



**Climate Outlook:**

1. During the next 3 months, the mean total rain of the Upper Thailand will be below normal while that of the Southern Thailand is to be near normal. In other words, the mean total rain of northern and central parts will be 20% below normal as 35 millimeters (mm, normal: 43 mm) and 40 mm (normal: 48 mm) consecutively.

Moreover, the mean total rain of northeastern and eastern parts including with Bangkok Metropolitan and Vicinity will be 10% below normal or about 60 mm (normal: 69 mm), 100 mm (normal: 107 mm) and 60 mm (normal: 67 mm) consecutively.

Furthermore, the mean total rain of the Southern Thailand (east coast) is to be about 174 mm while that of the Southern Thailand (west coast) is to be about 143 mm.

For the Upper Thailand, the mean temperature will be above normal while the mean maximum temperature is to be about 33-35 °C. (normal: 33.5 °C.) and the mean minimum temperature is to be about 21-23 °C. (normal: 21.2 °C.).

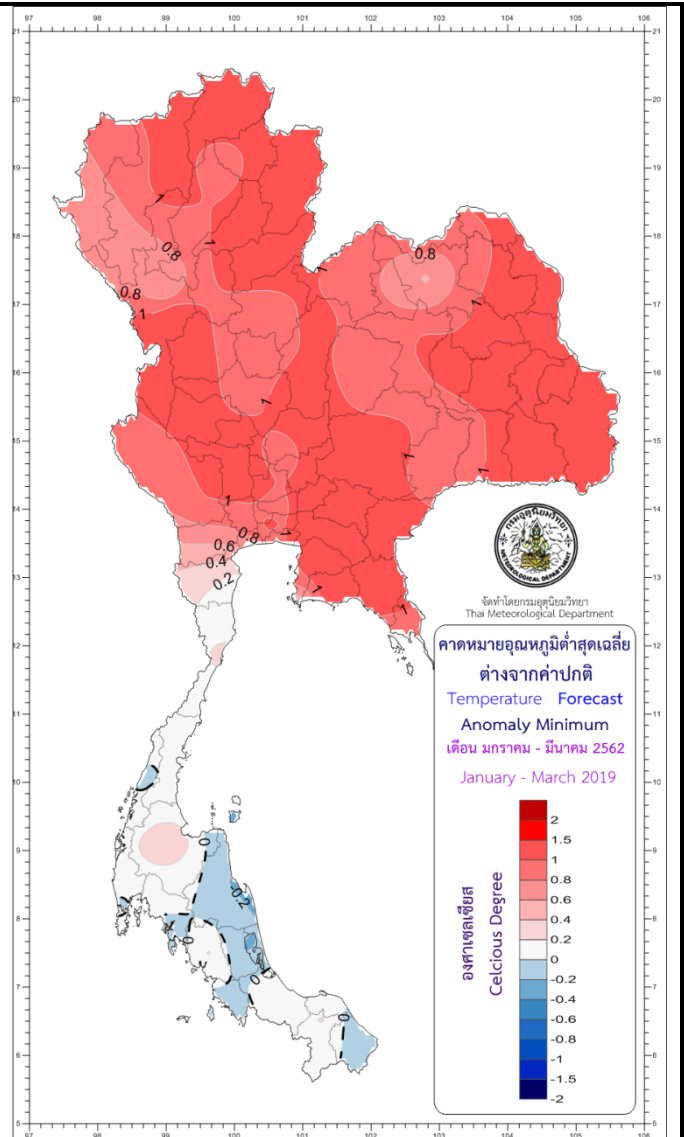
Additionally, the mean temperature of the Southern Thailand will be near normal (The normal of the mean maximum and minimum temperature is 32.6 and 23 °C. accordingly.).

2. In January 2019, the mean total rain of the northern and eastern parts together with Bangkok Metropolitan and Vicinity will be 20% above normal as about < 10, 20 and 10 mm consecutively. While the mean total rain of the Southern Thailand (east coast) will be 30% above normal (80 mm) whereas that of the Southern Thailand (west coast) is to be 40% above normal (30 mm). In addition, the mean total rain of the northeastern part will be 10% below normal (< 10 mm) whereas that of the central part is to be near normal (< 10 mm).

The mean temperature of the Upper Thailand will be above normal as the mean maximum temperature is to be about 32-34 °C. while the mean minimum temperature is to be about 20-22 °C. Furthermore, the mean temperature of the Southern Thailand will be near normal as the mean maximum temperature is to be about 31-33 °C. whereas the mean minimum temperature is to be about 23-25 °C.

3. February 2019, the mean total rain of Thailand will be below normal, except that of the Southern Thailand (west coast) is to be near normal (30 mm). As the mean total rain of the northeastern part will be about 10% below normal (< 10 mm) while that of the eastern part and Bangkok Metropolitan and Vicinity is to be 20% below normal (20 and 10 mm accordingly).

Moreover, the mean total rain of the northern and central parts along with the Southern Thailand (east coast) will be 30% below normal as < 10 mm for the northern and central parts together with 15 mm for the Southern Thailand (east coast).



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For the Upper Thailand and the Southern Thailand (east coast), the mean temperature will be above normal as the mean maximum temperature is to be about 33-35 °C. whereas the mean minimum temperature is to be about 21-23 °C.

For the Southern Thailand (west coast), the mean temperature will be near normal as the mean maximum temperature is to be about 33-35 °C. while the mean minimum temperature is to be about 22-24 °C.

**4. March 2019**, the mean total rain of Thailand will be below normal. As a matter of fact, the mean total rain of the eastern part will be 10% below normal (50 mm) while that of the Southern Thailand (east coast) is to be 30% below normal (40 mm).

Furthermore, the mean total rain of the northern, central and northeastern parts including with Bangkok Metropolis and Vicinity and the Southern Thailand (west coast) will be 20% below normal. In fact, the mean total rain of the northern and central parts, the northeastern part and Bangkok Metropolis and Vicinity, and the Southern Thailand (west coast) will be about 20, 30 and 60 mm consecutively.

For the Upper Thailand and the Southern Thailand (west coast), the mean temperature will be above normal as the mean maximum temperature is to be 35-37 °C. and the mean minimum temperature is to be about 23-25 °C.

For the Southern Thailand (east coast), the mean temperature will be near normal as the mean maximum temperature is to be about 32-34 °C. and the mean minimum temperature is to be about 23-25 °C.

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

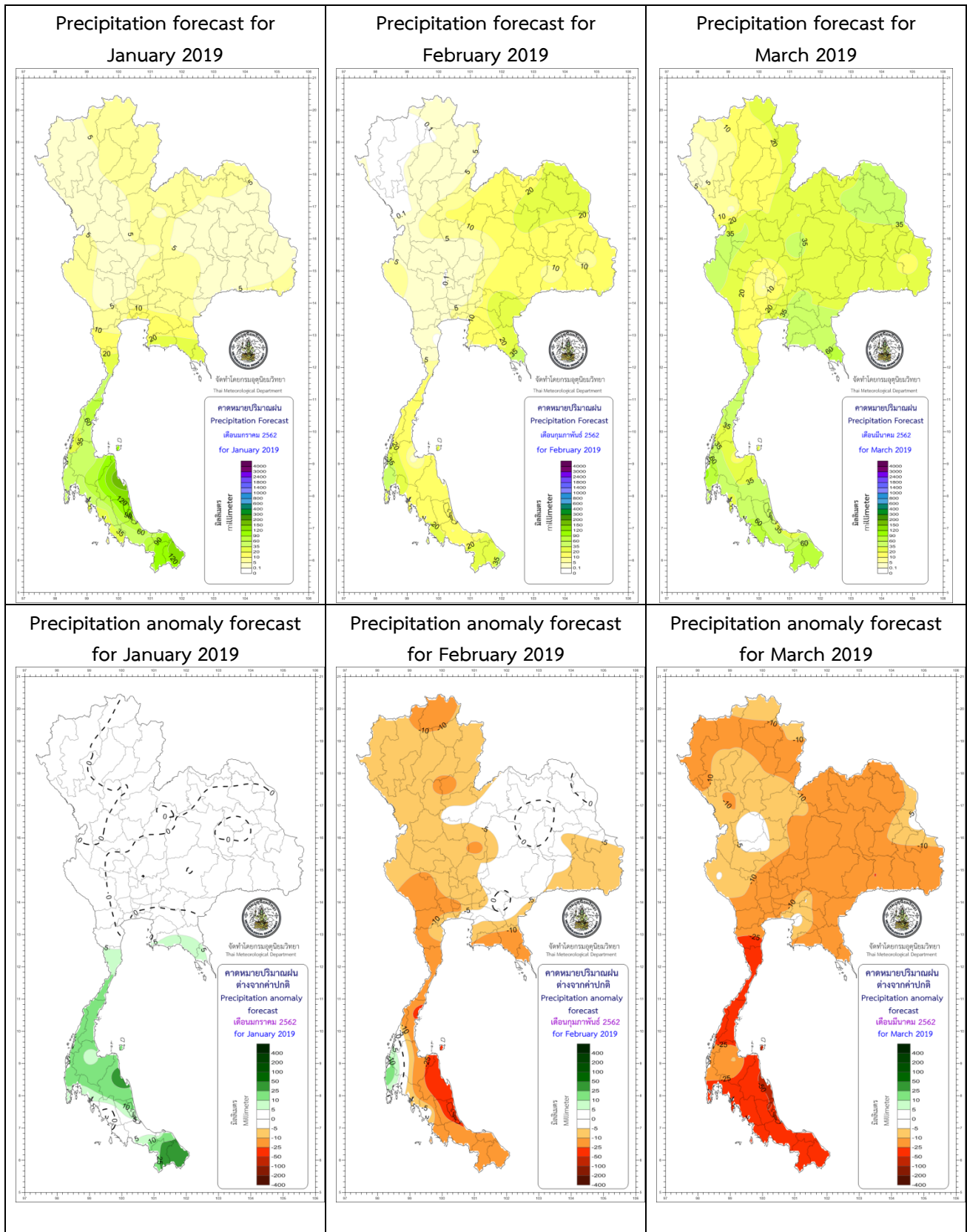
### Thailand climate for January - March 2019 from baseline: 1981-2010

January 2019 Cold weather appears because the influentially high-pressure air mass areas prevail 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 will occur while the central and eastern parts 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 2019 Usually, 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 except that of the northern and northeastern parts is still cold to very cold at some areas, mostly during the 1<sup>st</sup> 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.

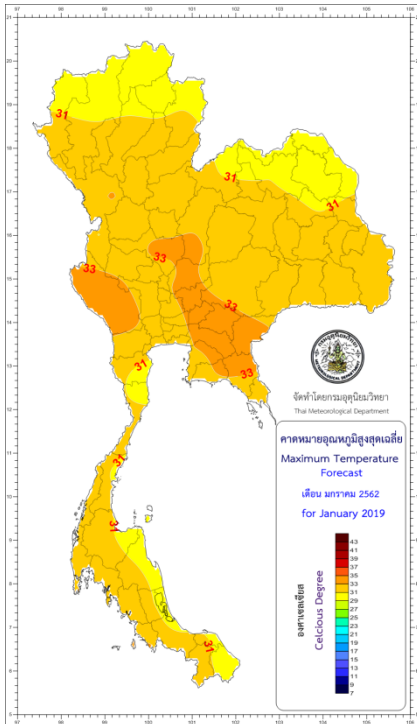
March 2019 Sweltering and dry weather with little humidity appears along with very hot weather on some days, specifically at the Upper Thailand due to mostly prevailing southerly wind over Thailand. However, at some periods, coldly high-pressure air masses from China will meet hot air masses already prevailing over Thailand. This brings about summer thunderstorms, specifically around the Upper Thailand. The summer thunderstorms often occur during short duration and at narrow areas. Commonly, severely gusty wind often appears too and feasibly causes damages to life and property.

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

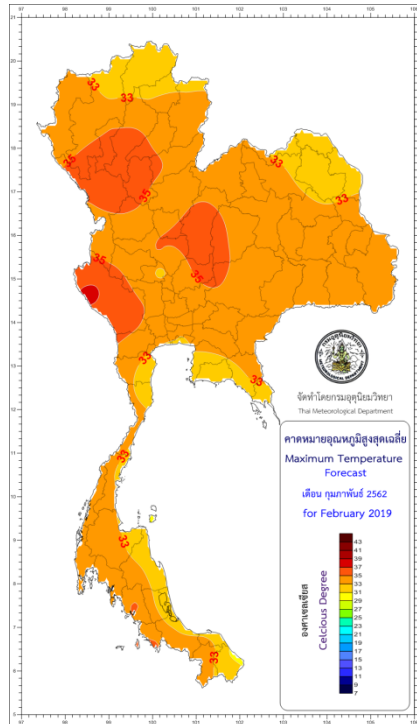


## Mean Maximum Temperature (°C) and Anomaly (°C) Forecast:

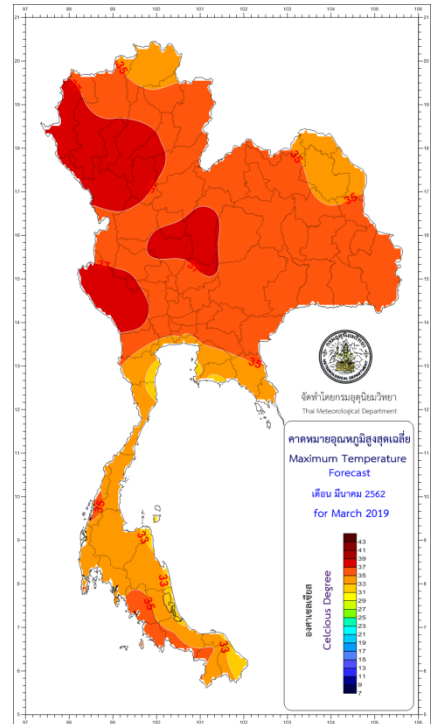
Mean maximum temperature forecast for January 2019



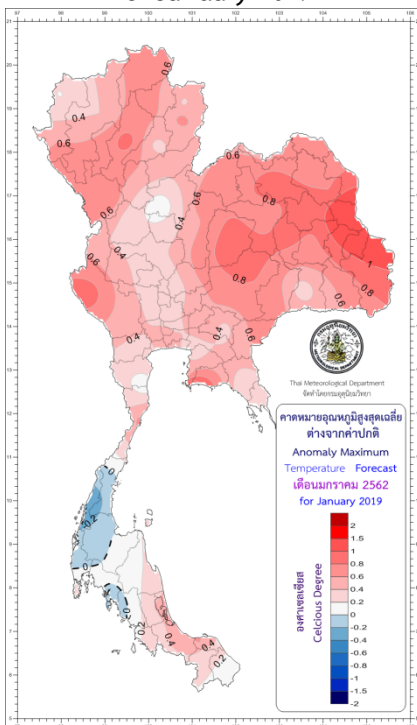
Mean maximum temperature forecast for February 2019



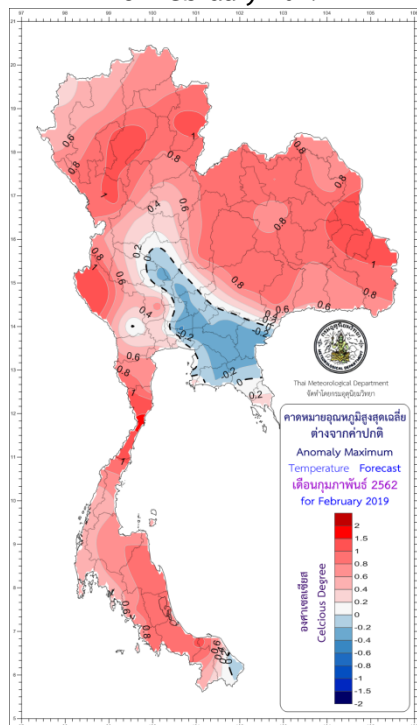
Mean maximum temperature forecast for March 2019



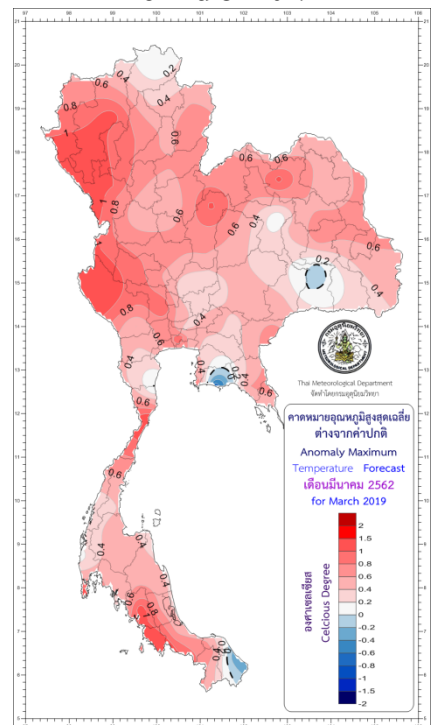
Mean maximum temperature anomaly forecast for January 2019



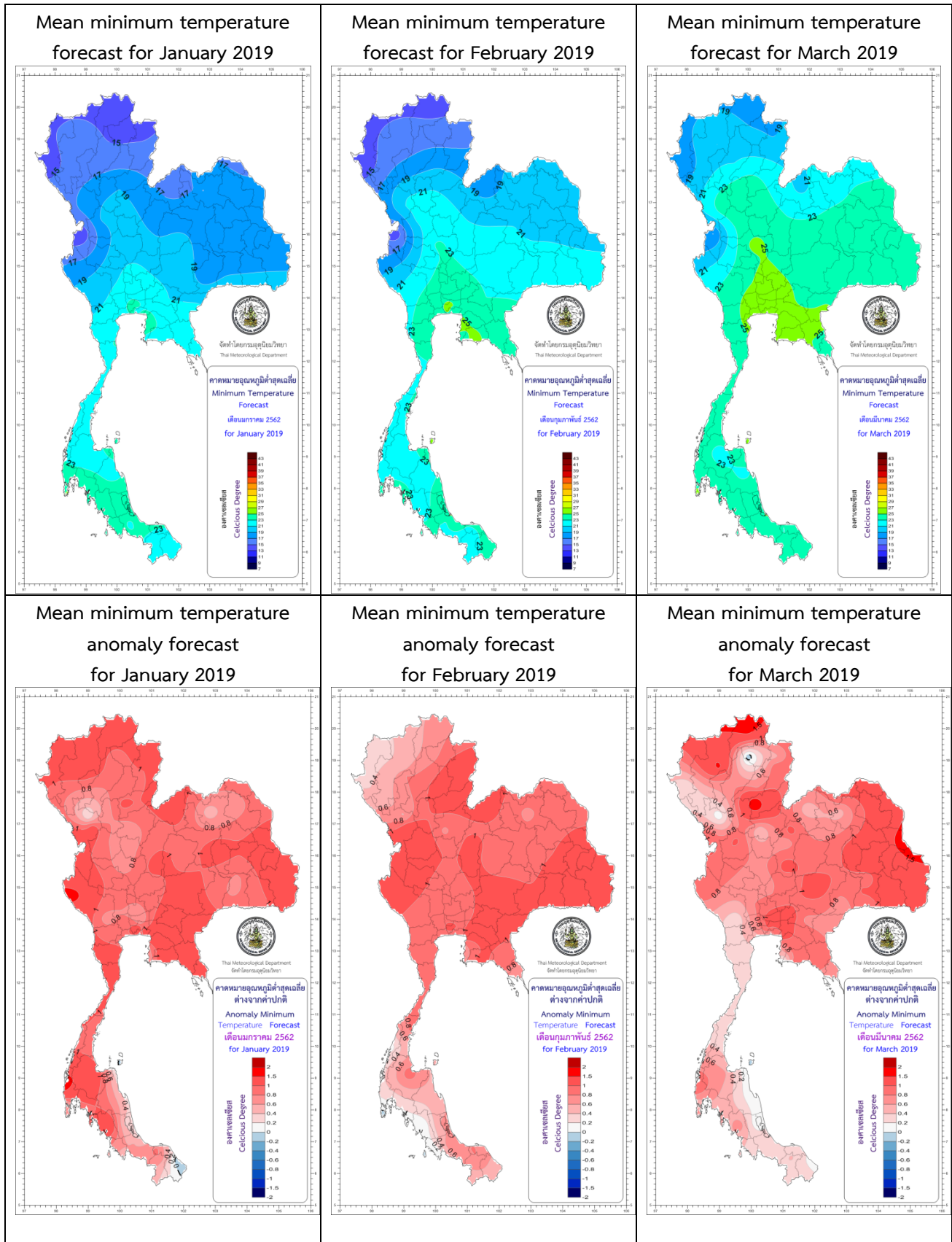
Mean maximum temperature anomaly forecast for February 2019



Mean maximum temperature anomaly forecast for March 2019



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



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

January 2019: Some tropical cyclones favor a high chance to move near Thailand or pass the Southern Thailand through the tip of the Indochina Peninsula toward the Gulf of Thailand. This will influence the Southern Thailand (east coast) to meet increasing rain. Also, overflowing flash or forest flood may inundate at some areas.

February 2019: 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 with gusty wind at some areas and possibly falling hail.

March 2019: Frequently, summer thunderstorms occur as thunder rain with gusty wind and perhaps falling hail at some areas causing life and property damages. Consequently, the public should follow weather forecast news from the Thai Meteorological Department closely further.



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

Part	Prediction									Normal (Baseline period 1981-2010)					
	January 2019			February 2019			March 2019			January		February		March	
	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	< 10	1-2	20 % Above normal	< 10	1-2	30 % Below normal	15-30	2-3	20 % Below normal	4.6	1.0	10.4	1.4	28.1	3.1
Northeastern	< 10	1-2	10 % Below normal	10-20	2-3	10 % Below normal	30-50	3-5	20 % Below normal	4.8	1.1	18.5	2.5	44.7	4.8
Central	< 10	1-2	Near normal	< 10	1-2	30 % Below normal	20-40	2-3	20 % Below normal	6.7	1.1	12.3	1.6	36.0	3.4
Eastern	15-30	2-3	20 % Above normal	15-30	2-3	20 % Below normal	40-70	3-5	10 % Below normal	16.1	1.8	29.1	3.1	62.1	5.4
Southern Thailand (East Coast)	60-90	6-9	30 % Above normal	15-30	2-3	30 % Below normal	30-60	3-5	30 % Below normal	59.7	7.2	34.5	3.7	68.4	5.4
Southern Thailand (West Coast)	20-40	3-5	40 % Above normal	15-30	2-3	Near normal	50-80	5-8	20 % Below normal	26.4	4.2	27.5	3.6	88.8	7.6
Bangkok Metropolis and Vicinity	10-20	2-3	20 % Above normal	10-20	2-3	20 % Below normal	20-40	2-3	20 % Below normal	13.3	1.7	20.0	2.5	42.1	3.6

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

Part	Prediction									Normal (Baseline period 1980-2010)					
	January 2019			February 2019			March 2019			January		February		March	
	Mean Tmax	Mean Tmax	Comparing with Normal	Mean Tmax	Mean Tmax	Comparing with Normal	Mean Tmax	Mean Tmax	Comparing with Normal	Mean Tmax	Mean Tmin	Mean Tmax	Mean Tmin	Mean Tmax	Mean Tmin
Northern	31-33	16-18	Above normal	33-35	17-19	Above normal	36-38	20-22	Above normal	31.1	15.6	33.7	17.2	36.1	20.4
Northeastern	31-33	17-19	Above normal	33-35	19-21	Above normal	35-37	22-24	Above normal	30.6	17.1	33.0	19.7	35.1	22.4
Central	32-34	20-22	Above normal	34-36	22-24	Above normal	36-38	24-26	Above normal	32.7	20.6	34.6	22.6	36.1	24.4
Eastern	32-34	21-23	Above normal	33-35	23-25	Above normal	33-35	25-27	Above normal	32.1	21.4	32.9	23.4	33.8	24.9
Southern Thailand (East Coast)	30-32	22-24	Near normal	31-33	22-24	Above normal	32-34	23-25	Near normal	30.3	22.2	31.4	22.7	32.6	23.7
Southern Thailand (West Coast)	31-33	22-24	Near normal	33-35	22-24	Near normal	34-36	23-25	Above normal	32.6	22.8	33.8	23.0	34.4	23.7
Bangkok Metropolis and Vicinity	32-34	22-24	Above normal	33-35	24-26	Above normal	34-36	26-28	Above normal	32.5	22.6	33.3	24.4	34.3	25.9

**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 January 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 <http://www.tmd.go.th/en/> at the climate tab.

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Thai Meteorological Department, Ministry of Digital Economy and Society.