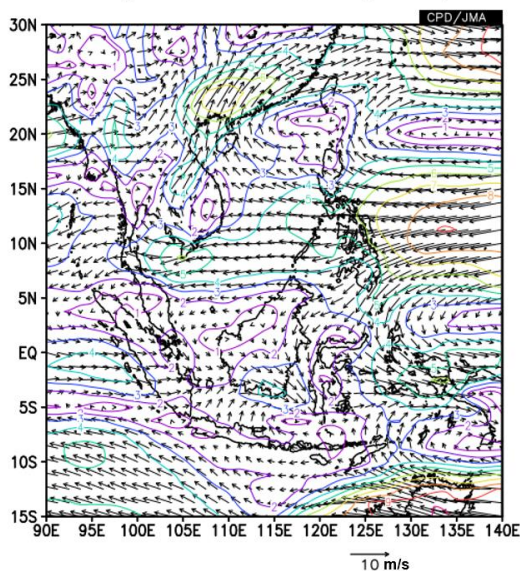


1. Review of Regional Weather Conditions

1.1 The ASEAN region is under the influence of inter-monsoon conditions. Southwesterly or westerly winds prevailed over the Mekong sub-region, with Myanmar experiencing stronger-than-usual westerly winds along the coast. Winds were generally weak in the southern ASEAN region, except for the area around Papua and south of Kalimantan where there were stronger-than-usual westerly or northwesterly winds due to Typhoon Wallace and a developing low pressure system in the Timor Sea.

5000 ft Average Winds for First Fortnight of April 2019



5000 ft Wind Anomaly for First Fortnight of April 2019

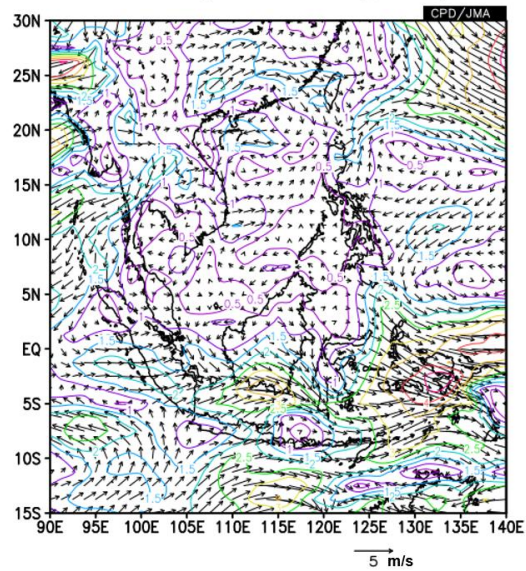


Figure 1: 5000 ft average winds (left) and winds anomaly (right) for 1 - 15 April 2019. (Source: JMA)

1.2 Inter-monsoon conditions contributed to an increase in showers compared to March 2019 over the northern ASEAN region. However, dry weather continued to persist over many areas in Myanmar, northern Thailand and northern Lao PDR.

1.3 In the southern ASEAN region, showers fell over many parts of the region. Drier-than-average conditions were observed over northern Sumatra, east coast of Peninsular Malaysia, Sabah, Sarawak, and West Kalimantan.

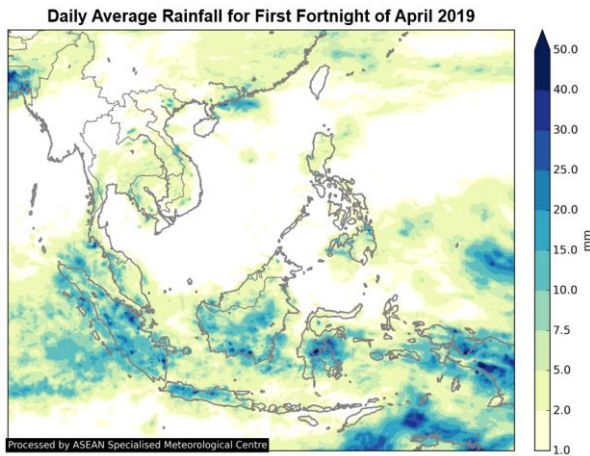


Figure 2: Daily average rainfall for the ASEAN region in the first fortnight of April 2019. (Source: JAXA Global Satellite Mapping of Precipitation)

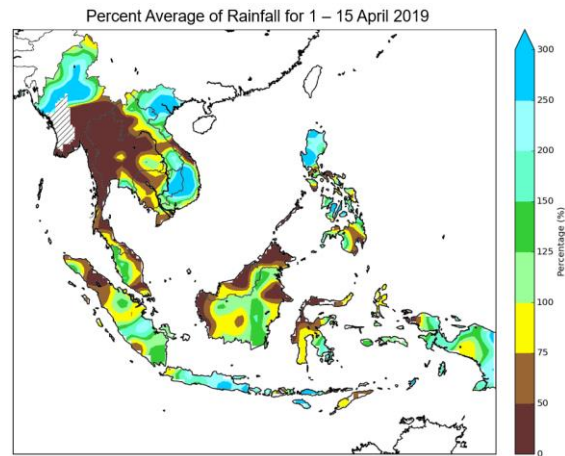


Figure 3: Percent of average rainfall for 1 – 15 April 2019. The rainfall data may be less representative for areas with a less dense rainfall network. Hatched areas indicate climatology dry mask (average daily rainfall below 1 mm). (Source: IRI NOAA/NCEP CPC Unified Precipitation Analyses)

1.4 The Madden-Julian Oscillation (MJO) signal remained weak during the first fortnight of April 2019 and had no significant influence on the weather over the ASEAN region (Figure 4).

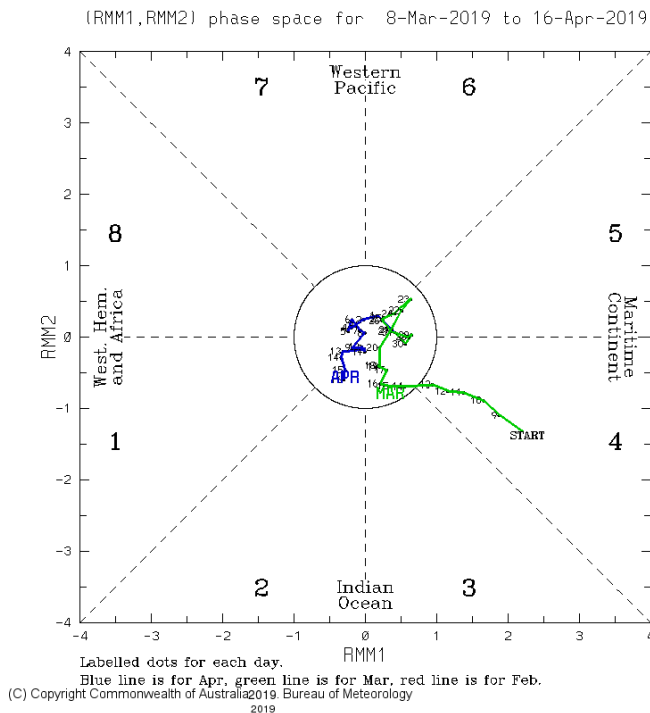


Figure 2: The MJO phase diagram for Apr 2019 (blue). The diagram illustrates the movement of the MJO through different phases, which correspond to different locations along the equator. The distance of the index from the centre of the diagram is correlated with the strength of MJO. When the index falls within the circle, the MJO is considered weak or indiscernible. (Source: Bureau of Meteorology)

1.5 The sea surface temperatures over the tropical Pacific Ocean Niño 3.4 region remained warm and close to El Niño thresholds. However, other indicators of El Niño Southern Oscillation such as the strength of trade winds and sea level pressure difference between the eastern and western tropical Pacific Ocean were close to normal.

2. Review of Land/Forest Fires and Smoke Haze Situation

2.1 An increase in shower activities over the southern Mekong sub-region since late-March helped to subdue hotspots and improve the haze situation over Cambodia, central and eastern Thailand, and the southern parts of Lao PDR and Viet Nam. However, smoke haze from persistent hotspots in the northern part of the Mekong sub-region continued to be observed. Dense smoke haze was observed on many days over eastern Myanmar, and the northern parts of Thailand and Lao PDR. Some smoke haze was blown to the northern parts of Viet Nam by the prevailing winds.

2.2 In the southern ASEAN region, hotspot activity was generally subdued except for isolated hotspots with smoke plumes detected in Riau, Sumatra, east coast of Peninsular Malaysia, and West Kalimantan in the second week of the fortnight.

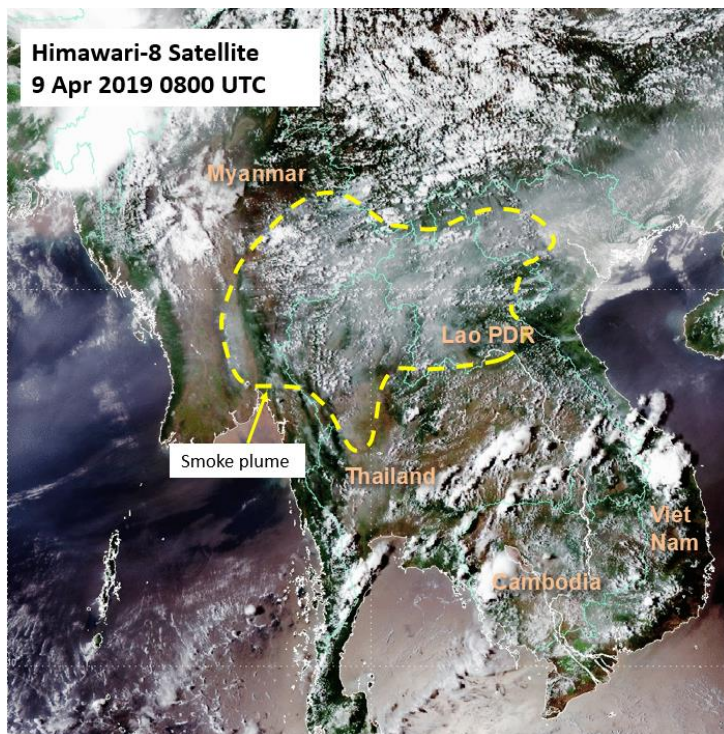


Figure 5: Himawari-8 satellite image on 9 April 2019 shows smoke haze over the northern Mekong sub-region.

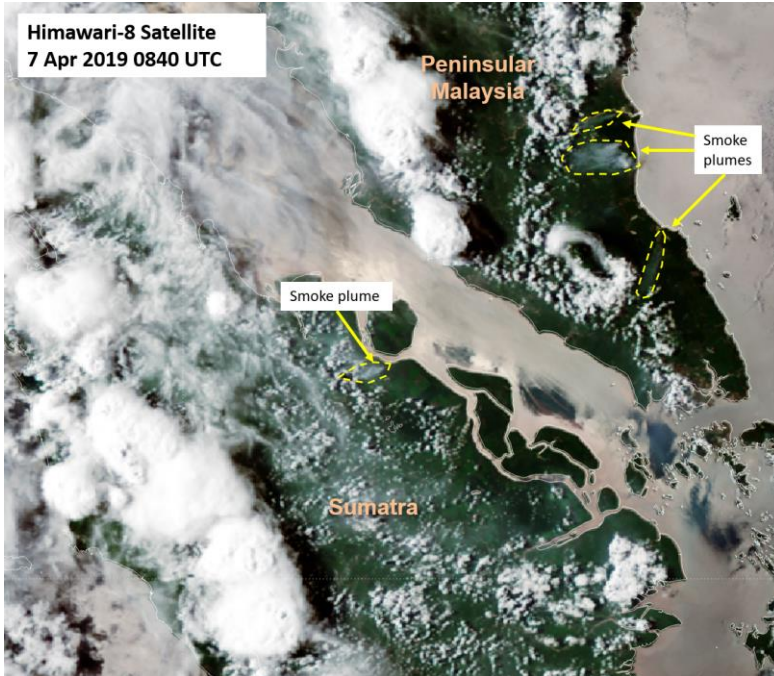


Figure 6: Himawari-8 satellite image on 7 April 2019 shows isolated smoke plumes in Peninsular Malaysia and Riau, Indonesia.

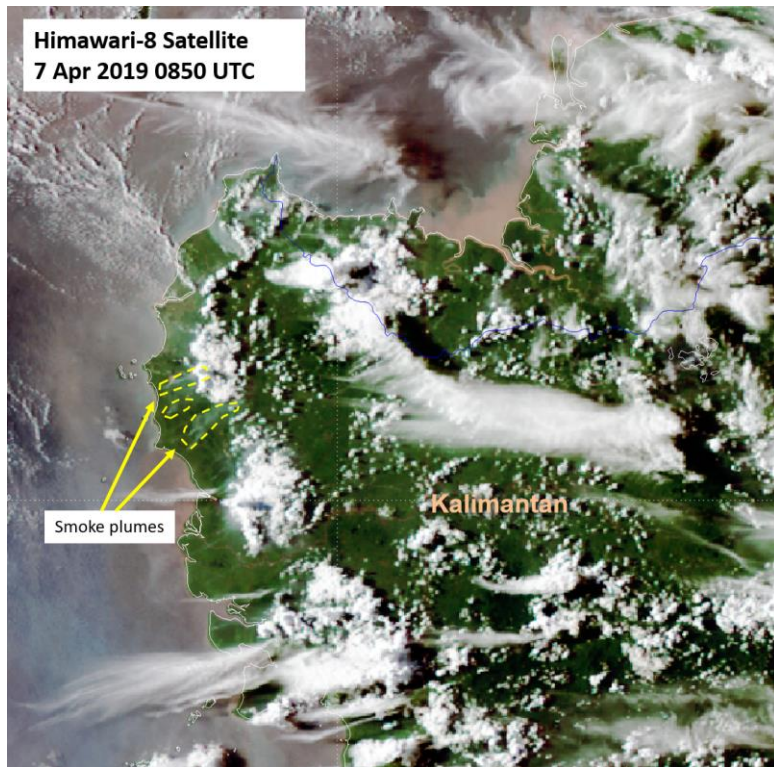


Figure 7: Himawari-8 satellite image on 7 April 2019 shows localised smoke plumes in West Kalimantan.