



Three-month Climate Prediction of Thailand

During June – August 2019

Issued on 28 May 2019

MINISTRY OF DIGITAL ECONOMY AND SOCIETY,

THAI METEOROLOGICAL DEPARTMENT

(This document is best viewed by right click at this downloaded PDF file & open with Google Chrome; resizing by +,- buttons.)

Climate Outlook

1. During the next three months, the total rain of Thailand will be mostly below normal. Specifically, the total rain around central part is to be 10% below normal or around 365-450 millimeters (mm, normal: 452 mm).

Whereas the total rain of each part is as the following: northern part about 475-580 mm (normal: 555 mm), northeastern part about 605-730 mm (normal: 701 mm), eastern part about 720-880 mm (normal: 841 mm), the Southern Thailand (east coast) about 305-385 mm (normal: 358 mm), the Southern Thailand (west coast) about 900-1080 mm (normal: 1047 mm) and Bangkok Metropolis and Vicinity about 445-580 mm (normal: 536 mm).

Meanwhile, the mean temperature of the Upper Thailand will be above normal whereas the mean maximum temperature is to be 33-34 °C (normal: 32.8 °C) while the mean minimum temperature is to be 25-26 °C (normal: 24.9 °C).

Furthermore, the mean temperature of the Southern Thailand will be near normal whereas the mean maximum temperature is to be 32-33 °C (normal: 32.3 °C) while the mean minimum temperature is to be 24-25 °C (normal: 24.4 °C).

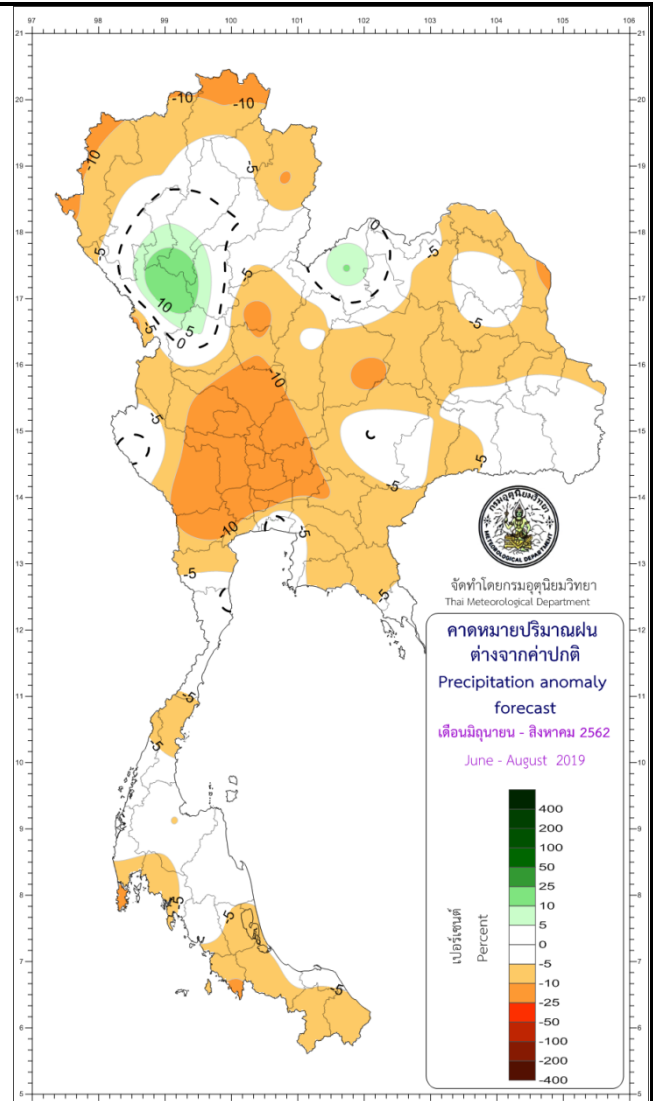
2. In June 2019, the total rain around the northeastern, central and eastern parts and the Southern Thailand (west coast) is expected to be 10% below normal while the total rain of the northern part, the Southern Thailand (east coast) and Bangkok Metropolis and Vicinity will be near normal. In fact, the total rain of each part is to be as the following: the northern part about 140-180 mm, the northeastern part about 170-210 mm, the central part about 110-150 mm, the eastern part about 210-260 mm, the Southern Thailand (east coast) about 100-140 mm, the Southern Thailand (west coast) about 260-310 mm and 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 be 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.

3. In July 2019, the total rain around Thailand will be mostly 10% below normal while that of the northeastern part is to be 5% below normal. In detail of the total rain for each part is as follows: the northern part about 140-180 mm, the northeastern part about 180-220 mm, the central part about 120-160 mm, the eastern part about 230-280 mm, the Southern Thailand (east coast) about 90-120 mm, the Southern Thailand (west coast) about 280-330 mm and Bangkok Metropolis and Vicinity about 140-180 mm.

Meanwhile, the mean temperature of Thailand will be above normal. For the Upper Thailand, the mean maximum temperature will be 33 – 35 °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 24 – 26 °C.

4. In August 2019, the total rain around the central part and the Southern Thailand (east coast) will be 10% above normal whereas that of Bangkok Metropolis and Vicinity is to be 5% above normal while that of the northeastern and eastern



part and the Southern Thailand (west coast) is to be near normal. In detail, the total rain of all parts are as follows: the northern part about 190-230 mm, the northeastern part about 240-290 mm, the central part about 140-180 mm, the eastern part about 280-330 mm, the Southern Thailand (east coast) about 90-120 mm, the Southern Thailand (west coast) about 350-450 mm and Bangkok Metropolis and Vicinity about 180-220 mm.

Furthermore, the mean temperature of Thailand will be mostly above normal. In detail of the Upper Thailand, the mean maximum temperature is to be 32-34 °C whereas the mean minimum temperature is to be 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 31-33 °C while 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 June-July-August 2019 from 30-year normal (1981-2010 baseline average)

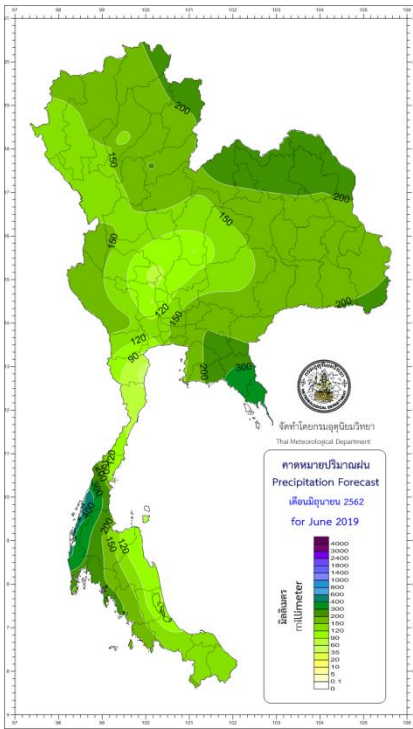
June 2019: Usually, rainfall is abundant during the 1st half of this month by the influential Southwest Monsoon prevailing over Thailand together with the low-pressure trough placing over the central portion of Thailand. Afterward, rain will reduce and dry spell may occur for 1 - 2 weeks especially around 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 further, specifically at the eastern portion of Thailand.

July 2019: During the 1st half of this month, the dry spell may 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 may meet little or no rain continuously for many days. Later during the 2nd 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.

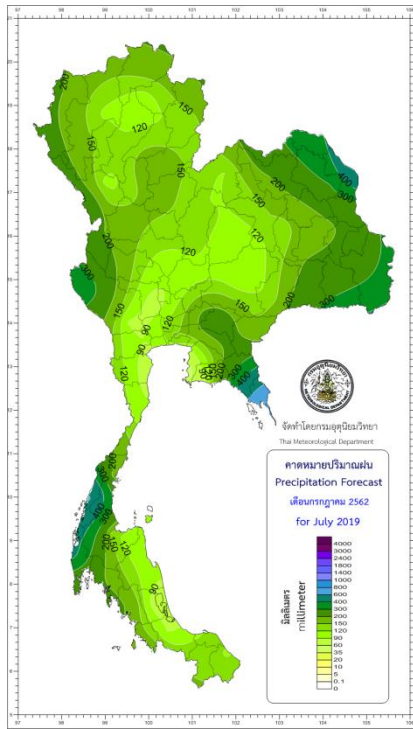
August 2019: Commonly, densely abundant rainfall often occurs in this month with more monthly rain amount than previous months each year. The reason is that the low-pressure trough places over the northern and northeastern parts of Thailand along with the active Southwest Monsoon prevails over Thailand periodically. Additionally, some tropical cyclones may move closer or toward the upper portion of both of the northern and northeastern parts more than other parts.

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

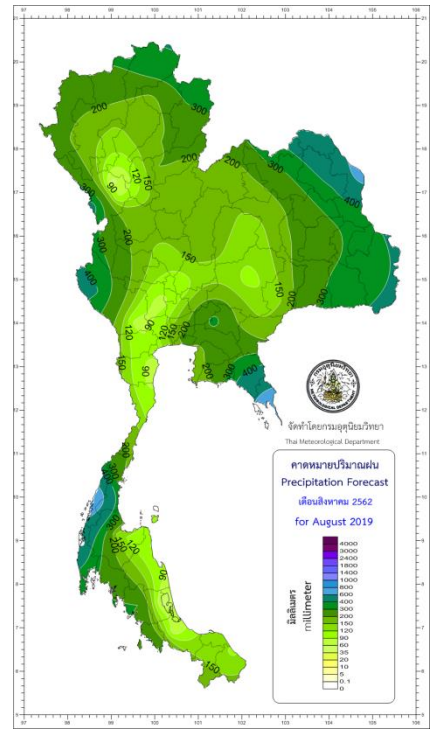
Precipitation forecast for June 2019



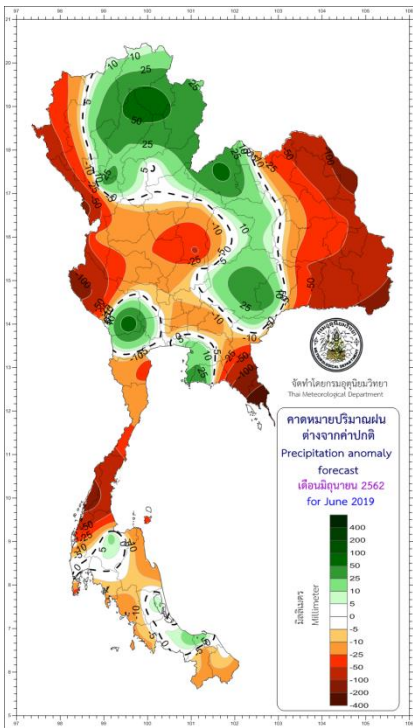
Precipitation forecast for July 2019



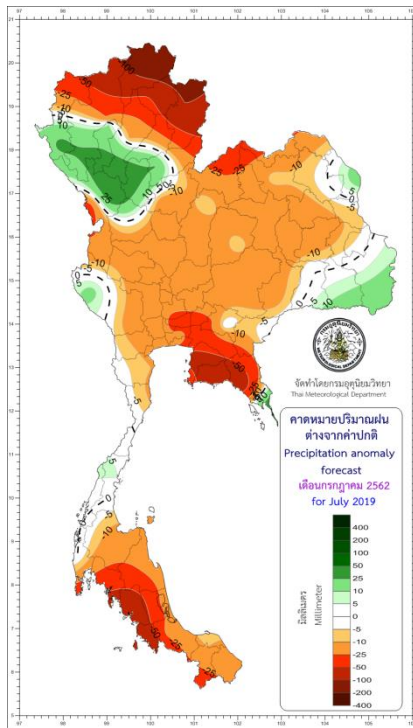
Precipitation forecast for August 2019



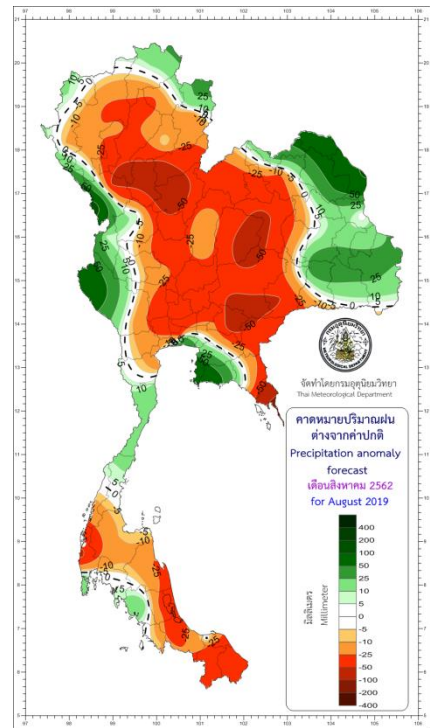
Precipitation anomaly forecast for June 2019



Precipitation anomaly forecast for July 2019

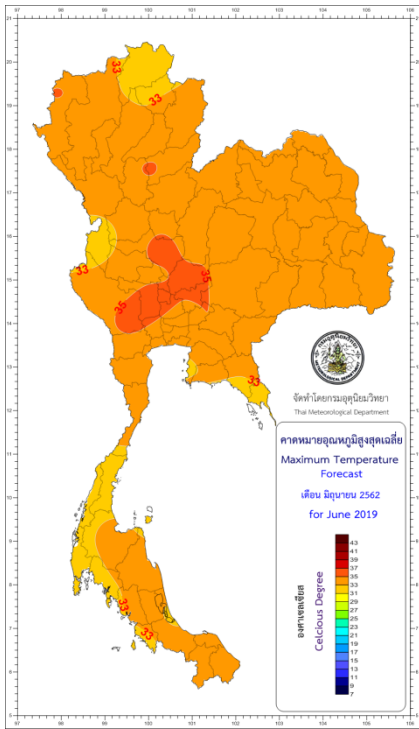


Precipitation anomaly forecast for August 2019

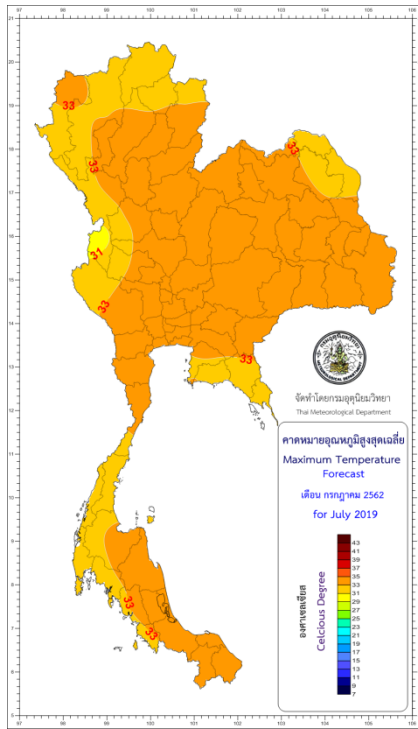


Mean Maximum Temperature (°C) and Anomaly (°C) Forecast:

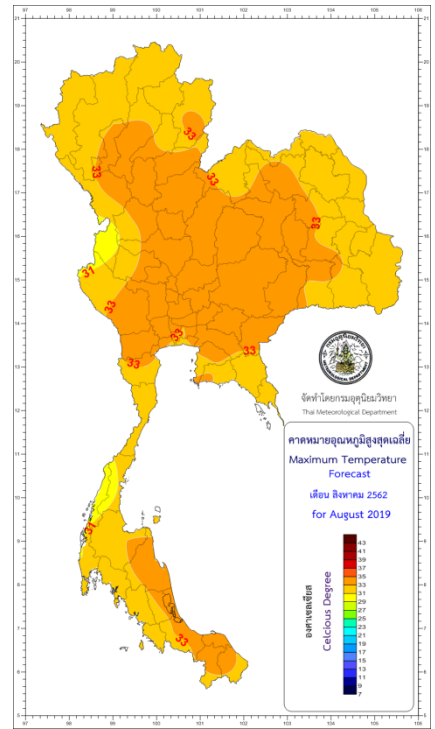
Mean maximum temperature forecast for June 2019



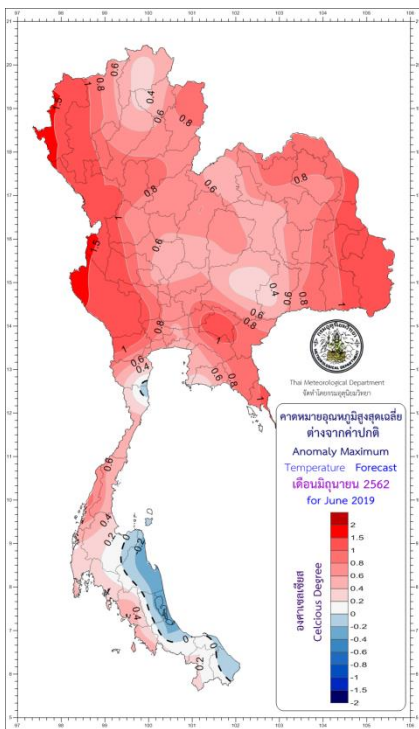
Mean maximum temperature forecast for July 2019



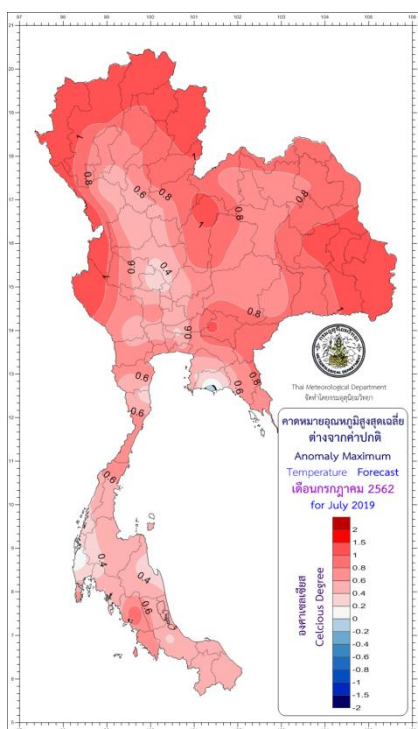
Mean maximum temperature forecast for August 2019



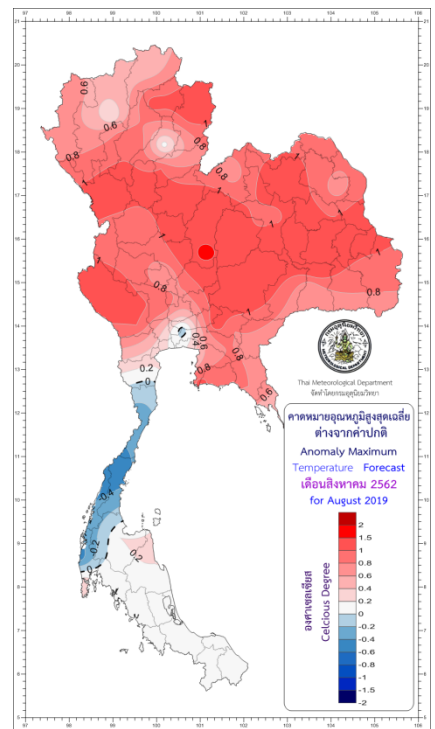
Mean maximum temperature anomaly forecast for June 2019



Mean maximum temperature anomaly forecast for July 2019

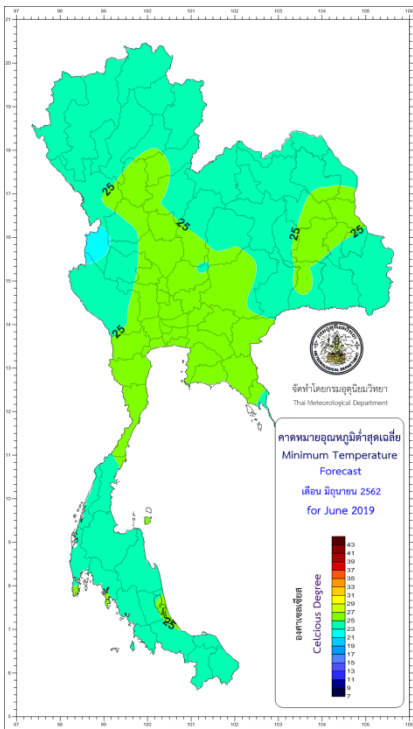


Mean maximum temperature anomaly forecast for August 2019

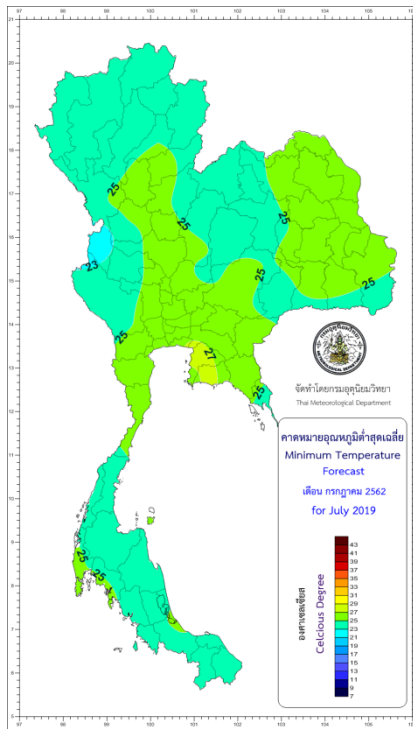


Mean Minimum Temperature (°C) and Anomaly (°C) Forecast:

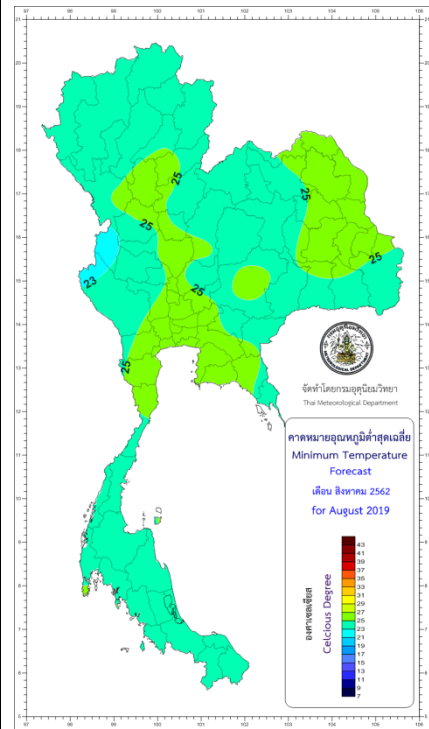
Mean minimum temperature forecast for June 2019



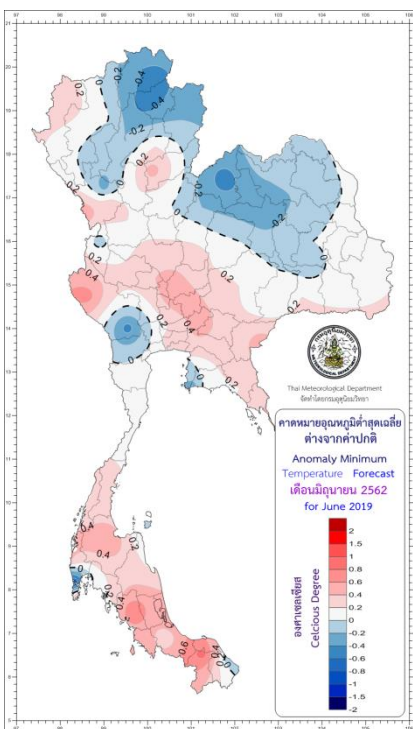
Mean minimum temperature forecast for July 2019



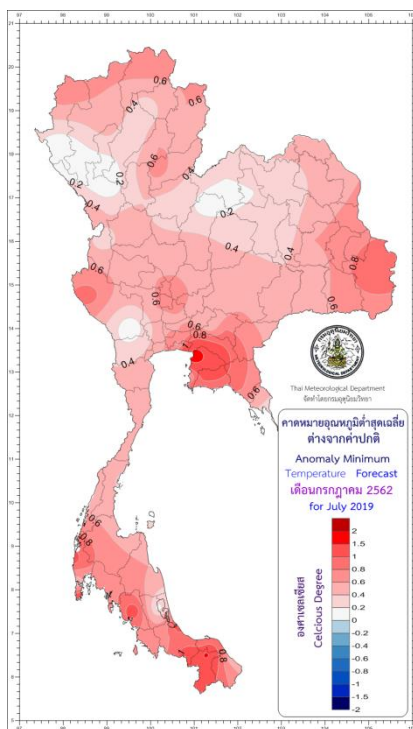
Mean minimum temperature forecast for August 2019



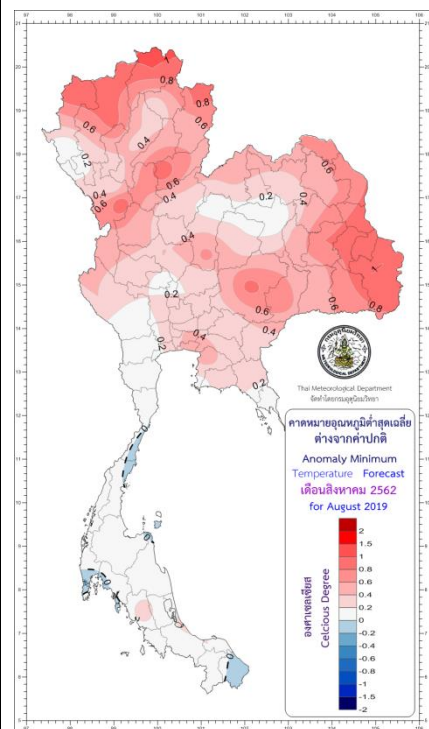
Mean minimum temperature anomaly forecast for June 2019



Mean minimum temperature anomaly forecast for July 2019



Mean minimum temperature anomaly forecast for August 2019



***** Caution: *****

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 prevailing Southwest Monsoon 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, the 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.

During August 2019: Normally, some tropical cyclones will often develop in the Northwest Pacific or the South China Sea. They favor a high chance to move near or pass the Upper Thailand. This will influence Thailand to meet dense rainfall together with heavy to very heavy rain amount at many areas. As a result, flash or forest flood with overflow will inundate at many areas. Then, the public should follow weather forecast news and warnings of tropical cyclones from the Thai Meteorological Department further.

The below Image illustrates 7 parts of Thailand with seasons and Monsoons or wind:

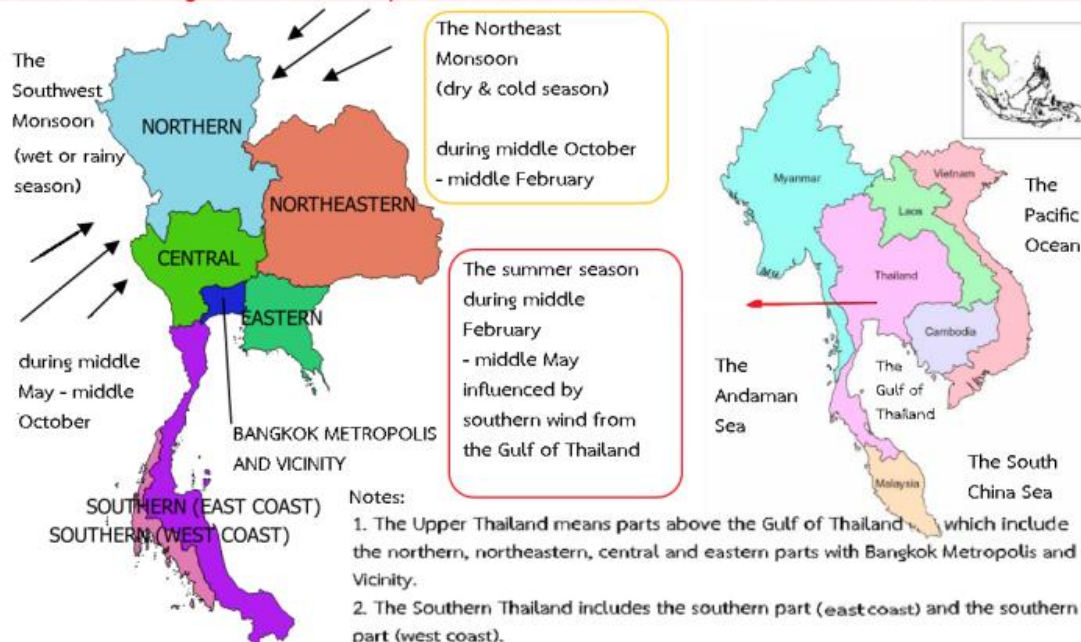


Table 1: Prediction of Rain (mm = millimeters) comparing with normal and Rainy Days (days):

Part	Prediction									Normal (Baseline period: 1981-2010)					
	June 2019			July 2019			August 2019			June		July		August	
	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	16-18	Near normal	140-180	18-20	10 % Below normal	190-230	20-22	5 % Below normal	156.2	17.8	176.0	19.4	223.0	21.0
Northeastern	170-210	15-17	10 % Below normal	180-220	16-18	5 % Below normal	240-290	18-20	Near normal	203.4	16.1	211.4	17.4	266.2	19.4
Central	110-150	14-16	10 % Below normal	120-160	15-17	10 % Below normal	140-180	17-19	10 % Below normal	145.2	15.4	155.5	16.4	181.1	18.2
Eastern	210-260	15-17	10 % Below normal	230-280	16-18	10 % Below normal	280-330	17-19	Near normal	261.5	16.7	277.5	17.2	302.5	18.4
Southern Thailand (East Coast)	100-140	13-15	Near normal	90-120	13-15	10 % Below normal	90-120	14-16	10 % Below normal	113.0	13.7	118.9	14.5	124.1	15.4
Southern Thailand (West Coast)	260-310	18-20	10 % Below normal	280-330	19-21	10 % Below normal	350-450	19-21	Near normal	312.4	18.9	336.5	19.8	398.5	20.5
Bangkok Metropolis and Vicinity	140-180	15-17	Near normal	140-180	16-18	10 % Below normal	180-220	18-20	5 % Below normal	157.1	16.2	175.1	17.1	211.3	19.1

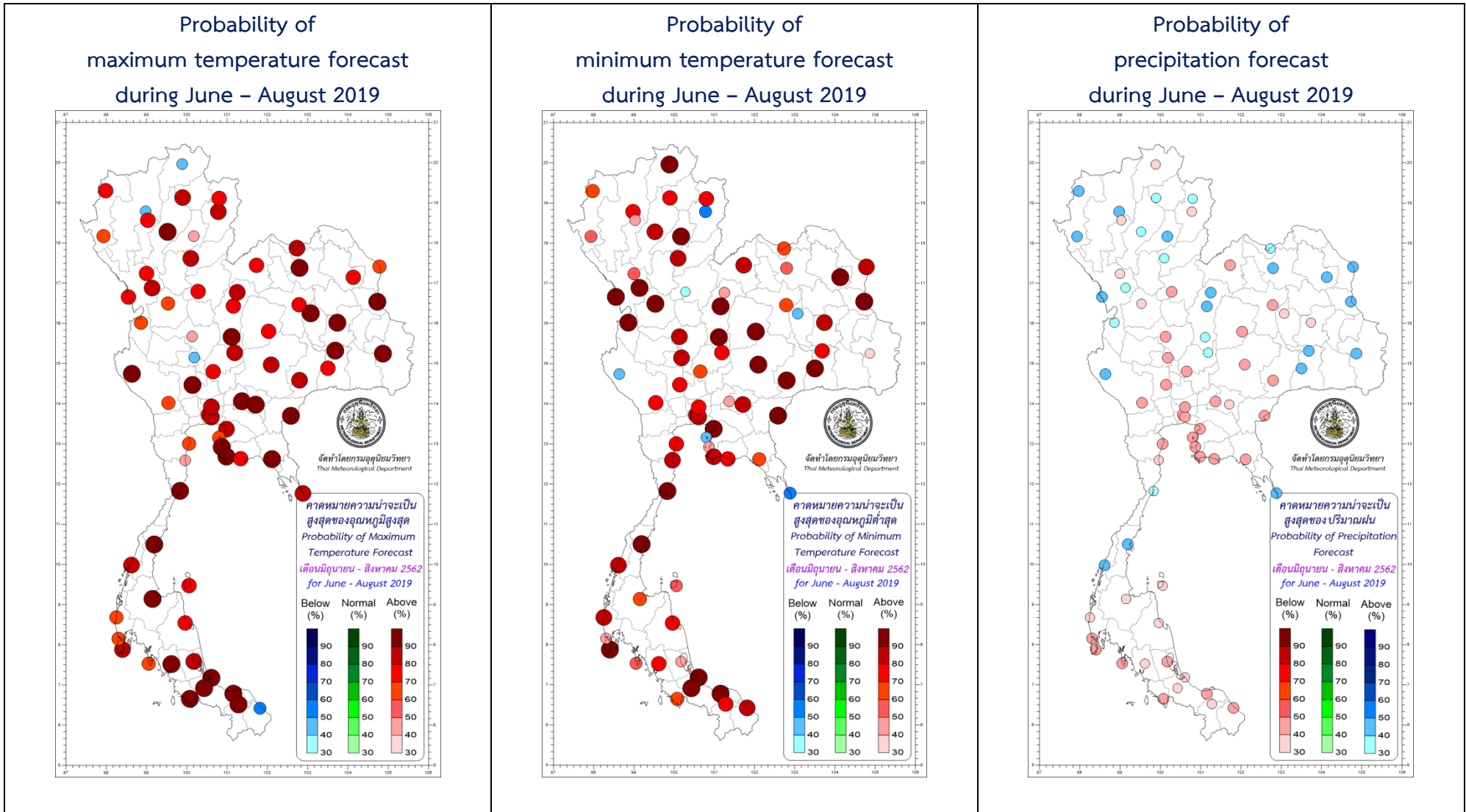
Table 2: Prediction of Mean Maximum Temperature (Tmax) and Mean Minimum Temperature (Tmin) (°C) and comparing (Mean Temperature (°C)) with normal:

Part	Prediction									Normal (Baseline period: 1981-2010)					
	June 2019			July 2019			August 2019			June		July		August	
	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	33-35	23-25	Above normal	32-34	23-25	Above normal	32-34	23-25	Above normal	33.0	24.3	32.1	24.0	31.8	23.8
Northeastern	33-35	24-26	Above normal	33-35	24-26	Above normal	32-34	24-26	Above normal	33.4	24.9	32.8	24.6	32.2	24.4
Central	34-36	24-26	Above normal	33-35	24-26	Above normal	33-35	24-26	Above normal	34.0	25.5	33.4	25.1	33.1	24.8
Eastern	32-34	25-27	Above normal	32-34	25-27	Above normal	32-34	24-26	Above normal	32.8	25.7	32.2	25.3	32.0	25.3
Southern Thailand (East Coast)	32-34	24-26	Near normal	32-34	24-26	Above normal	32-34	23-25	Near normal	33.1	24.7	32.8	24.4	32.8	24.2
Southern Thailand (West Coast)	32-34	20-22	Above normal	31-33	24-26	Above normal	30-32	23-25	Near normal	32.0	24.6	31.7	24.3	31.5	24.4
Bangkok Metropolis and Vicinity	33-35	25-27	Above normal	33-35	25-27	Above normal	32-34	25-27	Near normal	33.6	26.1	33.2	25.7	33.0	25.5

- Remarks:** 1) Normal means average during the 30-year period (A.D. 1981 – 2010 or B.E. 2524 – 2553). 2) 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.
3) The next 3-month climate forecast will be published online before the end of next month.
4) Further enquiry of monthly climate, 3-month climate and seasonal forecasts can be preceded at Tel: (662)-398-9929 or Fax: (662)-383-8827.
5) Also, please follow monthly climate, 3-month climate and seasonal forecasts at www.tmd.go.th/en at the **climate tab**.

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

Probability point maps of maximum, minimum temperature and precipitation forecast
 (Point maps for probability percentage (%) of: below normal, near normal or above normal)



Note: These maps are mean model forecasts for being included in this three-month climate prediction.