

BULETIN METEOROLOGI PERTANIAN 10 HARI

DEKAD KETIGA DISEMBER 2020

(21hb – 31hb Disember 2020)

10 DAYS AGROMETEOROLOGICAL BULLETIN

THIRD DECADE OF DECEMBER 2020

(21st – 31th December 2020)

PENDAHULUAN / INTRODUCTION

Pada dekad ketiga Disember (21hb – 31hb Disember 2020), Negara berada dalam fasa Monsun Timur Laut (MTL) yang telah bermula pada 11 November dan dijangka berterusan sehingga Mac 2021. MTL ini bercirikan aliran angin dari arah timur laut secara berterusan dan dalam tempoh ini negara biasa menerima empat hingga enam episod hujan lebat. Semasa fasa awal MTL iaitu sehingga awal Januari 2021, episod hujan lebat berlaku di Kelantan, Terengganu, Pahang dan Johor. Hujan lebat berterusan untuk tempoh beberapa hari boleh mengakibatkan kejadian banjir di kawasan-kawasan berkedudukan rendah dan mempunyai sistem saliran yang kurang baik.

In the third decade of December (21st – 31th December 2020), the country is in the Northeast Monsoon (MTL) phase which has started on November 11 and is expected to continue until March 2021. This MTL is characterized by continuous northeast wind flow and during this period the country normally receives four to six episodes of heavy rainfall. During the initial phase of MTL, which is until the beginning of January 2021, episodes of heavy rain occurred in Kelantan, Terengganu, Pahang and Johor. Heavy rains that continue for several days can result in floods in low-lying areas and areas with poor drainage systems.

HUJAN / RAINFALL

Merujuk Rajah 1, secara amnya banyak kawasan di Semenanjung merekodkan peratusan anomali hujan pada paras purata kecuali di Perak, Kelantan dan Terengganu merekodkan peratusan anomali hujan 20 – 60 % di bawah paras purata. Manakala Kedah, Perlis,

Selangor, Negeri Sembilan, tenggara Johor dan pedalaman Pahang merekodkan peratusan anomali hujan 20 – 60 % di atas paras purata. Di Sarawak kebanyakan kawasan merekodkan peratusan anomali hujan 20 – 60 % di bawah paras purata kecuali timur Sarawak merekodkan peratusan anomali hujan 20 – 60 % di atas paras purata. Di Sabah pula, kebanyakan kawasan juga merekodkan peratusan anomali hujan 20 – 60 % di atas paras purata kecuali Tawau merekodkan peratusan anomali hujan pada paras purata.

Berdasarkan Rajah 2, terdapat tujuh (7) kawasan yang merekodkan bacaan jumlah hujan melebihi 120mm iaitu di Petaling Jaya (147mm) dan F. R. I Kepong (124mm) di Selangor, Stesen Haiwan Jelai Gemas (133mm) di Negeri Sembilan, Temerloh (149mm) di Pahang, Stesen MARDI Jerangau (145mm) di Terengganu serta Johor Bahru (143mm) dan Mersing (229mm) di Johor yang merekodkan jumlah hujan tertinggi dengan 6 hari pencerapan. Mersing juga merekodkan jumlah hujan harian tertinggi pada dekad ini dengan bacaan sebanyak 130.6 mm yang dicerap pada 31 haribulan. Terdapat tiga (3) kawasan yang merekodkan jumlah hujan yang kurang iaitu di Pulau Langkawi (4mm) dan Stesen Pertanian Teluk Chengai (6mm) di Kedah serta Stesen MARDI Sungai Baging (9mm) di Pahang.

Di Sabah, terdapat tiga (3) kawasan yang merekodkan bacaan jumlah hujan melebihi 200mm iaitu di Kota Kinabalu (236mm), Kudat (249mm) dan Labuan (212mm) yang merekodkan jumlah hujan paling tinggi dengan 9 hari pencerapan hujan. Labuan merekodkan hujan harian tertinggi dengan bacaan sebanyak 142.6 mm yang dicerap pada 22 haribulan.

Di Sarawak pula, terdapat hanya satu (1) kawasan yang merekodkan jumlah hujan melebihi 100 mm iaitu di Bintulu (107mm) yang merekodkan jumlah hujan paling tinggi dengan 10 hari pencerapan hujan. Bintulu juga merekodkan hujan harian tertinggi dengan bacaan sebanyak 47.0 mm yang dicerap pada 25 haribulan.

Referring to Figure 1, in general, many areas in the Peninsula recorded the percentage of rainfall anomalies at an average except in Perak, Kelantan and Terengganu recorded the percentage of rainfall anomalies 20 – 60 % below average. Meanwhile, Kedah, Perlis, Selangor, Negeri Sembilan, southeastern Johor and the interior of Pahang recorded a percentage of rainfall anomalies of 20 – 60 % above average. In Sarawak most areas recorded a rainfall anomaly percentage of 20 – 60 % below average except eastern Sarawak

recorded a rainfall anomaly percentage of 20 – 60 % above average. In Sabah, most areas also recorded a percentage of rainfall anomalies 20 – 60 % above average except Tawau which an average percentage of rainfall anomalies.

Based on Figure 2, there are seven (7) areas that recorded rainfall readings exceeding 120mm, namely in Petaling Jaya (147mm) and F. R. I Kepong (124mm) in Selangor, Haiwan Jelai Gemas Station (133mm) in Negeri Sembilan, Temerloh (149mm) in Pahang, MARDI Jerangau Station (145mm) in Terengganu as well as Johore Bahru (143mm) and Mersing (229mm) in Johore which recorded the highest rainfall with 6 days of observation. Mersing also recorded the highest daily rainfall this decade with a reading of 130.6 mm observed on 31st day of the month. There are three (3) areas that recorded less rainfall, namely in Pulau Langkawi (4mm) and Pertanian Teluk Chengai Station (6mm) in Kedah and MARDI Sungai Baging Station (9mm) in Pahang.

In Sabah, there are three (3) areas that recorded rainfall readings exceeding 200mm, namely in Kota Kinabalu (236mm), Kudat (249mm) and Labuan (212mm) which recorded the highest rainfall with 9 days of rainfall observations. Labuan recorded the highest daily rainfall with a reading of 142.6 mm observed on the 22nd day of the month.

In Sarawak, there was only one (1) area that recorded rainfall over 100 mm, namely in Bintulu (107mm) which recorded the highest rainfall with 10 days of rainfall observations. Bintulu also recorded the highest daily rainfall with a reading of 47.0 mm observed on the 25th of the month.

SUHU / TEMPERATURE

Merujuk Rajah 3 dan Rajah 4, kebanyakan kawasan tanah rendah menerima purata suhu harian antara 26.4 °C hingga 29.0 °C. Pada dekad ini, bacaan suhu tertinggi direkodkan di Stesen Pertanian Charok Padang (Kedah) dengan bacaan 36.0 °C manakala bacaan suhu terendah direkodkan di Stesen Pertanian Gajah Mati (Kedah) dengan bacaan 20.5 °C. Bagi kawasan tanah tinggi pula, julat suhu purata telah direkodkan di antara 13.6 °C hingga 24.2 °C di Cameron Highlands dengan suhu purata 18.7 °C.

Referring to Figure 3 and Figure 4, most lowland areas received average daily temperatures ranging from 26.4 °C to 29.0 °C. In this decade, the highest temperature reading was

recorded at Pertanian Charok Padang Station (Kedah) with a reading of 36.0 °C while the lowest temperature reading was recorded at Pertanian Gajah Mati Station (Kedah) with a reading of 20.5 °C. For highlands, the average temperature range has been recorded between 13.6 °C to 24.2 °C in Cameron Highlands with mean temperature 18.7 °C.

SEJATAN / EVAPORATION

Kebanyakan kawasan di Semenanjung secara umumnya merekodkan kadar purata sejatan harian antara 3.0 mm hingga 4.0 mm di mana Chuping (Perlis) mencatatkan bacaan tertinggi dengan bacaan sebanyak 5.2 mm manakala Cameron Highlands (Pahang) mencatatkan bacaan terendah iaitu 2.0 mm. Di Sabah dan Sarawak pula, kebanyakan stesen merekodkan bacaan dari 3.0 mm hingga 4.0 mm di mana Kota Kinabalu (Sabah) mencatatkan bacaan tertinggi iaitu 4.7 mm manakala Kuching (Sarawak) mencatatkan bacaan terendah iaitu 2.6 mm. Pada dekad ini, Kuala Krai (Kelantan) merekodkan kadar purata sejatan harian dengan nilai sisihan purata tertinggi iaitu +1.2mm manakala Melaka mencatatkan bacaan nilai sisihan purata harian terendah iaitu -2.2mm (Rujuk Rajah 5).

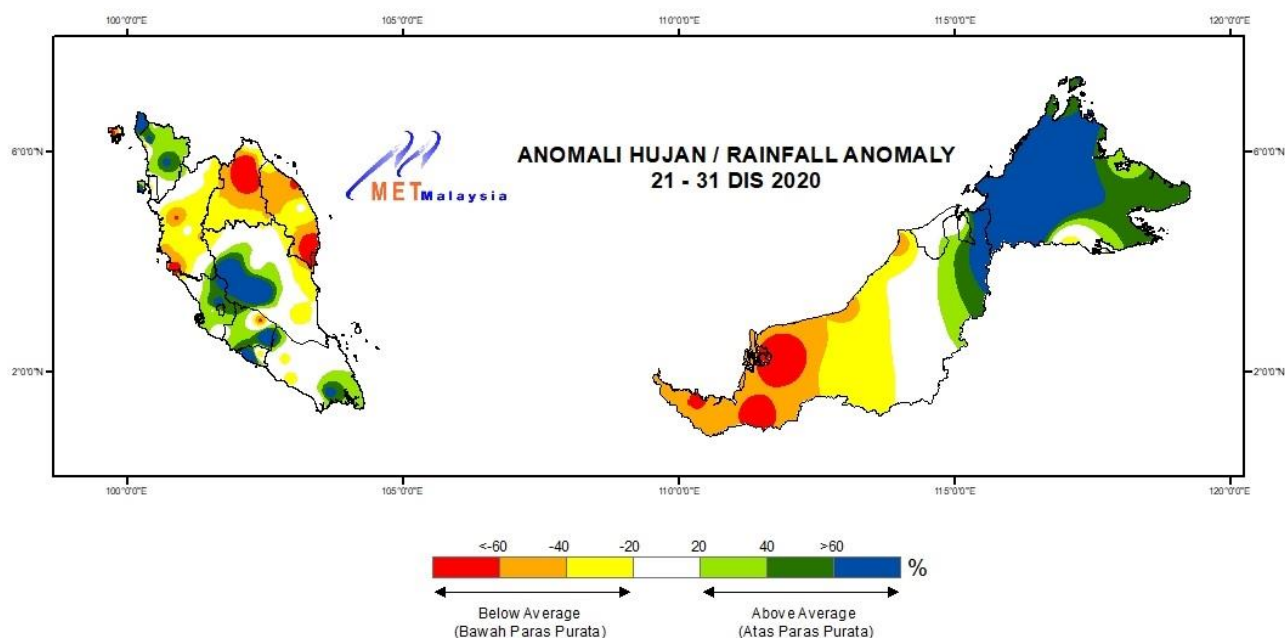
Most areas in the Peninsula generally recorded an average daily evaporation rates ranging from 3.0 mm to 4.0 mm where Chuping (Perlis) recorded the highest reading with a reading of 5.2 mm while Cameron Highlands (Pahang) recorded the lowest reading with a reading of 2.0 mm. In Sabah and Sarawak, most stations recorded readings from 3.0 mm to 4.0 mm where Kota Kinabalu (Sabah) recorded the highest reading with a reading of 4.7 mm while Kuching (Sarawak) recorded the lowest reading with a reading of 2.6 mm. In this decade, Kuala Krai (Kelantan) recorded an average daily evaporation rate with the highest average deviation value of +1.2mm while Malacca recorded the lowest daily average deviation value reading of -2.2 mm (Refer to Figure 5).

SINARAN SOLAR / SOLAR RADIATION

Pada dekad ini, kebanyakan tempat di Semenanjung merekodkan purata sinaran solar harian antara 16.0 MJm⁻² sehingga 19.0 MJm⁻² di mana Pulau Langkawi (Kedah) mencatatkan bacaan tertinggi dengan bacaan sebanyak 20.0 MJm⁻² manakala Kuala Krai

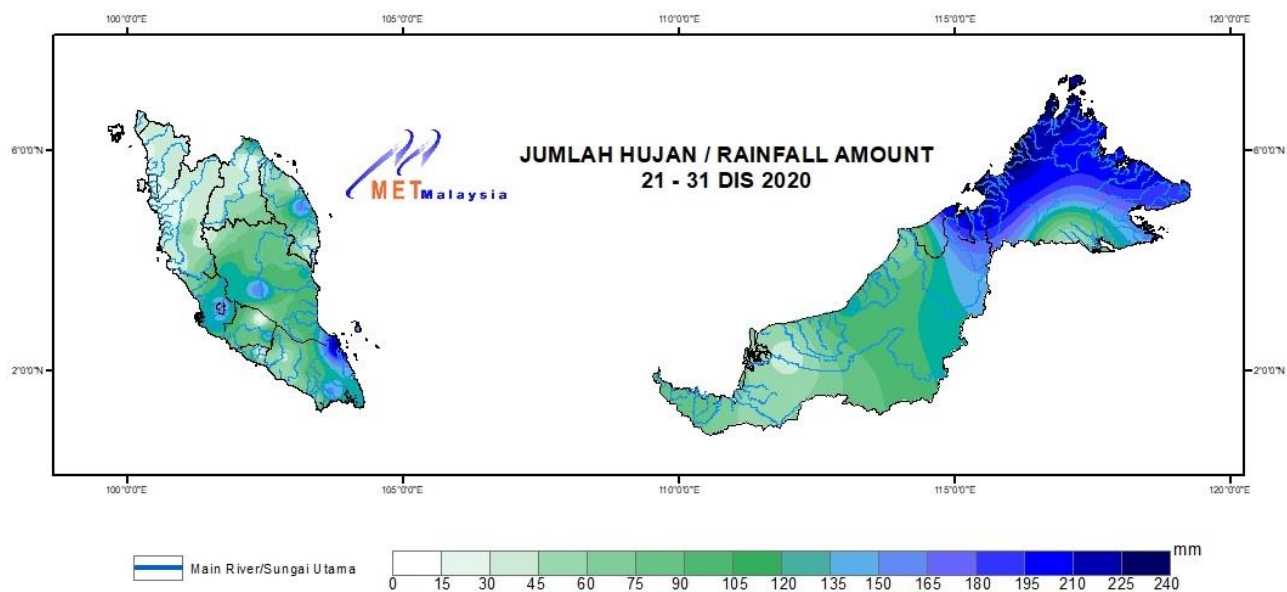
(Kelantan) mencatatkan bacaan terendah iaitu 14.5 MJm^{-2} . Bagi Sabah dan Sarawak pula, purata bacaan harian direkodkan antara 15.0 MJm^{-2} hingga 16.0 MJm^{-2} di mana Kota Kinabalu (Sabah) mencatatkan bacaan tertinggi sebanyak 17.2 MJm^{-2} manakala Kuching (Sarawak) mencatatkan bacaan terendah sebanyak 13.5 MJm^{-2} . Bagi kawasan tanah tinggi, Cameron Highlands mencatatkan bacaan sebanyak 17.8 MJm^{-2} (Rujuk Rajah 6).

In this decade, most places in the Peninsula recorded an average daily solar radiation between 16.0 MJm^{-2} to 19.0 MJm^{-2} where Pulau Langkawi (Kedah) recorded the highest reading with a reading of 20.0 MJm^{-2} while Kuala Krai (Kelantan) recorded the lowest reading with a reading of 14.5 MJm^{-2} . For Sabah and Sarawak, an average daily reading was recorded between 15.0 MJm^{-2} to 16.0 MJm^{-2} where Kota Kinabalu (Sabah) recorded the highest reading of 17.2 MJm^{-2} while Kuching (Sarawak) recorded the lowest reading of 13.5 MJm^{-2} . For highlands, Cameron Highlands recorded a reading of 17.8 MJm^{-2} (Refer to Figure 6).



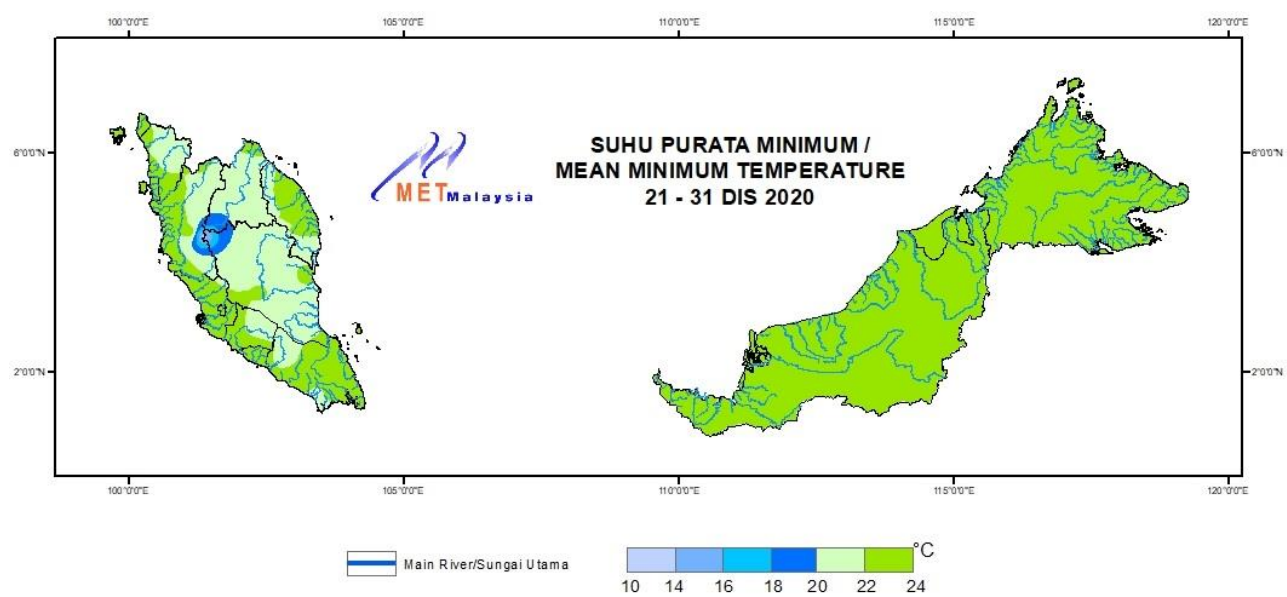
Rajah 1: Anomali Hujan

Figure 1: Rainfall Anomaly



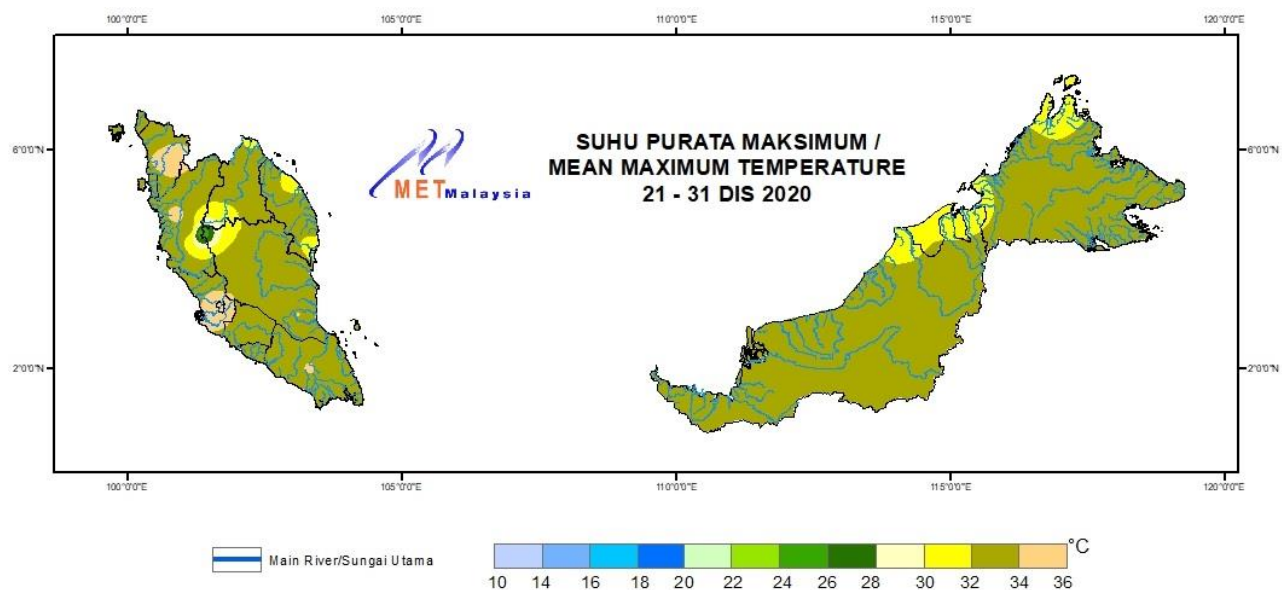
Rajah 2: Jumlah Hujan

Figure 2: Rainfall Amount



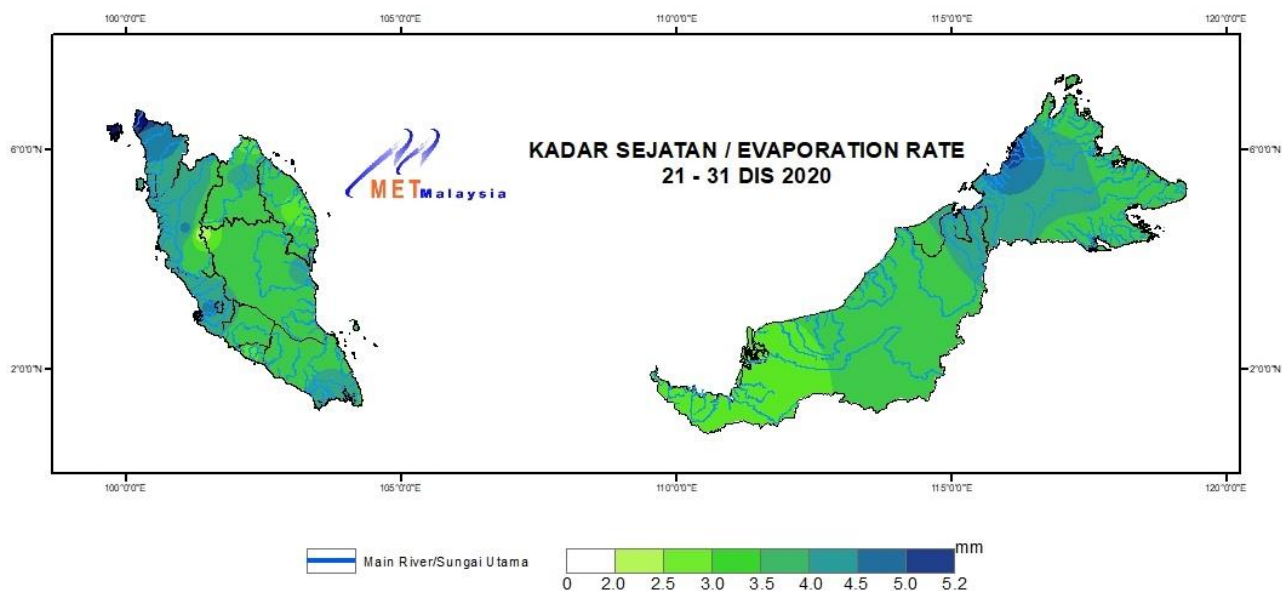
Rajah 3: Suhu Purata Minimum

Figure 3: Mean Minimum Temperature



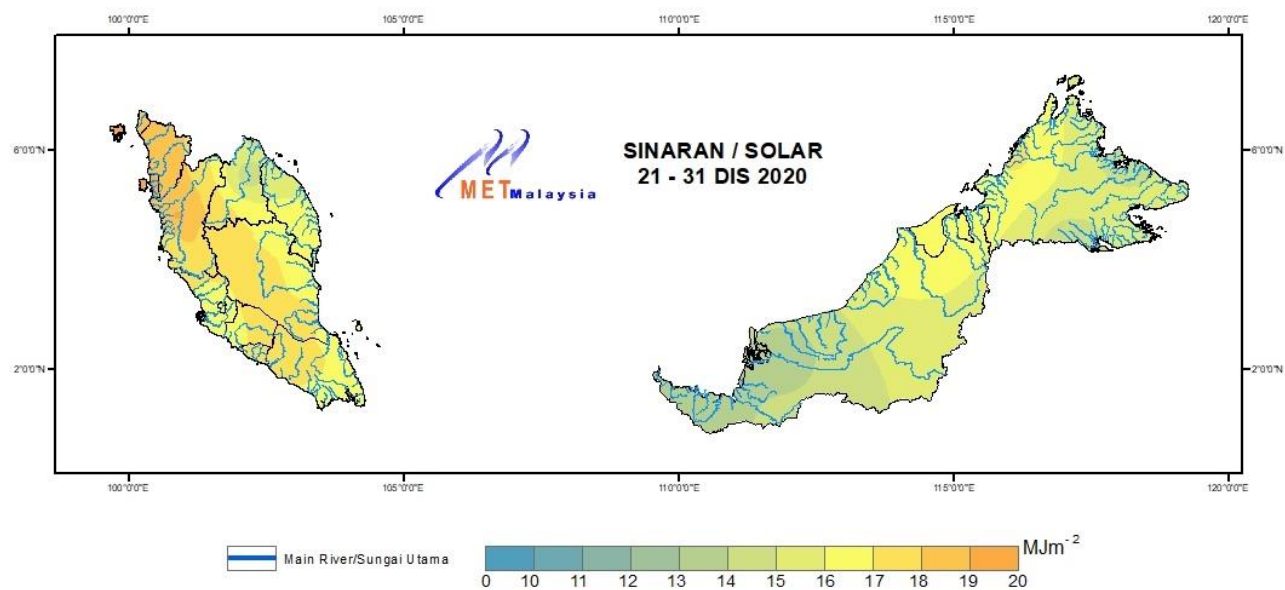
Rajah 4: Suhu Purata Maksimum

Figure 4: Mean Maximum Temperature



Rajah 5: Kadar Sejatan

Figure 5: Evaporation Rate



Rajah 6: Sinaran

Figure 6: Solar

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