# *DROUGHT MONITORING REPORT*
# *MAY 2025*

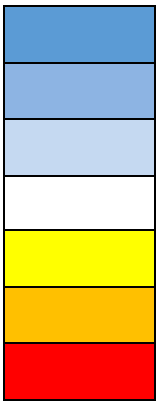
## *Drought Monitoring*
## *Current Standardised Precipitation Index (SPI)*

Based on the current SPI index calculations for May 2025 (**Table 1**), most areas recorded within normal to moderately wet scales except for Stesen Meteorologi Sepang KLIA, which recorded extremely dry conditions. Meanwhile, Stesen Meteorologi Bayan Lepas, Butterworth, Sitiawan, Melaka, Sibu, and Labuan recorded SPI indicating severely dry conditions. ***No station has reached the meteorological drought status at the early warning level*** *which is defined as when cumulative the most recent 3-month rainfall deficit exceeding 35% and SPI value for recent month, less than -1.5 (**Table 2**). Monitoring will be conducted more frequently to issue meteorological drought alerts as early as possible.*

*Table 1: SPI Index for May 2025 (Data sourced from 40 main stations only)*

| Stn No | Station Name | Lat | Lon | SPI | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | 1month | 2month | 3month | 4month | 5month | 6month |
| 48600 | PULAU LANGKAWI | 6.33 | 99.73 | 0.47 | 1.09 | 0.69 | 0.71 | 0.91 | 1.09 |
| 48601 | BAYAN LEPAS | 5.30 | 100.27 | -1.37 | -0.37 | -1.06 | -1.37 | -1.08 | -0.79 |
| 48602 | BUTTERWORTH | 5.45 | 100.38 | -1.32 | 0.24 | -0.30 | 0.43 | 0.59 | 0.76 |
| 48603 | ALOR SETAR | 6.20 | 100.40 | -0.05 | -0.51 | -0.22 | -0.53 | -0.24 | -0.74 |
| 48604 | CHUPING | 6.48 | 100.27 | -0.66 | -0.39 | -0.92 | -0.90 | -0.67 | -1.03 |
| 48615 | KOTA BHARU | 6.17 | 102.30 | 0.34 | 1.29 | 0.44 | 0.35 | 0.41 | -0.21 |
| 48616 | KUALA KRAI | 5.53 | 102.20 | 1.42 | 1.88 | 1.33 | 1.18 | 1.14 | 0.69 |
| 48617 | GONG KEDAK | 5.80 | 102.50 | 1.87 | 2.41 | 1.29 | 1.08 | 1.03 | 0.24 |
| 48618 | KUALA TERENGGANU | 5.38 | 103.10 | 1.02 | 1.97 | 0.75 | 0.57 | 0.51 | 0.25 |
| 49431 | KERTEH | 4.54 | 103.43 | 1.13 | 1.31 | 0.75 | 0.24 | -0.13 | -0.13 |
| 48620 | SITIAWAN | 4.22 | 100.70 | -1.31 | 0.92 | 0.21 | 0.21 | 0.30 | 0.32 |
| 48623 | LUBOK MERBAU | 4.80 | 100.90 | -0.97 | -0.79 | -0.89 | -0.77 | -0.94 | -0.63 |
| 48625 | IPOH | 4.57 | 101.10 | -0.28 | -0.02 | -0.48 | -0.07 | 0.53 | 0.67 |
| 48632 | CAMERON HIGHLANDS | 4.47 | 101.37 | 0.14 | 0.39 | 0.10 | 0.55 | 1.02 | 1.35 |
| 48642 | BATU EMBUN | 3.97 | 102.35 | -0.27 | -0.17 | -0.05 | 0.46 | 0.39 | -0.01 |
| 48647 | SUBANG | 3.13 | 101.55 | 0.13 | 1.70 | 1.50 | 1.37 | 1.56 | 1.31 |
| 48649 | MUADZAM SHAH | 3.05 | 103.08 | 2.03 | 3.05 | 2.15 | 1.66 | 1.09 | 0.77 |

| Stn No | Station Name | Lat | Lon | SPI | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | 1month | 2month | 3month | 4month | 5month | 6month |
| 48650 | KLIA SEPANG | 2.73 | 101.70 | -2.18 | -0.55 | -0.57 | -0.46 | 0.09 | 0.11 |
| 48653 | TEMERLOH | 3.47 | 102.38 | 1.27 | 1.42 | 1.76 | 1.55 | 1.40 | 1.36 |
| 48657 | KUANTAN | 3.77 | 103.22 | 1.29 | 1.43 | 0.82 | 0.45 | 0.36 | 0.38 |
| 48665 | MELAKA | 2.27 | 102.25 | -1.39 | -0.64 | -0.02 | 0.20 | 0.32 | -0.05 |
| 48651 | KUALA PILAH | 2.73 | 102.25 | -0.32 | 1.17 | 0.34 | 0.90 | 0.72 | 0.47 |
| 48670 | BATU PAHAT | 1.87 | 102.98 | -0.85 | 0.76 | 2.05 | 1.92 | 2.00 | 1.51 |
| 48672 | KLUANG | 2.02 | 103.32 | -0.74 | 0.53 | 1.24 | 1.11 | 1.00 | 0.66 |
| 48674 | MERSING | 2.45 | 103.83 | 1.54 | 2.59 | 1.79 | 1.12 | 0.92 | 0.76 |
| 48679 | SENAI | 1.63 | 103.67 | 0.27 | 1.10 | 2.75 | 2.82 | 2.73 | 2.14 |
| 96413 | KUCHING | 1.48 | 110.35 | -0.25 | 0.25 | 0.58 | -0.13 | 0.51 | 0.18 |
| 96418 | SRI AMAN | 1.22 | 111.45 | 0.39 | 1.11 | 1.97 | 1.82 | 2.40 | 2.02 |
| 96421 | SIBU | 2.25 | 111.97 | -1.02 | -0.84 | 1.02 | 0.76 | 1.42 | 1.39 |
| 96441 | BINTULU | 3.12 | 113.02 | -0.47 | -0.29 | 0.02 | 0.83 | 2.87 | 2.47 |
| 96449 | MIRI | 4.33 | 113.98 | -0.53 | 0.82 | 0.97 | 1.26 | 2.10 | 1.87 |
| 96420 | KAPIT | 2.00 | 112.92 | -0.18 | -0.04 | 1.12 | 0.66 | 1.52 | 1.29 |
| 96450 | LIMBANG | 4.80 | 115.00 | 0.04 | 0.24 | 0.34 | 0.59 | 0.59 | 0.74 |
| 96412 | MULU | 4.05 | 114.82 | -0.09 | 0.00 | 1.13 | 0.37 | 0.61 | 0.47 |
| 96465 | LABUAN | 5.30 | 115.25 | -1.27 | -0.84 | 0.18 | 0.87 | 0.96 | 0.71 |
| 96471 | KOTA KINABALU | 5.93 | 116.05 | -0.26 | 0.52 | 0.92 | 1.62 | 1.94 | 1.59 |
| 96477 | KUDAT | 6.92 | 116.83 | 0.61 | 0.39 | 0.88 | 0.73 | 0.77 | 0.45 |
| 96481 | TAWAU | 4.32 | 118.12 | 0.96 | 0.67 | 0.63 | 0.97 | 0.79 | 1.36 |
| 96491 | SANDAKAN | 5.90 | 118.07 | 0.83 | 0.41 | 1.47 | 1.14 | 1.17 | 1.06 |
| 96469 | RANAU | 5.95 | 116.67 | 0.86 | -0.10 | 1.45 | 1.52 | 1.69 | 1.37 |
| 96467 | KENINGAU | 5.33 | 116.13 | 1.43 | 1.81 | 1.89 | 2.35 | 2.65 | 2.15 |



**2.0 *and above* : *Extremely wet***

**1.5 to 1.99 : *Severely wet***

**1.0 to 1.49 : *Moderately wet***

**-0.99 to 0.99 : Normal**

**-1.0 to -1.49 : *Moderately dry***

**-1.5 to -1.99: *Severely dry***

**-2.0 *or less* : *Extremely dry***

| ***MONITORING OF METEOROLOGICAL DROUGHT STATUS*** | |
|---|---|
| ***Warning Level*** | ***Description*** |
| ***ALERT*** | *Cumulative rainfall deficit for the most recent 3-month period exceeds 35% of normal; AND the current month's SPI index is less than -1.5*<br><br>**OR**<br><br>*Cumulative rainfall deficit for the most recent 6-month period exceeds 35% of normal; AND the current month's SPI index is less than -1.5* |
| ***WARNING*** | *Cumulative rainfall deficit for both the most recent 3-month and 6-month periods exceeds 35% of normal;*<br><br>**DAN / AND**<br><br>*The current 3-month SPI index is less than -1.5, and the previous drought status has already been categorized as ALERT.* |
| ***DANGER*** | *Cumulative rainfall deficit for both the most recent 3-month and 6-month periods exceeds 35% of normal;*<br><br>**AND**<br><br>*The current 3-month SPI index is less than -2.0, and the previous drought status has already been categorized as WARNING.* |

*Figure 1: Drought Status Monitoring Levels*

*Table 2: Rainfall distribution 1, 3 and 6 month of Main Meteorological Stations for severely dry to extremely dry SPI Index.*

| Main Met. Station | 1 month | | | **3** month | | | 6 month | | |
|---|---|---|---|---|---|---|---|---|---|
| | Rainfall amount May 25 (mm) | Long term average (mm) | Rainfall deficite (%) | Rainfall amount Mar 25-May 25 (mm) | Long term average (mm) | Rainfall deficite (%) | Rainfall amount Dec 24-May 25 (mm) | Long term average (mm) | Rainfall deficite (%) |
| Sepang KLIA | 16.0 | 148.8 | 89 | 386.3 | 484.1 | **20** | 996.5 | 984.2 | 1 |

*Meteorological station with SPI Index less than -1.5 AND rainfall deficite (current 3-month) more than 35% (ALERT)*

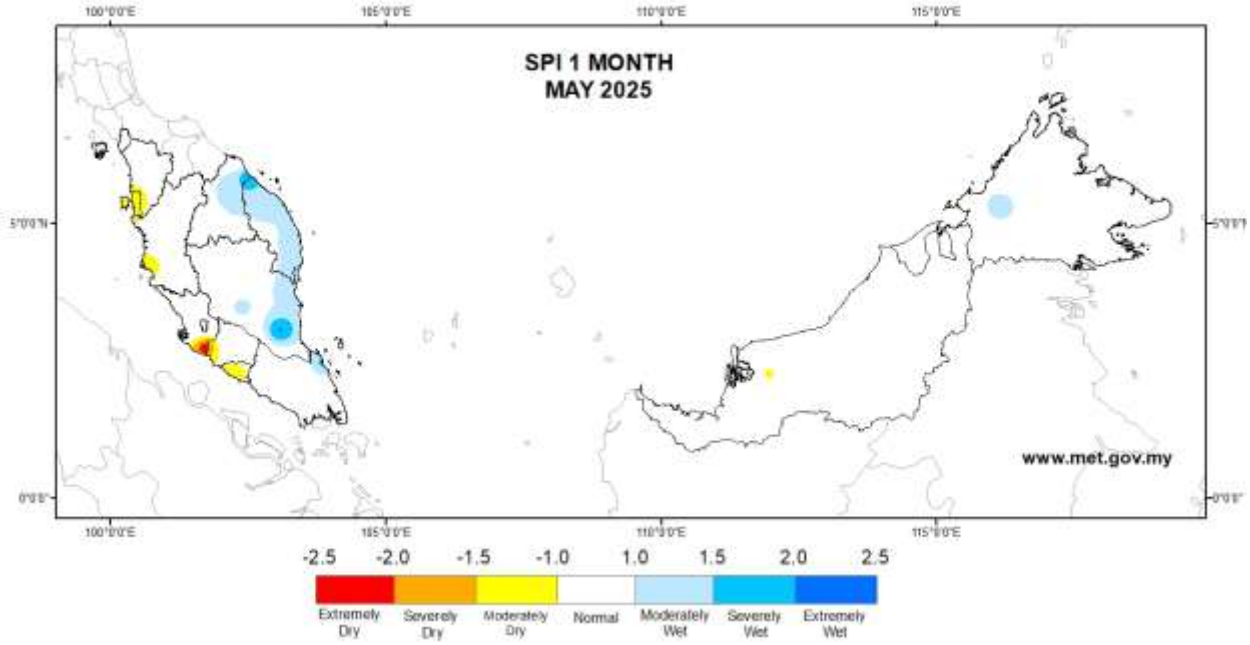



*Figure 2: 1-Month SPI (May 2025)*

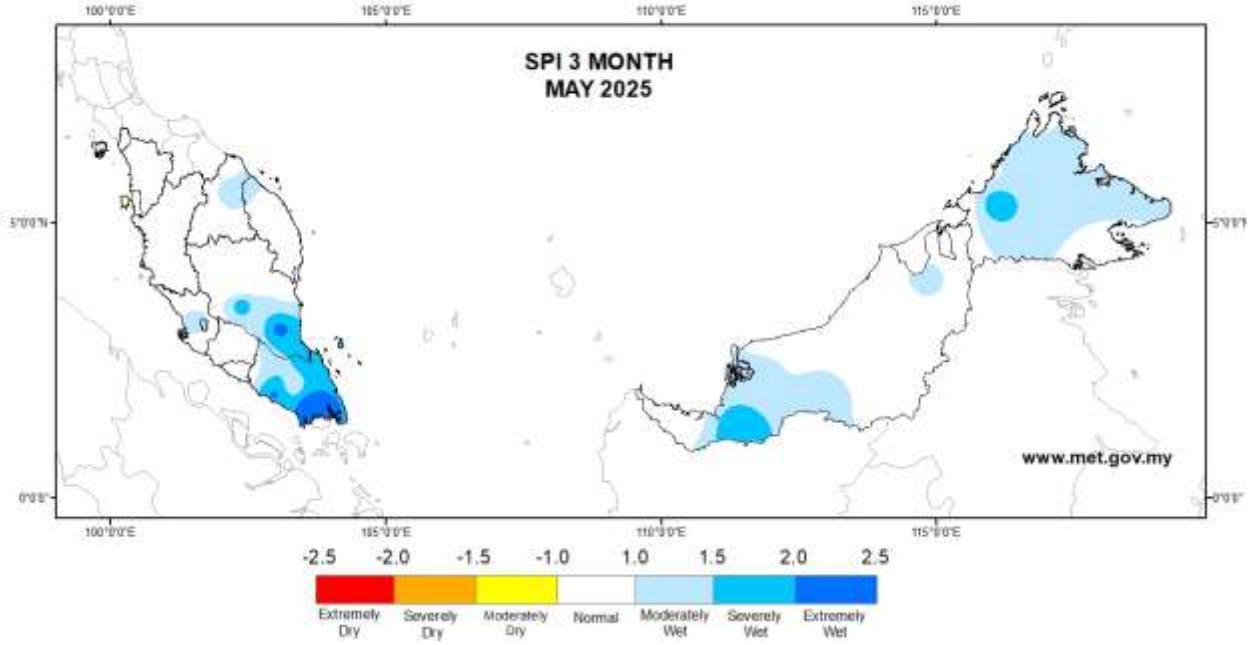



*Figure 3: 3-Month SPI (March – May 2025)*

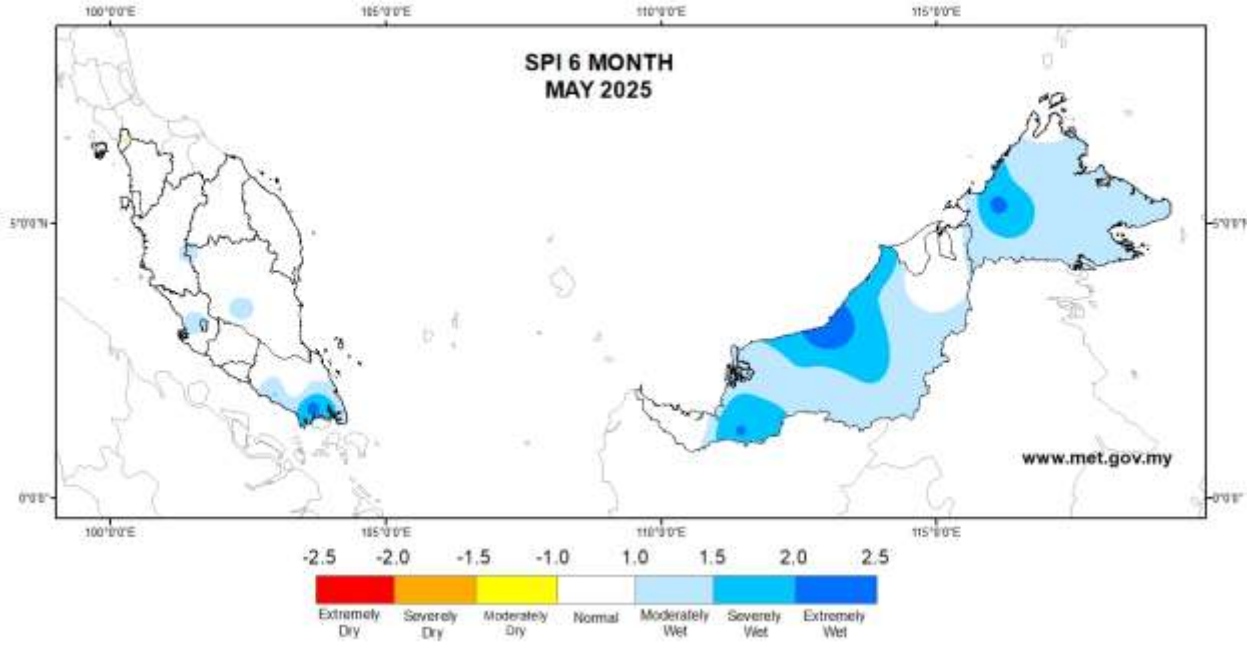



*Figure 4: 6-Month SPI (December 2024 - May 2025)*

***Cumulative Rainfall Amount Anomaly (March until May 2025)***

*The percentage of cumulative rainfall anomaly for the most recent 3-month period, March to May 2025 (Figure 5) indicates average to signicantly above normal rainfall distribution across most areas in Peninsular Malaysia, Sabah, and Sarawak. Only the state of Perlis and the areas around Sitiawan, Perak, as well as Bayan Lepas, Pulau Pinang recorded rainfall anomalies of 20 - 40% below average.*

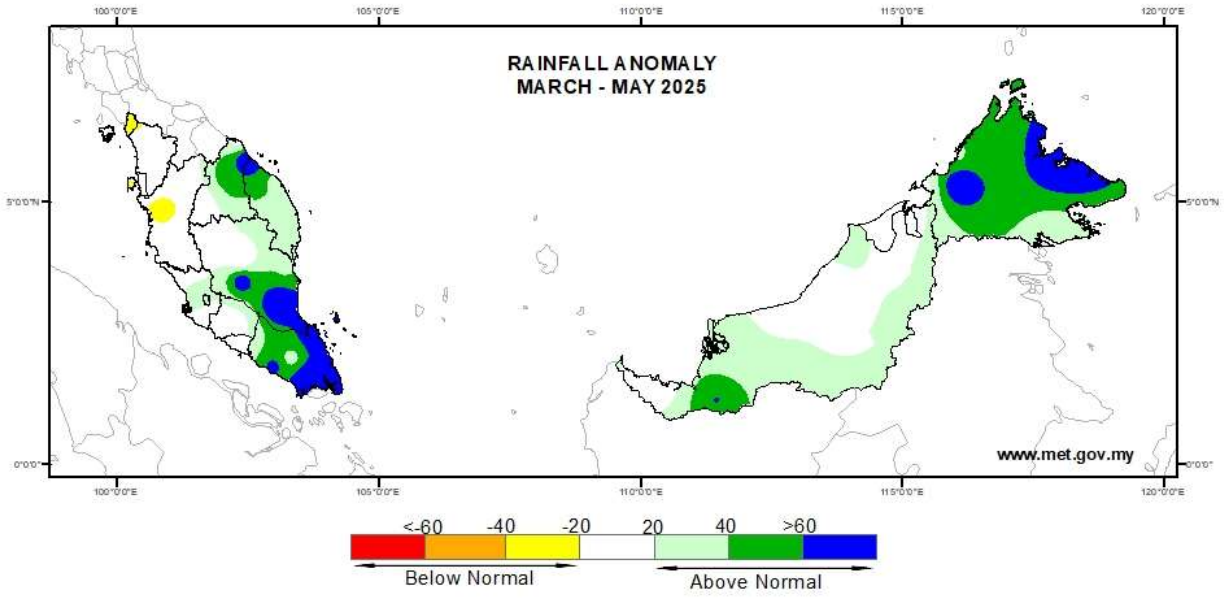



*Figure 5: Cumulative Rainfall Amount Anomalies (March – May 2025)*

***Information For Preparedness***

*Based on the current Standardised Precipitation Index (SPI) and the cumulative rainfall anomaly for the most recent 3-month period March until May 2025, as well as Long Range Weather Outlook for the period of June to November 2025, there is probability of moderately dry to extremely dry weather occurring in the states of Perlis, and some areas of Pulau Pinang, Kedah, Perak, Selangor, Negeri Sembilan, and Melaka during the Southwest Monsoon period.*

*Long Range Weather Outlook for the period of June to November 2025 can be access on the following link:*
*https://www.met.gov.my/data/climate/tinjauancuacajangkapanjang.pdf*

**Figure 2 - 5 is generated from 40 main meteorological stations of MET Malaysia using the IDW interpolation method.*

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