



CLIMATE BULLETIN FOR SEA

Climate Monitoring Node – WMO-RCC-SEA – DOST-PAGASA

Issued: October 2023

CLIMATE WATCH FOR RAINFALL DEFICIENCY – EL NIÑO

Areas of Concern: parts of Borneo, Sumatra, and southern Indonesia

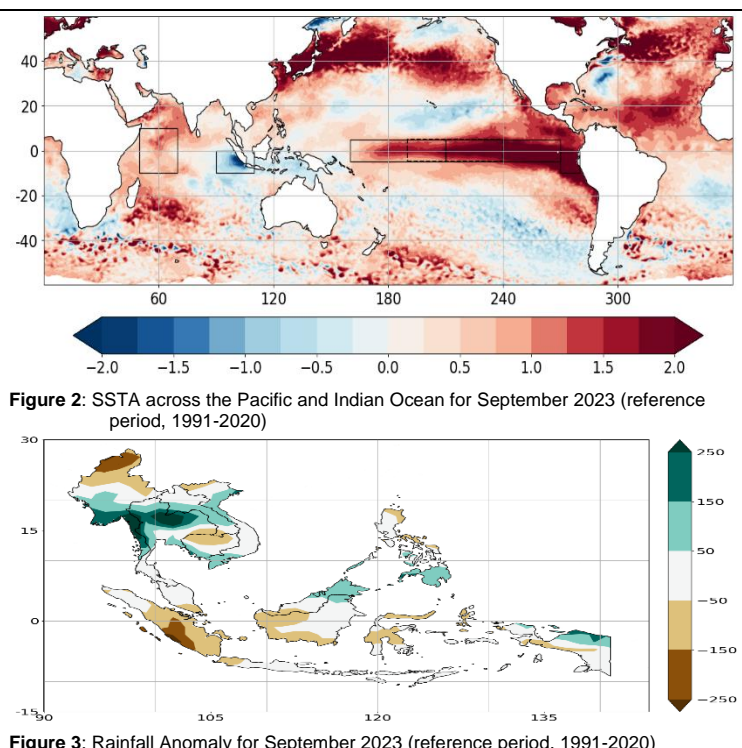
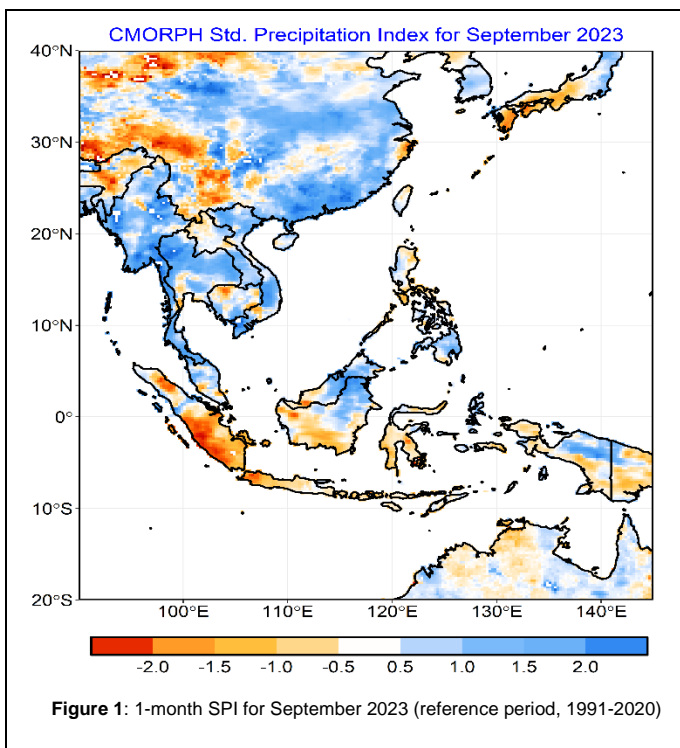
Areas of *moderate* to *severe* rainfall deficiencies have been observed in some parts of Southeast Asia region, particularly over parts of Borneo, Sumatra and Java as shown in Figure 1. This dry condition was consistent with the 3-month below-normal rainfall being experienced for the period July – September 2023 (see attached 3-month SPI). Other parts of Southeast Asia recorded *moderate* rainfall deficiencies for small areas. After the previous Bulletin in September, areas mentioned over Mainland Southeast Asia (Thailand, Cambodia) have mostly recovered because of adequate rainfall received in the month of September.

Warm sea surface temperatures (SSTs) across the central and eastern equatorial Pacific persisted in September with anomalies ranging from 1.0°C - 2.5°C. The strong warming (>2.0°C anomaly) over the eastern equatorial Pacific was still observed and expanded westward. However, the SSTAs in the western Pacific and over most of the maritime continent were near to below average, particularly around Indonesia.

Positive IOD values were still observed during the month, with the western equatorial Indian Ocean showing warmer than average SSTs while the eastern equatorial Indian Ocean was observed to be cooler than average.

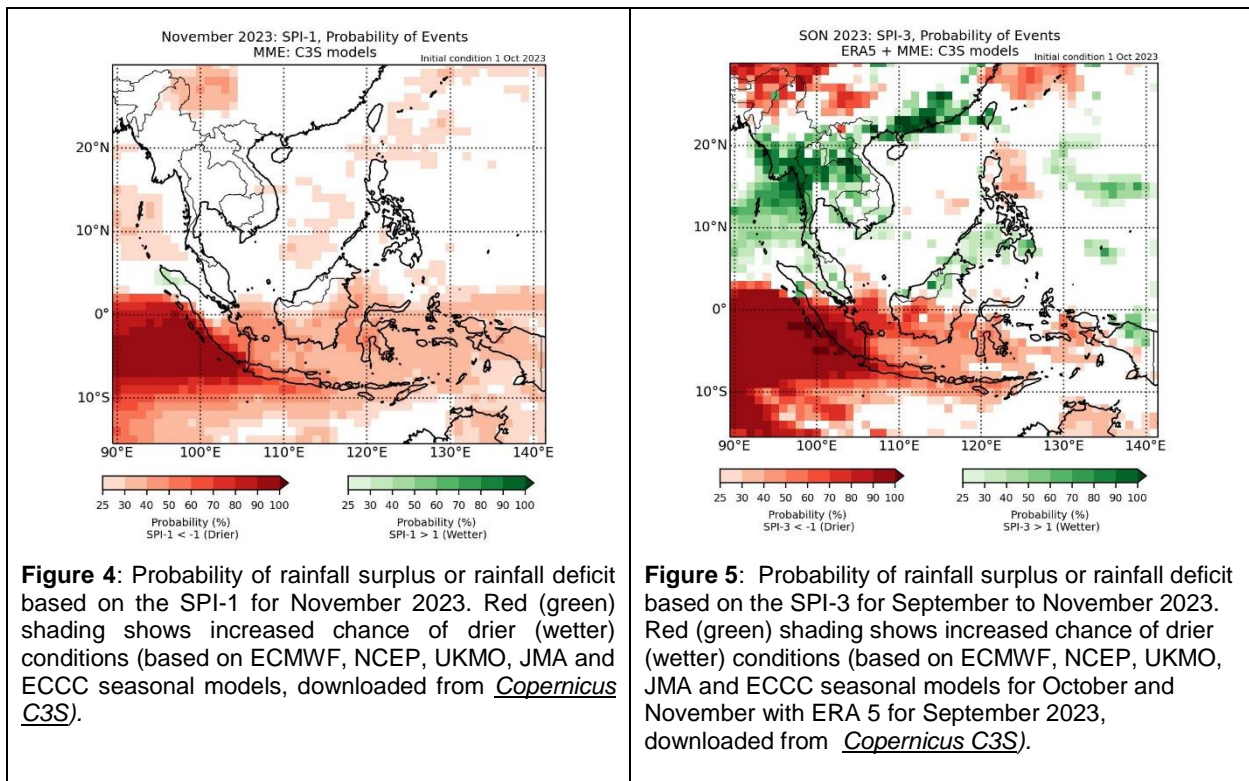
Inactive phase of the Madden–Julian Oscillation (MJO) over the region in September was observed characterized by suppressed convection and precipitation in most areas.

MAPS





OUTLOOK:



From the outlook of SPI-1 over the region (Figure 4), there is some chance (25-40%) of rainfall deficit continuing over much of Indonesia, with a high chance (>60%) of the rainfall deficit continuing over southern Sumatra in November 2023.

When considering the longer-term conditions for September to November 2023 (SPI-3, Figure 5), there is a high chance of rainfall deficit (>60%) for much of the Sumatra, and moderate chance of rainfall deficit (40-60%) for much of the rest of Indonesia.

El Niño conditions are predicted to continue until at least the start of 2024. The positive Indian Ocean Dipole is predicted to last until the end of the year. Both positive Indian Ocean Dipole and El Niño events can bring drier conditions to parts of Southeast Asia. These conditions are in line with increased chance of rainfall deficit (25-80%) in November over the southern ASEAN region (Figure 4).

Next issuance will be on November 2023.



Attachment:

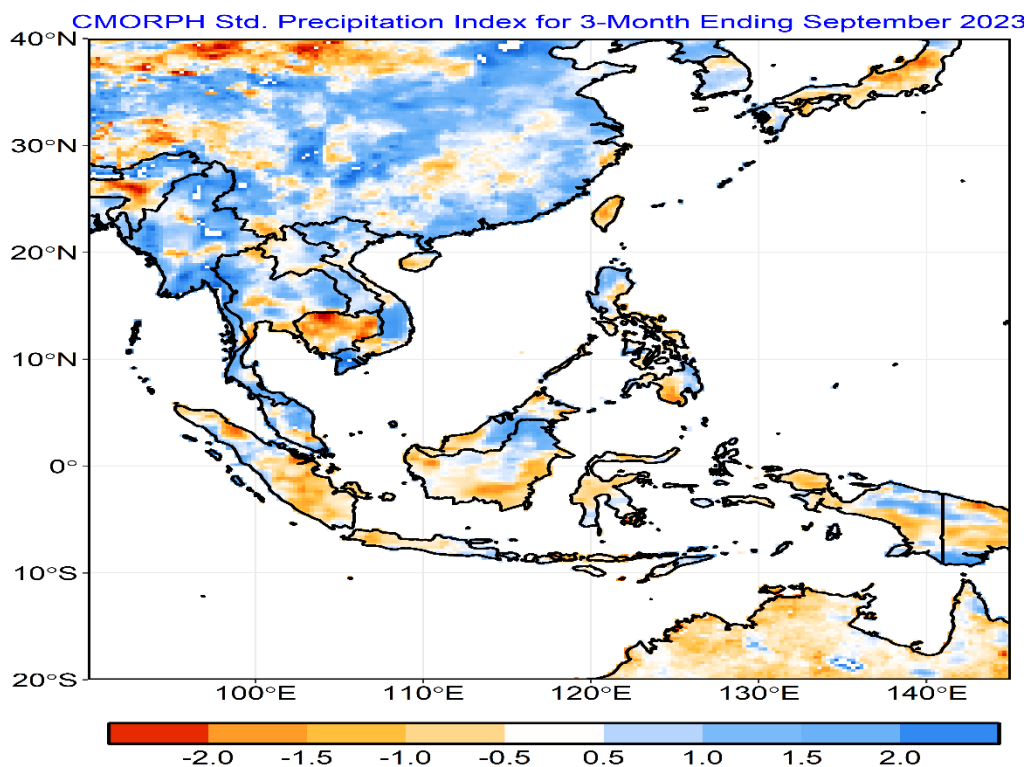


Table 1: McKee and others (1993) SPI value-classification table as recommended in World Meteorological Organization, 2012: Standardized Precipitation Index User Guide (M. Svoboda, M. Hayes and D. Wood). (WMO-No. 1090), Geneva.

Table 1. SPI values

2.0+	extremely wet
1.5 to 1.99	very wet
1.0 to 1.49	moderately wet
-.99 to .99	near normal
-1.0 to -1.49	moderately dry
-1.5 to -1.99	severely dry
-2 and less	extremely dry