

UPDATE OF REGIONAL WEATHER AND SMOKE HAZE January 2016

1. Review of Regional Weather Conditions in December 2015

1.1 The Northeast Monsoon season prevailed in December 2015 with the monsoon rain in the equatorial region between 5°N and 5°S. In the northern ASEAN region, the dry season onset in mid-December 2015 while scattered shower activities and north-easterly winds affected most parts of the southern ASEAN region including Malaysia, Singapore and Indonesia.

1.2 Typhoon Melor, which developed over the western Pacific Ocean in the second week of December 2015, made landfall over Bulusan in southern Luzon on 14 December 2015. It brought strong winds and heavy rain to the affected areas. Typhoon Melor continued to track westward over the South China Sea before weakening into a tropical depression two days later.

1.3 Likely to be associated with the strong El Niño condition which peaked in December 2015, most of the region experienced drier than usual weather conditions. Above-normal rainfall was received in northern parts of Philippines due to Typhoon Melor, and near-normal rainfall was received in the near-equatorial region, in particular over Peninsular Malaysia, Singapore, southern Sumatra and western Borneo Island. The regional rainfall distribution for December 2015 is shown in Figure 1A.

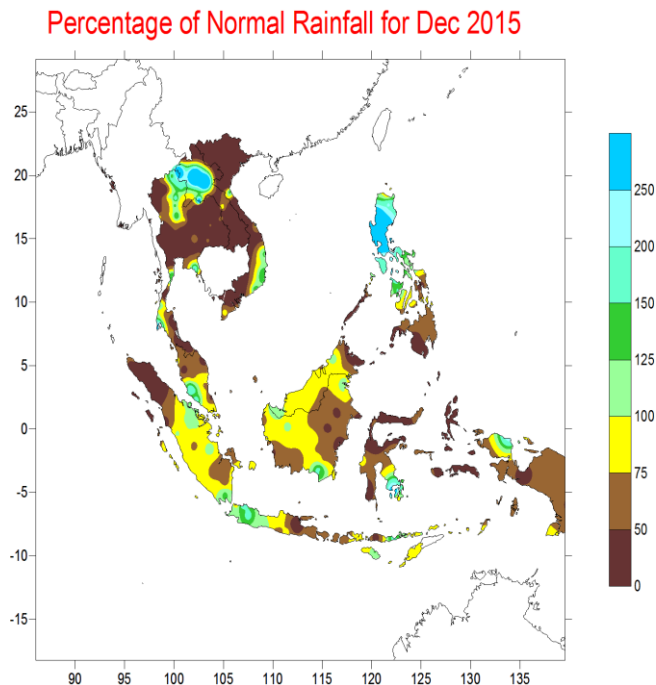


Figure 1A: Percentage of Normal Rainfall for December 2015

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

2.1 In the southern ASEAN region, hotspot activities continued to be subdued by shower activities. There were some isolated hotspots detected in Kalimantan in end December 2015.

2.2 There was a gradual escalation of hotspot activities over the northern ASEAN region towards the end of December 2015. In particular, isolated hotspot activities were observed in Thailand and Cambodia. Localised smoke plumes were observed to emanate from some of these hotspots.

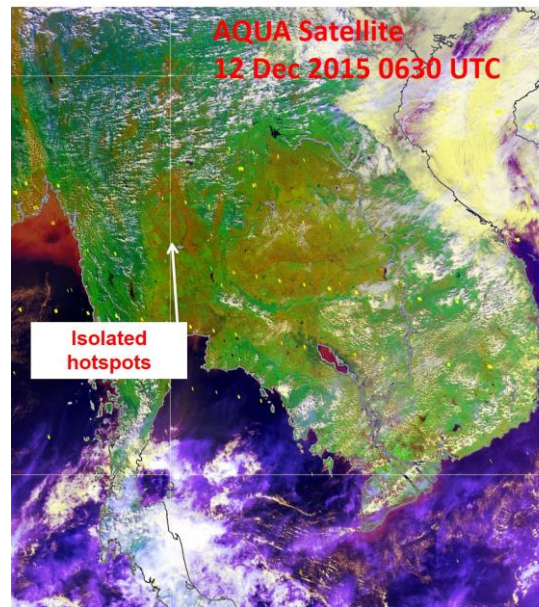


Figure 2A: AQUA satellite image on 12 December 2015 shows isolated hotspots observed in Thailand.

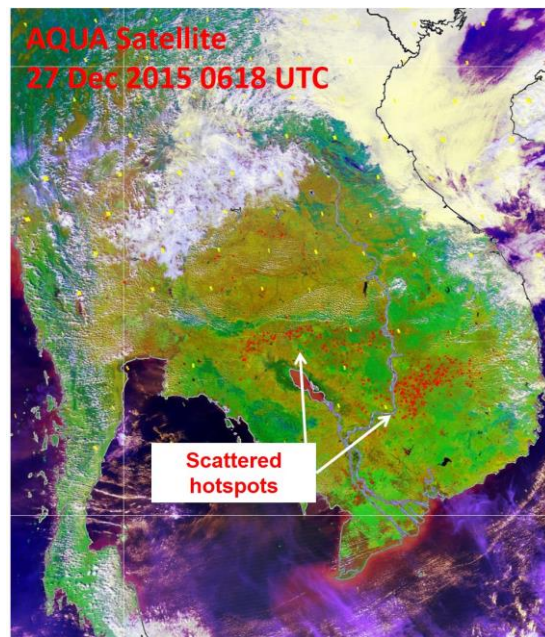


Figure 2B: AQUA satellite picture on 27 December 2015 shows scattered hotspots and localised smoke plumes detected in Cambodia.

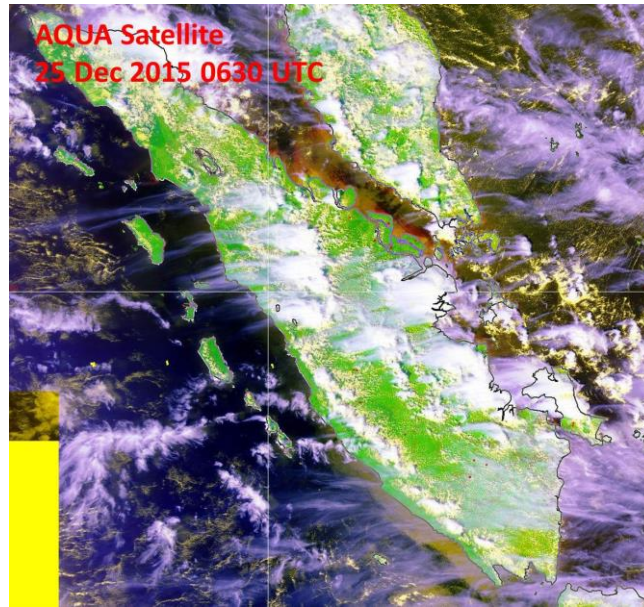


Figure 2C: AQUA satellite image on 25 December 2015 hotspot activities in Sumatra subdued by shower activities in the area.

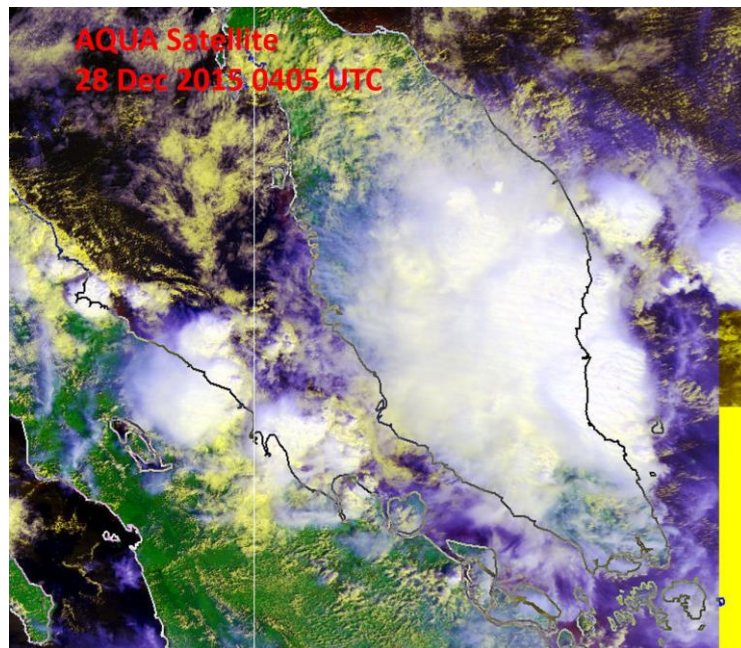


Figure 2D: AQUA satellite image on 28 December 2015 shows widespread shower activities over the east coast of Peninsular Malaysia.

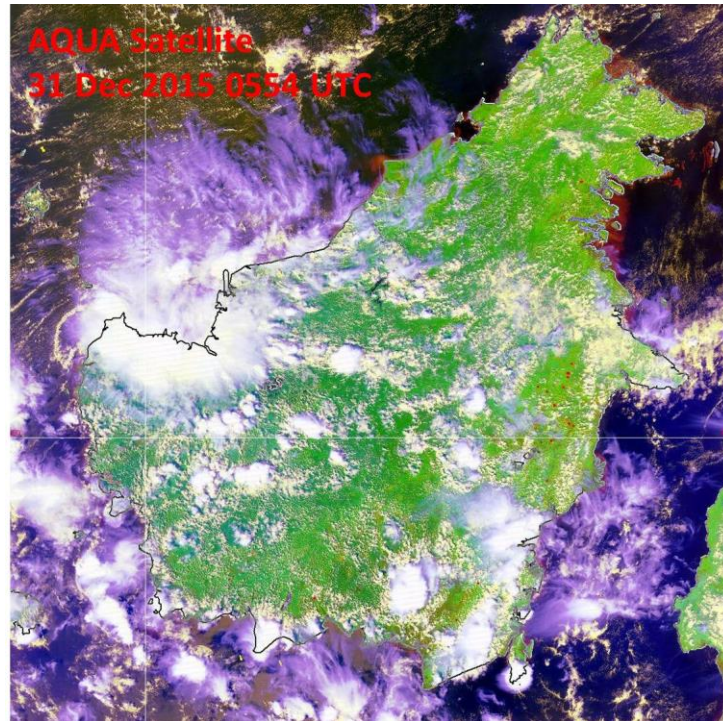


Figure 2E: AQUA satellite picture on 31 December 2015 shows hotspot activities in Kalimantan subdued by scattered shower activities.

2.3 The hotspot charts for December 2015 for

- a) Cambodia, Myanmar, Thailand, Lao PDR and Vietnam;
- b) Sumatra, Borneo and Peninsular Malaysia;

are shown in Figures 2F to 2G respectively.

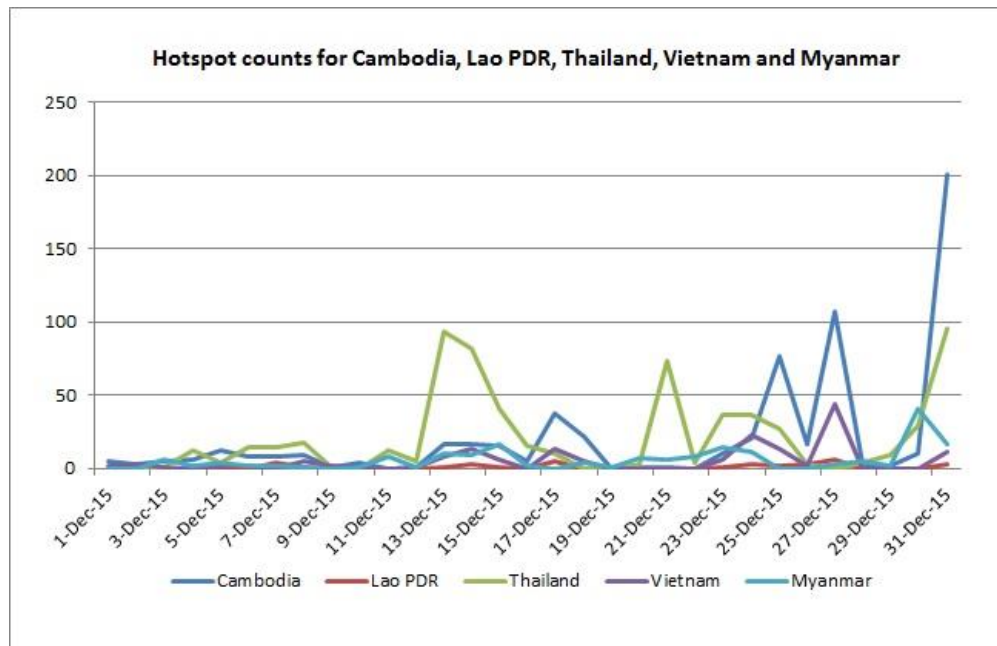


Figure 2F: Hotspot Counts in Cambodia, Lao PDR, Thailand, Vietnam, Myanmar for December 2015

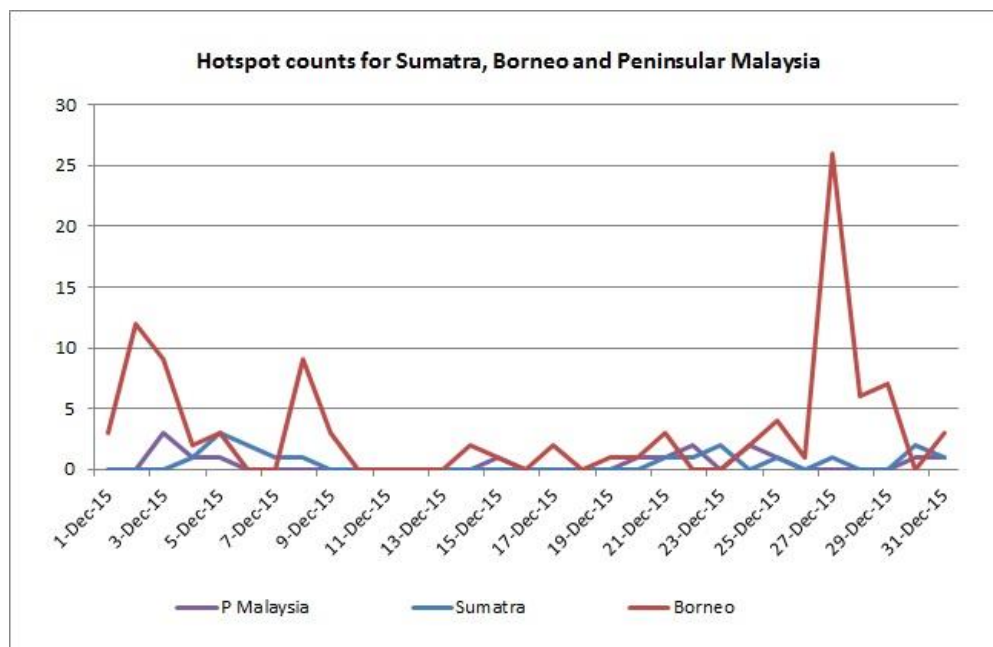


Fig 2G: Hotspot Counts in Sumatra, Borneo and Peninsular Malaysia for December 2015

3. Status of El Niño/La Niña

3.1 The El Niño in the tropical Pacific Ocean is at mature levels in December 2015, with the sea-surface temperatures similar to the 1982-83 and 1997-98 strong El Niño events.

3.2 The consensus forecast based on assessments from international climate models and expert opinion suggests that the strong El Niño conditions to continue through the first quarter of 2016, and is expected to gradually weaken in the next few months, and is likely to return to Neutral conditions by around mid-2016.

3.3 The region is currently in the Northeast Monsoon season (late Nov - Mar), and the impact of El Niño is usually less pronounced as compared to the Southwest Monsoon season (Jun – Sep). Typically, El Niño will bring drier than average rainfall conditions over Southeast Asia region, especially for the southern parts of the ASEAN region during June to October. More locally-specific impact differs from place to place and for different seasons.

4. Outlook

4.1 In the northern ASEAN region, the dry season of the Northeast Monsoon will continue. Dry and cool weather conditions are expected to persist. Further escalation of hotspot activities can be expected as the season progresses. Vigilance should be maintained for any escalation of fire activities during this period.

4.2 For the southern ASEAN region, the wet phase of the Northeast Monsoon near the equatorial region will gradually transit into the dry phase of the Northeast Monsoon by late-January or early February. The monsoon rain belt will shift further south to the southern Hemisphere and bring increased rainfall especially over Java Islands. Typically, dry and occasionally windy weather conditions prevail for the near-equatorial region such as over Malaysia and Singapore, Sumatra and Kalimantan while wet weather conditions would

prevail for the southern Indonesia islands of Java. Hotspot activities may emerge from time to time during extended period of dry weather conditions especially in Sumatra and Kalimantan.

4.3 The prevailing El Nino conditions are likely to bring below-normal rainfall conditions over the Philippines and eastern parts of Borneo Island. For the Mekong sub-region, near-normal rainfall conditions are expected. Near-normal to slightly below-normal rainfall is forecast for the near-equatorial region including Malaysia, Singapore and Indonesia. The rainfall outlook for the ASEAN region from January 2016 to March 2016 is shown in Figures 4A – 4C.

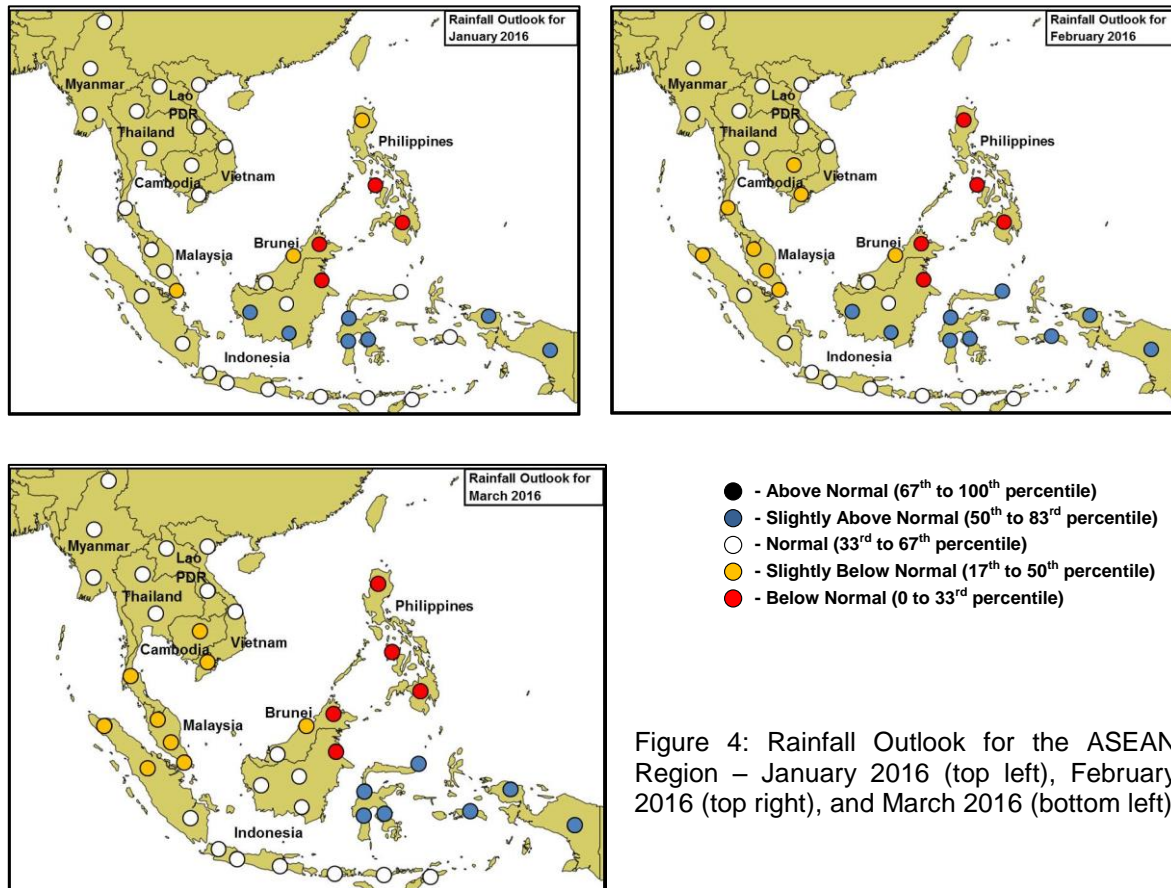


Figure 4: Rainfall Outlook for the ASEAN Region – January 2016 (top left), February 2016 (top right), and March 2016 (bottom left)