



# Three-month Climate Prediction of Thailand

During May – July 2019  
Issued on 30 April 2019

MINISTRY OF DIGITAL ECONOMY AND SOCIETY,  
THAI METEOROLOGICAL DEPARTMENT

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## Climate Outlook

**1. During the next three months,** the total rain of Thailand will be mostly below normal, especially that around northern, eastern parts and the Southern Thailand (east coast) is to be 10% lower than normal. In other words, the total rain of the northern part will be about 415 – 500 millimeters (mm) (normal: 510 mm) whereas that of the eastern part is to be about 625 – 750 mm (normal: 763 mm) while that of the Southern Thailand (east coast) is to be around 305 – 380 mm (normal: 379 mm).

Furthermore, the total rain of the northeastern part, Bangkok Metropolis and Vicinity will be about 5% below normal or about 524 – 635 mm (normal: 617 mm) and 470 – 595 mm (normal: 554 mm) respectively.

Moreover, the total rain of central part, the Southern Thailand (west coast) is to be near normal (normal: 431 and 959 mm consecutively).

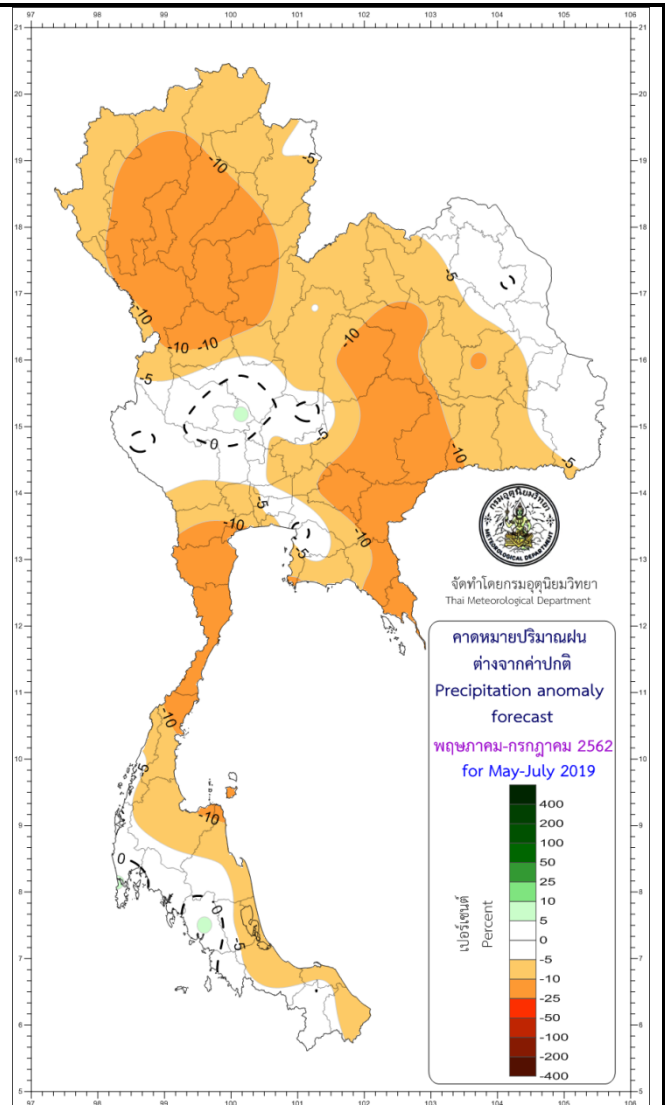
The mean temperature of the Upper Thailand will be above normal while the mean maximum temperature is to be about 34 – 35 °C. (Celsius degrees, normal: 33.6 °C.) whereas the mean minimum temperature is to be near 25 - 26 °C. (normal: 25.1 °C.). Additionally, the mean temperature of the Southern Thailand will be near normal while the mean maximum temperature is to be about 33 – 34 °C. (normal: 32.7 °C.) whereas the mean minimum temperature is to be near 24 – 25 °C. (normal: 24.5 °C.).

**2. In May 2019,** the total rain of the northern, eastern parts and the Southern Thailand (east coast) is expected to be 20% below normal. Whereas the total rain of the northeastern part, the Southern Thailand (west coast), Bangkok Metropolis and Vicinity will be 10% below normal while that of the central part is to be 5% below normal. In detail, the total rain of each part is as follows: the northern part about 140 – 180 mm, the northeastern part about 150 – 190 mm, the central part about 140 – 180 mm, the eastern part about 190 – 230 mm, the Southern Thailand (east coast) about 110 – 150 mm, the Southern Thailand (west coast) about 280 – 330 mm, Bangkok Metropolis and Vicinity about 200 – 250 mm.

The mean temperature of Thailand will be mostly above normal. In detail of the Upper Thailand, the mean maximum temperature is to about 35 – 37 °C. whereas the mean minimum temperature is to be about 24 – 26 °C. Nevertheless, the mean temperature of the Southern Thailand will be near normal. In detail of the Southern Thailand, the mean maximum temperature is to be about 33 – 35 °C. while the mean minimum temperature is to be about 22 – 24 °C.

**3. In June 2019,** the total rain of Thailand will be mostly near normal except that of the Southern Thailand (west coast) is to be 5% above normal. In detail, the total rain of all parts is as the following: the northern part about 140 – 180 mm, the northeastern part about 180 – 220 mm, the central part about 130 – 170 mm, the eastern part about 240 – 290 mm, the Southern Thailand (east coast) about 90 – 120 mm, the Southern Thailand (west coast) about 300 – 350 mm, Bangkok Metropolis and Vicinity about 140 – 180 mm.

The mean temperature of Thailand will be mostly above normal. In detail of the Upper Thailand, the mean maximum temperature is to 33 – 35 °C. while the mean minimum temperature is to be 24 – 26 °C. However, the mean temperature of the Southern Thailand will be near normal. In detail of the Southern Thailand, the mean maximum temperature is to be 32 – 34



°C. whereas the mean minimum temperature is to be 24 – 26 °C.

4. In July 2019, the total rain around the northern, northeastern parts, Bangkok Metropolis and Vicinity, the Southern Thailand (west coast) will be 5% above normal while that of the central, eastern parts, the Southern Thailand (east coast) is to be near normal. In detail, the total rain of each part is as follows: the northern part about 170 – 210 mm, the northeastern part about 200 – 250 mm, the central part about 140 – 180 mm, the eastern part about 250 – 300 mm, the Southern Thailand (east coast) about 100 – 140 mm, the Southern Thailand (west coast) about 300 – 350 mm, Bangkok Metropolis and Vicinity about 160 – 200 mm.

Meanwhile, the mean temperature of Thailand will be near normal. For the Upper Thailand, the mean maximum temperature will be 32 – 34 °C. while the mean minimum temperature is to be 24 – 26 °C. Moreover, for the Southern Thailand, the mean maximum temperature will be 32 – 34 °C. whereas the mean minimum temperature is to be 23 – 25 °C.

\* The information supporting this 3-month climate outlook is at Tables 1 & 2 on Pages 7 & 8:

### Thailand climate for May-June-July 2019 from 30-year normal (1981-2010 baseline average)

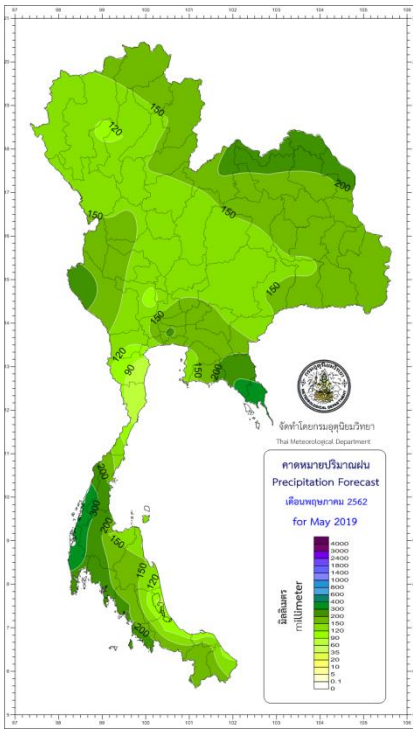
May 2019: As being the transitional period from the summer to the rainy seasons, the common weather during the 1<sup>st</sup> half of this month is usually sweltering. Also, thunder rain storms and summer thunderstorms occur often. Sometimes, hail happens too. And from the influential heat low-pressure air mass cells, mostly at the 2<sup>nd</sup> half of this month as the start of the rainy season, temperature will reduce with increasing rain. In other words, the prevailing wind over Thailand will start to transform into Southwest Monsoon while the low-pressure trough placing over Malaysia moves upward to place over the Southern Thailand and the central part of Thailand consecutively. Besides, some tropical cyclones developing in the Andaman Sea and the Bay of Bengal may move near or toward the western side of Thailand further.

June 2019: Usually, rainfall is abundant during the 1<sup>st</sup> half of this month from the influential Southwest Monsoon prevailing over Thailand together with the low-pressure trough placing over the central portion of Thailand. Afterward, rain will reduce and dry spell may occur for 1 - 2 weeks especially around the Upper Thailand due to the low-pressure trough moving upward to place over the southern portion of China including with the prevailing Southwest Monsoon over Thailand weakening. Additionally, some tropical cyclones from the Pacific Ocean or the South China Sea may feasibly move near or toward Thailand, specifically at the eastern portion of Thailand.

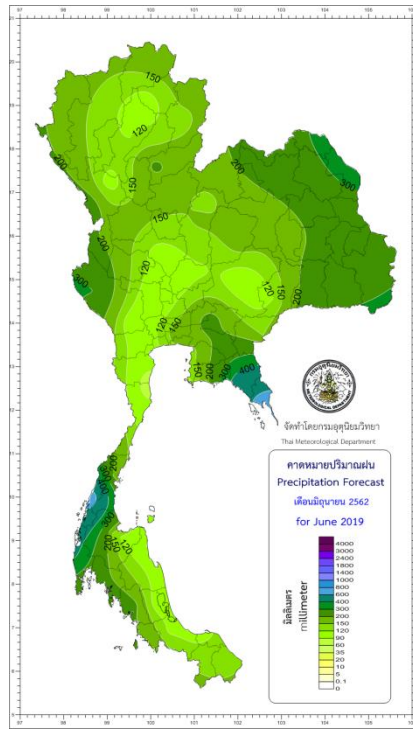
July 2019: During the 1<sup>st</sup> half of this month, the dry spell will often occur continuously from late June because the low-pressure trough still prevails over the southern portion of China along with the Southwest Monsoon prevailing over Thailand mostly weakens. As a result, many areas will meet little or no rain continuously for many days. Later during the 2<sup>nd</sup> half of this month, abundant rainfall will happen because of the low-pressure trough moving downward to place over the Upper Thailand again together with the Southwest Monsoon prevailing over Thailand becoming more active periodically. Additionally, some tropical cyclones may move near or toward Thailand along the eastern portion of Thailand.

Precipitation (mm/month) and Anomaly (mm/month) Forecast:

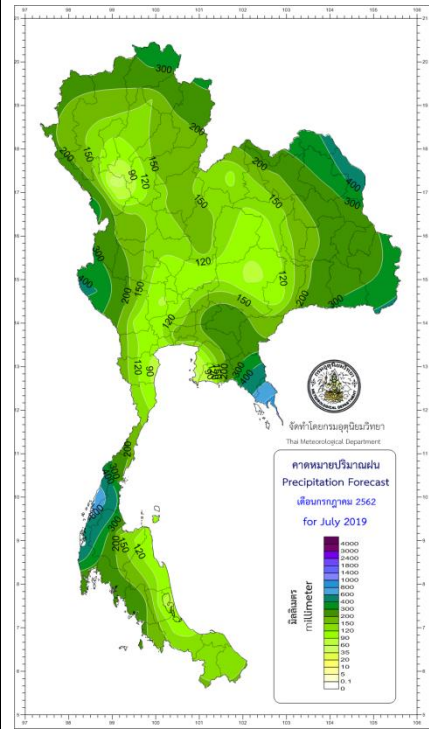
Precipitation forecast for May 2019



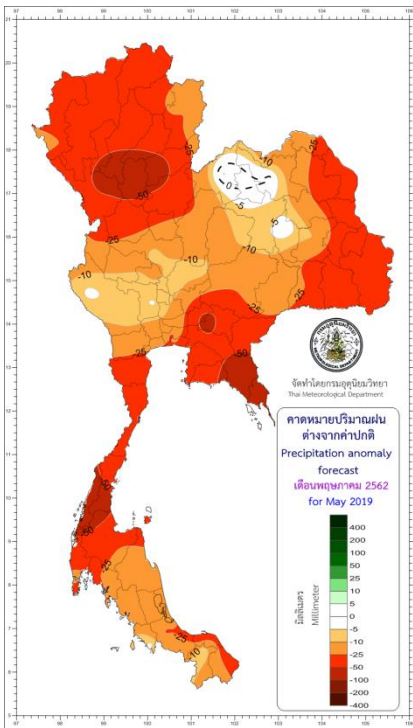
Precipitation forecast for June 2019



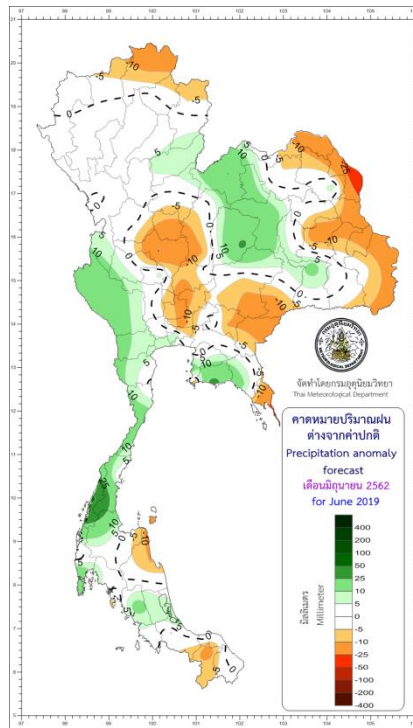
Precipitation forecast for July 2019



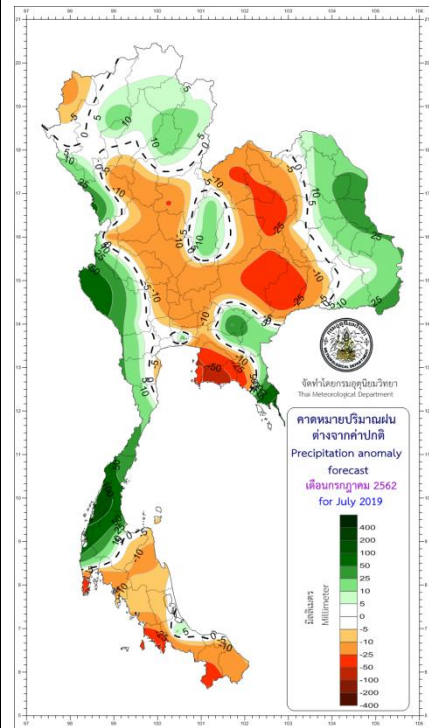
Precipitation anomaly forecast for May 2019



Precipitation anomaly forecast for June 2019

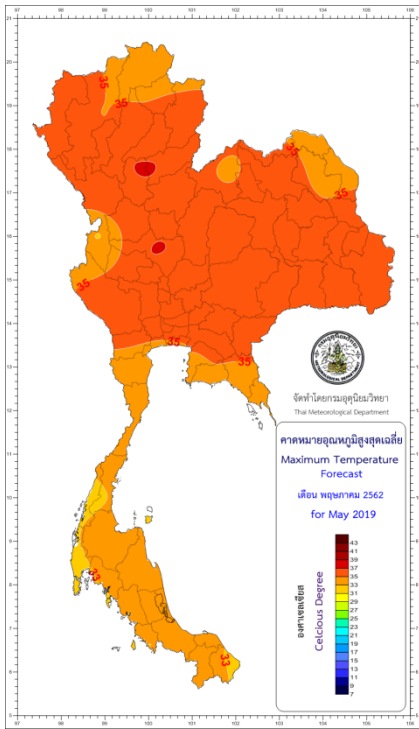


Precipitation anomaly forecast for July 2019

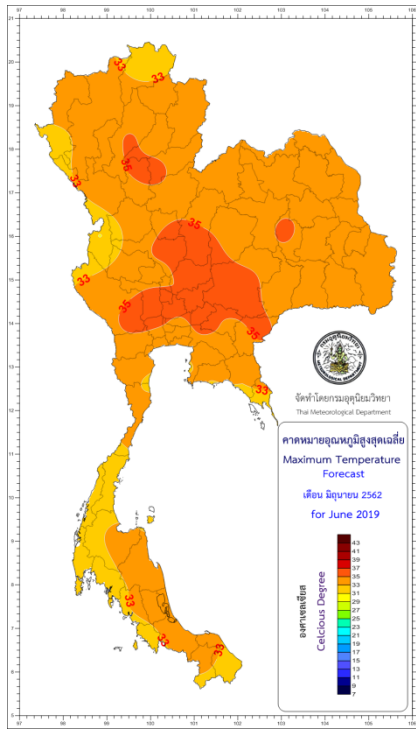


Mean Maximum Temperature (°C) and Anomaly (°C) Forecast:

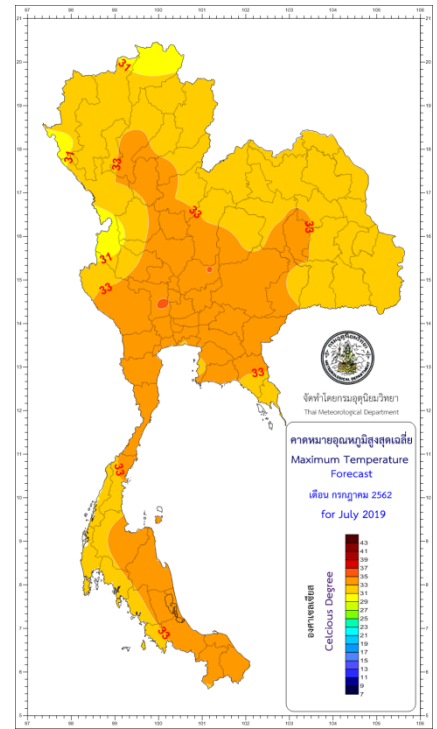
Mean maximum temperature forecast for May 2019



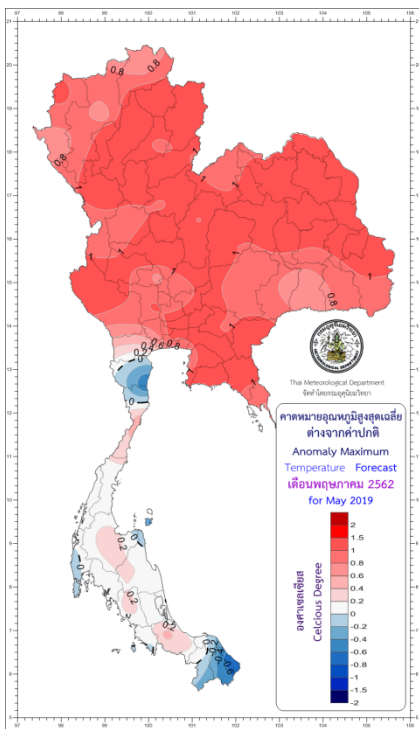
Mean maximum temperature forecast for June 2019



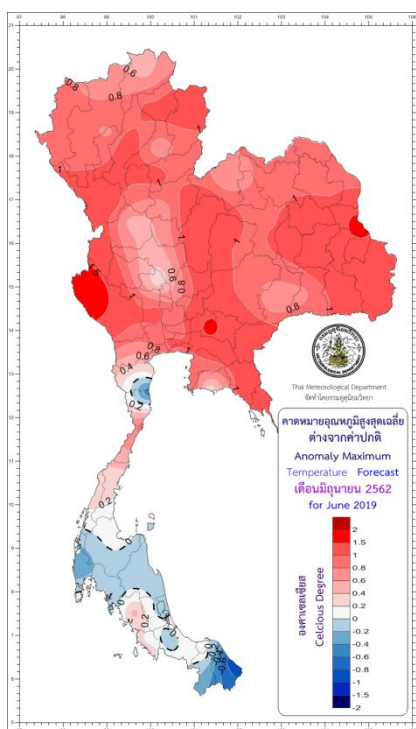
Mean maximum temperature forecast for July 2019



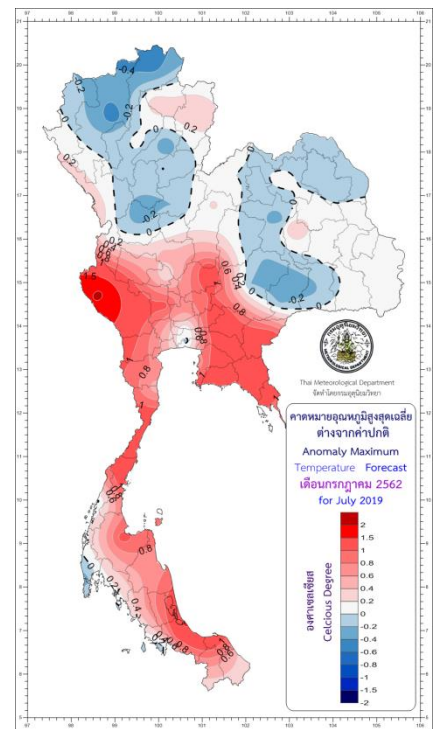
Mean maximum temperature anomaly forecast for May 2019



Mean maximum temperature anomaly forecast for June 2019

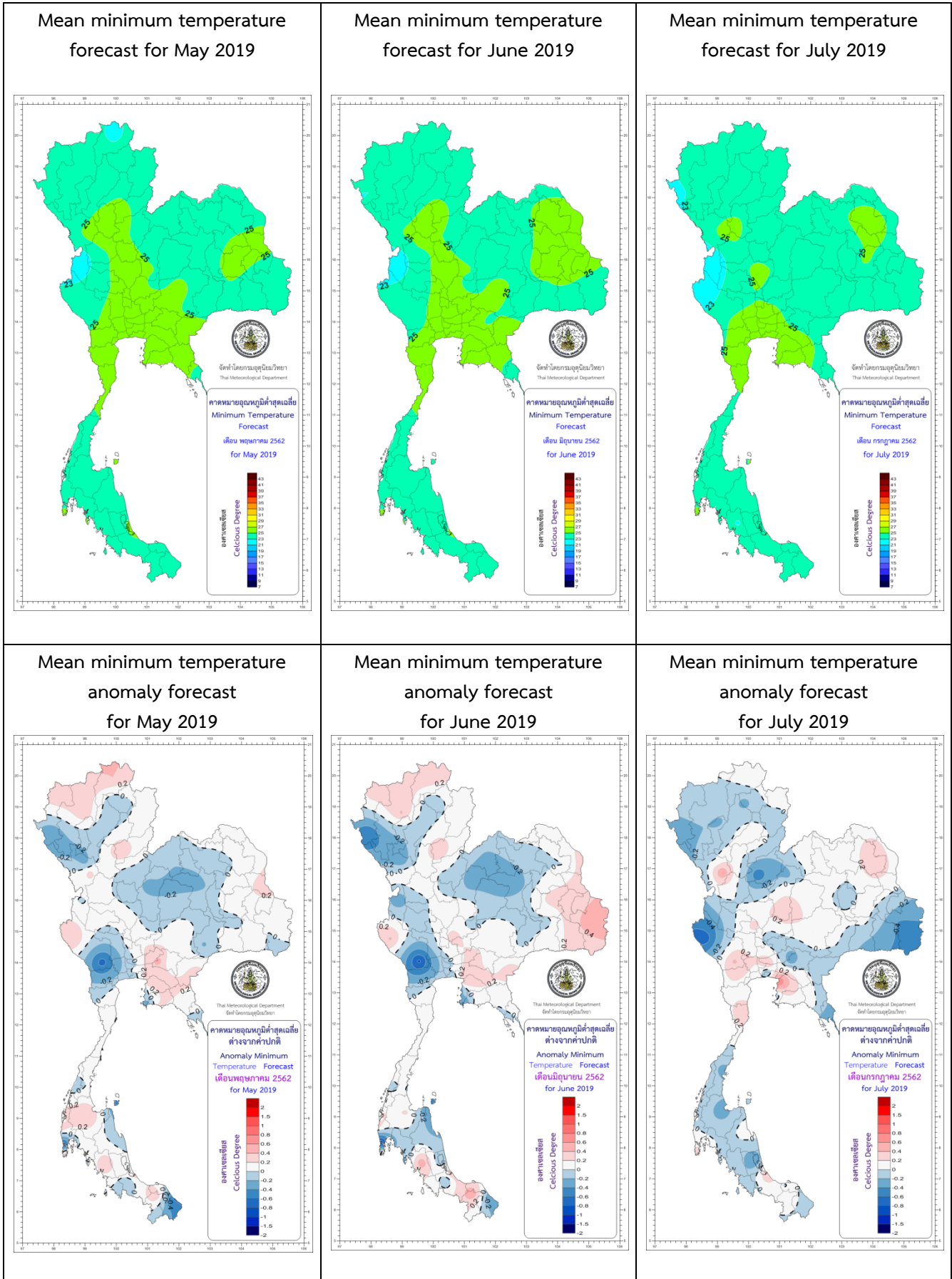


Mean maximum temperature anomaly forecast for July 2019





Mean Minimum Temperature (°C) and Anomaly (°C) Forecast:



\*\*\* Caution: \*\*\*

During May 2019: Some low-pressure air mass cells may develop around the Andaman Sea. Then, they may strengthen to become depressions or tropical cyclones further. Their movements are toward the western side of Thailand. Thus, the western portions of both of the northern and central parts including with the Southern Thailand will meet more rainfall.

During June & July 2019: Frequently, some tropical cyclones will develop at the Western Pacific and move pass the Philippines toward the South China Sea. This influences the Southwest Monsoon prevailing over Thailand and the Gulf of Thailand to strengthen causing Thailand to meet more rainfall, specifically around the coastal areas of the eastern part and the Southern Thailand (west coast).

During late June until early July 2019: Often, dry spell will occur as the amount and distribution of rainfall reduces immensely. Consequently, water shortage for agricultural utilization may happen at many areas, specifically at repeated drought areas outside irrigation zones.

Table 1: Prediction of Rain (mm = millimeters), Rainy Days (days) and comparing with normal:

Part	Prediction									Normal (Baseline period: 1981-2010)					
	May 2019			June 2019			July 2019			May		June		July	
	Rain (mm)	Rainy Days	Comparing with normal	Rain (mm)	Rainy Days	Comparing with normal	Rain (mm)	Rainy Days	Comparing with normal	Rain (mm)	Rainy Days	Rain (mm)	Rainy Days	Rain (mm)	Rainy Days
Northern	140-180	13-15	20 % Below Normal	140-180	16-18	Near Normal	170-210	18-20	5 % Above Normal	177.8	15.5	156.2	17.8	176.0	19.4
Northeastern	150-190	14-16	10 % Below Normal	180-220	15-17	Near Normal	200-250	16-18	5 % Above Normal	187.1	15.3	203.4	16.1	211.4	17.4
Central	140-180	13-15	5 % Below Normal	130-170	14-16	Near Normal	140-180	15-17	Near Normal	172.1	14.3	145.2	15.4	155.5	16.4
Eastern	190-230	14-16	20 % Below Normal	240-290	15-17	Near Normal	250-300	16-18	Near Normal	223.9	15.8	261.5	16.7	277.5	17.2
Southern Thailand (East Coast)	110-150	12-14	20 % Below Normal	90-120	13-15	Near Normal	100-140	13-15	Near Normal	143.7	14.3	113.0	13.7	118.9	14.5
Southern Thailand (West Coast)	280-330	18-20	10 % Below Normal	300-350	18-20	5 % Above Normal	300-350	19-21	5 % Above Normal	310.0	19.9	312.4	18.9	336.5	19.8
Bangkok Metropolis and Vicinity	200-250	15-17	10 % Below Normal	140-180	15-17	Near Normal	160-200	16-18	5 % Above Normal	247.7	16.2	157.1	16.2	175.1	17.1

Table 2: Prediction of Mean Maximum Temperature (Tmax) and Mean Minimum Temperature (Tmin) (°C) comparing with normal:

Part	Prediction									Normal (Baseline period: 1981-2010)					
	May 2019			June 2019			July 2019			May		June		July	
	Mean Tmax	Mean Tmin	Comparing with Normal	Mean Tmax	Mean Tmin	Comparing with Normal	Mean Tmax	Mean Tmin	Comparing with Normal	Mean Tmax	Mean Tmin	Mean Tmax	Mean Tmin	Mean Tmax	Mean Tmin
Northern	34-36	23-25	Above Normal	33-35	23-25	Above Normal	31-33	23-25	Near Normal	34.7	24.2	33.0	24.3	32.1	24.0
Northeastern	34-36	24-26	Above Normal	34-35	24-26	Above Normal	32-34	24-26	Near Normal	34.4	24.8	33.4	24.9	32.8	24.6
Central	35-37	24-26	Above Normal	34-36	24-26	Above Normal	33-35	24-26	Above Normal	35.2	25.7	34.0	25.5	33.4	25.1
Eastern	34-36	25-27	Above Normal	33-35	25-27	Above Normal	32-34	24-26	Above Normal	33.7	25.8	32.8	25.7	32.2	25.3
Southern Thailand (East Coast)	33-35	24-26	Near Normal	32-34	24-26	Near Normal	33-35	23-25	Above Normal	33.5	24.9	33.1	24.7	32.8	24.4
Southern Thailand (West Coast)	32-34	20-22	Near Normal	31-33	24-26	Near Normal	31-33	23-25	Near Normal	32.7	24.6	32.0	24.6	31.7	24.3
Bangkok Metropolis and Vicinity	34-36	25-27	Above Normal	34-36	25-27	Above Normal	32-34	25-27	Near Normal	34.4	26.3	33.6	26.1	33.2	25.7

**Remarks:** - Normal means average during the 30-year period (A.D. 1981 – 2010 or B.E. 2524 – 2553).

- This long-range climate forecast is created by applying some climate models and statistical methods, the public then should follow the daily weather forecast news from the Thai Meteorological Department for more accuracy further.
- The next 3-month climate forecast will be published online before the end of May 2019.
- Further enquiry of monthly climate, 3-month climate and seasonal forecasts can be preceded at Tel: (662)-398-9929 or Fax: (662)-383-8827.
- Also, please follow monthly climate, 3-month climate and seasonal forecasts at [www.tmd.go.th/en](http://www.tmd.go.th/en) at the **climate tab**.

Climate Center, Meteorological Development Division,  
Thai Meteorological Department,  
Ministry of Digital Economy and Society