BULETIN METEOROLOGI PERTANIAN 10 HARI
DEKAD KEDUA JULAI 2022
(11hb - 20hb Julai 2022)
10 DAYS AGROMETEOROLOGICAL BULLETIN
SECOND DECADE OF JUL 2022
(11th – 20th July 2022)

PENDAHULUAN / *INTRODUCTION*

Negara masih berada dalam tempoh Monsun Barat Daya dan dijangka berterusan sehingga pertengahan September 2022. Dalam tempoh ini, lazimnya angin bertiup secara konsisten dari arah barat daya dengan kelembapan udara yang lebih rendah dan keadaan atmosfera yang lebih stabil. Ini menyebabkan kurangnya pembentukan awan yang menghasilkan hujan dalam tempoh ini. Sepanjang tempoh Monsun Barat Daya, kejadian ribut petir dan hujan lebat dijangka berkurangan dan kebanyakan negeri akan mengalami lebih banyak bilangan hari tanpa hujan. Walau bagaimanapun, fenomena garis badai yang membawa hujan lebat dan angin kencang boleh berlaku di pantai barat Semenanjung dan barat Sabah pada awal pagi. Garisan ribut petir yang terbentuk akibat penumpuan angin boleh berlarutan sehingga beberapa jam.

The country is still in the Southwest Monsoon and is expected to continue until mid-September 2022. During this phase, wind usually blows consistently from south west direction with low humidity and more stable atmosphere to reduce formation of rain clouds. Therefore, several places experience a higher number of days without rain than the number of days with rain. Heavy rain with strong winds and lightning due to the squall line phenomenon can occur on the west coast of the Peninsula and west Sabah in the early morning. Storm lines are formed as a result of wind convergence and can last up for several hours.

HUJAN / *RAINFALL*

Berdasarkan Rajah 1, kebanyakan kawasan di Semenanjung merekodkan peratusan anomali hujan dari purata hingga 60% melebihi bawah purata kecuali di Alor Setar, Chuping, Kuala Terengganu, Mersing dan MARDI Sungai Baging yang mana merekodkan peratusan

anomali hujan melebihi 40% di atas purata. Di Sarawak, Kuching dan Miri merekodkan peratusan anomali hujan di paras purata manakala Sri Aman, Sibu dan Bintulu merekodkan peratusan anomali hujan 20 % - 60% di bawah purata. Di Sabah, Tawau merekodkan bacaan peratusan anomali hujan 40% di atas purata manakala Sandakan merekodkan peratusan anomali bacaan lebih dari 60% di atas purata. Sementara itu, Kota Kinabalu dan Kudat merekodkan peratusan anomali hujan kurang dari 60% di bawah purata.

Berdasarkan Rajah 2, kebanyakan kawasan di Semenanjung merekodkan jumlah hujan kurang dari 100 mm. Hanya Alor Setar merekodkan bacaan melebihi 100 mm dan merupakan jumlah hujan tertinggi iaitu 114 mm manakala Ipoh merekodkan jumlah hujan terendah iaitu 4 mm. Beberapa kawasan di Pulau Pinang (Bayan Lepas), Selangor (FRIM Kepong), Terengganu (Haiwan Machang, Kuala Terengganu & MARDI Kemaman) dan Pahang (MARDI Sg Baging & P.P.P. Tun Razak) merekodkan jumlah hari cerapan hujan tertinggi iaitu 6 hari. Alor Setar juga merekodkan hujan harian tertinggi dengan bacaan 81.2 mm yang dicerap pada 12hb pada bulan ini.

Di Sarawak, satu (1) kawasan merekodkan jumlah hujan pada 80 mm iaitu Kuching dengan bilangan cerapan hari hujan sebanyak 6 hari. Miri juga merekodkan hujan harian tertinggi dengan bacaan 48.6 mm yang mana dicerap pada 13hb bulan ini.

Di Sabah, satu (1) kawasan merekodkan bacaan melebihi 160 mm iaitu Sandakan (165 mm) dan merekodkan jumlah hari hujan tertinggi dengan 7 hari hujan dicerap.Tawau merekodkan jumlah hujan harian tertinggi dengan bacaan 59.8 mm, yang mana dicerap pada 13hb bulan ini.

Berdasarkan Indeks Hujan Piawai dalam Rajah 3, secara amnya Malaysia merekodkan indeks normal kecuali Muadzam Shah yang merekodkan indeks sederhana kering. Ipoh, Cameron Highland, Subang, Petaling Jaya, Batu Pahat dan Kapit merekodkan indeks sangat lembap manakala Butterworth, Lubok Merbau, Temerloh, Melaka, Kluang, Senai, Sri Aman, Miri dan Limbang merekodkan indeks sederhana lembab. Hanya Sibu merekodkan indeks sangat lembab.

Based on Figure 1, most areas in the Peninsula recorded a percentage of rainfall anomalies from 60 % below average to average except in Alor Setar, Chuping, Kuala Terengganu, Mersing and MARDI Sungai Baging which recorded a percentage of anomalies rainfall of more than 40% above average. In Sarawak, Kuching and Miri recorded an average

percentage of anomalies rainfall while Sri Aman, Sibu dan Bintulu recorded a percentage of anomalies rainfall of 20 % - 60 % below average. In Sabah, Tawau recorded a percentage of anomalies rainfall of 40 % above average while Sandakan recorded rainfall anomalies more than 60 % above average. Meanwhile, Kota Kinabalu and Kudat recorded rainfall anomalies less than 60 % below average.

Based on Figure 2, most areas in Peninsula recorded rainfall amount less than 100 mm. Alor Setar is the only recorded rainfall readings exceeding 100 mm and highest rainfall amount of 114 mm while Ipoh recorded the lowest rainfall amount of 4 mm. Several areas in Pulau Pinang (Bayan Lepas), Selangor (FRIM Kepong), Terengganu (Haiwan Machang, Kuala Terengganu & MARDI Kemaman) and Pahang (MARDI Sg Baging & P.P.P. Tun Razak) has the most numbers of rainfall observation of 6 days. Alor Setar also recorded the highest daily rainfall with a reading of 81.2 mm which was observed on 12th day of the month.

In Sarawak, one (1) area recorded the amount of rainfall at 80 mm namely Kuching with the most numbers of rainfall observation of 6 days. Miri also recorded the highest daily rainfall with a reading of 48.6 mm which was observed on the 13th day of the month.

In Sabah, one (1) area recorded rainfall readings exceeding 160mm namely Sandakan (165 mm) and recorded the highest amount of rain days with 7 days of rain observation. Tawau recorded the highest daily rainfall with a reading of 59.8 mm, which was observed on the 13th day of the month.

Based on the Standard Precipitation Index in Figure 3, in general, areas in Malaysia recorded a normal index except for Muadzam Shah which recorded a moderately dry index. Ipoh, Cameron Highland, Subang, Petaling Jaya, Batu Pahat and Kapit recorded a severely wet index while Butterworth, Lubok Merbau, Temerloh, Melaka, Kluang, Senai, Sri Aman, Miri and Limbang recorded a moderately wet index. Only Sibu recorded an extremely wet index.

SUHU / *TEMPERATURE*

Merujuk kepada Rajah 4 dan Rajah 5, kebanyakan kawasan tanah rendah menerima purata suhu harian dari 27.2 ºC hingga 30.1 ºC. Dalam dekad ini, bacaan suhu tertinggi direkodkan di Subang dan MARDI Klang (Selangor) dengan bacaan 36.8 ºC manakala suhu terendah direkodkan di P.P.P. Tun Razak (Pahang) dengan bacaan 20.7 ºC. Bagi tanah tinggi, julat purata suhu direkodkan antara 16.0 ºC hingga 25.4 ºC di Cameron Highlands.

Referring to Figure 4 and Figure 5, most lowland areas received average daily temperatures ranging from 27.2 ºC to 30.1 ºC. In this decade, the highest temperature reading was recorded at Subang and MARDI Klang (Selangor) with a reading of 36.8 ºC while the lowest temperature reading was recorded at P.P.P. Tun Razak (Pahang) with readings of 20.7 ºC, respectively. For highlands, the average temperature range was recorded between 16.0 ºC to 25.4 ºC in Cameron Highlands.

SEJATAN / *EVAPORATION*

Kebanyakan kawasan di Semenanjung secara amnya merekodkan julat bagi purata kadar sejatan harian dari 2.0 mm hingga 5.0 mm di mana Ipoh (Perak) merekodkan bacaan tertinggi iaitu 5.6 mm manakala MARDI Jerangau (Pahang) merekodkan bacaan terendah iaitu 2.3 mm. Di Sabah dan Sarawak, kebanyakan stesen merekodkan bacaan dari 3.0 mm hingga 5.0 mm yang mana Sandakan merekodkan bacaan tertinggi iaitu 5.1 mm manakala Kuching merekodkan bacaan terendah iaitu 3.3 mm. Cameron Highlands merekodkan 2.0 mm sebagai bacaan purata sejatan. Dalam dekad ini, Ipoh merekodkan purata kadar sejatan harian dengan purata nilai sisihan piawai tertinggi iaitu +1.5 mm manakala Bintulu merekodkan bacaan purata nilai sisihan piawai terendah iaitu -2.4 mm (Rujuk Rajah 6).

Most areas in the Peninsula generally recorded an average daily evaporation rates ranging from 2.0 mm to 5.0 mm where Ipoh (Perak) recorded the highest reading with a reading of 5.6 mm while MARDI Jerangau (Pahang) recorded the lowest reading with a reading of 2.3 mm. In Sabah and Sarawak, most stations recorded readings from 3.0 mm to 5.0 mm where Sandakan recorded the highest reading with a reading of 5.1 mm while Kuching recorded the lowest reading with a reading of 3.3 mm. Cameron Highlands recorded 2.0 mm as an average evaporation reading. In this decade, Ipoh recorded an average daily evaporation rate with the highest average deviation value of +1.5 mm while Bintulu recorded the lowest daily average deviation value reading of -2.4 mm (Refer to Figure 6).

SINARAN SOLAR / *SOLAR RADIATION*

Dalam dekad ini, kebanyakan kawasan di Semenanjung merekodkan purata sinaran matahari harian antara 14.0 MJm-2 hingga 18.0 MJm-2 yang mana Ipoh (Perak)

merekodkan bacaan tertinggi dengan bacaan 18.0 MJm-2 manakala Senai (Johor) merekodkan bacaan terendah dengan bacaan 14.2 MJm-2. Bagi Sabah dan Sarawak, bacaan purata yang direkodkan adalah antara 14.0 MJm-2 hingga 19.0 MJm-2 yang mana Sibu (Sarawak) merekodkan bacaan tertinggi iaitu 19.1 MJm-2 manakala Kuching (Sarawak) merekodkan bacaan terendah iaitu 14.6 MJm-2. Sementara kawasan tanah tinggi pula, Cameron Highlands merekodkan bacaan 15.6 MJm-2 (Rujuk Rajah 7).

In this decade, most places in the Peninsula recorded an average daily solar radiation between 14.0 MJm-2 to 18.0 MJm-2 where Ipoh (Perak) recorded the highest reading with a reading of 18.0 MJm-2 while Senai (Johor) recorded the lowest reading with a reading of 14.2 MJm-2. For Sabah and Sarawak, an average daily reading was recorded between 14.0 MJm-2 to 19.0 MJm-2 where Sibu (Sarawak) recorded the highest reading of 19.1 MJm-2 while Kuching (Sarawak) recorded the lowest reading of 14.6 MJm-2. As for highlands, Cameron Highlands recorded a reading of 15.6 MJm-2 (Refer to Figure 7).

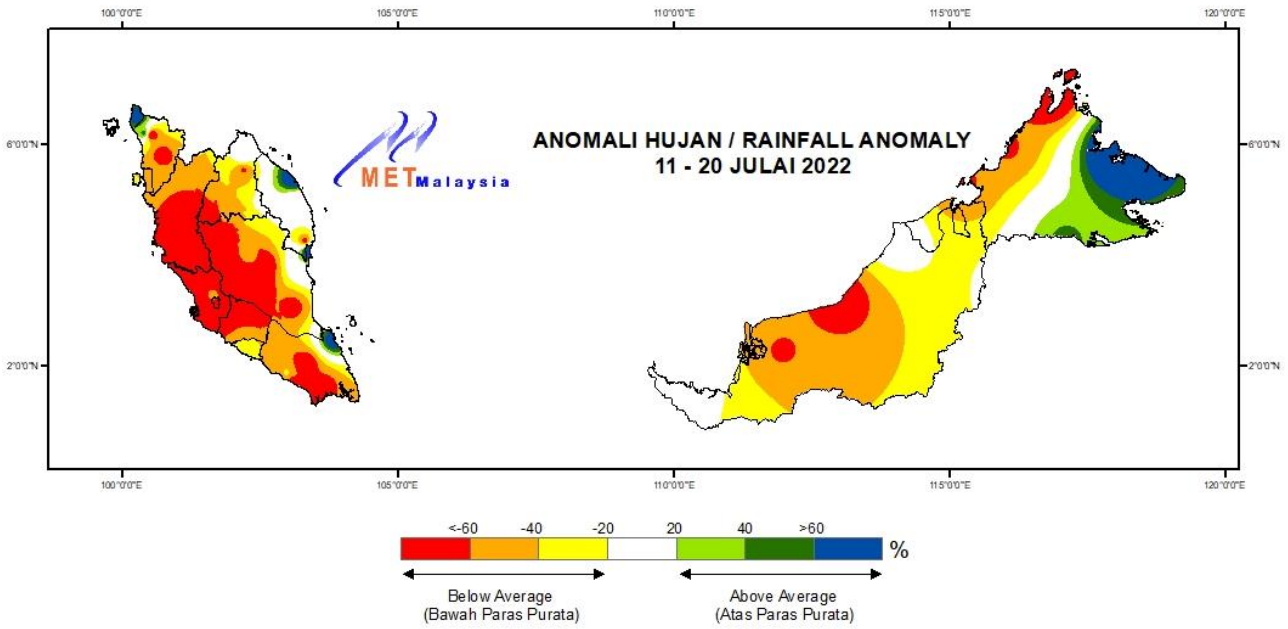

Figure 1: Rainfall Anomaly

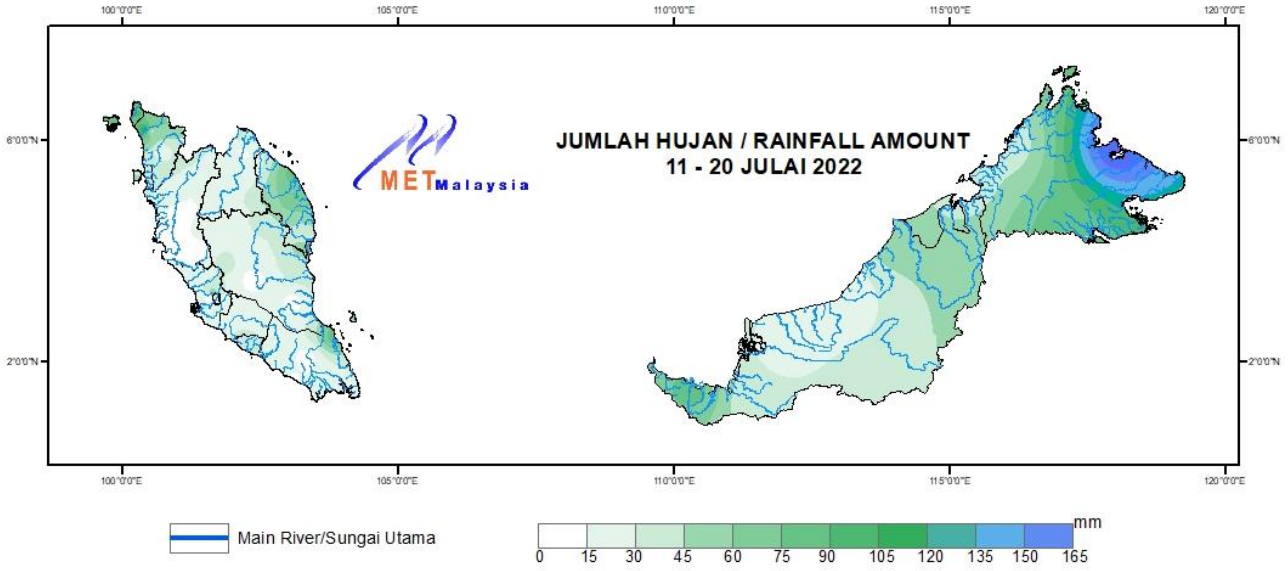

Figure 2: Rainfall Amount

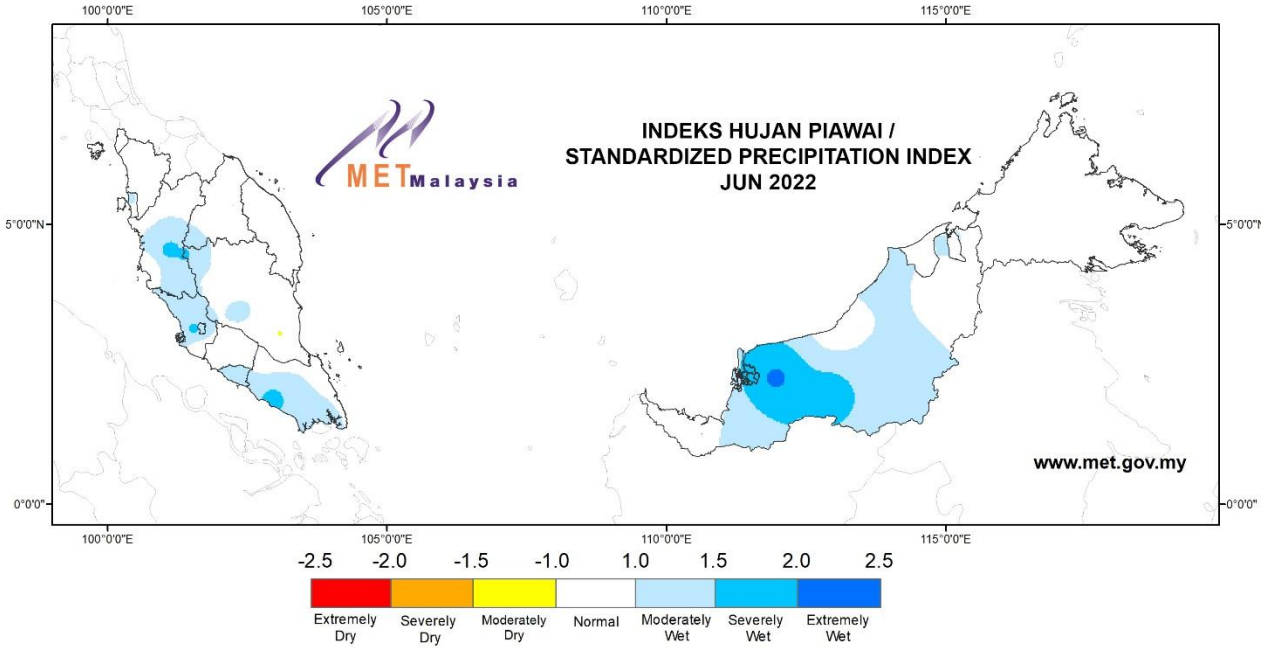

Figure 3: Standardized Precipitation Index

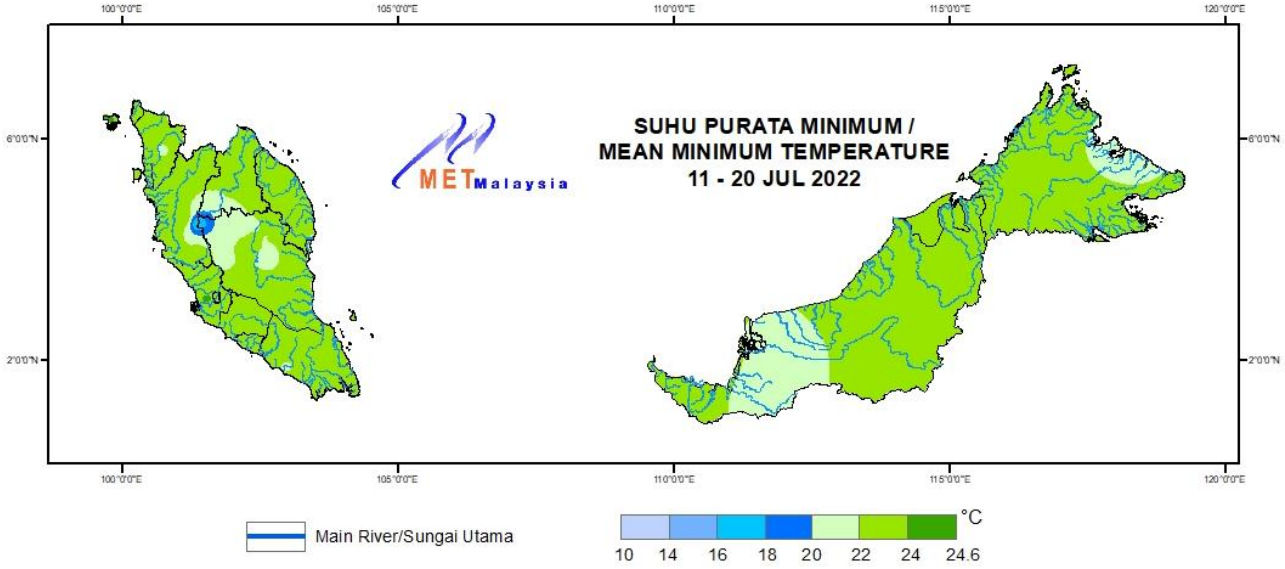

Figure 4: Mean Minimum Temperature

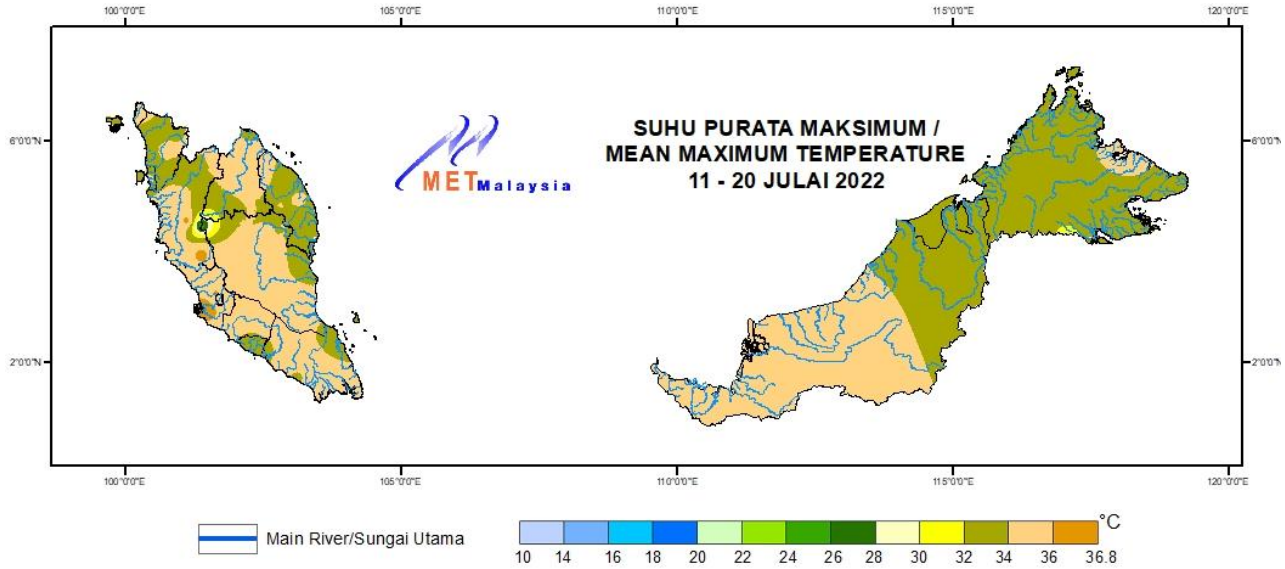

Figure 5: Mean Maximum Temperature

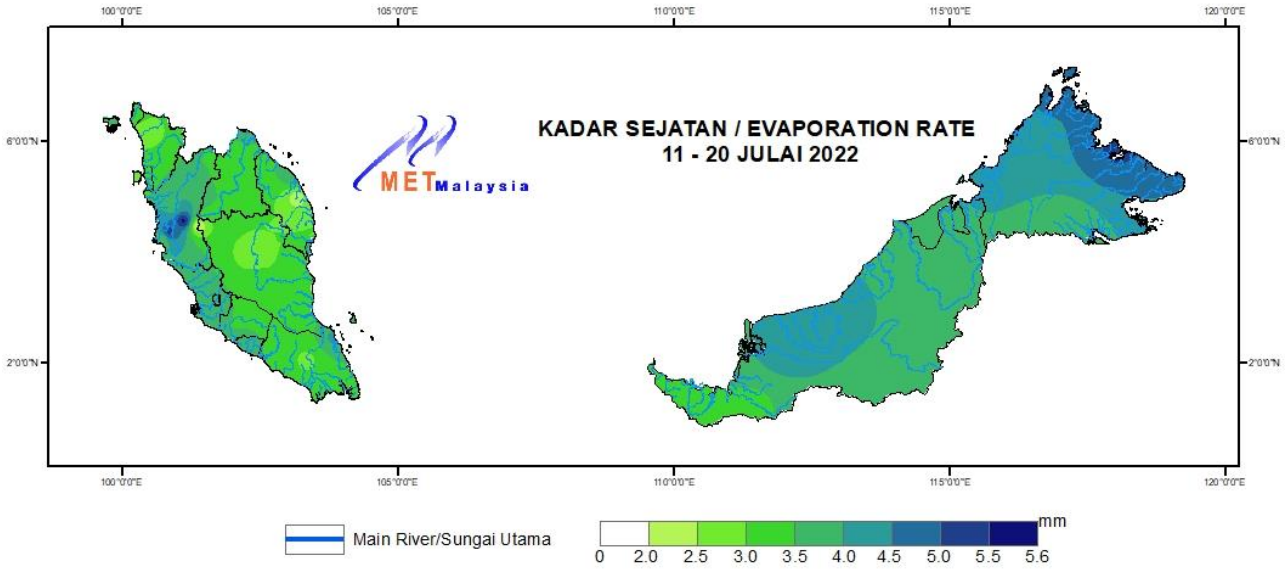

Figure 6: Evaporation Rate

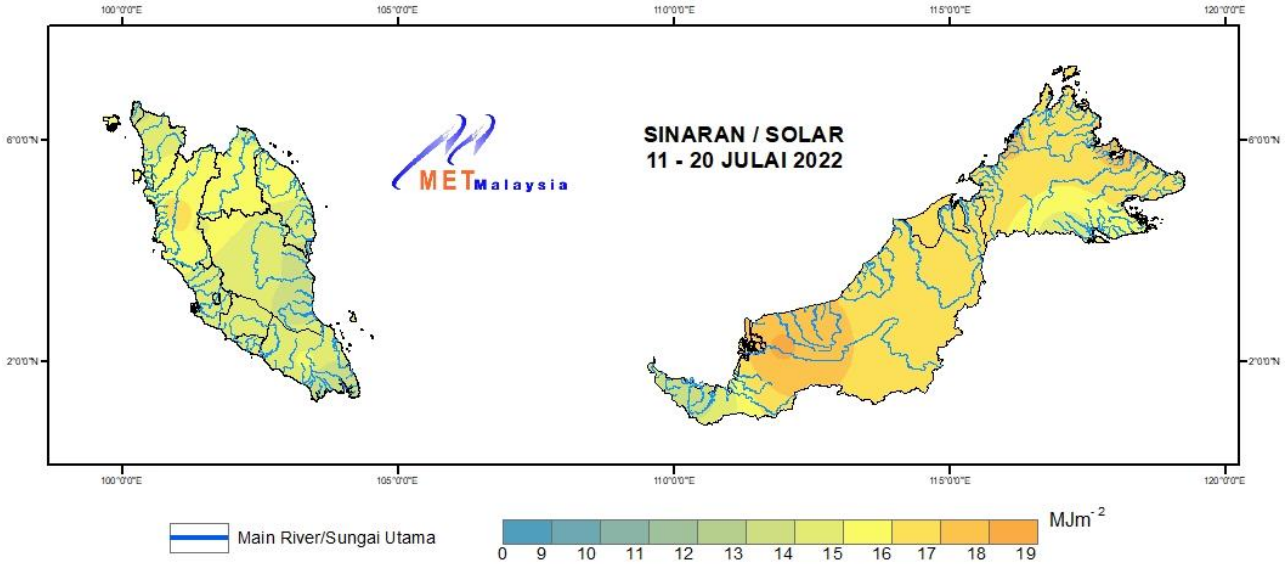

Figure 7: Solar

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