



# Three-month Climate Prediction of Thailand During October – December 2019

MINISTRY OF DIGITAL ECONOMY AND SOCIETY,  
THAI METEOROLOGICAL DEPARTMENT

Issued on 30 September 2019

## Climate Outlook

**1. During the next three months,** the total rain of northern, northeastern, eastern and central parts including with that of Bangkok Metropolitan and Vicinity would be near normal.

In detail, the total rain of the northern part is to be about 140 - 195 millimeters (mm, normal: 165 mm) whereas that of the northeastern, eastern and central parts is to be about 115 - 165 mm (normal: 136 mm), 245 - 330 mm (normal: 286 mm), and 175 - 245 mm (normal: 207 mm) consecutively while that of Bangkok Metropolis and Vicinity is to be about 265 - 340 mm (normal: 301 mm).

For the Southern Thailand (east & west coasts), the total rain would be slightly below normal. In detail, the total rain of the Southern Thailand (east coast) is to be about 785 - 1,010 mm (normal: 891 mm) whereas that of the Southern Thailand (west coast) is to be about 565 - 710 mm (normal: 635 mm).

Meanwhile, the mean temperature of the Upper Thailand would be about 1 °C above normal while that of the Southern Thailand is to be about 0.5 °C above normal. For the whole country, the mean maximum temperature is to be 31 - 33 °C (normal: 31.3 °C) whereas the mean minimum temperature is to be 22 - 24 °C (normal: 22.0 °C)

**2. In October 2019,** the total rain of the Upper Thailand would be near normal whereas that of the Southern Thailand (east & west coasts) is to be 5% below normal.

In detail, the total rain of each part is about the following: the northern part: 105 - 145 mm, the northeastern part: 95 - 140 mm, the central part: 140 - 195 mm, the eastern part: 195 - 260 mm, the Southern Thailand (east coast): 210 - 280 mm, the Southern Thailand (west coast): 310 - 390 mm, and Bangkok Metropolis and Vicinity: 215 - 280 mm.

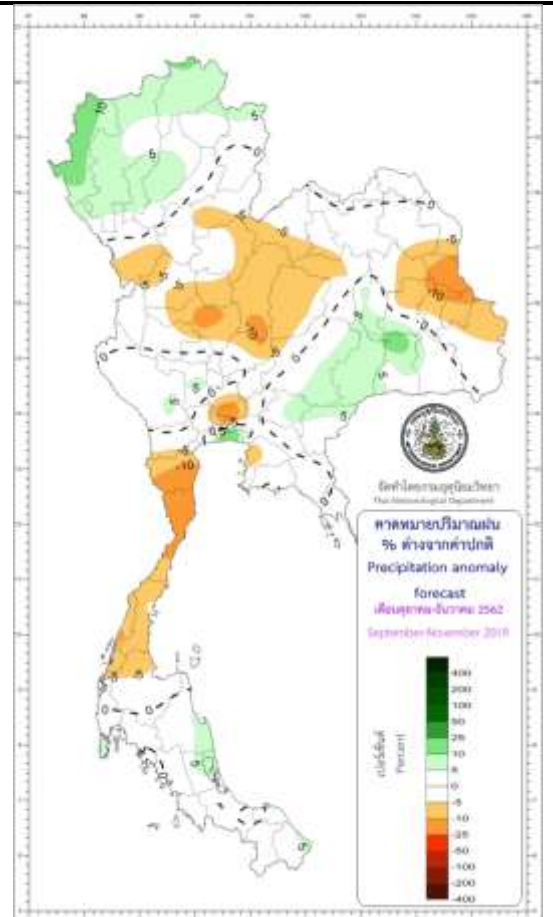
Meanwhile, the mean temperature of the Upper Thailand would be mostly about 1 °C above normal while that of the Southern Thailand (east & west coasts) is to be near normal. For the whole country, the mean maximum temperature is to be 31 - 34 °C whereas the mean minimum temperature is to be 23 - 25 °C.

**3. In November 2019,** the total rain around Thailand would be near normal. In detail, the total rain of each part is as follows: the northern part: 25 - 40 mm, the northeastern part: 15 - 25 mm, the central part: 30 - 45 mm, the eastern part: 40 - 70 mm, the Southern Thailand (east coast): 310 - 450 mm, the Southern Thailand (west coast): 160 - 225 mm, and Bangkok Metropolis and Vicinity: 40 - 60 mm.

Meanwhile, the mean temperature of the Upper Thailand would be mostly about 1 °C above normal while that of the Southern Thailand (east & west coasts) is to be slightly above normal. For the whole country, the mean maximum temperature is to be 31 - 33 °C whereas the mean minimum temperature is to be 22 - 24 °C.

**4. In December 2019,** the total rain around Thailand would be near normal. In detail, the total rain of the northern, northeastern, central, and eastern parts including with that of Bangkok Metropolis and Vicinity would be less than 10 mm. However, the total rain of the Southern Thailand (east coast) would be about 210 - 335 mm while that of the Southern Thailand (west coast) is to be about 55 - 100 mm.

Meanwhile, the mean temperature of the Upper Thailand would be mostly above 1 °C while that of the Southern Thailand (east & west coasts) is to be slightly above normal. For the whole country, the mean maximum temperature is to be 30 - 33 °C whereas the mean minimum temperature is to be 19 - 22 °C.



\*\* A map demonstrating 7 parts of Thailand is on below Page 6:

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

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

**October:** As being a time of transition from the rainy to the winter seasons, the Upper Thailand will meet reducing rainfall and temperature; cool weather is to start since the middle of this month onward. The reason is that the prevailing Southwest Monsoon over Thailand begins to transform into the Northeast Monsoon and cold high-pressure air mass areas from China prevails over Thailand from time to time.

Moreover, the low-pressure trough placing over the central and eastern parts will move downward to place around the Southern Thailand and the Gulf of Thailand during the 2<sup>nd</sup> half of this month. As a result, the Southern Thailand will meet densely abundant rainfall.

Additionally, some tropical cyclones may move near or toward Thailand around the eastern part, and they would move successively downward to the upper portion of the Gulf of Thailand and the Southern Thailand further.

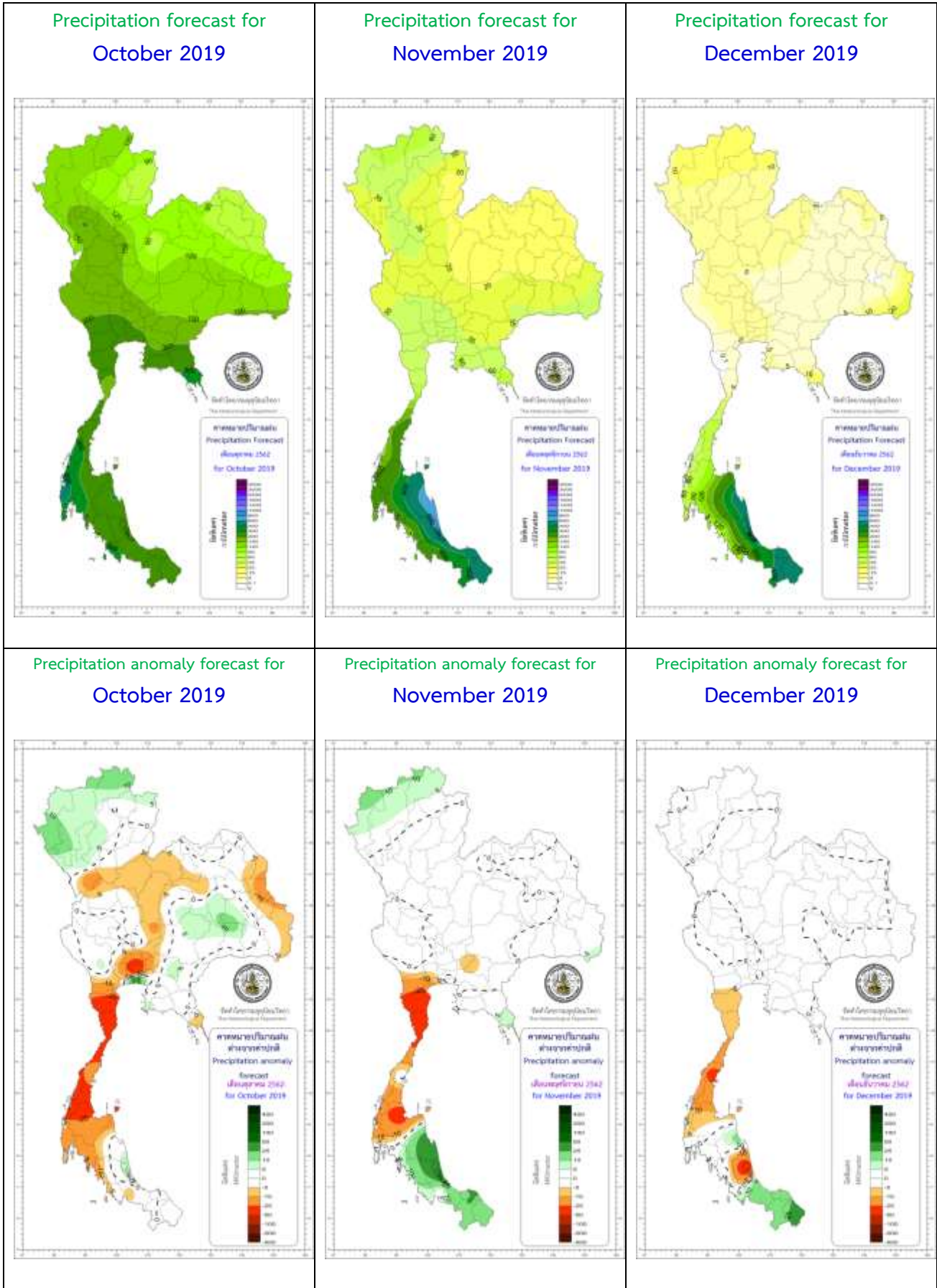
**November:** The Upper Thailand will meet much reducing rain with cool weather for this whole month. The reason is that the active high-pressure air mass areas from China will influentially prevail over the Upper Thailand periodically. Thus, temperature will reduce, so cold weather happens at some areas, specifically at the northern & northeastern parts.

However, the Southern Thailand will still meet abundant rainfall, especially around the east coast. The reason is that the influential Northeastern Monsoon and the low-pressure trough place over the Southern Thailand and the Gulf of Thailand.

**December:** Usually, the actively cold or high-pressure air mass areas from China will prevail over the whole of Thailand periodically. As a result, the temperature of the Upper Thailand will reduce to happen as commonly chilly weather, specifically at the upper portion of the northern and northeastern parts together with feasibly very cold weather at mountainous areas and mount tops

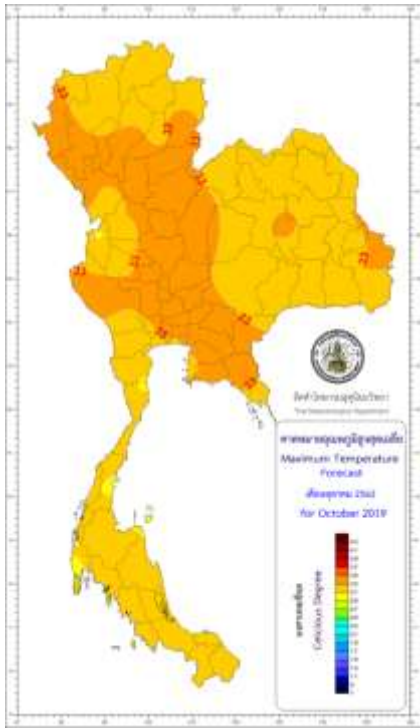
For the Southern Thailand, abundant rainfall will mostly appear during the 1<sup>st</sup> half of this month, especially along the east coast. The reason is that the influential Northeast Monsoon prevails over the Southern Thailand and the Gulf of Thailand. Nevertheless, some tropical cyclones may feasibly move near or toward the Southern Thailand, specifically around the lower portion during this month.

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

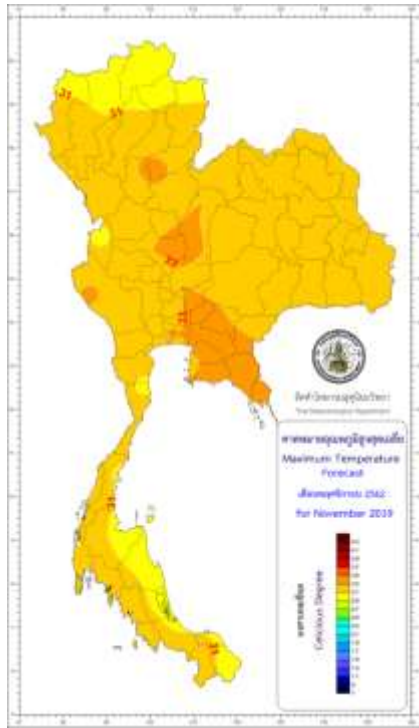


Mean Maximum Temperature (°C) and Anomaly (°C) Forecast:

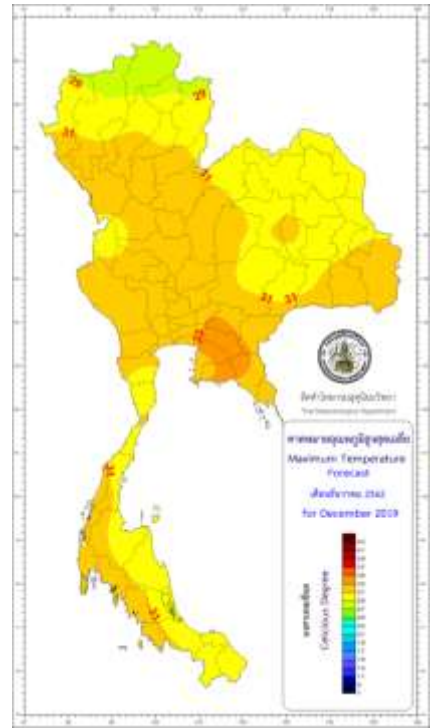
Mean maximum temperature forecast for October 2019



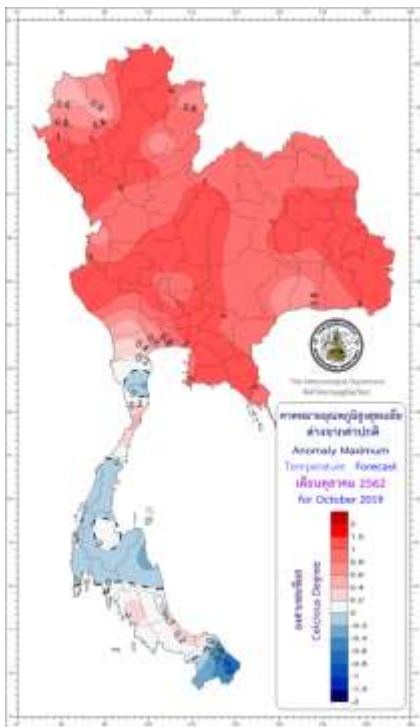
Mean maximum temperature forecast for November 2019



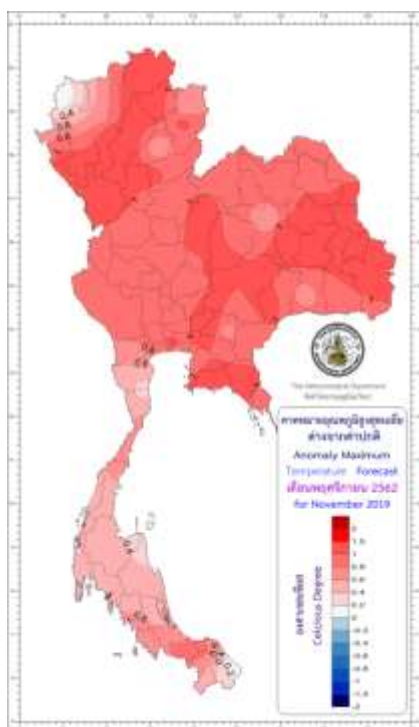
Mean maximum temperature forecast for December 2019



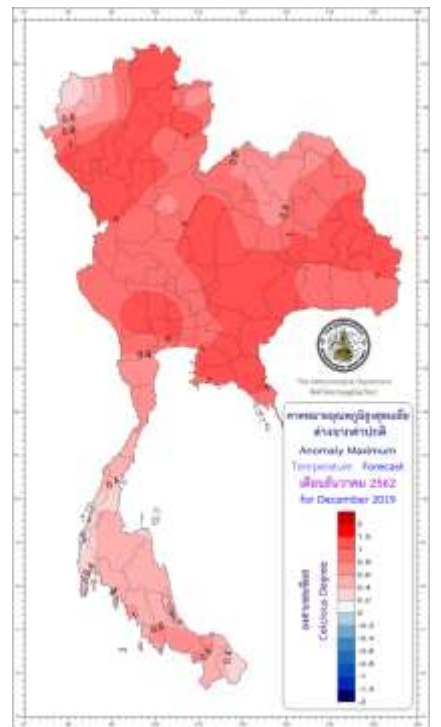
Mean maximum temperature anomaly forecast for October 2019



Mean maximum temperature anomaly forecast for November 2019

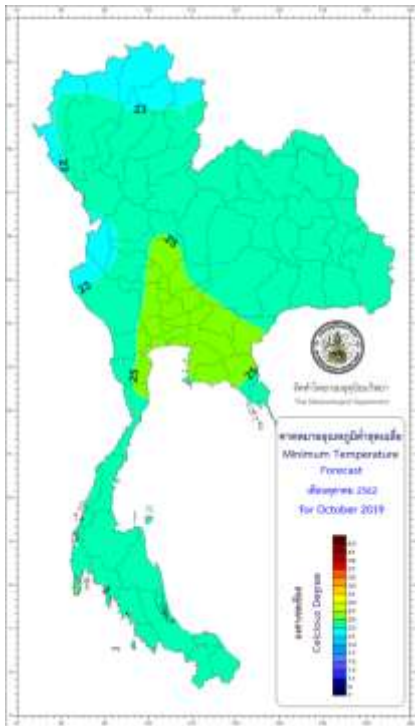


Mean maximum temperature anomaly forecast for December 2019

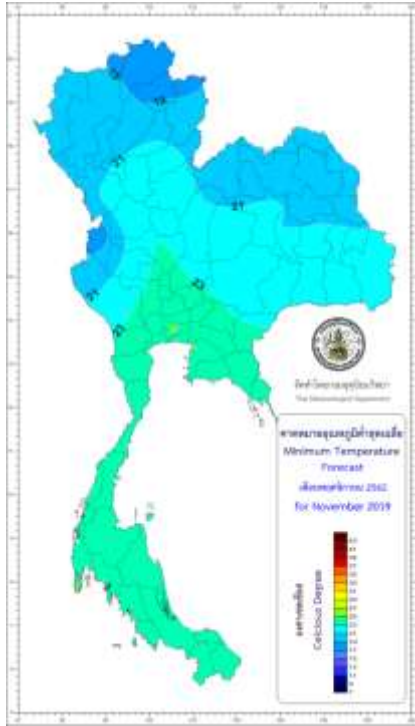


Mean Minimum Temperature (°C) and Anomaly (°C) Forecast:

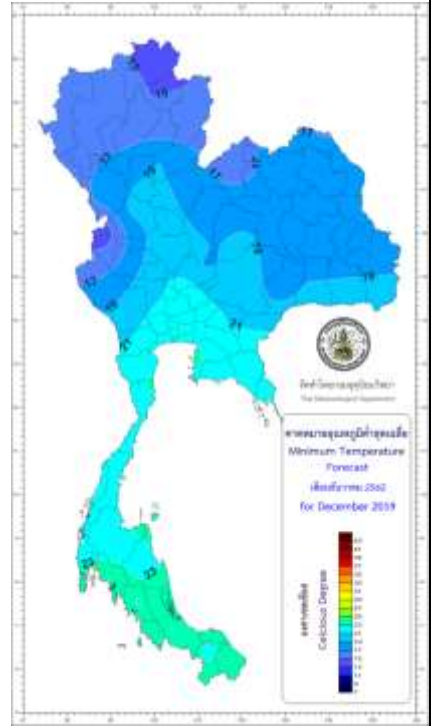
Mean minimum temperature forecast for October 2019



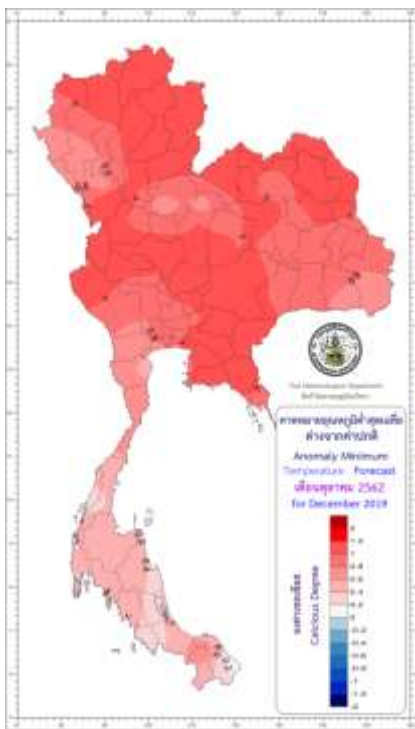
Mean minimum temperature forecast for November 2019



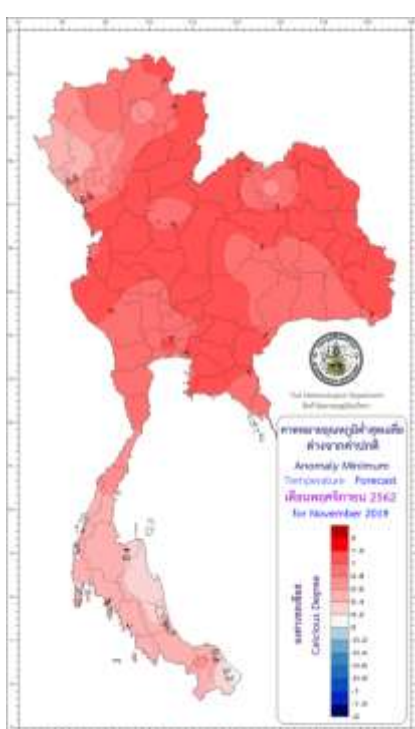
Mean minimum temperature forecast for December 2019



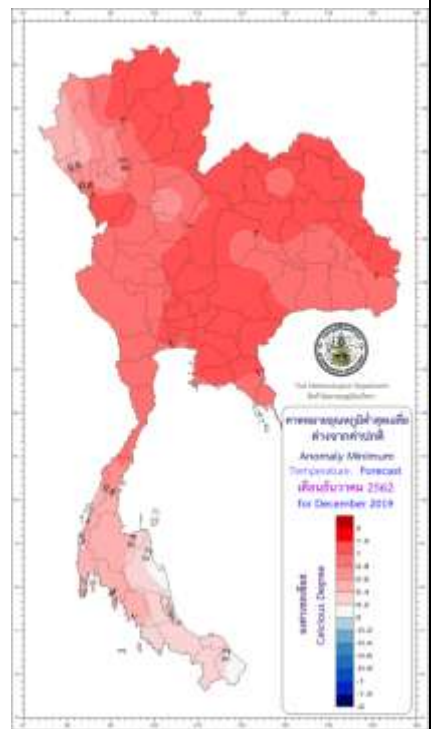
Mean minimum temperature anomaly forecast for October 2019



Mean minimum temperature anomaly forecast for November 2019



Mean minimum temperature anomaly forecast for December 2019



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

**October 2019:** For the central and eastern parts, continuous rainfall occurs. Additionally, sea-level rise happens at some periods influencing flood and overflow to inundate at some areas.

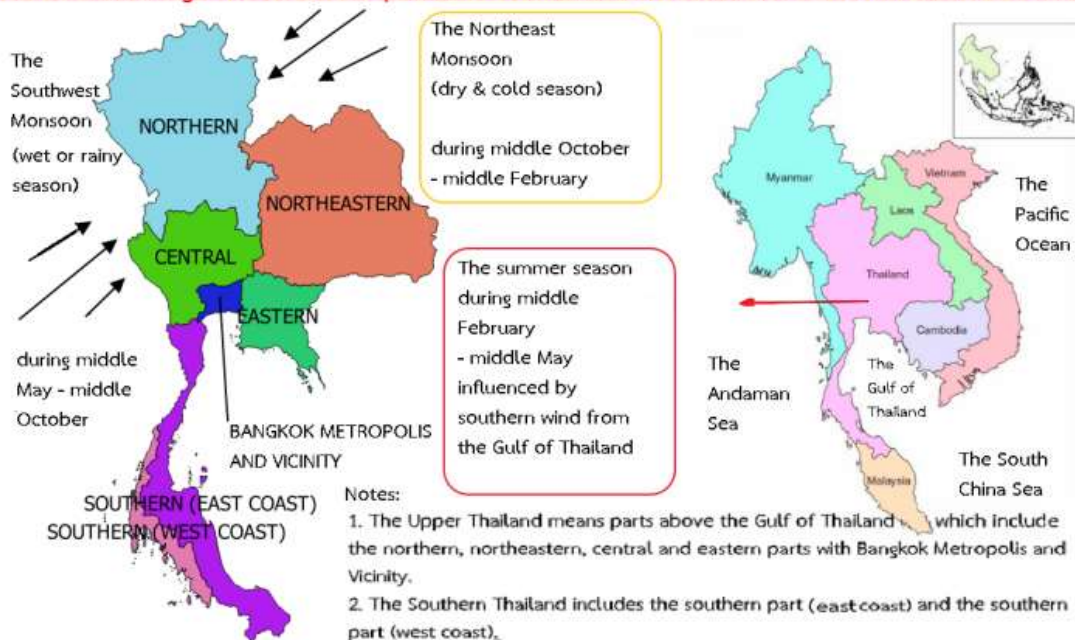
**November 2019:** Some tropical cyclones favor a high chance to pass the tip of the Indochina Peninsula and move toward the Gulf of Thailand or near Thailand and feasibly pass the Southern Thailand further. For this reason, the Southern Thailand (east coast) would meet increasing rain causing flash or forest flood to appear at some areas.

**December 2019:** Some westerly wind waves may pass Myanmar toward the Upper Thailand influencing the area to feasibly meet thunder rain, gusty wind, and falling hail further.

Consequently, the public then should follow weather forecast news from the Thai Meteorological Department closely.

Below right Image source: (please click Ctrl at your keyboard and below link to open a new web browser window.)  
[https://www.researchgate.net/figure/Study-area-the-Indochina-Peninsula-in-Monsoon-Southeast-Asia\\_fig5\\_296329477](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:** Forecast of rain amount (millimeters: mm) comparing with normal, and rainy day (days):

Part	Forecast									Normal (Baseline period: 1981-2010)					
	October 2019			November 2019			December 2019			October		November		December	
	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	105-145	10-13	Near normal	25-40	2-5	Near normal	0-10	1-2	Near normal	124.1	12.0	32.9	4.1	8.2	1.2
Northeastern	95-140	8-11	Near normal	15-25	1-4	Near normal	0-10	1-2	Near normal	114.0	10.4	18.8	2.9	3.5	0.8
Central	140-195	12-15	Near normal	30-45	2-5	Near normal	0-10	1-2	Near normal	167.1	14.4	34.4	4.1	5.1	1.0
Eastern	195-260	14-17	Near normal	40-70	4-7	Near normal	0-10	1-2	Near normal	225.1	16.5	53.3	5.6	8.1	1.4
Southern Thailand (east coast)	210-280	17-20	5 % Below normal	310-450	15-18	Near normal	210-335	10-13	Near normal	253.6	18.6	370.4	16.3	266.9	12.1
Southern Thailand (west coast)	310-390	21-24	5 % Below normal	160-225	15-18	Near normal	55-100	7-10	Near normal	366.5	22.8	193.3	16.2	75.0	9.1
Bangkok Metropolis and Vicinity	215-280	15-18	Near normal	40-60	4-7	Near normal	0-10	1-2	Near normal	246.1	17.5	47.6	5.8	6.9	1.2

**Table 2:** Forecast of mean maximum temperature (Tmax) and mean minimum temperature (Tmin): °C, and comparing mean temperature: °C with normal:

Part	Forecast									Normal (Baseline period: 1981-2010)					
	October 2019			November 2019			December 2019			October		November		December	
	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	32-34	22-25	Above normal	31-33	19-22	Above normal	29-32	15-19	Above normal	31.9	22.5	31.0	19.5	29.8	15.9
Northeastern	31-34	23-25	Above normal	30-33	20-23	Above normal	29-32	17-20	Above normal	31.4	22.8	30.7	20.1	29.5	17.1
Central	32-34	24-26	Above normal	32-34	21-24	Above normal	31-34	18-22	Above normal	32.4	24.0	31.9	22.2	31.4	19.7
Eastern	32-34	24-26	Above normal	32-34	23-25	Above normal	31-34	21-24	Above normal	32.0	24.1	32.1	23.0	31.6	21.2
Southern Thailand (east coast)	30-33	23-25	Near normal	30-32	23-25	Above normal	29-31	22-24	Above normal	31.4	23.8	30.3	23.4	29.7	22.5
Southern Thailand (west coast)	30-32	23-25	Near normal	31-33	23-25	Above normal	30-32	22-24	Above normal	31.2	23.7	31.4	23.5	31.5	23.0
Bangkok Metropolis and Vicinity	32-34	25-27	Above normal	32-34	24-26	Above normal	31-34	21-24	Above normal	32.6	24.8	32.4	23.9	31.7	22.0

**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.

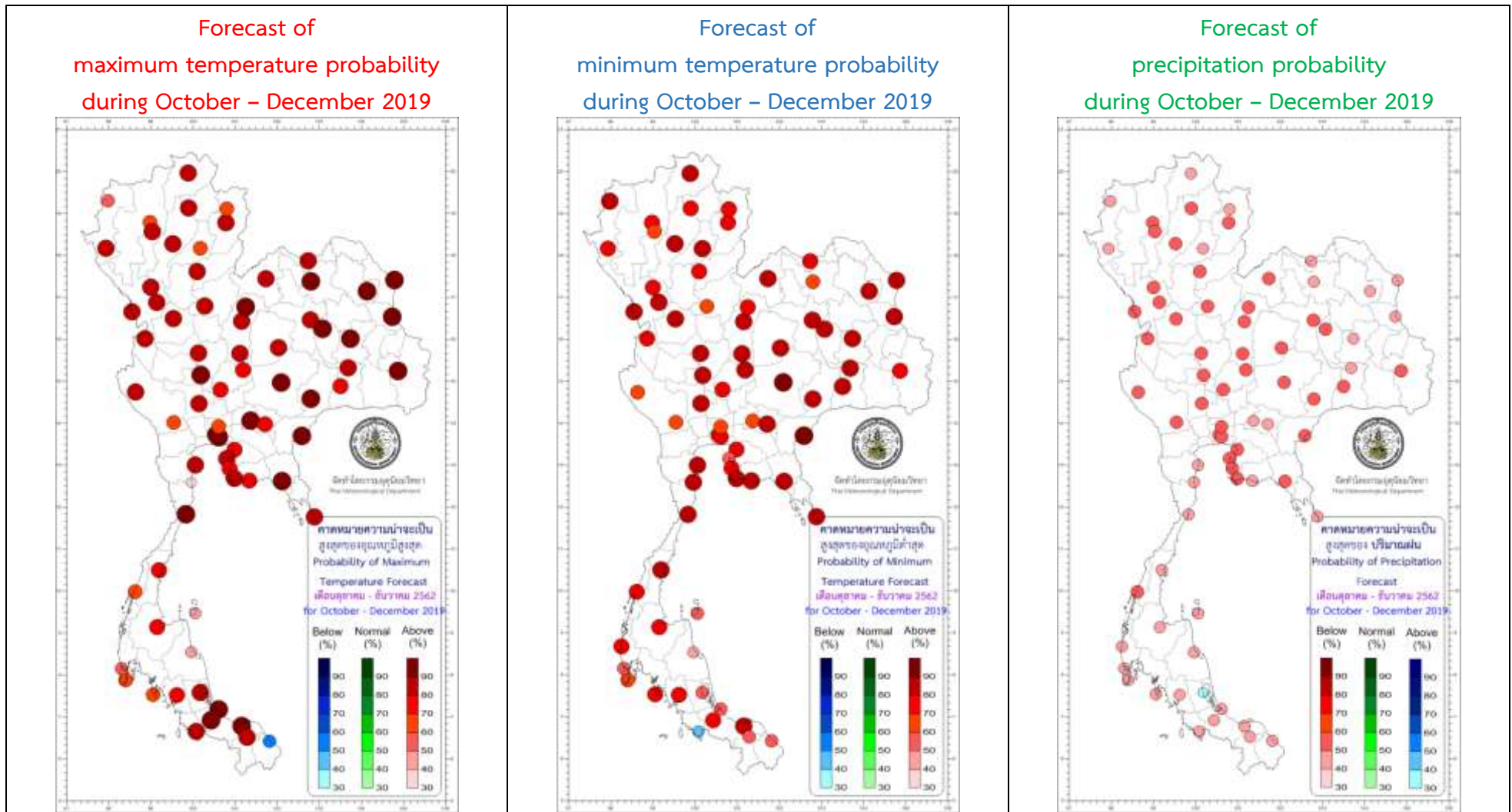
4) Further enquiry of monthly climate, 3-month climate and seasonal forecasts can be preceded at Tel: (662)-398-9929 or Fax: (662)-383-8827.

5) Also, please follow monthly climate, 3-month climate and seasonal forecasts at [www.tmd.go.th/en](http://www.tmd.go.th/en) at the climate tab.

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



**Table 3:** 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.