

Three-month Climate Prediction of Thailand

During February 2020 - April 2020

MINISTRY OF DIGITAL ECONOMY AND SOCIETY,
THAI METEOROLOGICAL DEPARTMENT

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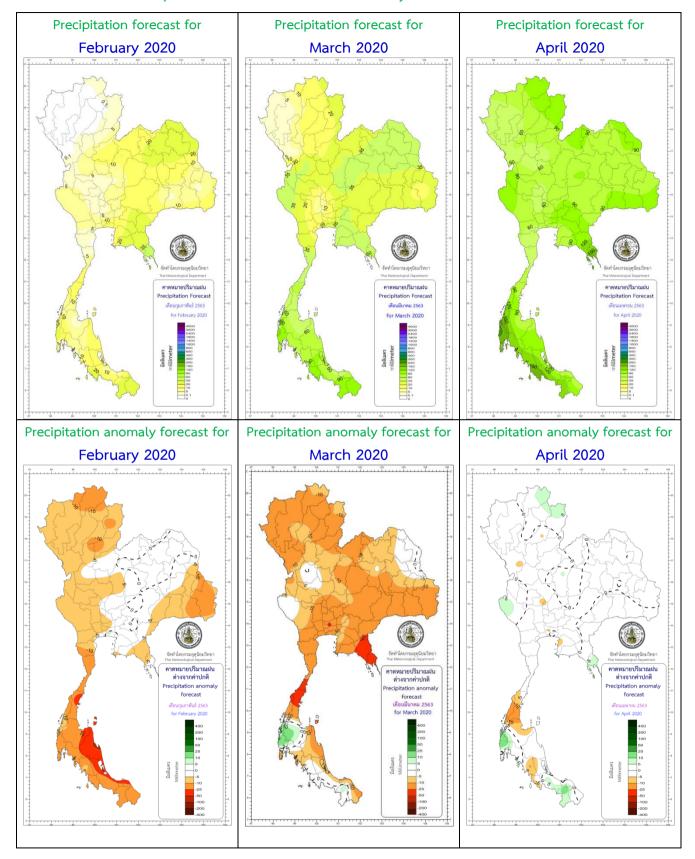
Thailand climate for February - April from 30-year normal (A.D. 1981 - 2010 or B.E. 2524 - 2553 baseline average)

<u>February 2019:</u> Usually, this month is during the transition period from the winter to the summer seasons as the high-pressure air mass areas prevailing over Thailand starts to weaken. Common weather is mostly cool with morning fog except around the northern and northeastern parts are still cold to very cold at some areas, mostly during the 1st half of this month. Afterword, rising temperature appears due to hot southerly wind starting to prevail instead of the former northeastern monsoon. This is the beginning of the summer season originating from the middle of this month onward. Additionally, for the Southern Thailand, the rain amount of this month lessens than that of the past month, specifically around the eastern coast.

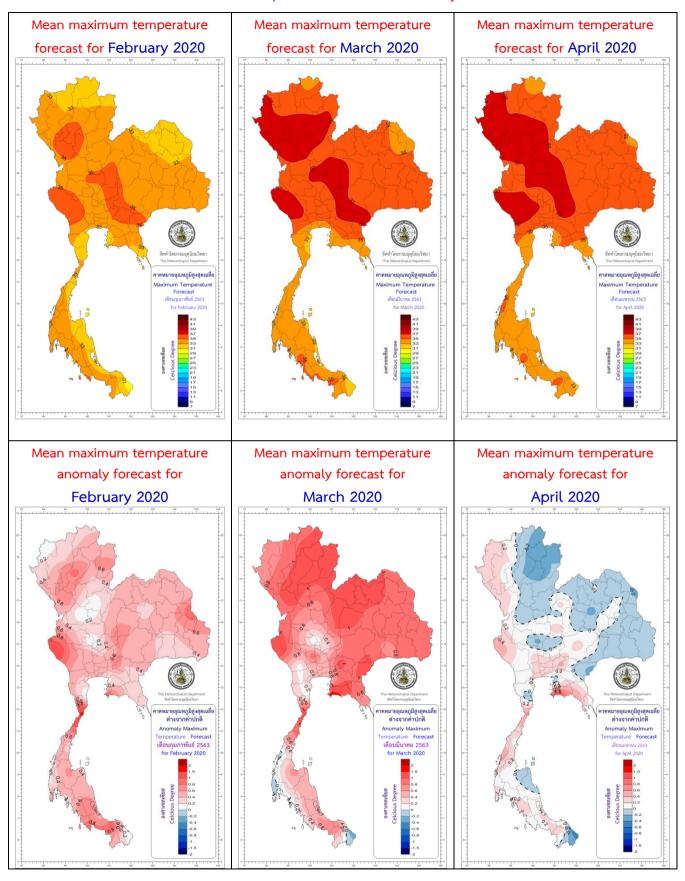
March 2019: Sweltering and dry weather with little humidity occurs with very hot weather on some days, especially around the Upper Thailand because mostly southerly wind prevails over Thailand. Although at some periods, some cold air masses from China will prevail to collide with existing hot air masses over Thailand, this causes summer thunderstorms to happen specifically around the Upper Thailand. These summer thunderstorms often occur at short durations around narrow or small areas along with instant gusty wind. They can also feasibly contribute to life and property damages.

April 2019: This is the most sweltering month for the whole year, especially around the Upper Thailand. Often, hot to very hot weather occurs together with low-pressure air mass cells along with more heat prevailing over the Upper Thailand. The reason is that this month is at the duration of the Sun radiates perpendicularly to the plane of Thailand. As a result, summer thunderstorms occur influencing the rain amount of this month to increase more than that of the past month in every part of Thailand.

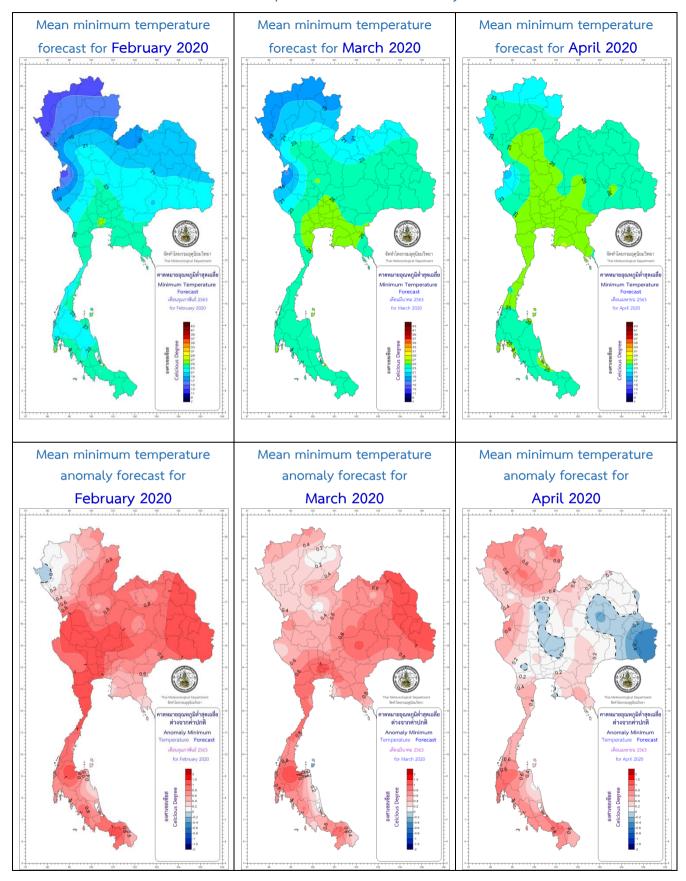
Precipitation (mm/month) and Anomaly (mm/month) Forecast:



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



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



*** Caution: ***

<u>February 2019:</u> Perhaps, some westerly wind waves may move pass Myanmar toward the Upper Thailand causing the area to meet thunder rain with gusty wind at some areas, and possibly falling hail.

March and April 2019: Often, summer thunderstorms happen as thunder rain storms, gusty wind and possibly falling hail at some areas. As a result, property and crop damages may occur.

<u>During late April 2019:</u> Probably, low-pressure air mass cells develop around the Andaman Sea. These may strengthen to become depressions and tropical cyclones further. Their movements are toward northerly to easterly and may move close toward the western portion of Thailand. Thus, the western sides of both of the northern and central parts including with the Southern Thailand will meet more rain.

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

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:

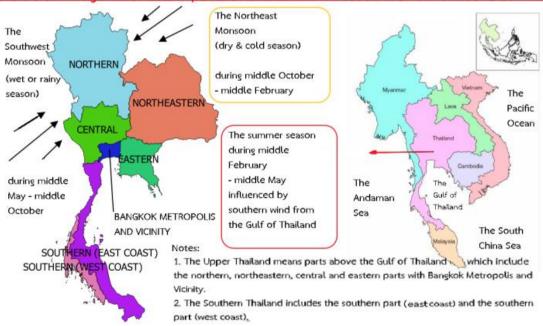


Table 1: Forecast of rain amount (millimeters: mm) comparing with normal, and rainy day (days):

PART	Forecast											Normal (Baseline period: 1981-2010)					
	February 2020			March 2020			April 2020			February		March		April			
	Rain	Rainy	Comparing	Rain	Rainy	Comparing	Rain	Rainy	Comparing	Rain	Rainy	Rain	Rainy	Rain	Rainy		
	(mm)	days	with normal	(mm)	days	with normal	(mm)	days	with normal	(mm)	days	(mm)	days	(mm)	days		
Northern	< 10	1-2	20 % Below normal	15-30	2-3	10 % Below normal	60-90	6-8	Near normal	10.4	1.4	28.1	3.1	71.3	7.0		
Northeastern	10-20	2-3	10 % Below normal	30-50	3-5	10 % Below normal	70-100	7-9	Near normal	18.5	2.5	44.7	4.8	86.3	8.0		
Central	< 10	1-2	20 % Below normal	20-40	2-3	10 % Below normal	60-90	6-8	Near normal	12.3	1.6	36.0	3.4	79.5	6.4		
Eastern	15-30	2-3	10 % Below normal	40-60	4-6	10 % Below normal	80-110	7-9	Near normal	29.1	3.1	62.1	5.4	98.9	8.3		
Southern Thailand (east coast)	15-30	2-3	20 % Below normal	50-70	4-6	10 % Below normal	60-90	6-8	Near normal	34.5	3.7	68.4	5.4	75.4	7.3		
Southern Thailand (west coast)	15-30	2-3	20 % Below normal	70-100	6-8	Near normal	140- 180	12-14	Near normal	27.5	3.6	88.8	7.6	160.6	12.7		
Bangkok	< 10	1-2	10 % Below normal	20-40	2-3	10 % Below normal	80-110	6-8	Near normal	20.0	2.5	42.1	3.6	91.4	6.5		

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

PART	Forecast											Normal (Baseline period: 1981-2010)						
	February 2020			March 2020			April 2020			February		March		April				
	Mean	Mean	Comparing	Mean	Mean	Comparing	Mean	Mean	Comparing	Mean	Mean	Mean	Mean	Mean	Mean			
Northern	33-35	Tmin 17-19	with Normal Above normal	36-38	7min 20-22	Above normal	36-38	7min 23-25	with Normal Near normal	33.7	17.2	36.1	20.4	37.1	23.4			
Northeastern	32-34	19-21	Above normal	35-37	22-24	Above normal	35-37	24-26	Near normal	33.0	19.7	35.1	22.4	36.1	24.5			
Central	34-36	22-24	Above normal	36-38	23-25	Above normal	36-38	24-26	Near normal	34.6	22.6	36.1	24.4	37.0	25.8			
Eastern	32-34	23-25	Above normal	34-36	24-26	Above normal	34-36	25-27	Near normal	32.9	23.4	33.8	24.9	34.7	25.9			
Southern Thailand (east coast)	31-33	22-24	Above normal	32-34	23-25	Above normal	33-35	24-26	Near normal	31.4	22.7	32.6	23.7	33.7	24.6			
Southern Thailand (west coast)	33-35	22-25	Above normal	33-35	23-25	Near normal	33-35	24-26	Near normal	33.8	23.0	34.4	23.7	34.2	24.4			
Bangkok	33-35	24-26	Above normal	34-36	25-27	Above normal	35-37	26-28	Near normal	33.3	24.4	34.3	25.9	35.4	26.9			

Remarks: 1) Normal means average during the 30-year period (A.D. 1981 – 2010 or B.E. 2524 – 2553).

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.

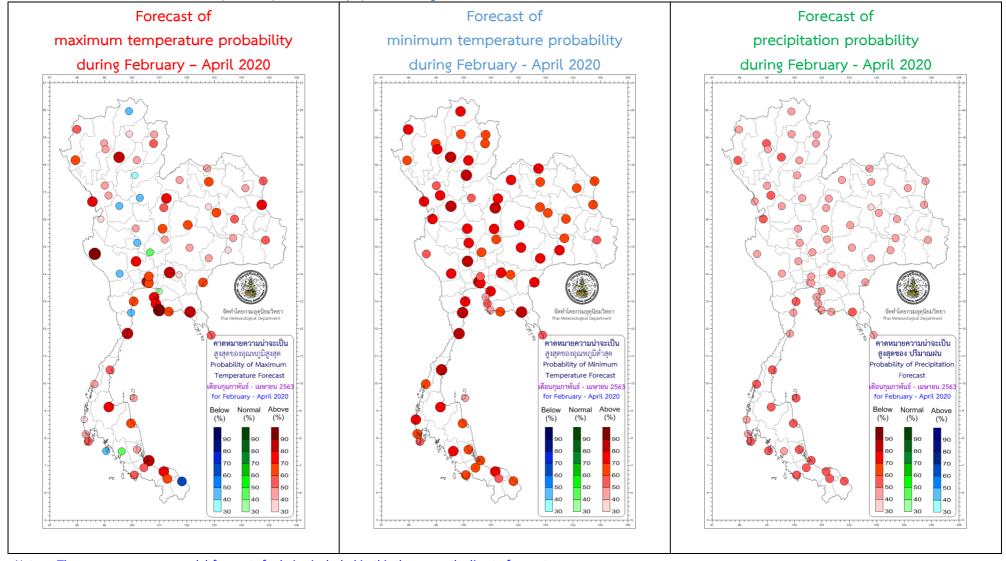
5) Also, please follow monthly climate, 3-month climate and seasonal forecasts at www.tmd.go.th/en at the climate tab.

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

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.

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.