MINISTRY OF DIGITAL ECONOMY AND SOCIETY,
THAI METEOROLOGICAL DEPARTMENT

3-month Climate Prediction of Thailand

During December 2020 – February 2021

Issued on 1 December 2020

Thailand climate for December – January – February from from 30-year normal (A.D. 1981 - 2010 or B.E. 2524 - 2553 baseline average)

December Usually, the coldly high-pressure air mass areas from China will prevail over Thailand for the whole month actively and periodically. As a result, the temperature of the Upper Thailand will possibly reduce to become commonly chilly, especially around the upper portion of the northern and northeastern parts including with feasibly very cold weather (less than 8.0 C.) at mount tops or mountainous areas.

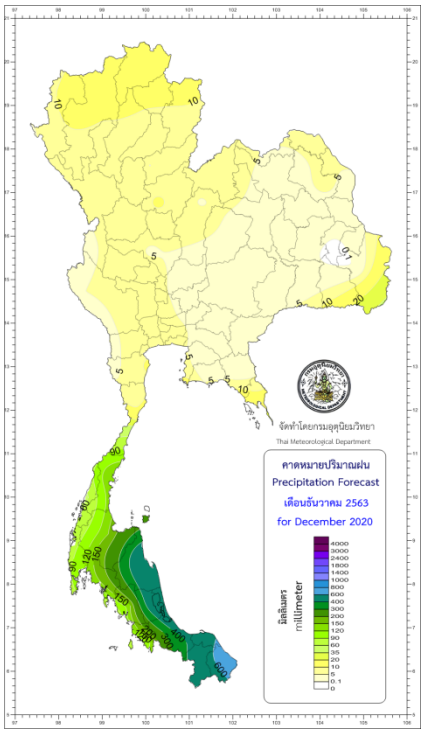
For the Southern Thailand, abundant rainfall still occurs mostly during the 1st half of this month, specifically at the East Coast due to the influentially northeast monsoon prevailing over the Southern Thailand and the Gulf of Thailand. Nevertheless, there may be some tropical cyclones moving near or toward Thailand further, commonly at the lower portion of the Southern Thailand.

January Cold weather appears because the influentially high-pressure air mass areas prevailing over Thailand for the whole month. In fact, most of Thailand will meet the lowest reducing temperature in this month appearing as commonly chilly weather, specifically at the northern and northeastern parts including with high mount tops. Additionally, morning fog occurs while the central and eastern parts will meet cool weather. Furthermore, the Southern Thailand will not meet much chilly weather except at the upper portion because of surrounding seas at both sides.

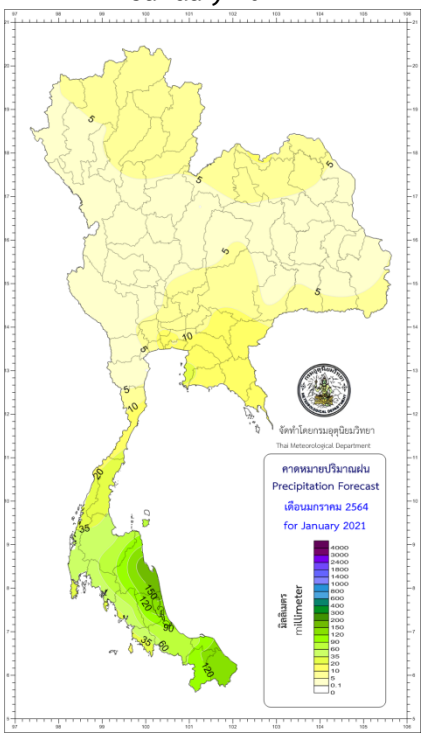
February Normally, this month is during the transition period from the winter to the summer. In other words, the high-pressure air mass areas prevailing over Thailand will start to weaken. Still, common weather of Thailand is still to be cool with morning fog whereas that of the northern and northeastern parts is still cold to very cold at some areas, mostly during the 1st half of this month. Afterward, rising temperature occurs due to prevailing hotly southerly wind replacing the northeastern monsoon. Thus, the start of the summer appears since the middle of this month onward. Furthermore, rain at the Southern Thailand will be less than that of the past month, especially at the East Coast.

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

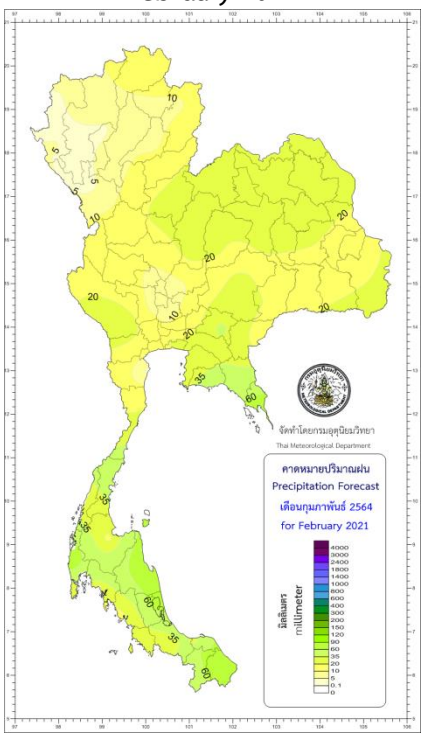
Precipitation forecast for December 2020



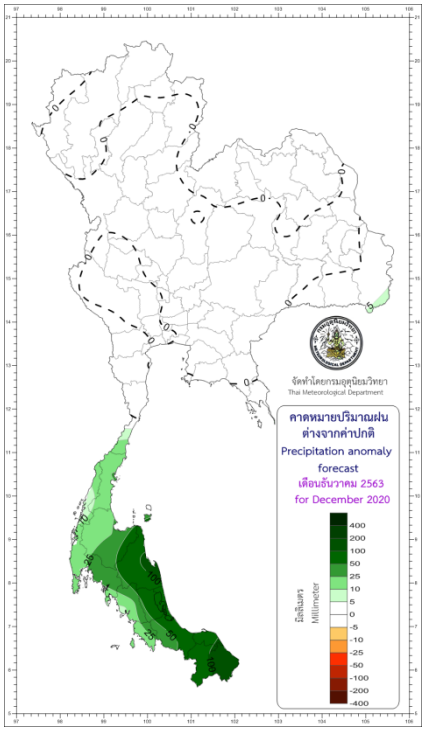
Precipitation forecast for January 2021



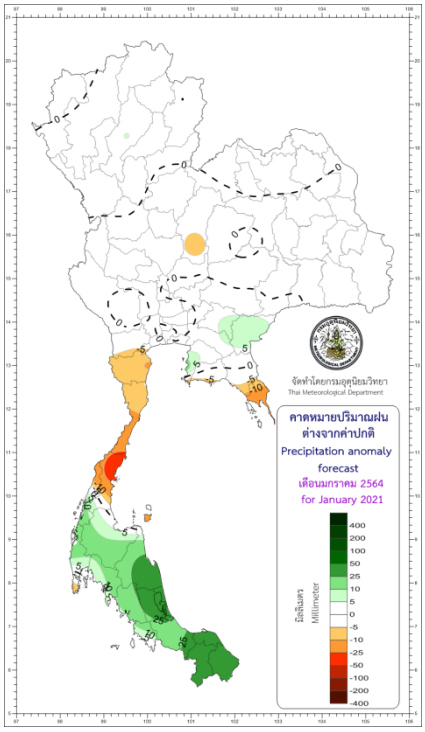
Precipitation forecast for February 2021



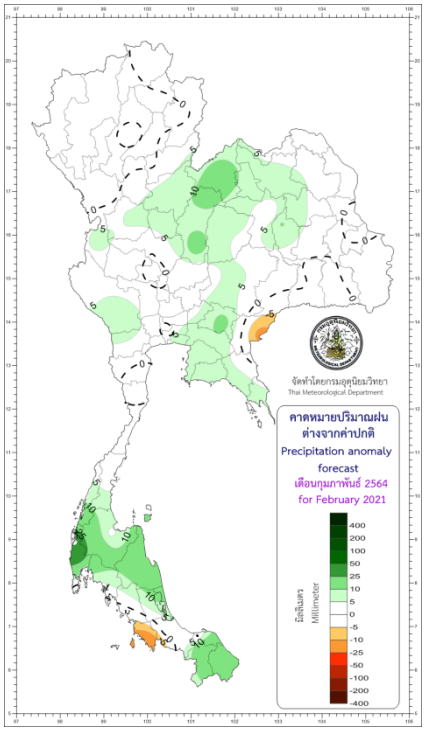
Precipitation anomaly forecast for December 2020



Precipitation forecast for January 2021

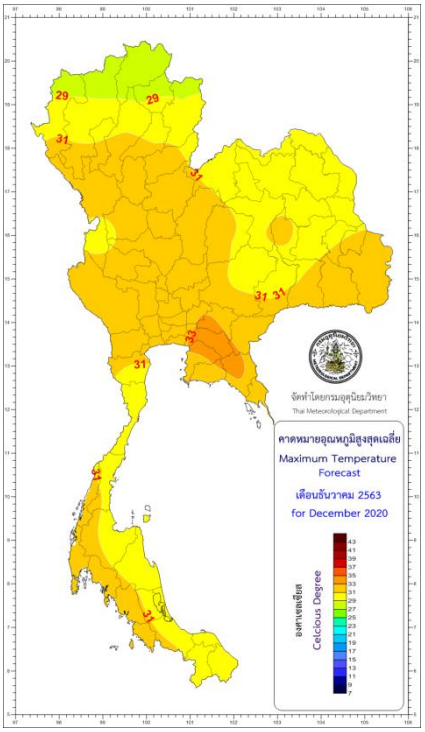


Precipitation forecast for February 2021

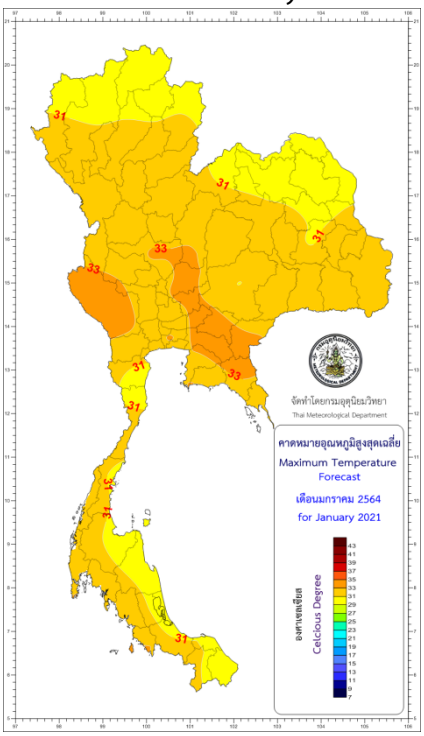


Mean Maximum Temperature (°C) and Anomaly (°C) Forecast:

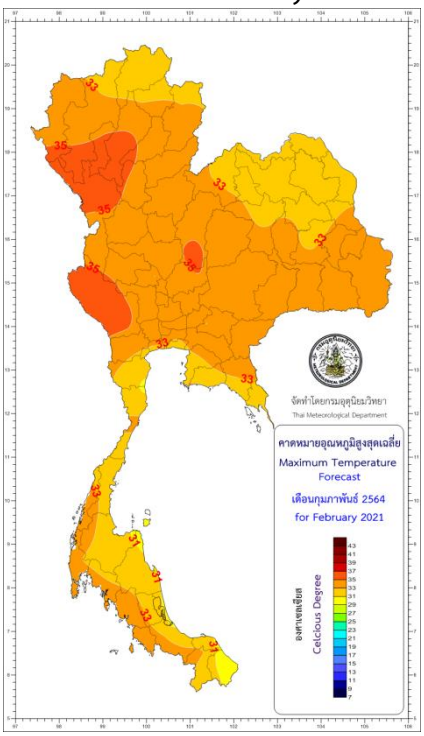
Mean maximum temperature forecast for December 2020



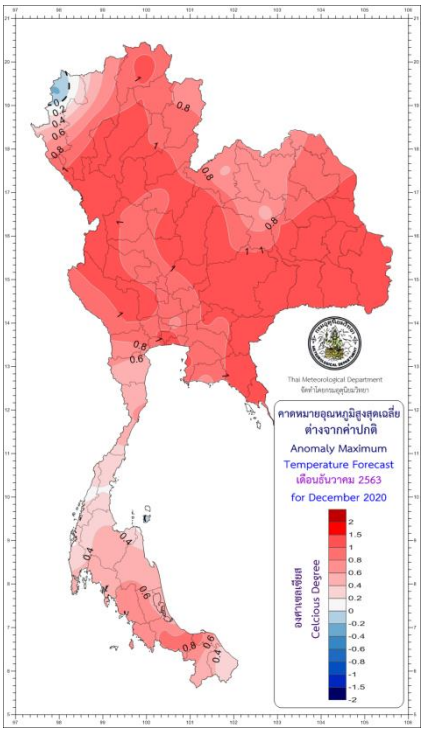
Mean maximum temperature forecast for January 2021



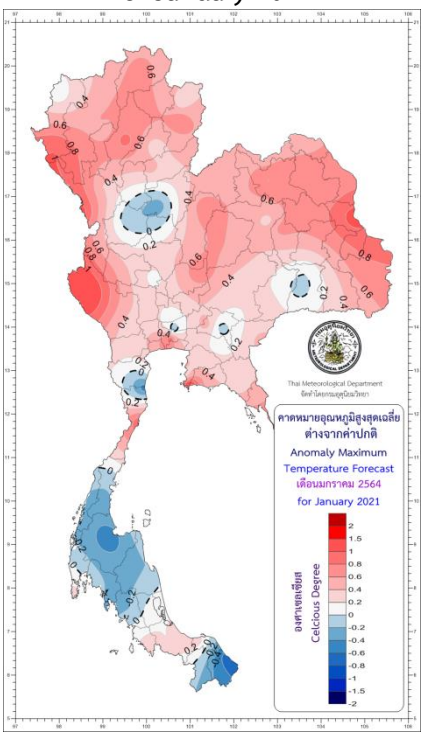
Mean maximum temperature forecast for February 2021



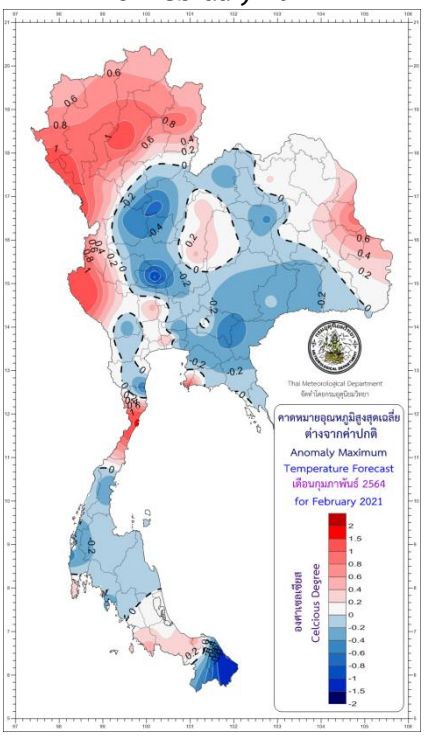
Mean maximum temperature anomaly forecast for December 2020



Mean maximum temperature anomaly forecast for January 2021

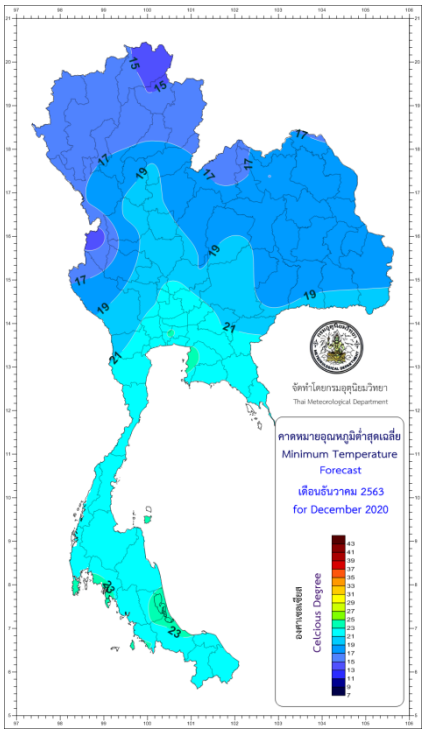


Mean maximum temperature anomaly forecast for February 2021

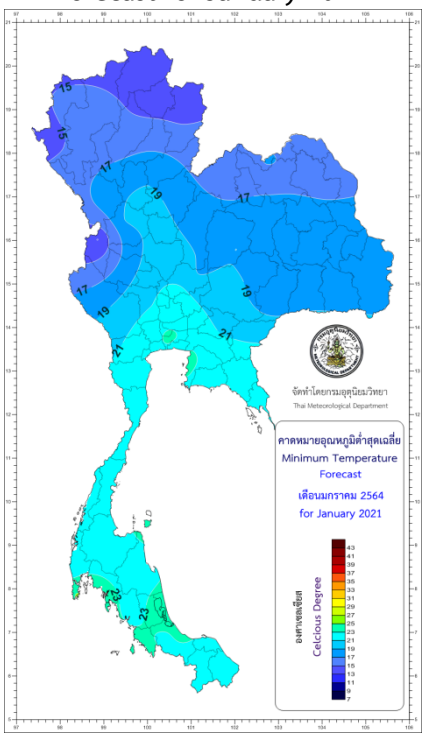


Mean Minimum Temperature (°C) and Anomaly (°C) Forecast:

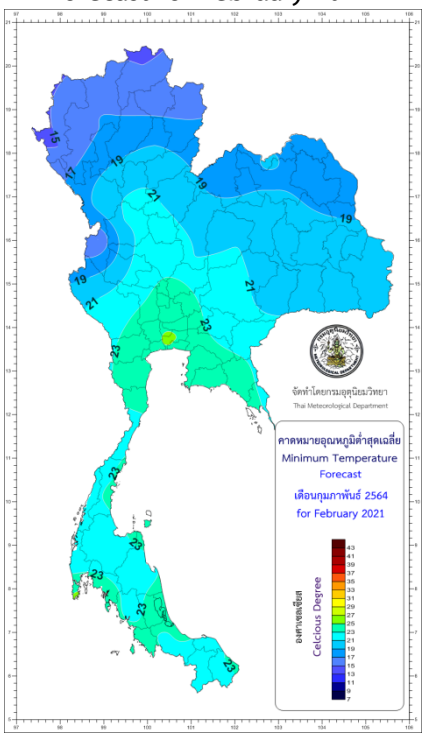
Mean minimum temperature forecast for December 2020



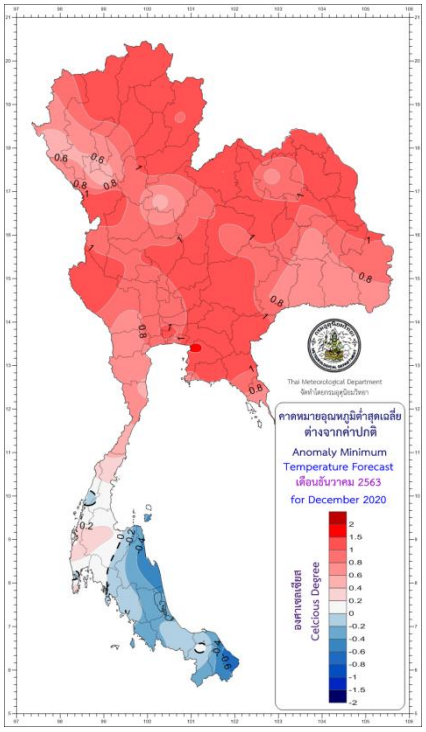
Mean minimum temperature forecast for January 2021



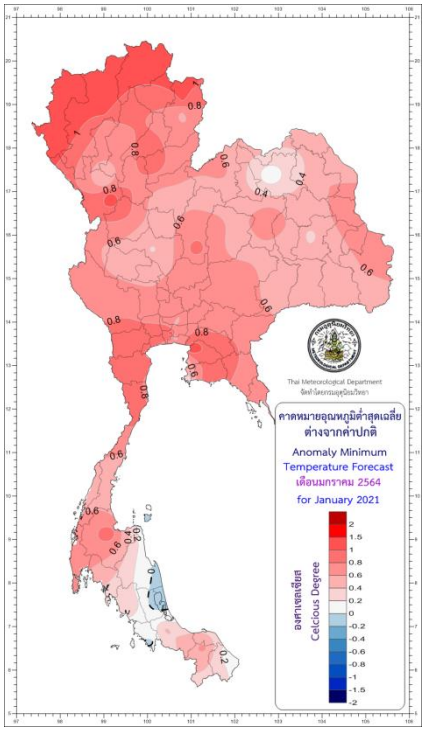
Mean minimum temperature forecast for February 2021



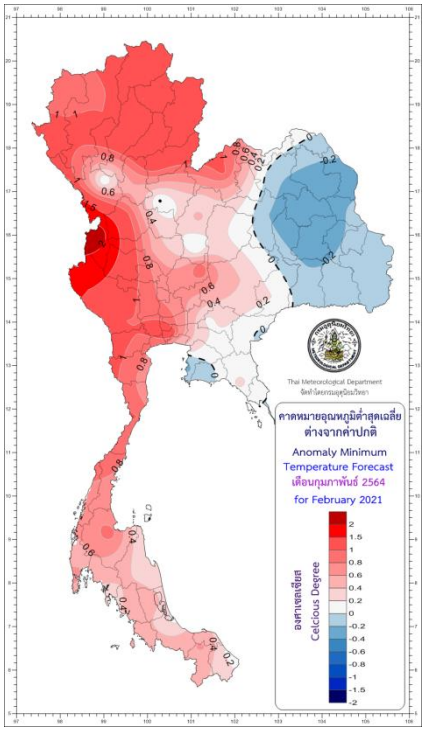
Mean minimum temperature anomaly forecast for December 2020



Mean minimum temperature anomaly forecast for January 2021



Mean minimum temperature anomaly forecast for February 2021



*** Caution: ***

December 2020 & January 2021: Some upper-air westerly wind waves moving easterly from the Myanmar direction may pass the Upper Thailand causing the area to meet thunder rain, gusty wind at some areas and possibly falling hail. The public then should follow weather forecast news from the Thai Meteorological Department closely.

February 2021: Some upper-air westerly wind waves moving easterly from the Myanmar direction may pass the Upper Thailand and the western portion of Thailand causing the area to meet thunder rain, gusty wind at some areas and possibly falling hail. The public then should follow weather forecast news from the Thai Meteorological Department closely further.

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:

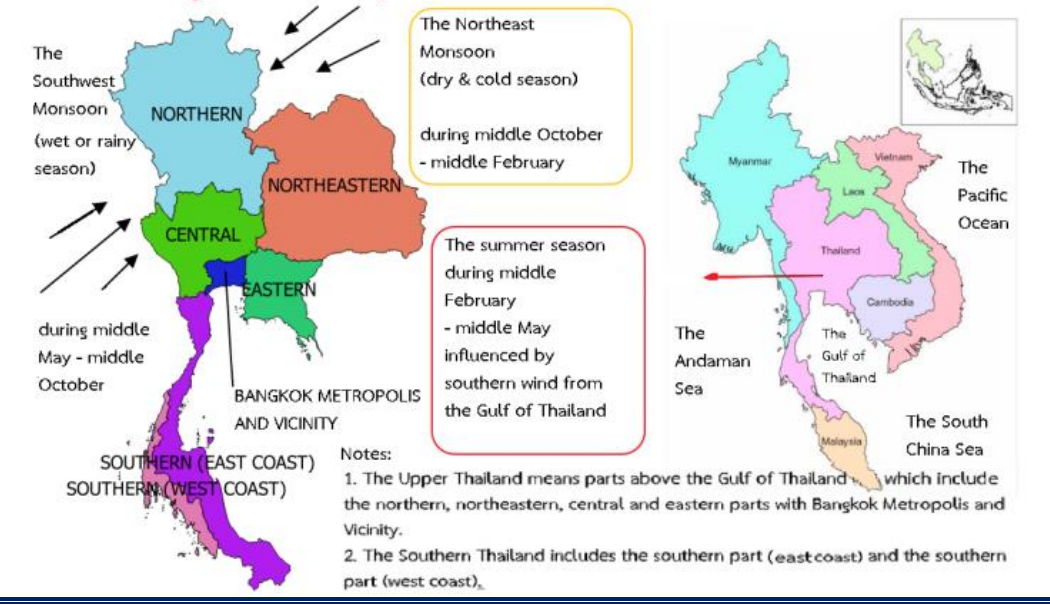


Table 1: Prediction of Rain (mm = millimeters), Rainy Days (days) and comparing with normal

Part	Prediction									Normal (Baseline period: 1981-2010)					
	December 2020			January 2021			February 2021			December		January		February	
	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	Less than 10	0-2	Near normal	Less than 10	0-2	Near normal	10-20	1-3	20% Above normal	8.2	1.2	4.6	1.0	10.4	1.4
Northeastern	Less than 10	0-2	Near normal	Less than 10	0-2	Near normal	15-30	2-4	20% Above normal	3.5	0.8	4.9	1.1	18.8	2.5
Central	Less than 10	0-2	Near normal	Less than 10	0-2	Near normal	10-20	1-3	20% Above normal	5.1	1.0	4.7	1.1	11.3	1.6
Eastern	Less than 10	0-2	Near normal	10-20	1-3	Near normal	20-40	3-5	20% Above normal	8.1	1.4	16.1	1.8	29.1	3.1
Southern Thailand (East Coast)	280-360	12-14	20% Above normal	60-90	7-9	20% Above normal	30-50	3-5	20% Above normal	266.9	12.1	64.5	7.2	36.5	3.7
Southern Thailand (West Coast)	70-110	9-11	20% Above normal	20-40	4-6	20% Above normal	20-40	3-5	20% Above normal	75.0	9.1	26.4	4.2	27.5	3.6
Bangkok Metropolis and Vicinity	Less than 10	0-2	Near normal	10-20	1-3	Near normal	10-20	1-3	20% Above normal	6.9	1.2	11.9	1.7	14.1	2.5

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

Part	Prediction									Normal (Baseline period: 1981-2010)					
	December 2020			January 2021			February 2021			December		January		February	
	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	30-32	16-18	Above normal	31-33	15-17	Above normal	33-35	17-19	Above normal	29.8	15.9	31.1	15.6	33.7	17.2
Northeastern	30-32	17-19	Above normal	30-32	17-19	Above normal	32-34	19-21	Near normal	29.5	17.1	30.5	17.1	32.9	19.6
Central	31-33	19-21	Above normal	32-34	19-21	Above normal	34-36	21-23	Above normal	31.4	19.7	32.7	19.4	34.8	21.6
Eastern	32-34	21-23	Above normal	32-34	21-23	Above normal	32-34	22-24	Near normal	31.6	21.2	32.1	21.4	32.9	23.4
Southern (East Coast)	29-31	22-24	Near normal	29-31	22-24	Near normal	31-33	22-24	Near normal	29.7	22.5	30.4	22.3	31.5	22.7
Southern (West Coast)	31-33	22-24	Near normal	32-34	22-24	Near normal	33-35	22-24	Near normal	31.5	23.0	32.6	22.8	33.8	23.0
Bangkok and Vicinity	31-33	22-24	Above normal	32-34	22-24	Above normal	32-34	24-26	Above normal	31.7	22.0	32.2	22.3	33.3	24.1

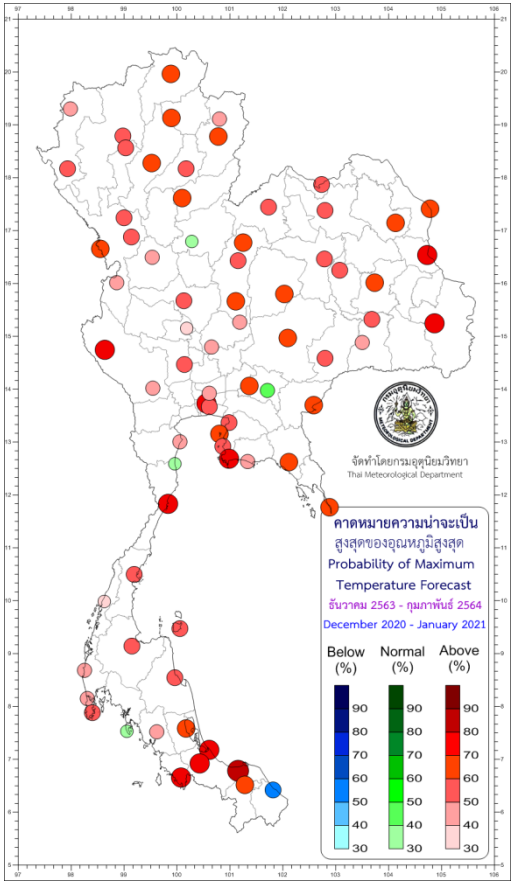
Remarks: - Normal means average during the 30-year period (A.D. 1981 – 2010 or B.E. 2524 – 2553).

- 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.

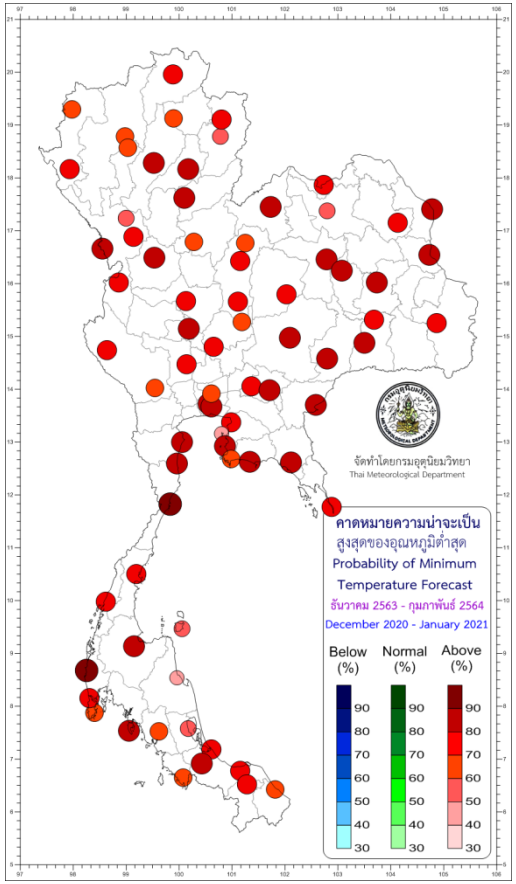
Climate Center, Meteorological Development Division,
Thai Meteorological Department,
Ministry of Digital Economy and Society

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

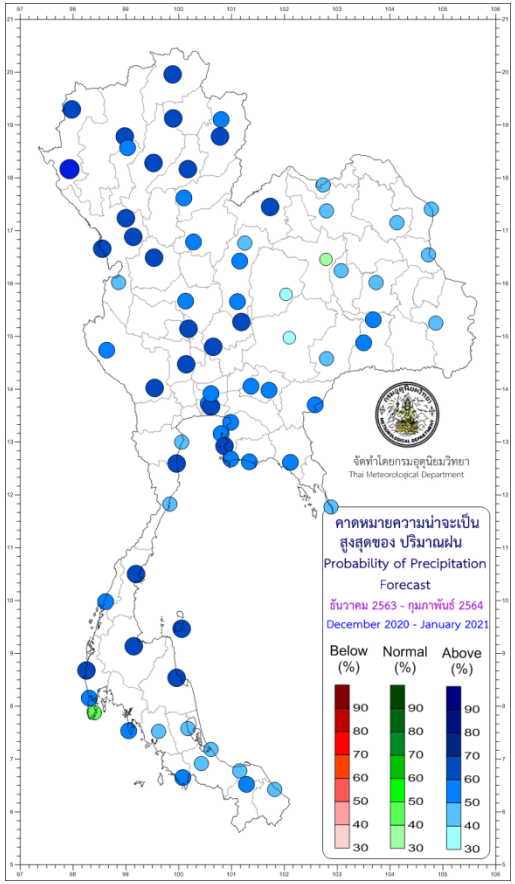
Forecast of
maximum temperature probability
during December 2020 – February 2021



Forecast of
minimum temperature probability
during December 2020 – February 2021



Forecast of
precipitation probability
during December 2020 – February 2021



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

Climate Center, Meteorological Development Division, Thai Meteorological Department www.climate.tmd.go.th