

#### Three-month Climate Prediction of Thailand

During January 2020 - March 2020

MINISTRY OF DIGITAL ECONOMY AND SOCIETY,
THAI METEOROLOGICAL DEPARTMENT

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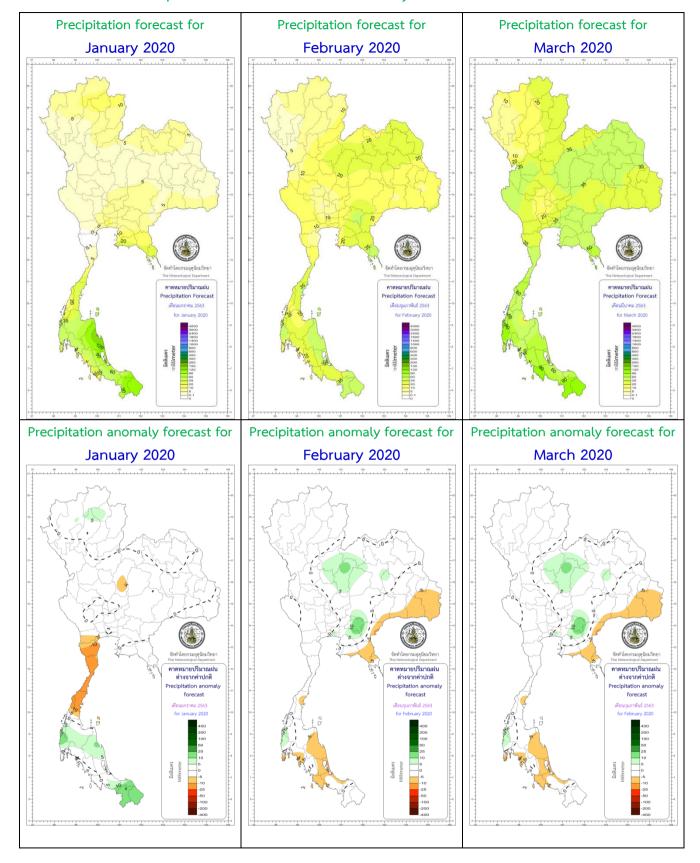
Thailand climate for January – February - March from 30-year normal (A.D. 1981 - 2010 or B.E. 2524 - 2553 baseline average)

January 2020 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.

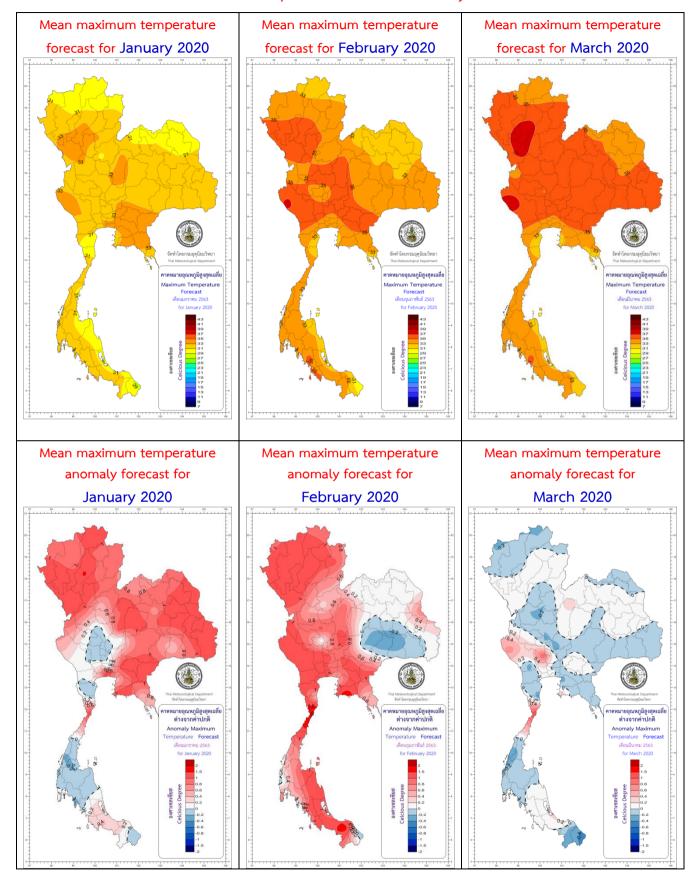
February 2020 Usually, this month is during the transition period from the winter to the summer. In other words, the high-pressure air mass areas prevailing over Thailand will start to weaken. Still, common weather of Thailand is still to be cool with morning fog except that of the northern and northeastern 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 2020 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.

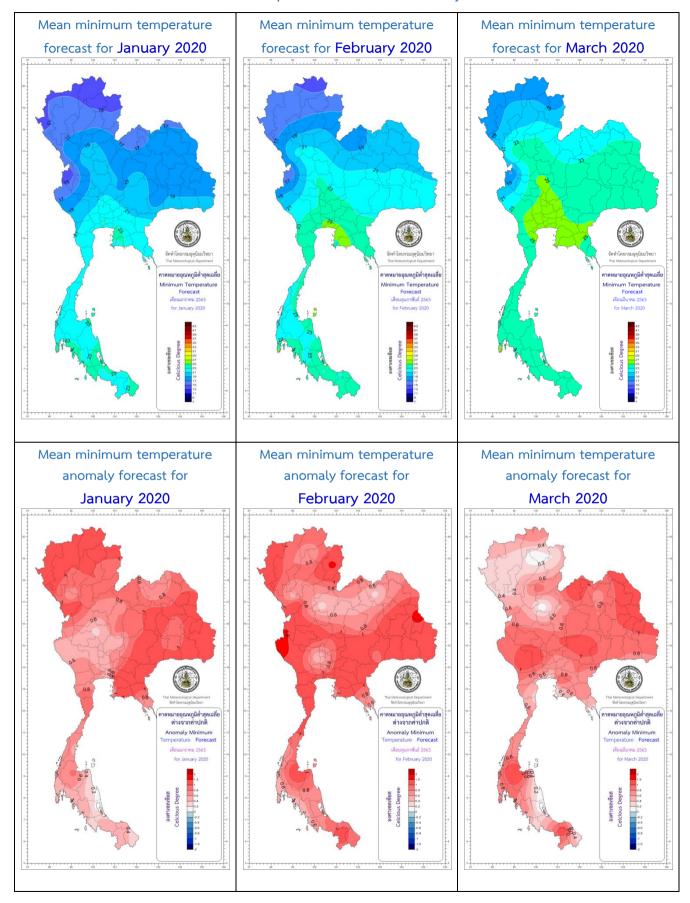
# Precipitation (mm/month) and Anomaly (mm/month) Forecast:



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



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



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

<u>January 2020:</u> 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.

<u>February 2020:</u> 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.

<u>March 2020:</u> 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.

#### 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: The Northeast Monsoon The (dry & cold season) Southwest Monsoon **NORTHERN** during middle October (wet or rainy - middle February season) NORTHEASTERN Pacific Ocean CENTRAL The summer season during middle February - middle May during middle The influenced by May - middle Gulf of Andaman Thalland southern wind from October BANGKOK METROPOLIS the Gulf of Thailand AND VICINITY The South China Sea Notes: SOUTHERN (EAST COAST)

1. The Upper Thailand means parts above the Gulf of Thailand which include

the northern, northeastern, central and eastern parts with Bangkok Metropolis and

2. The Southern Thailand includes the southern part (east coast) and the southern

Vicinity.

part (west coast),

SOUTHERN (WEST COAST)

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

PART	Forecast											Normal (Baseline period: 1981-2010)						
	January 2020			February 2020			March 2020			January		February		March				
	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	Near normal	10-20	1-2	Near normal	15-35	2-3	20 % Below normal	4.6	1.0	10.4	1.4	28.1	3.1			
Northeastern	< 10	1-2	Near normal	10-20	2-3	Near 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	10-20	1-2	Near normal	20-40	2-3	20 % Below normal	6.7	1.1	12.3	1.6	36.0	3.4			
Eastern	10-20	1-2	Near normal	20-40	2-3	Near normal	40-70	4-6	20 % Below normal	16.1	1.8	29.1	3.1	62.1	5.4			
Southern Thailand (east coast)	50-80	6-9	Near normal	20-40	3-5	10 % Below normal	50-80	4-6	20 % Below normal	59.7	7.2	34.5	3.7	68.4	5.4			
Southern Thailand (west coast)	20-40	3-5	Near normal	15-35	3-5	10 % Below normal	60-100	6-9	10 % Below normal	26.4	4.2	27.5	3.6	88.8	7.6			
Bangkok	10-20	1-2	Near normal	10-20	2-3	Near normal	30-50	2-3	20 % Below normal	13.3	1.7	20.0	2.5	42.1	3.6			

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)						
	January 2020			February 2020			March 2020			January		February		March				
	Mean	Mean	Comparing	Mean	Mean	Comparing	Mean	Mean	Comparing	Mean	Mean	Mean	Mean	Mean	Mean			
Northern	31-33	Tmin 16-18	with Normal  Above  normal	33-35	Tmin 17-19	Above normal	35-37	7min 20-22	with Normal  Near normal	31.1	15.6	33.7	17.2	36.1	20.4			
Northeastern	31-33	17-19	Above normal	32-34	19-21	Above normal	34-36	22-24	Near 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	35-37	23-25	Near 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	24-26	Near normal	32.1	21.4	32.9	23.4	33.8	24.9			
Southern Thailand (east coast)	29-31	22-24	Above normal	31-33	23-25	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	Above normal	33-35	22-24	Above normal	33-35	22-24	Near normal	32.6	22.8	33.8	23.0	34.4	23.7			
Bangkok	32-34	22-24	Above normal	33-35	24-26	Above normal	33-35	25-27	Near normal	32.5	22.6	33.3	24.4	34.3	25.9			

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

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

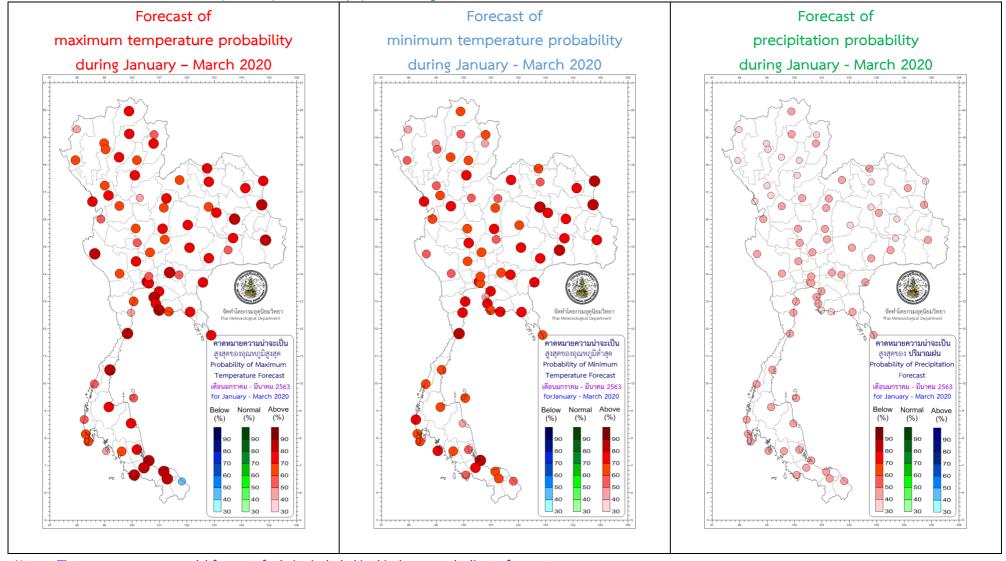
Climate Center, Meteorological Development Division,
Thai Meteorological Department,
Ministry of Digital Economy and Society

<sup>2)</sup> 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.

<sup>3)</sup> The next 3-month climate forecast will be published online before the end of next month.

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

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.