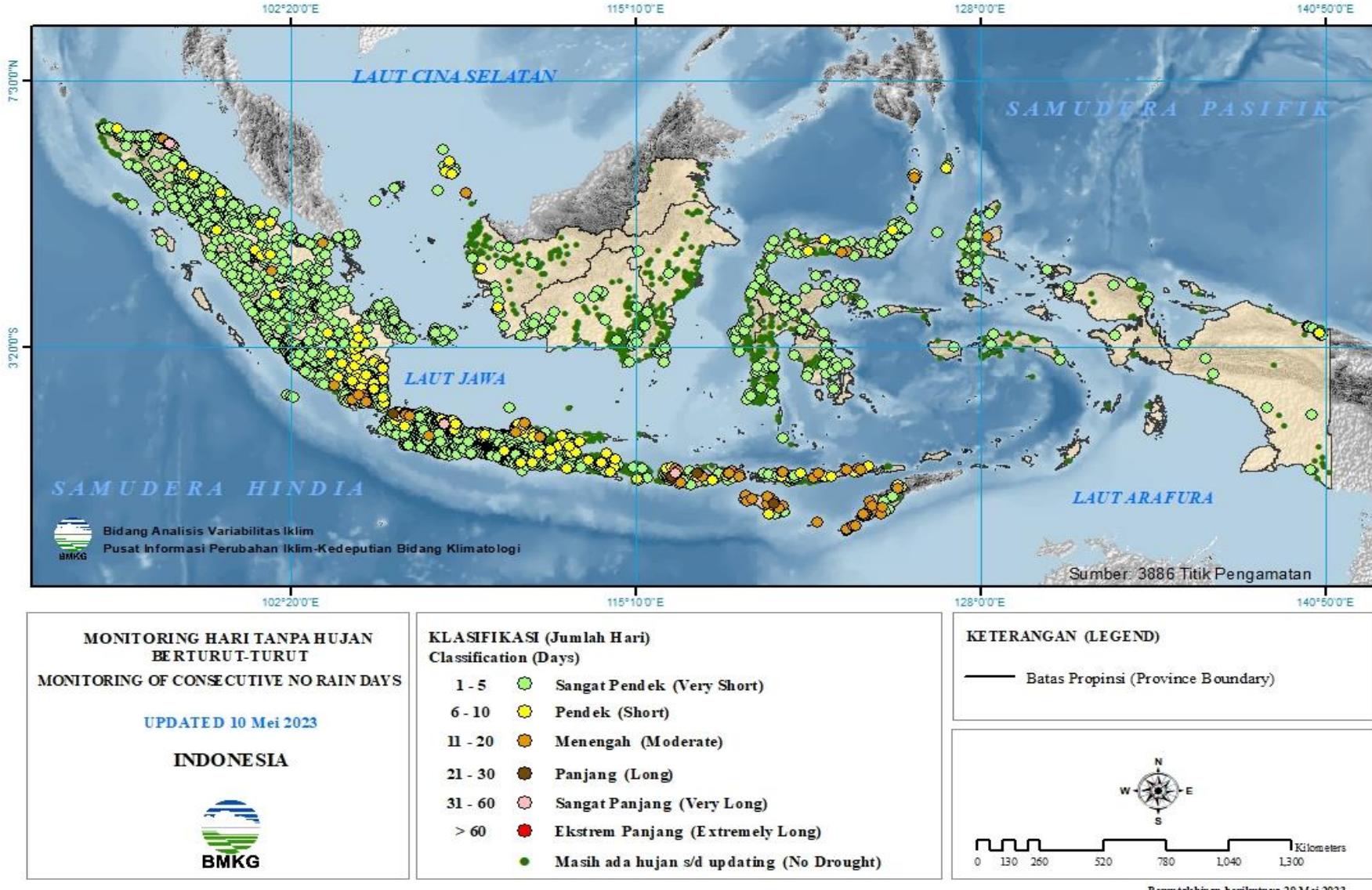
- Indeks IOD pada Dasarian II MEI 2023\* sebesar **-0.60** (Dipole Mode Negative).
- BMKG memprediksi IOD Positif hingga Oktober 2023.
- Sedangkan beberapa Pusat Iklim Dunia memprediksi menuju kondisi IOD positif.

Prediksi IOD BMKG					
Jun'23	Jul'23	Agt'23	Sep'23	Okt'23	Nov'23
0.44	0.71	0.54	0.61	0.68	0.16

\*April 2023= permutakhiran s.d. 18 April 2023

# MONITORING HARI TANPA HUJAN

(PEMUTAKHIRAN: 10 MEI 2023)



Sebagian besar titik pengamatan menunjukkan masih ada hujan

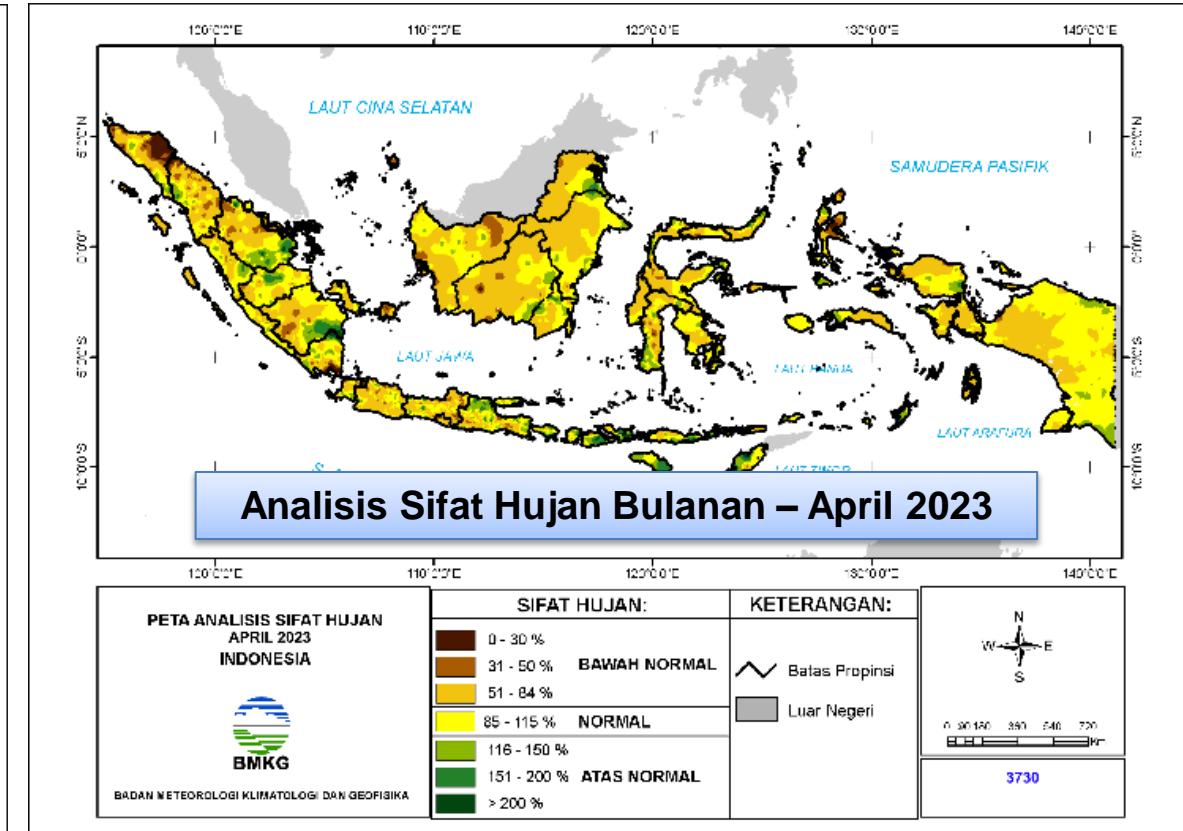
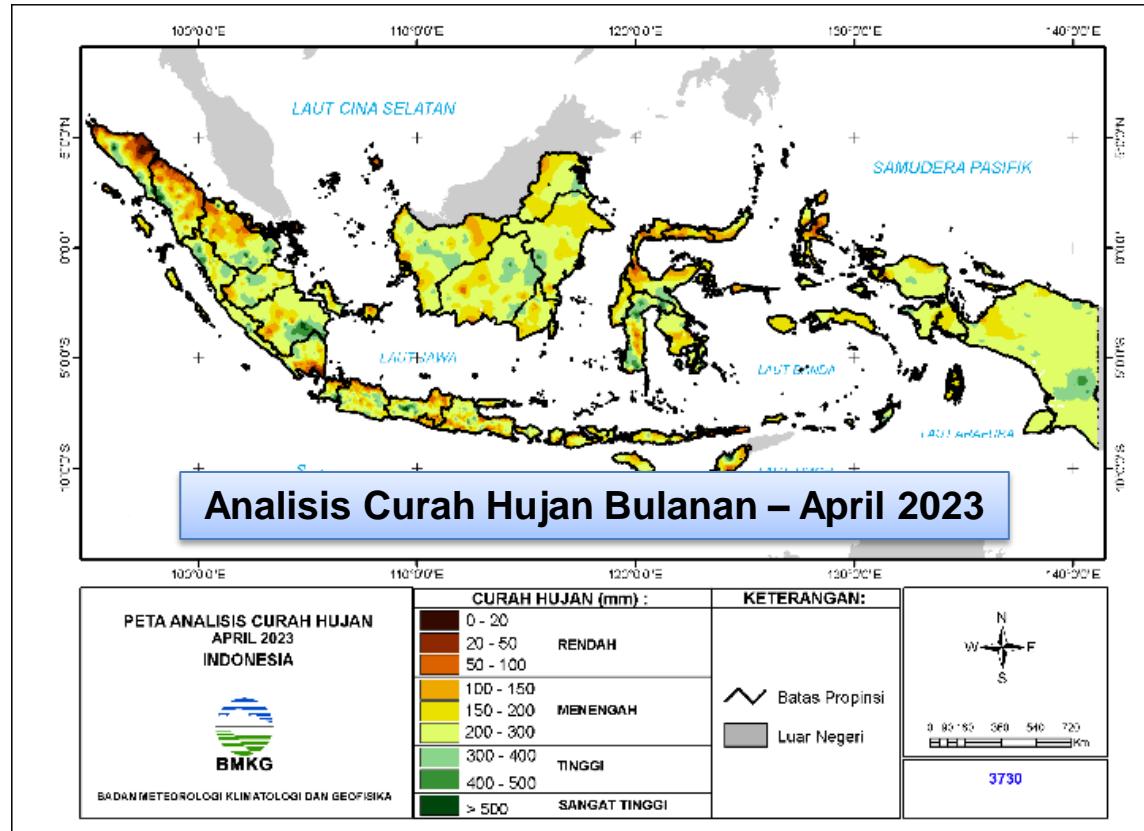
Wilayah Lampung sudah mengalami jeda hingga 10 hari

Sebagian wilayah Pantura dan wilayah NTB-NTT sudah mengalami jeda hujan hingga 20 hari

A photograph of a forest fire at night or in low light. The sky is filled with orange and red smoke from the fire. In the foreground, several tall evergreen trees stand silhouetted against the bright flames and smoke. The overall atmosphere is dark and apocalyptic.

# **ANALISIS & PREDIKSI CURAH HUJAN 2023**

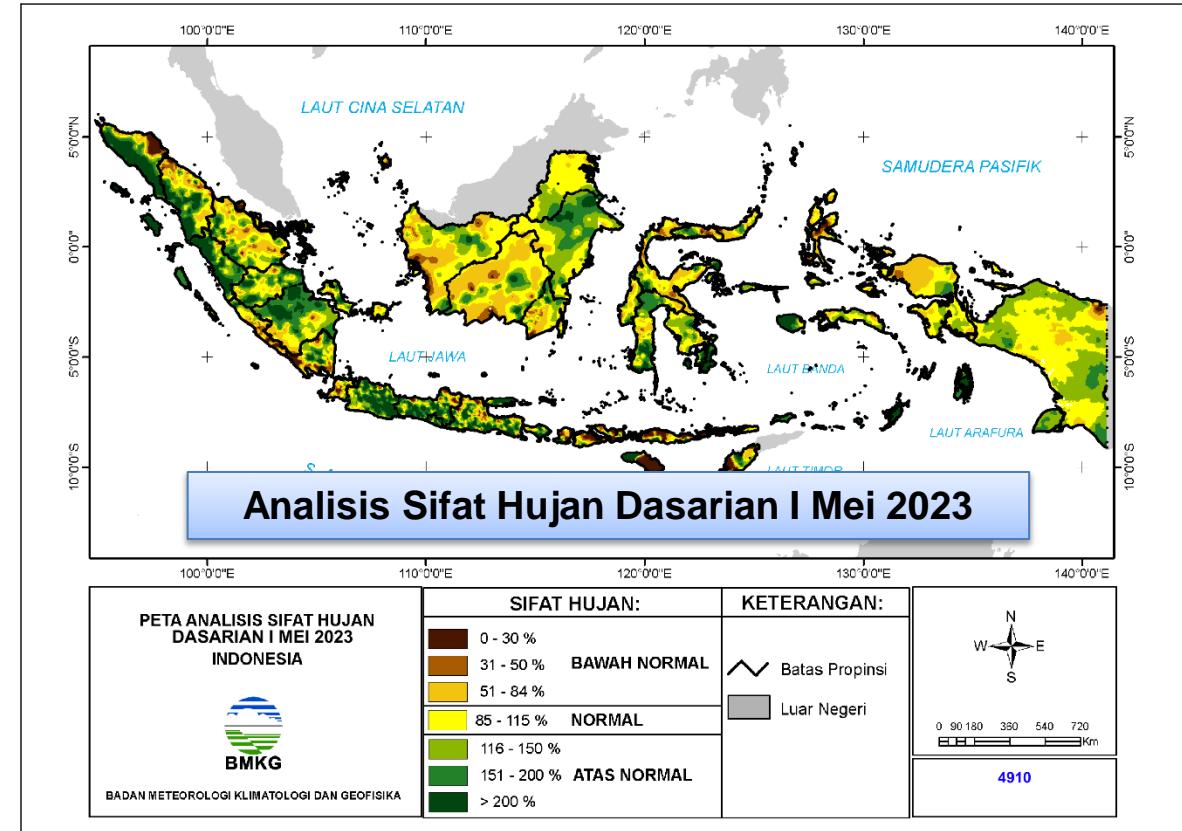
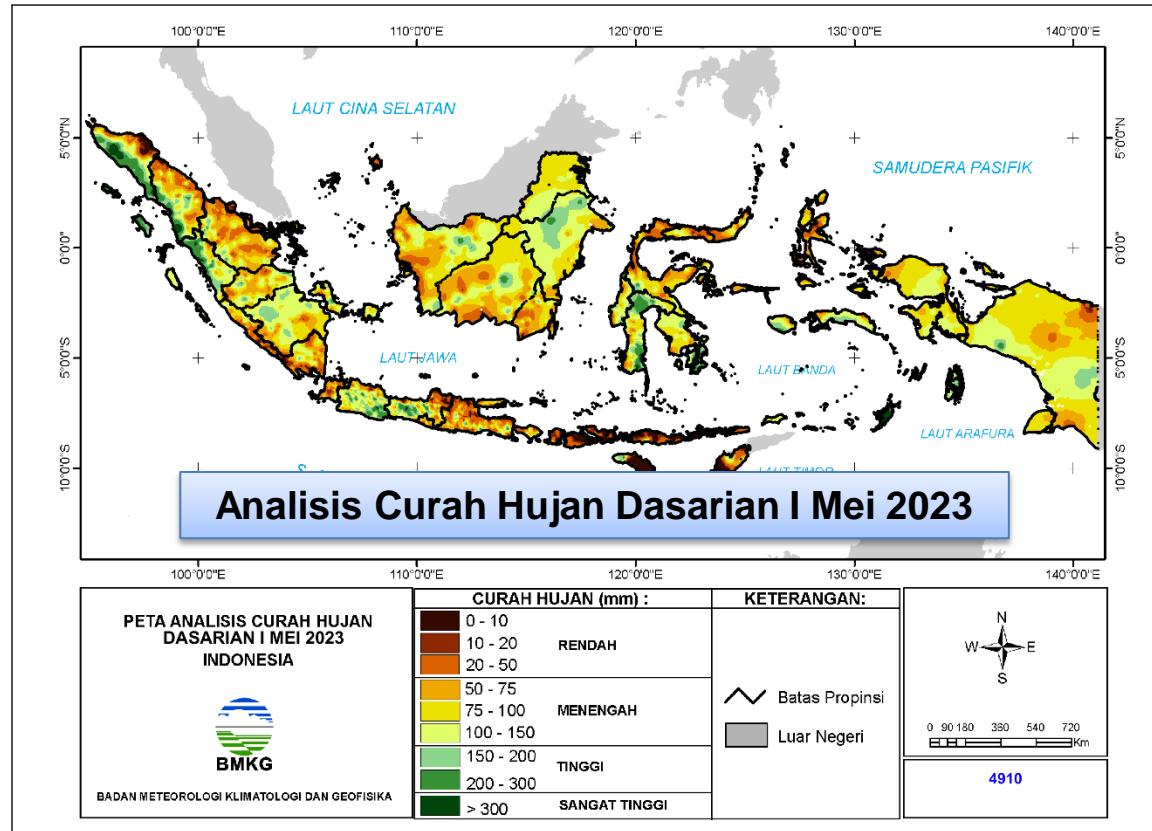
# ANALISIS CURAH DAN SIFAT HUJAN BULAN APRIL 2023



Curah hujan pada April 2023 umumnya berada pada kriteria rendah hingga menengah (< 300 mm/bulan)

Sifat hujan pada April 2023 umumnya berkisar Bawah Normal – Normal.

# ANALISIS CURAH DAN SIFAT HUJAN DASARIAN I MEI 2023

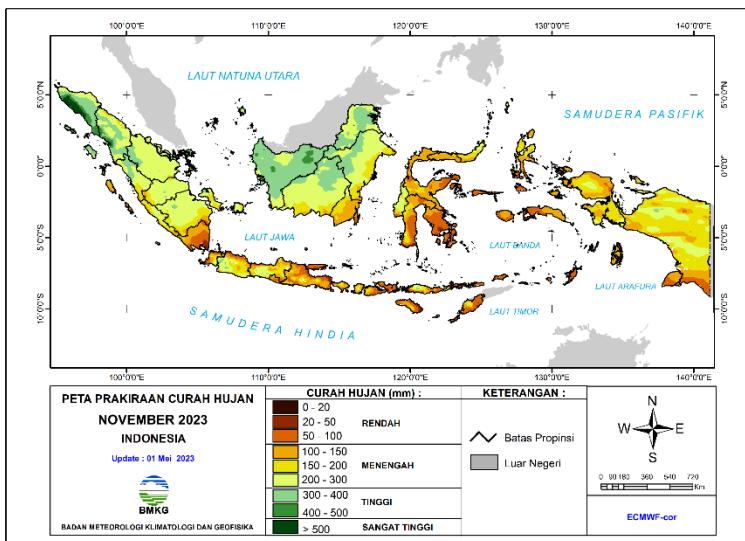
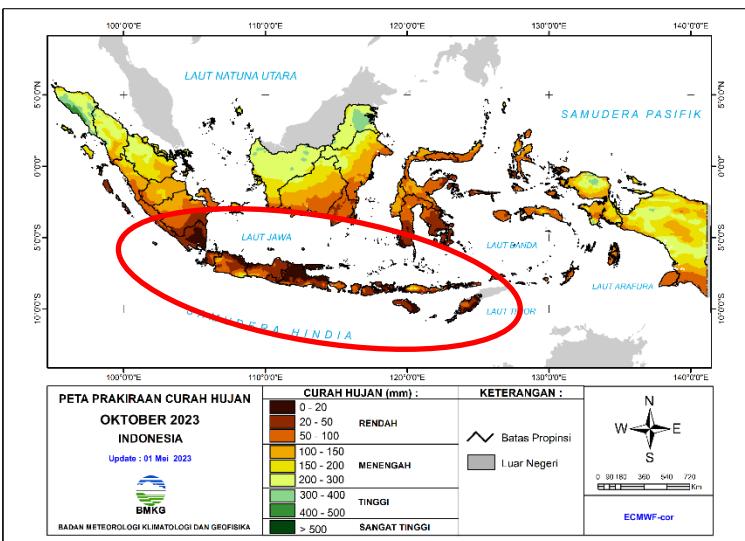
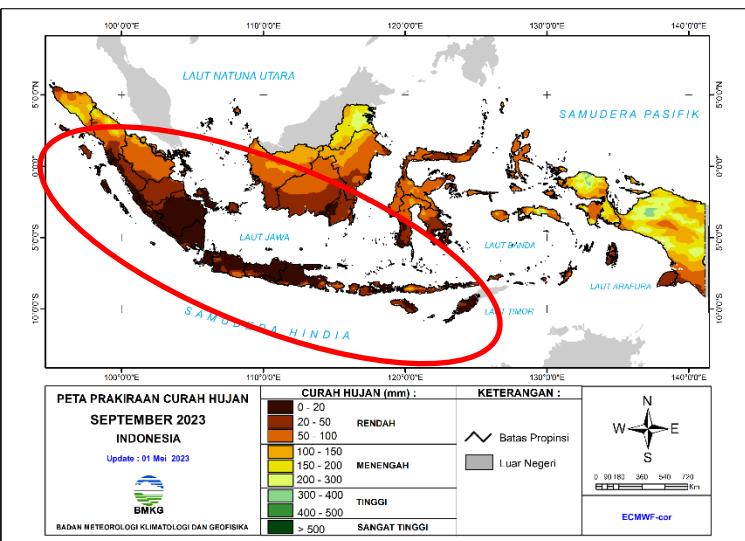
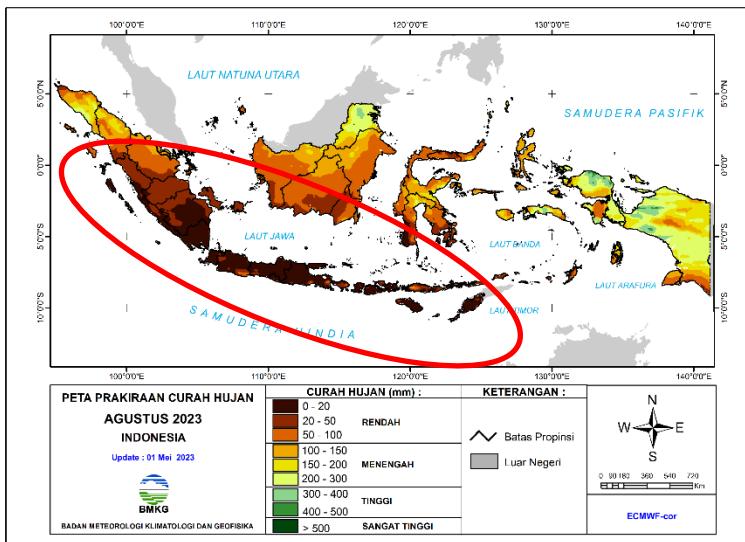
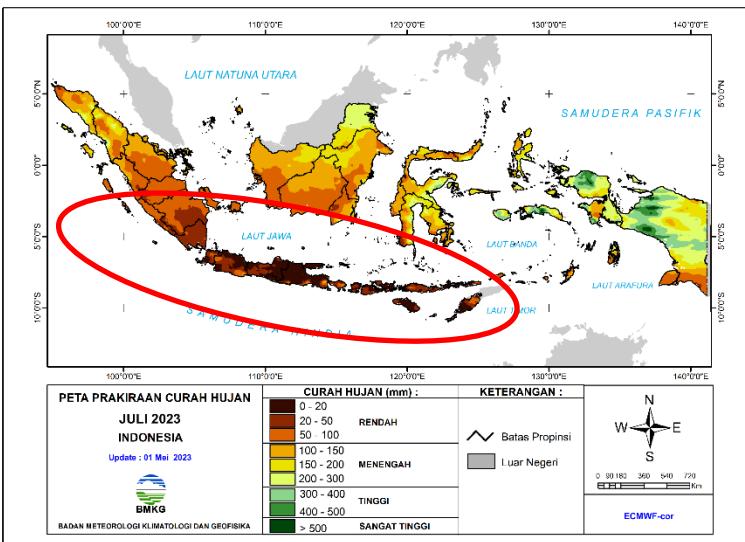
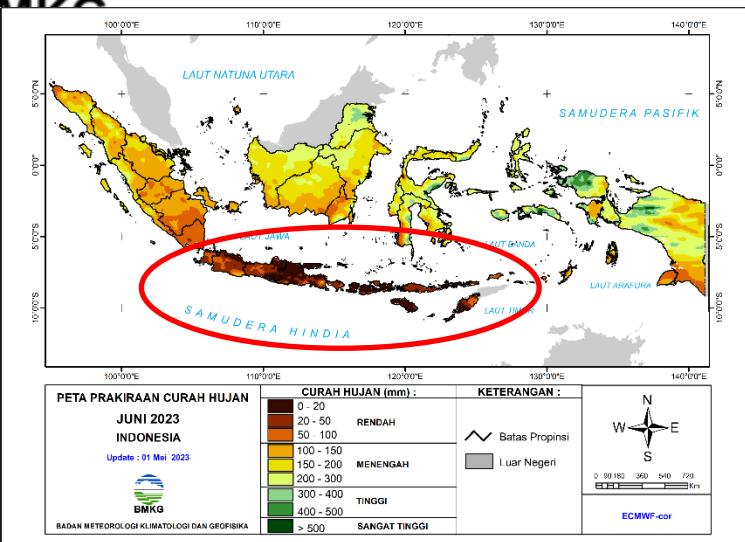


Curah hujan pada Dasarian I Mei 2023 umumnya berada di kriteria rendah - menengah (0 – 150 mm/dasarian).

Sifat hujan pada Dasarian I Mei 2023 umumnya Normal hingga Atas Normal.  
 (Update : 01 Mei 2023)

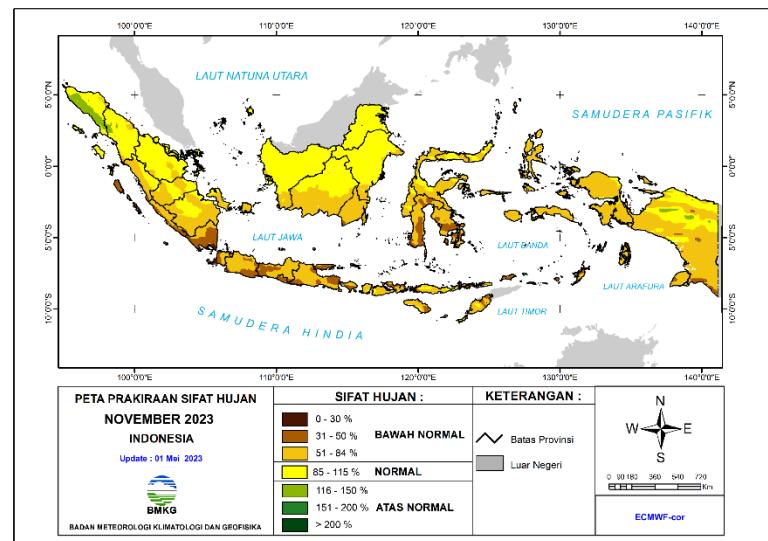
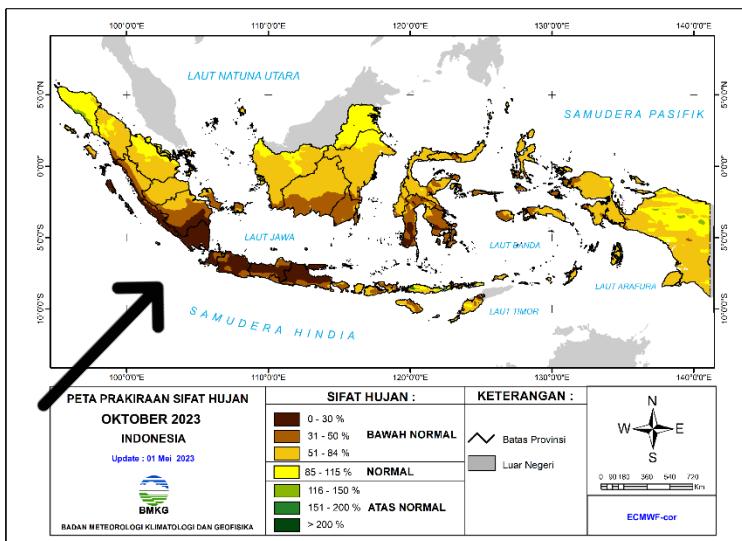
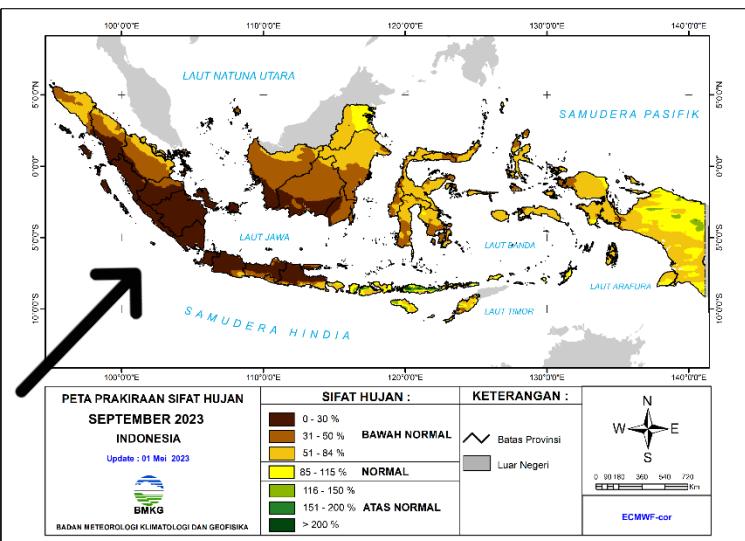
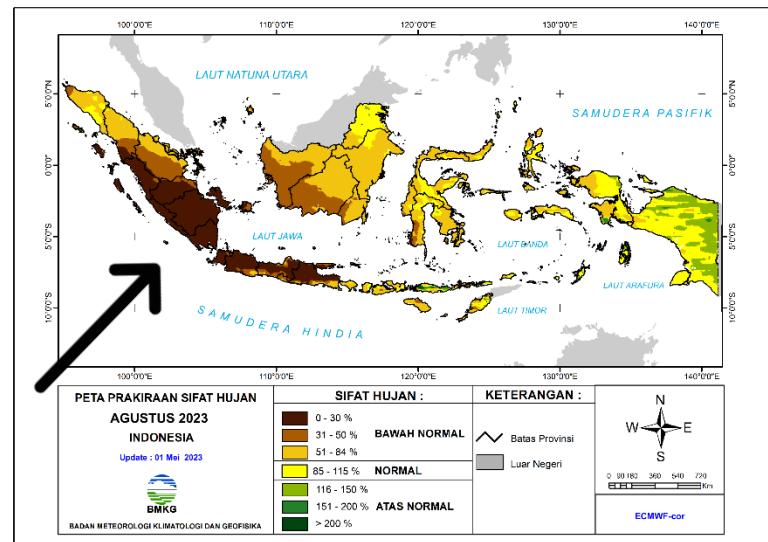
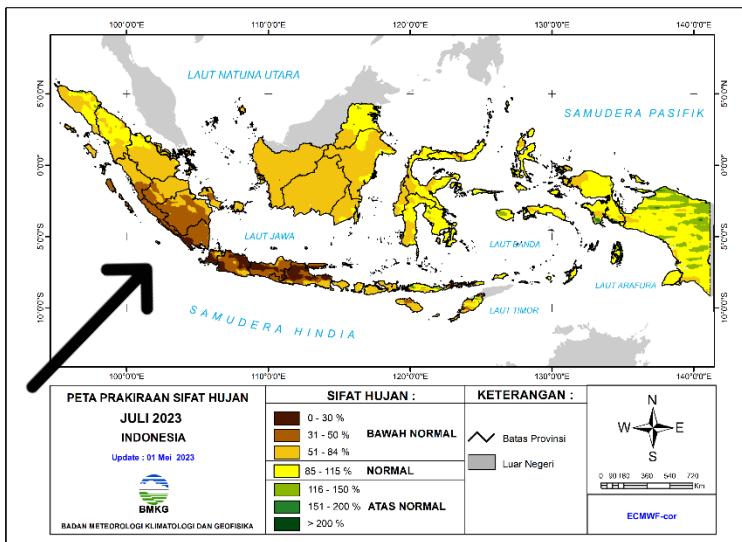
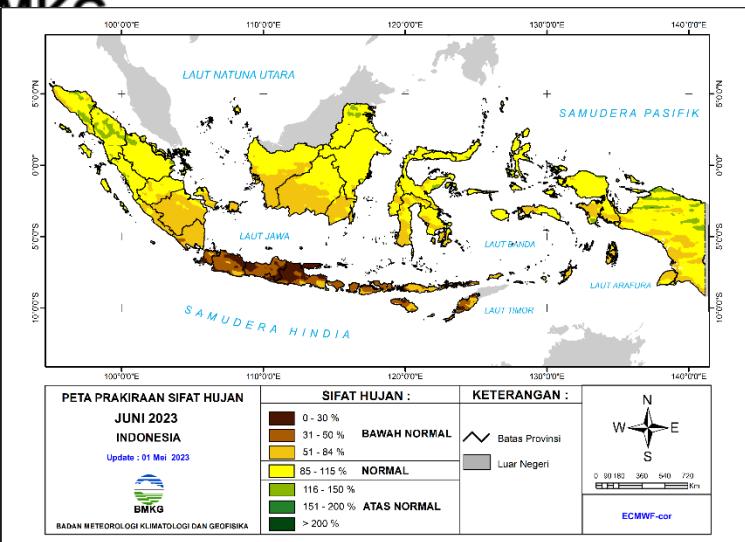


# Prakiraan Curah Hujan Bulanan [mm]





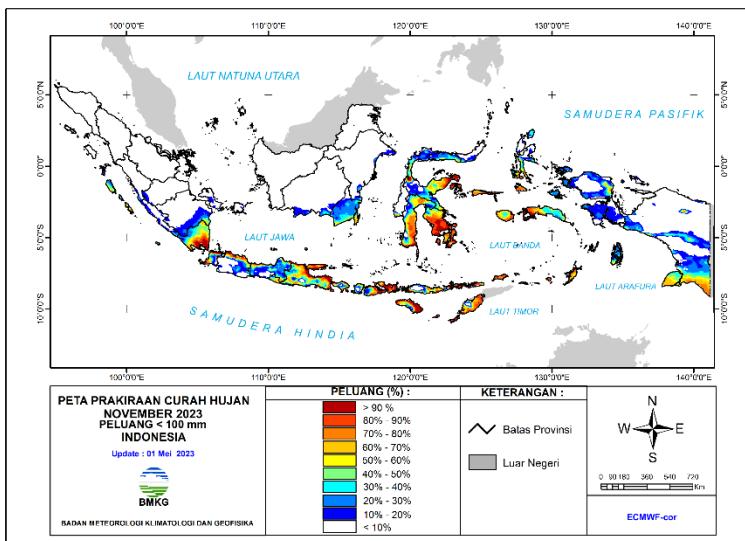
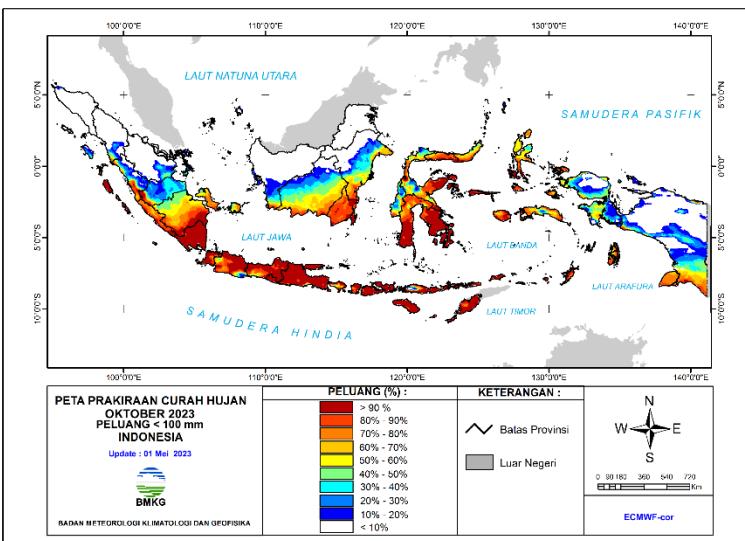
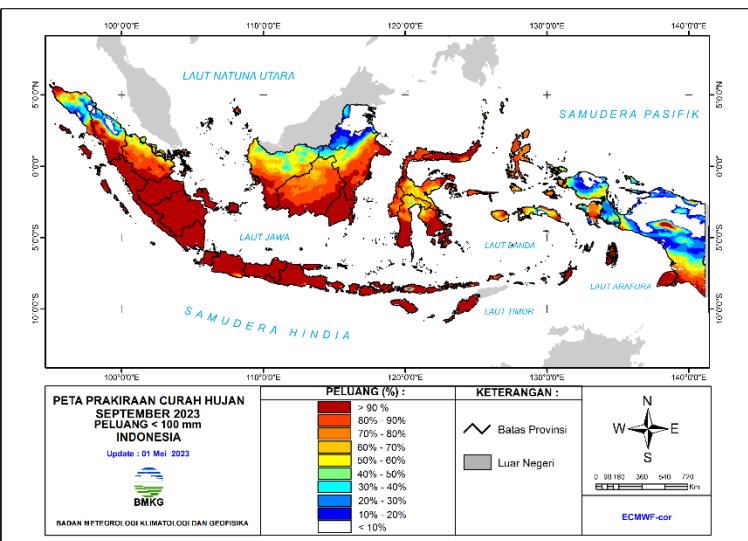
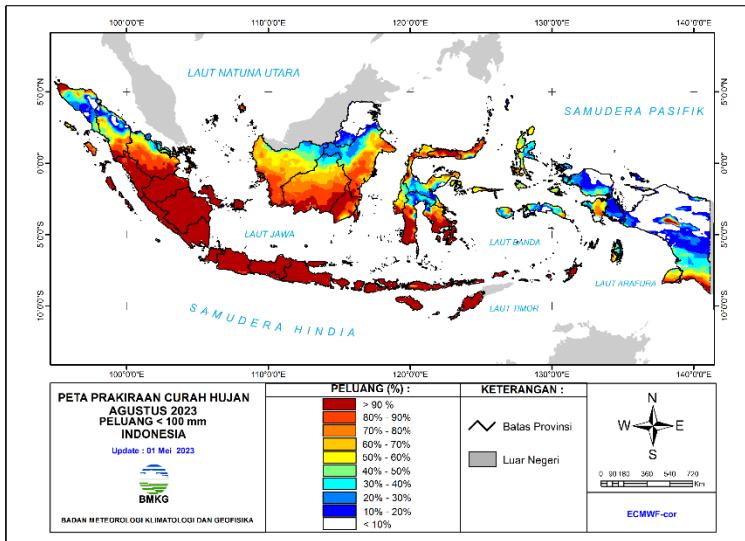
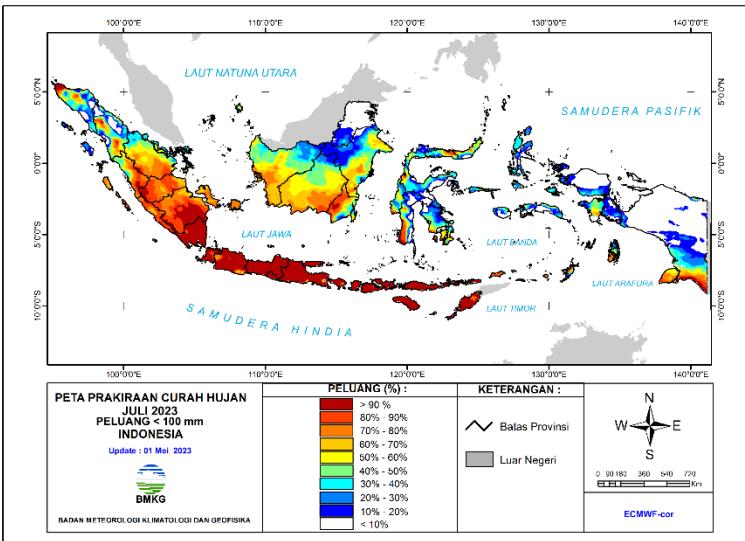
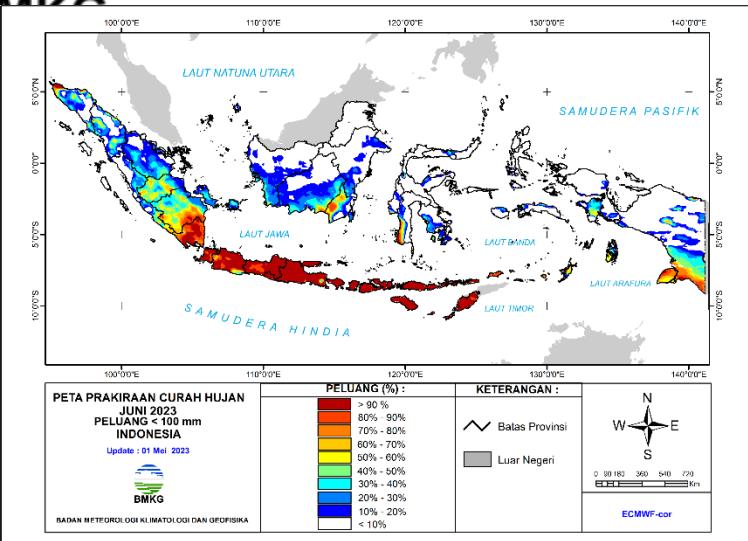
# Prakiraan Sifat Hujan Bulanan [%]



# Prakiraan Peluang [%] Curah Hujan Rendah (< 100 mm/bulan)

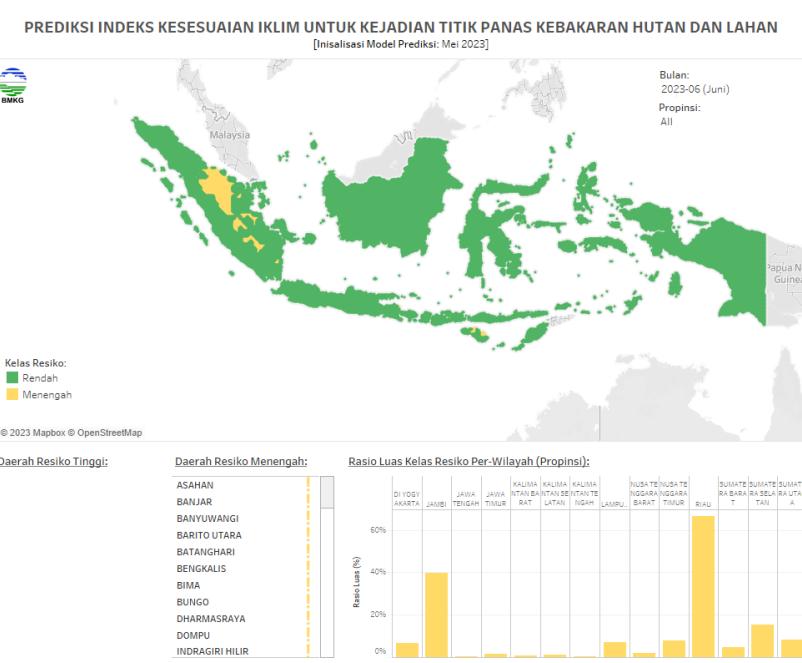


BMKG

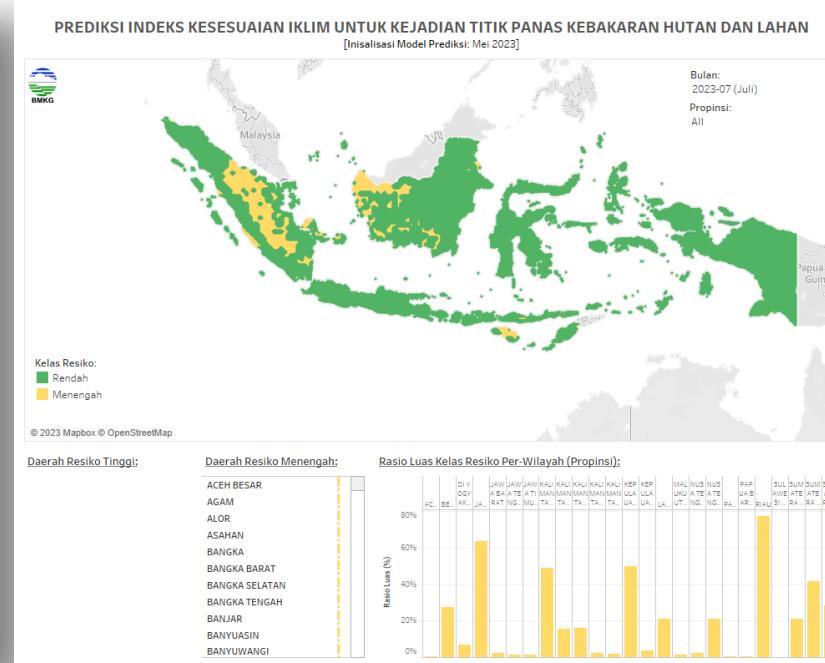


# CLIMATE INDEX FOR SUITABILITY OF HOTSPOTS OCCURRENCE

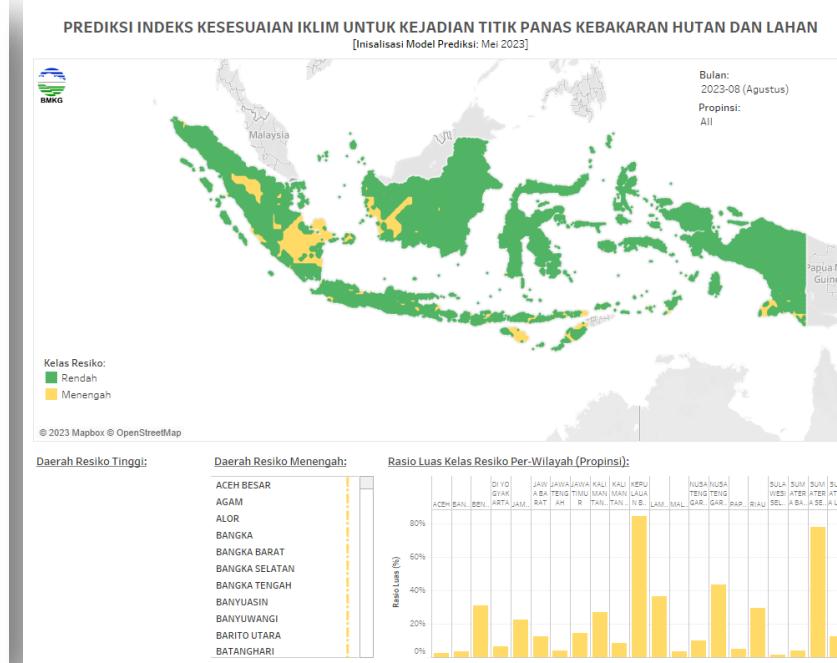
Juni 2023



Juli 2023



Agustus 2023



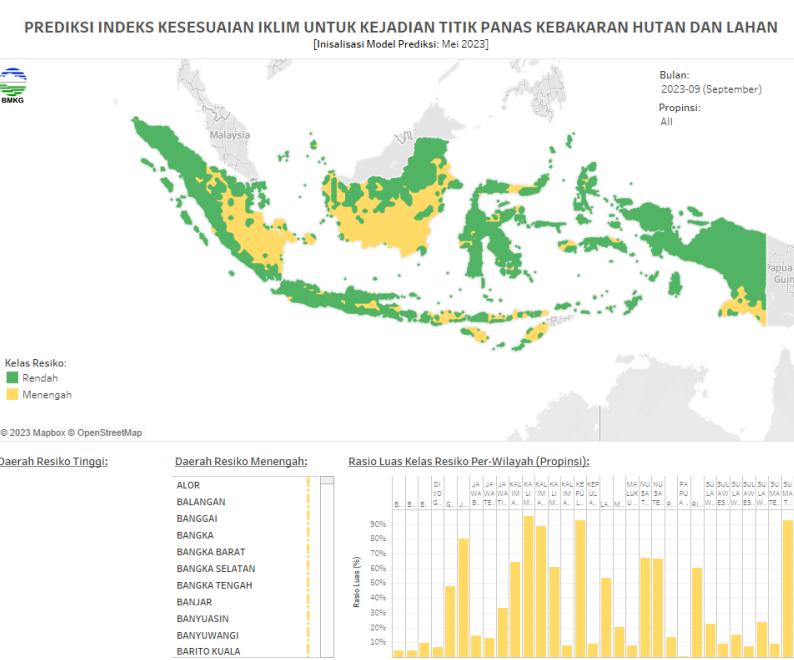
- Untuk bulan **Juni 2023**, terdapat risiko munculnya hotspot dengan kategori Moderate di wilayah **Sumatera bagian tengah**.
  - Pada bulan **Juli – Agustus 2023**, terdapat risiko munculnya hotspot dengan kategori Moderate di wilayah **Sumatera bagian tengah, bagian selatan dan Kalimantan bagian barat**.



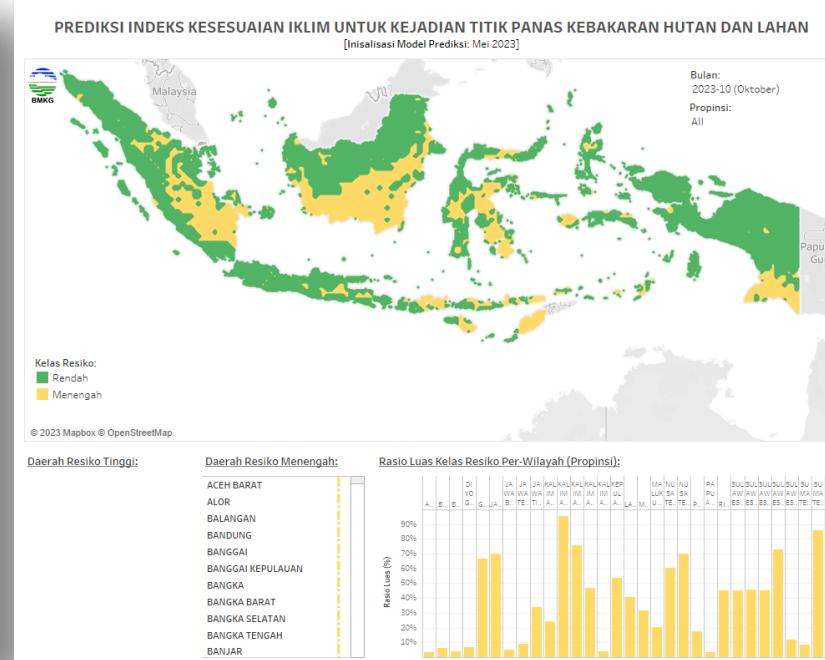
Sumber: <https://iklim.bmkg.go.id>

# CLIMATE INDEX FOR SUITABILITY OF HOTSPOTS OCCURRENCE

September 2023



Oktober 2023



November 2023



- Untuk bulan **September - Oktober 2023**, terdapat risiko munculnya hotspot dengan kategori Moderate di wilayah **Sumatera bagian tengah, Sumatera bagian selatan, Kalimantan barat, Kalimantan selatan, Kalimantan Timur, sebagian Sulawesi, NTB-NTT, Papua bagian selatan.**
  - Pada bulan **November 2023**, terdapat risiko munculnya hotspot dengan kategori Moderate di wilayah **Sumatera bagian selatan, Kalimantan bagian selatan, sebagian Sulawesi, dan Papua bagian selatan.**

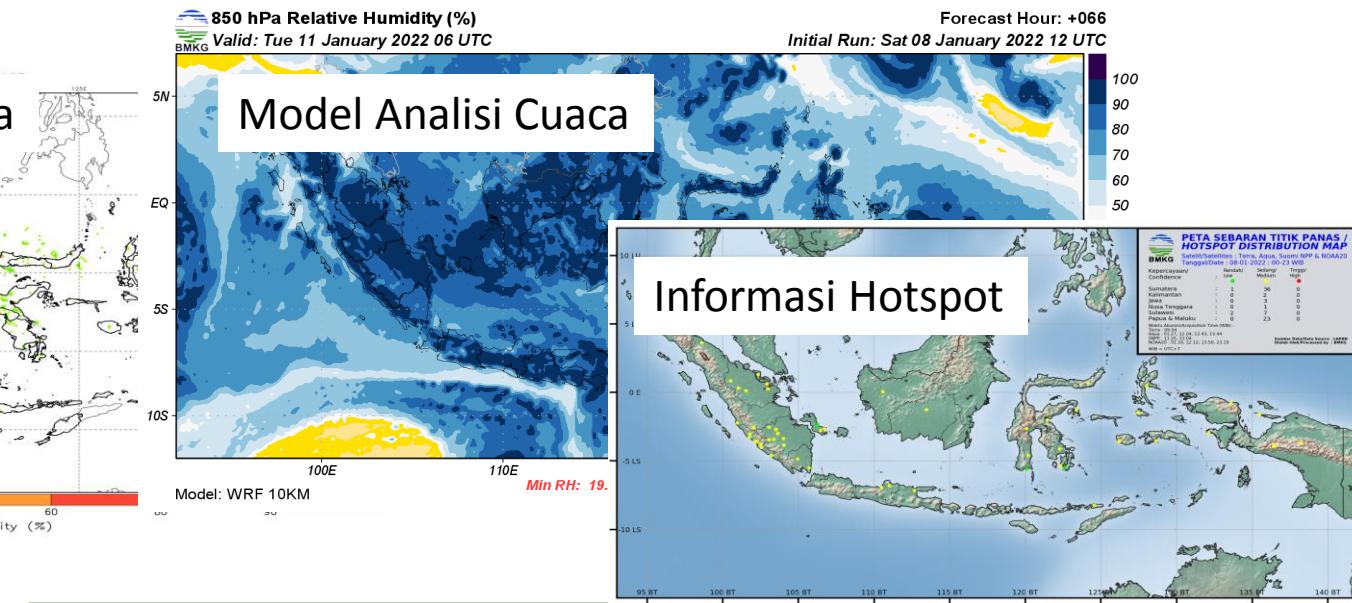
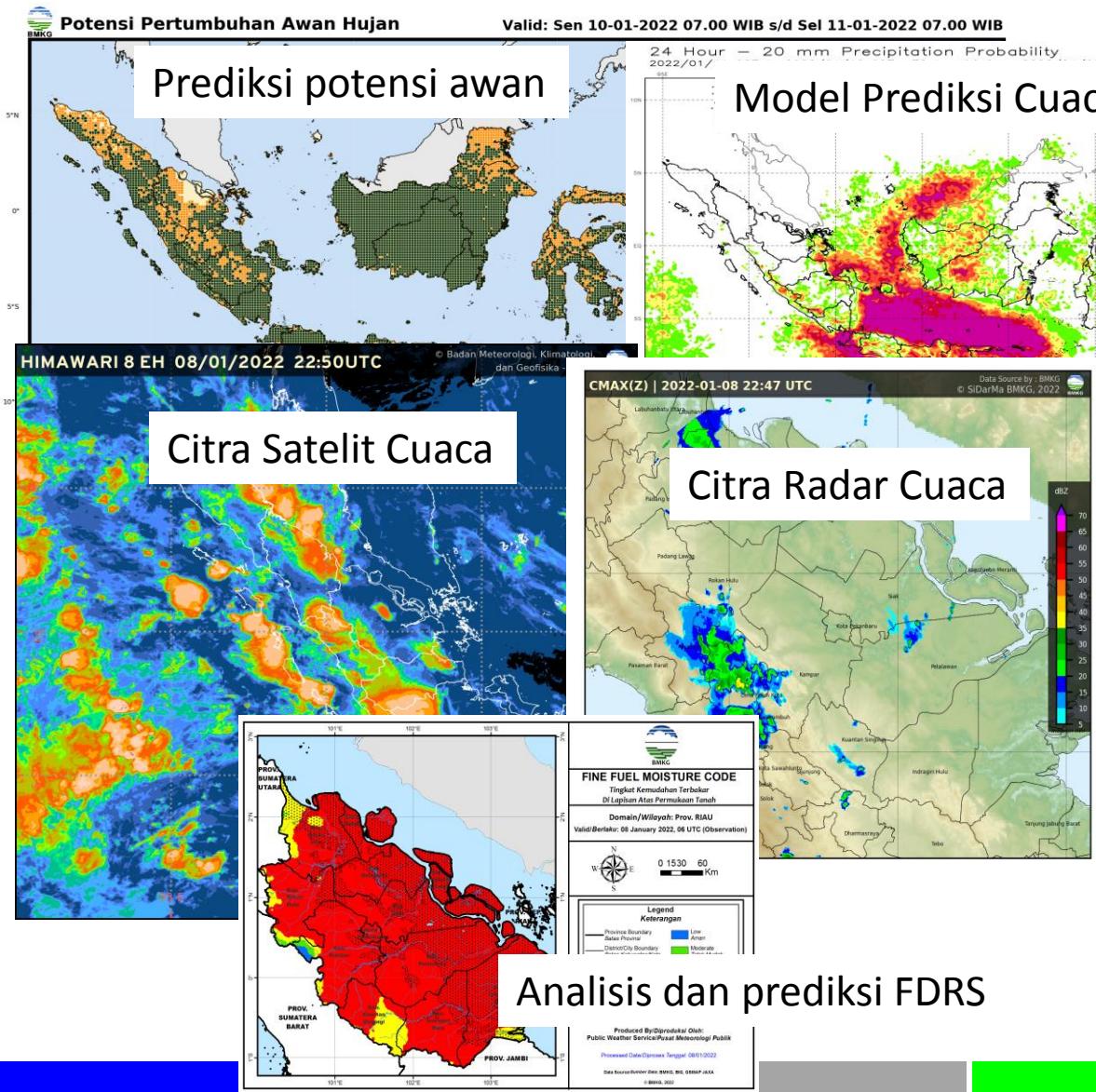
	Rendah
	Menengah
	Tinggi

Sumber: <https://iklim.bmkg.go.id>

A photograph of a forest fire at night. The sky is filled with orange and red smoke from the fire. In the foreground, several tall evergreen trees stand silhouetted against the bright flames. The overall atmosphere is dark and apocalyptic.

# Dukungan BMKG dalam Posko TMC

# **INFORMASI CUACA UNTUK DUKUNGAN Posko TMC**



- 1) Untuk mendukung operasional kegiatan TMC, BMKG mempersiapkan analisis dan prediksi potensi pertumbuhan awan hujan yang akan digunakan sebagai rujukan tim TMC dalam melakukan penyemaian potensi awan hujan.
  - 2) Data yang digunakan adalah data Observasi, Model analisis dan prediksi cuaca, data inderaja (radar dan Satelit cuaca).

**TORNADO****HAIL****LIGHTNING****WIND****FLOODING****SEVERE  
WEATHER  
HAZARDS**

**ACTION**  
Take shelter immediately in a sturdy structure

**ACTION**  
Move indoors away from windows

**ACTION**  
Move indoors if you hear thunder

**ACTION**  
Move indoors away from windows

**ACTION**  
Avoid rising creeks and water-covered roads

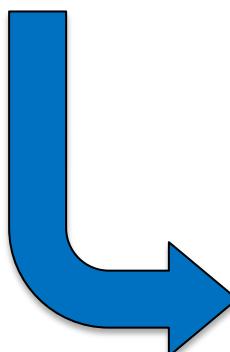
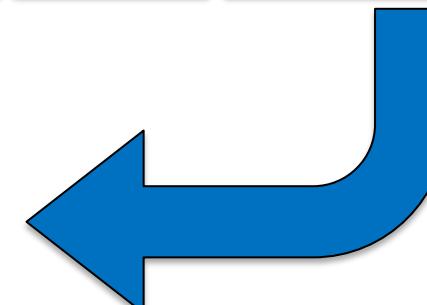
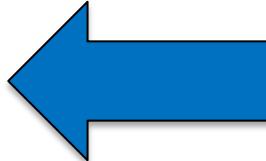
# Terima Kasih

# Produk Informasi Iklim dan Cuaca BMKG

## Informasi Iklim



## Informasi Cuaca



**BNPB**



**BPBD**

dan  
stakeholder  
lainnya



**Palang  
Merah  
Indonesia**



<https://bmkg.go.id>



@InfoBMKG



@InfoBMKG



apps @InfoBMKG



apps iOS @InfoBMKG



Call center 196

## Prakiraan cuaca

1. Prakiraan Cuaca Rutin
2. Prakiraan berbasis dampak
3. Peringatan Dini Nowcasting
4. Potensi Karhutla (FDRS)
5. Siklon Tropis