

## 3-month Climate Prediction of Thailand

During November 2021 - January 2022

Issued on 28 October 2021

# MINISTRY OF DIGITAL ECONOMY AND SOCIETY, THAI METEOROLOGICAL DEPARTMENT

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<u>Thailand climate for November - December - January from 30-year normal (A.D. 1991 - 2020 or B.E. 2534 - 2563 baseline average)</u>

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

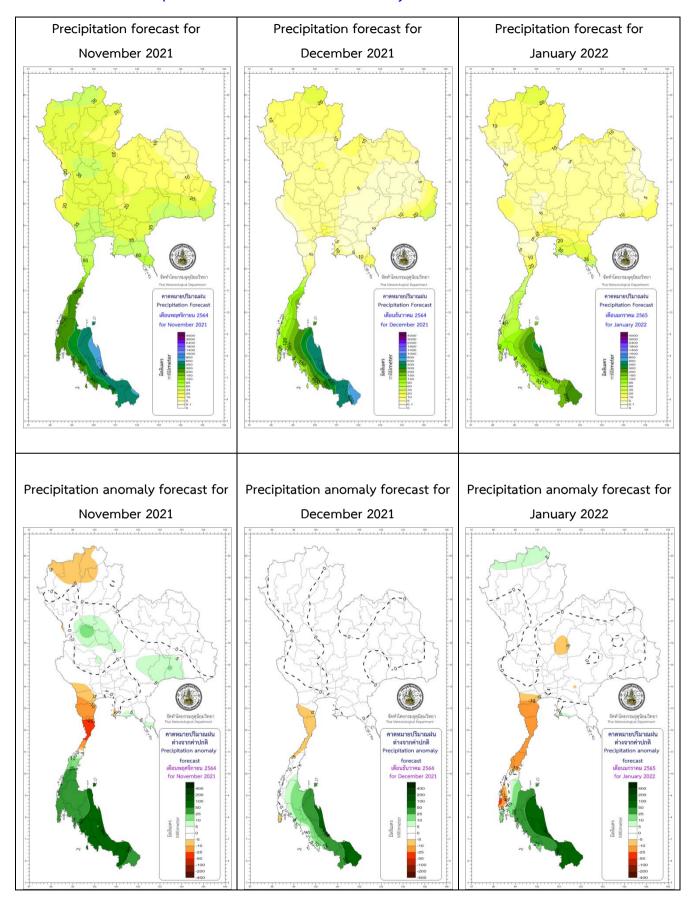
However, the Southern Thailand will still meet abundant rainfall, especially around the east coast. The reason is that the influential Northeastern Monsoon and the low-pressure trough place over the Southern Thailand and the Gulf of Thailand.

<u>December:</u> 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

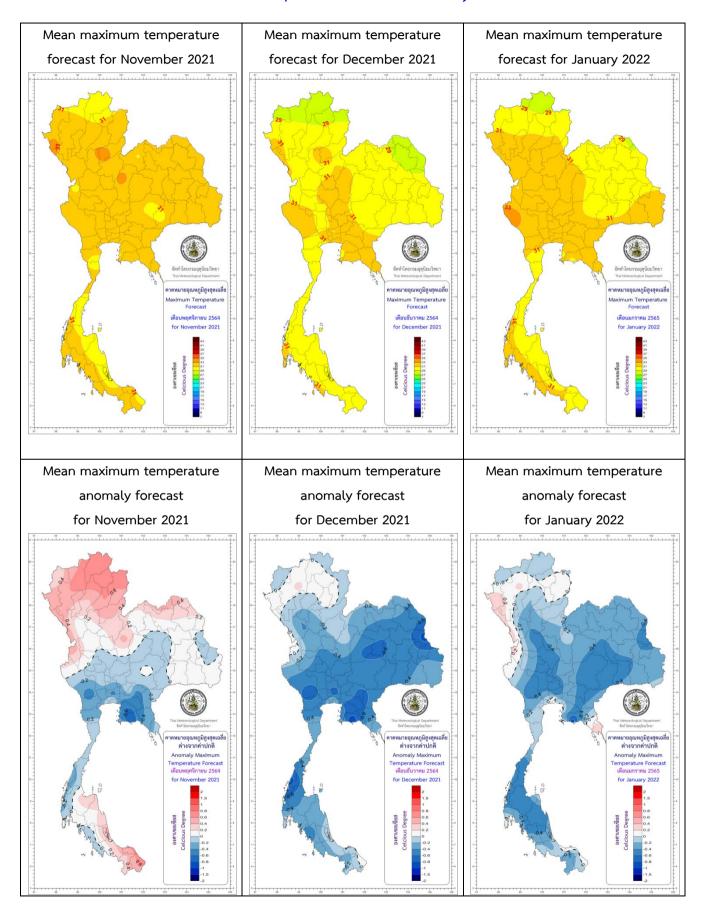
For the Southern Thailand, abundant rainfall will mostly appear during the 1st half of this month, especially along the east coast. The reason is that the influential Northeast Monsoon prevails over the Southern Thailand and the Gulf of Thailand. Nevertheless, some tropical cyclones may feasibly move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

January: Cold weather appears because the influential high-pressure air mass 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 along with 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.

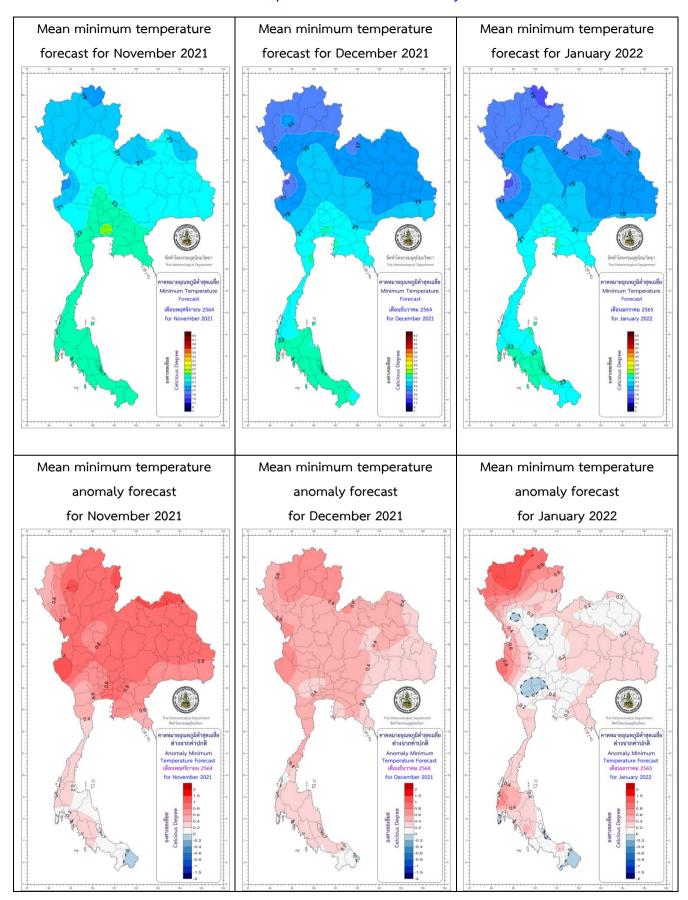
#### Precipitation (mm/month) and Anomaly (mm/month) Forecast:



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



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



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

During November 2021: Some tropical cyclones favor a high chance to move near Thailand or pass the Southern Thailand. They will pass the tip of the Indochina Peninsula toward the Gulf of Thailand influencing the Southern Thailand (East Coast) to meet increasing rainfall. As a result, flash or forest flood may happen at some areas.

December 2021 & January 2022: Some westerly wind waves from Myanmar 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.

#### 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 The Monsoon (dry & cold season) Southwest Monsoon NORTHERN during middle October (wet or rain) - middle February season) NORTHEASTERN Pacific Ocean CENTRAL The summer season during middle ASTERN February - middle May during middle May - middle influenced by Andaman October southern wind from BANGKOK METROPOLIS Sea 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 SOUTHERN (WEST) COAST) the northern, northeastern, central and eastern parts with Bangkok Metropolis and Vicinity. 2. The Southern Thailand includes the southern part (east-coast) and the southern

part (west coast),

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

	Prediction											Normal (Baseline period: 1991-2020)*					
Part	November 2021			December 2021			January 2022			November		December		January			
	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	20-40	3-5	Near normal	Less than 10	0-2	Near normal	Less than 10	0-2	Near normal	26.9	4.1	10.6	1.2	10.6	1.0		
Northeastern	10-30	1-3	Near normal	Less than 10	0-2	Near normal	Less than 10	0-2	Near normal	18.0	2.9	4.9	8.0	6.5	1.1		
Central	20-40	4-6	Near normal	Less than 10	0-2	Near normal	Less than 10	0-2	Near normal	28.7	4.1	6.6	1.0	7.1	1.1		
Eastern	40-60	5-7	Near normal	Less than 10	0-2	Near normal	20-40	1-3	Near normal	48.0	5.6	9.8	1.4	26.1	1.8		
Southern Thailand (East Coast)	360-450	16-19	10% Above normal	290-350	12-14	10% Above normal	120-160	7-9	30% Above normal	364.5	16.3	295.7	12.1	111.0	7.2		
Southern Thailand (West Coast)	200-260	16-19	20% Above normal	80-120	9-11	Near normal	60-90	4-6	20% Above normal	192.5	16.2	90.0	9.1	59.1	4.2		
Bangkok Metropolis and Vicinity	30-50	5-7	Near normal	10-20	0-2	Near normal	10-30	1-3	Near normal	43.5	5.8	12.1	1.2	21.9	1.7		

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

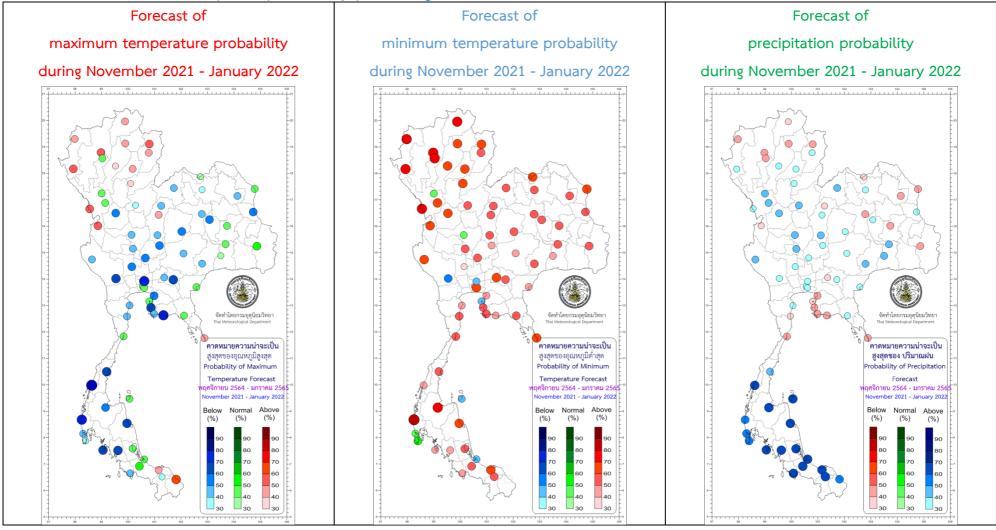
Part .				Normal (Baseline period: 1981-2010)*											
	November 2021			December 2021			January 2022			November		December		January	
	Mean	Mean	Comparing	Mean	Mean	Comparing	Mean	Mean	Comparing	Mean	Mean	Mean	Mean	Mean	Mean
	Tmax	Tmin	with Normal	Tmax	Tmin	with Normal	Tmax	Tmin	with Normal	Tmax	Tmin	Tmax	Tmin	Tmax	Tmin
Northern 3	31-33	20-22	Above	29-31	17-19	Near	30-32	16-18	Above	31.7	19.9	30.3	16.9	31.2	16.2
			normal			normal			normal						
Northeastern	30_32	0-32 20-22	Above	28-30	18-20	Near	29-31	17-19	Near	31.4	20.5	30.0	17.9	30.7	17.6
	30-32		normal			normal		17-19	normal						
Central 31	31-33	22-24	Above	30-32	19-21	Near	31-33	19-21	Near	32.5	22.1	31.8	19.8	32.7	19.8
	31-33		normal			normal			normal		22.1				
Eastern	31-33	3 23-25	Above	30-32	21-23	Near	31-33	22-24	Near	32.4	23.4	31.9	22.0	32.2	22.0
	31-33		normal			normal			normal						
Southern (East	30-32	23-25	Near	29-31	22-24	Near	29-31	22-24	Near	30.6	23.6	30.0	23.0	30.5	22.7
Coast)			normal			normal			normal						
Southern	30-32	32 23-25	Near	30-32 23-25	22.25	Near	31-33	22-24	Near	31.6	23.8	31.6	23.4	32.6	23.2
(West Coast)			normal		23-25	normal			normal						
Bangkok and	31-33	31-33 24-26	Above	30-32 23-2	23-25	Near	31-33	22-24	Near	32.6	24.4	31.8	22.8	32.3	22.8
Vicinity			normal		23 23	normal			normal			31.0	22.0		

Remarks: - \* Normal means average during the 30-year period (A.D. 1991 – 2020 or B.E. 2534 – 2563).

- 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,
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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)



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