



MINISTRY OF DIGITAL ECONOMY AND SOCIETY,
THAI METEOROLOGICAL DEPARTMENT

3-month Climate Prediction of Thailand

During May – July 2021

Issued on 29 April 2021

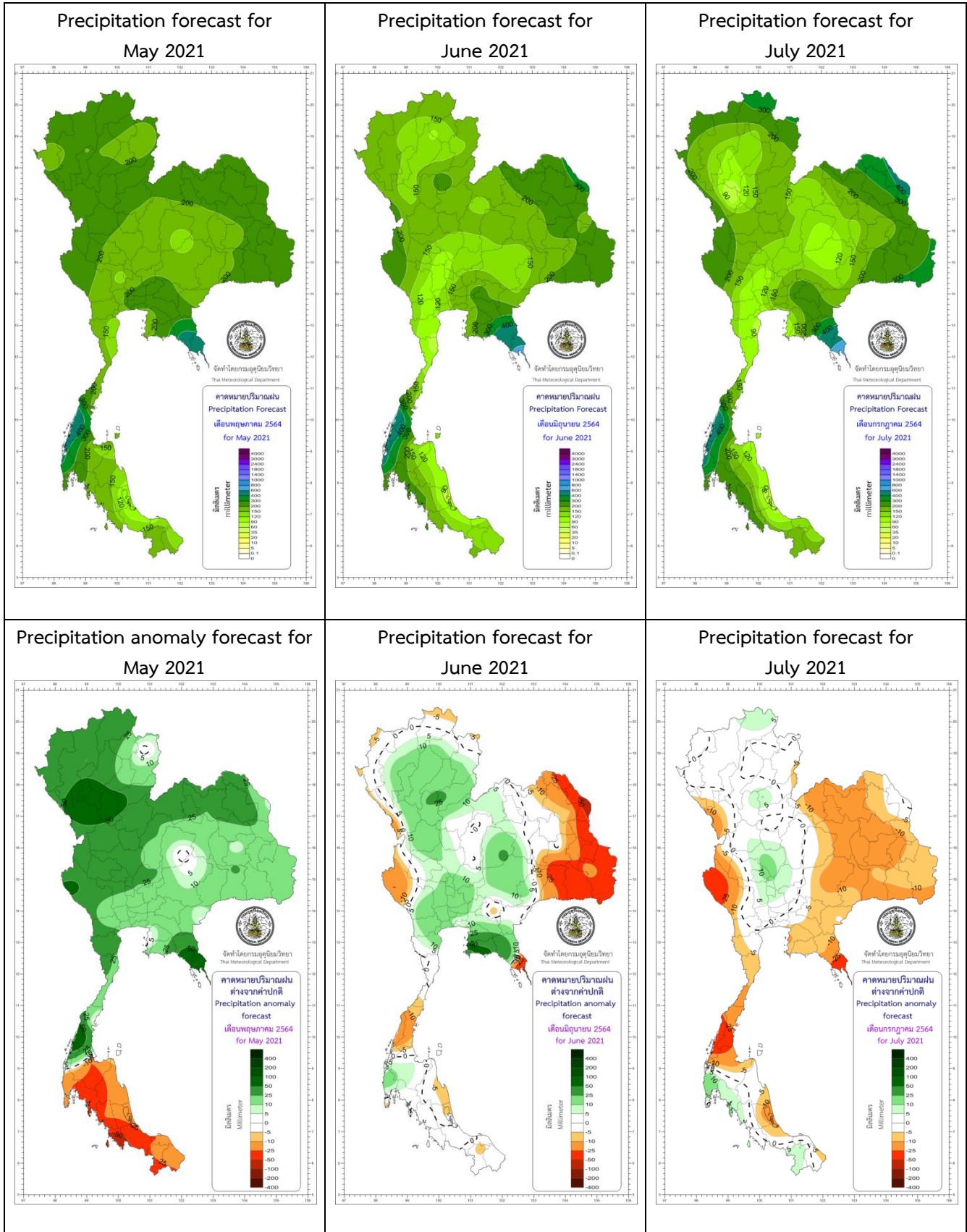
Thailand climate for May – June - July 2021 from baseline: 1981-2010

May 2021: As being the transitional period from the summer to the rainy seasons, the common weather during the 1st 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 2nd 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 the 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.

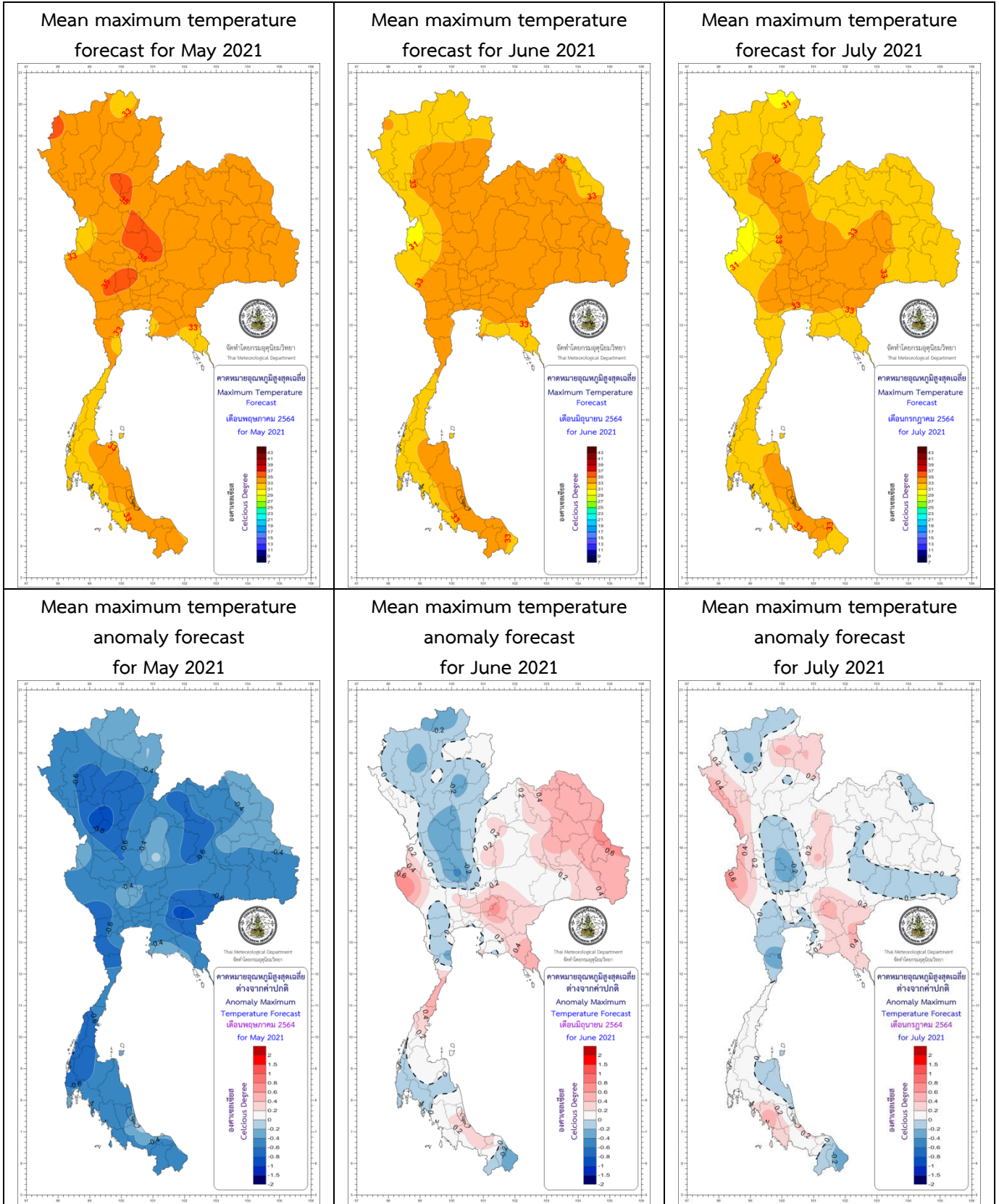
June 2021: Usually, rainfall is abundant during the 1st half of this month from the influential Southwest Monsoon prevailing over Thailand together with the low-pressure trough placing over the central portion of Thailand. Afterward, rain will reduce and dry spell may occur for 1 - 2 weeks especially 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 2021: During the 1st 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 2nd half of this month, abundant rainfall will happen again because of the coming back low-pressure trough moving downward to place over the Upper Thailand 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.

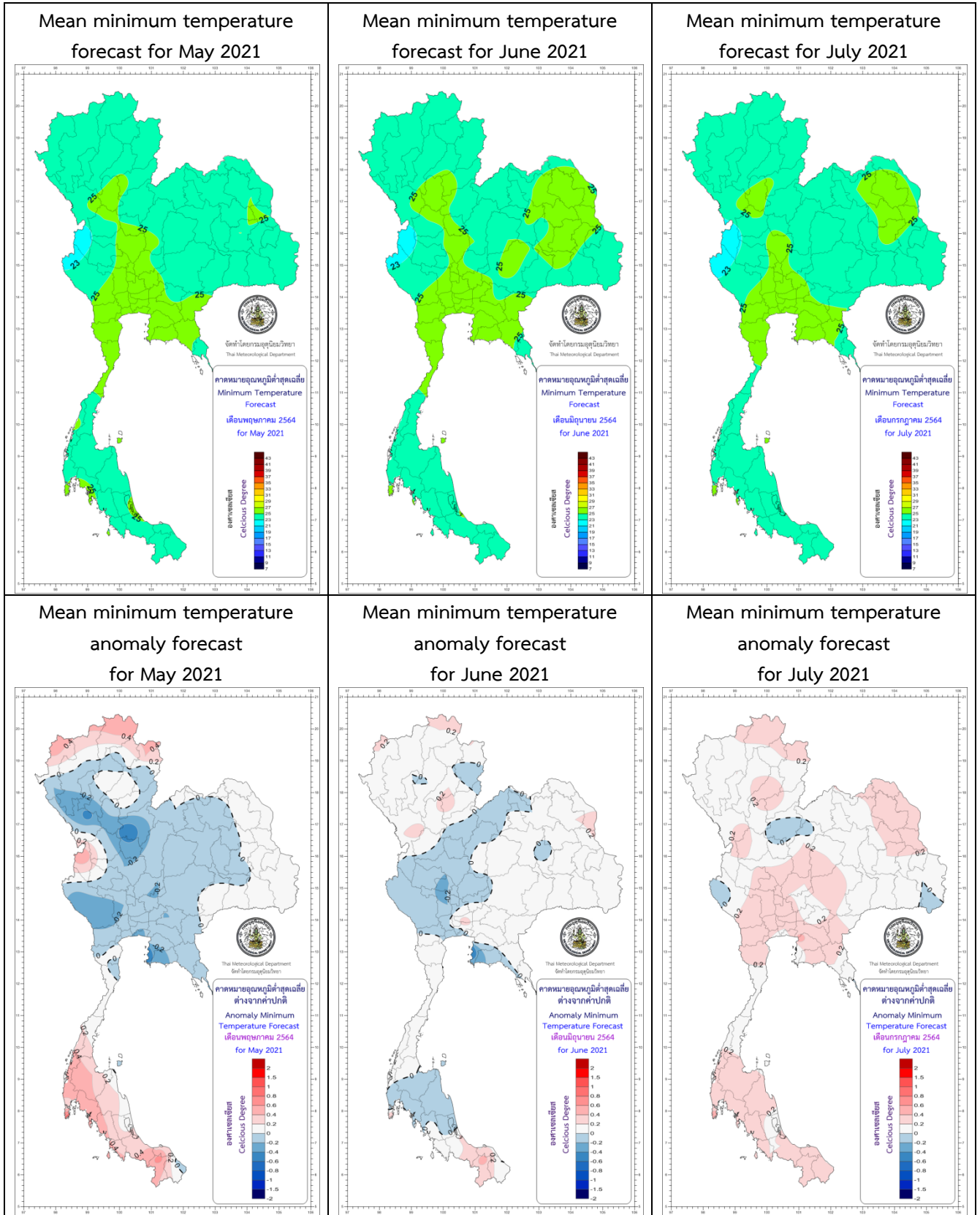
Precipitation (mm/month) and Anomaly (mm/month) Forecast:



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



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



*** Caution: ***

During May 2021: 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 2021: 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 2021: 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.

Below right Image source:

https://www.researchgate.net/figure/Study-area-the-Indochina-Peninsula-in-Monsoon-Southeast-Asia_fig5_296329477

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

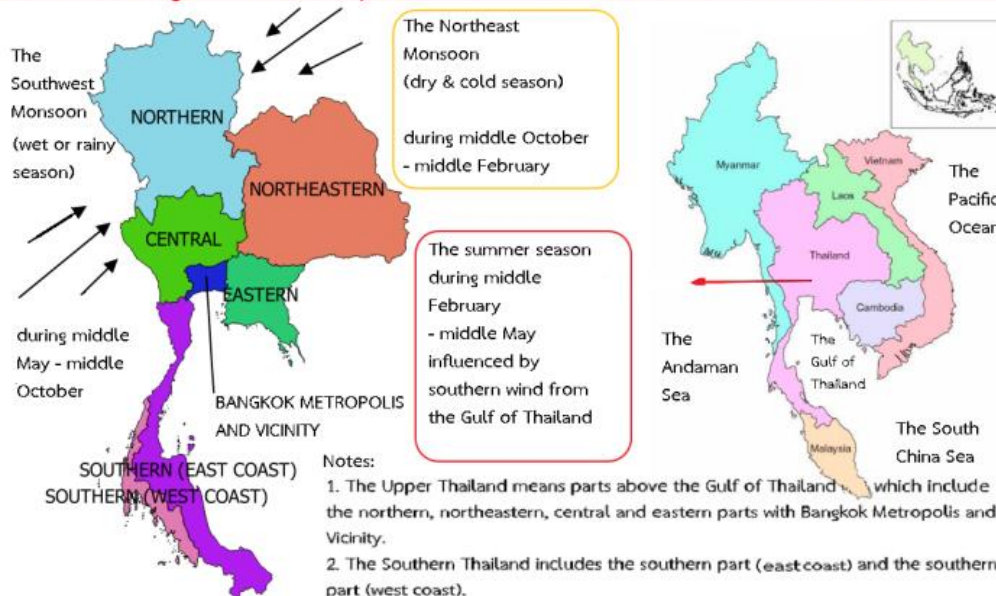


Table 1: Prediction of Rain (mm = millimeters), Rainy Days (days) and comparing with normal:

Part	Prediction									Normal (Baseline period: 1981-2010)					
	May 2021			June 2021			July 2021			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	190-230	16-18	20 % Above normal	140-180	17-19	5 % Above normal	150-190	18-20	Near normal	177.8	15.5	156.2	17.8	176.0	19.4
Northeastern	180-220	15-17	10 % Above normal	180-220	15-17	5 % Below normal	190-230	16-18	5 % Below normal	189.7	15.3	209.8	16.1	217.6	17.4
Central	160-200	14-16	20 % Above normal	120-160	14-16	5 % Above normal	130-170	15-17	Near normal	150.8	14.3	133.1	15.4	147.1	16.4
Eastern	210-260	15-17	10 % Above normal	240-290	16-18	5 % Above normal	240-290	16-18	5 % Below normal	223.9	15.8	261.5	16.7	277.5	17.2
Southern Thailand (East Coast)	120-160	13-15	5 % Below normal	100-140	13-15	Near normal	100-140	13-15	5 % Below normal	145.7	14.3	113.4	13.7	119.6	14.5
Southern Thailand (West Coast)	270-320	19-21	5 % Below normal	280-330	18-20	Near normal	310-360	19-21	Near normal	310.1	19.9	312.4	18.9	336.5	19.8
Bangkok Metropolis and Vicinity	220-270	16-18	10 % Above normal	150-190	15-17	5 % Above normal	150-190	16-18	Near normal	221.6	16.2	164.8	16.2	167.2	17.1

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

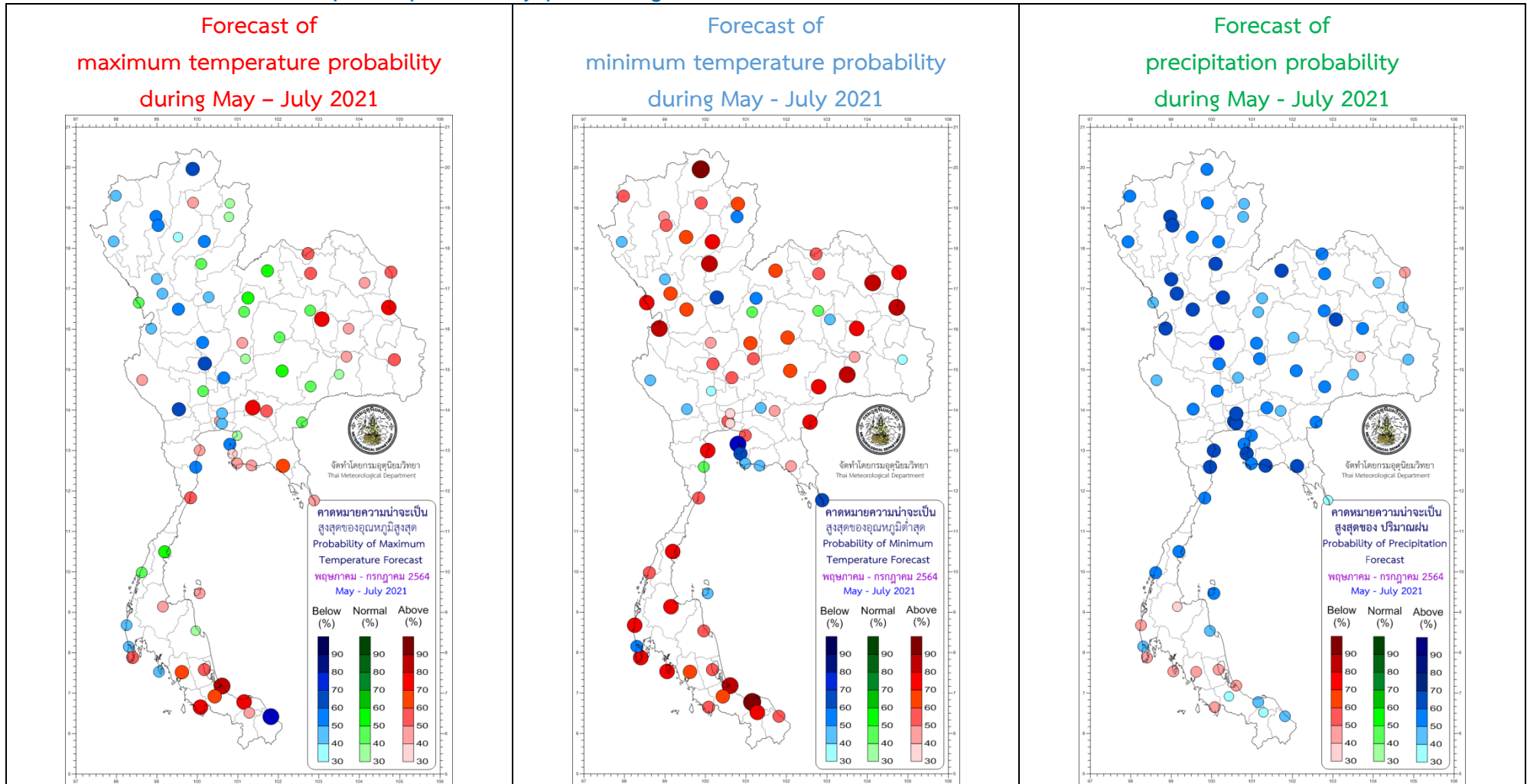
Part	Prediction									Normal (Baseline period: 1981-2010)					
	May 2021			June 2021			July 2021			May		June		July	
	Mean Tmax	Mean Tmin	Comparing with Normal	Mean Tmax	Mean Tmin	Comparing with Normal	Mean Tmax	Mean Tmin	Comparing with Normal	Mean Tmax	Mean Tmin	Mean Tmax	Mean Tmin	Mean Tmax	Mean Tmin
Northern	33-35	23-25	Below normal	32-34	23-25	Near normal	31-33	23-25	Near normal	34.7	24.2	33.0	24.3	32.1	24.0
Northeastern	33-35	24-26	Below normal	33-35	24-26	Near normal	32-34	24-26	Near normal	34.4	24.8	33.3	24.9	32.7	24.6
Central	34-36	24-26	Below normal	33-35	24-26	Near normal	33-35	24-26	Near normal	35.4	25.2	34.1	25.0	33.5	24.6
Eastern	32-34	25-27	Below normal	32-34	25-27	Near normal	31-33	24-26	Near normal	33.7	25.8	32.8	25.7	32.2	25.3
Southern (East Coast)	32-34	24-26	Below normal	32-34	24-26	Near normal	32-34	24-26	Near normal	33.6	24.8	33.2	24.6	32.9	24.2
Southern (West Coast)	31-33	24-26	Below normal	31-33	24-26	Near normal	31-33	24-26	Near normal	32.7	24.6	32.0	24.6	31.7	24.3
Bangkok and Vicinity	33-35	25-27	Below normal	33-35	25-27	Near normal	32-34	25-27	Near normal	34.5	26.2	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 2020.
- Further enquiry of monthly climate, 3-month climate and seasonal forecasts can be preceded at Tel: (662)-398-9929 or Fax: (662)-383-8827.

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

Point probability forecast maps of **maximum** and **minimum** temperature, and **precipitation**
 (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 forecast.