

3-month Climate Prediction of Thailand

During October - December 2021

Issued on 29 September 2021

MINISTRY OF DIGITAL ECONOMY AND SOCIETY,
THAI METEOROLOGICAL DEPARTMENT

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

October: As being a time of transition from the rainy to the winter seasons, the Upper Thailand will meet less rainfall and reducing 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 2nd 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.

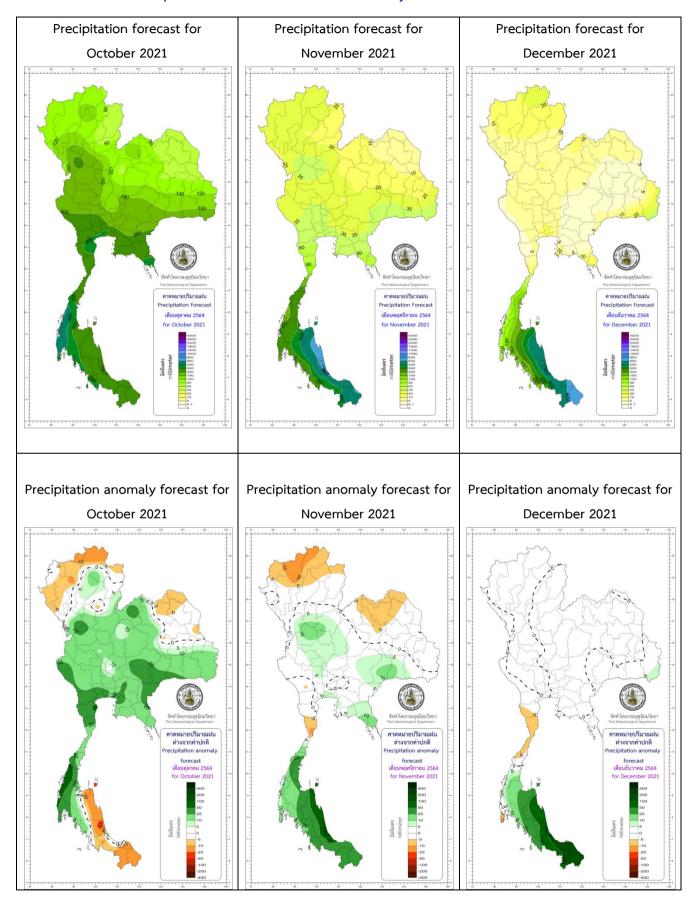
November: The Upper Thailand will meet much reducing rain with cool weather for this whole month. The reason is that the influential high-pressure air mass areas from China will actively prevail over the Upper Thailand periodically. Thus, temperature will reduce, so cold weather happens at some areas,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

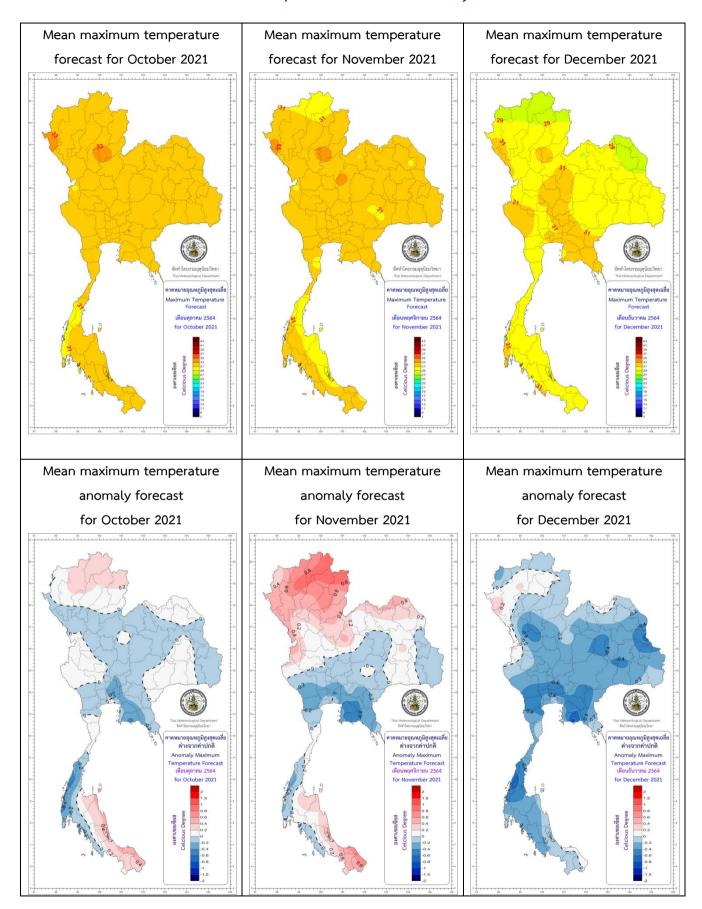
<u>December:</u> Usually, the actively cold or high-pressure air mass areas from China will prevail over the whole of Thailand periodically. As a result, the temperature of the Upper Thailand will reduce to happen as commonly chilly weather, specifically at the upper portion of the northern and northeastern 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.

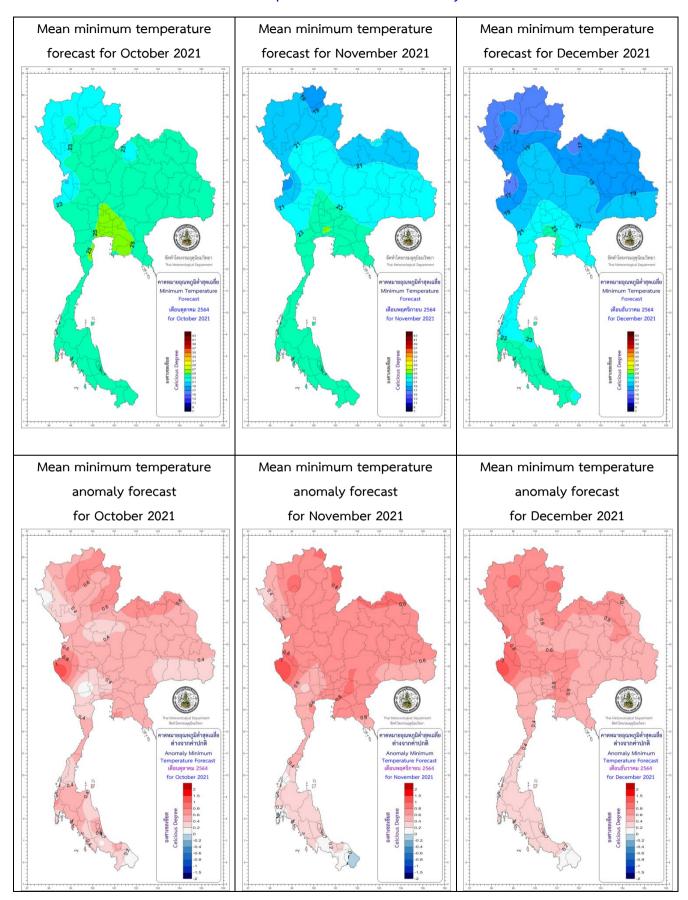
Precipitation (mm/month) and Anomaly (mm/month) Forecast:



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



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



*** Caution: ***

<u>During October & November 2021:</u> Some tropical cyclones favor a high chance to pass the tip of the Indochina Peninsula and move toward or near the Southern Thailand. For this reason, the nearby passing areas of the tropical cyclones will meet densely abundant rainfall with heavy to very heavy rain amounts at some areas.

Therefore, the public should follow weather forecast news and tropical cyclone warnings from the Thai Meteorological Department further.

<u>December 2021:</u> 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:

 $\underline{https://www.researchgate.net/figure/Study-area-the-Indochina-Peninsula-in-Monsoon-Southeast-Asia_fig5_296329477$

The below Image illustrates 7 parts of Thailand with seasons and Monsoons or wind:

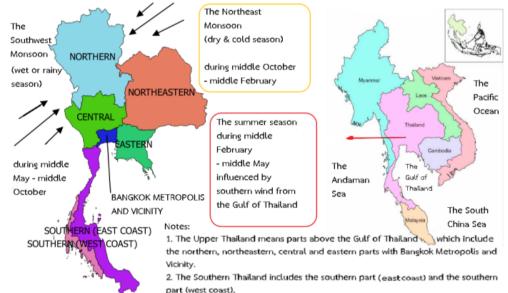


Table 1: Prediction of Rain (mm = millimeters), Rainy Days (days) and comparing with normal

	Prediction											Normal (Baseline period: 1991-2020)*					
Part	October 2021			November 2021			December 2021			October		November		December			
	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	100-140	12-14	5% Above normal	20-40	3-5	Near normal	Less than 10	0-2	Near normal	116.6	12.0	26.9	4.1	10.6	1.2		
Northeastern	90-130	10-12	10% Above normal	10-20	2-3	Near normal	Less than 10	0-2	Near normal	101.5	10.4	18.0	2.9	4.9	0.8		
Central	150-200	14-16	10% Above normal	20-40	4-6	10% Above normal	Less than 10	0-2	Near normal	159.5	14.4	28.7	4.1	6.6	1.0		
Eastern	210-270	16-19	10% Above normal	40-60	5-7	10% Above normal	Less than 10	0-2	Near normal	218.5	16.5	48.0	5.6	9.8	1.4		
Southern Thailand (East Coast)	220-280	17-20	Near normal	360-450	16-19	10% Above normal	310-390	12-14	20% Above normal	254.5	18.6	364.5	16.3	295.7	12.1		
Southern Thailand (West Coast)	360-450	22-25	10% Above normal	180-240	16-19	10% Above normal	80-120	9-11	10% Above normal	369.8	22.8	192.5	16.2	90.0	9.1		
Bangkok Metropolis and Vicinity	230-290	17-20	10% Above normal	30-50	5-7	10% Above normal	10-20	0-2	Near normal	244.2	17.5	43.5	5.8	12.1	1.2		

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

Part				Normal (Baseline period: 1981-2010)*											
	October 2021			November 2021			December 2021			October		November		December	
	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	31-33	22-24	Near	31-33	20-22	Near	29-31	17-19	Near	32.3	22.6	31.7	19.9	30.3	16.9
			normal			normal			normal						
Northeastern	21_22	1-33 22-24	Near	30-32 20-22	20-22	Near	29-31	18-20	Near	31.8	22.9	31.4	20.5	30.0	17.9
	31-33		normal		20-22	normal		10-20	normal						
Central	32-34	23-25	Near	31-33 22	22-24	Near	30-32	19-21	Near	32.7	23.9	32.5	22.1	31.8	19.8
			normal		22-24	normal			normal		23.9				
Eastern	31-33	24-26	Near	31-33	23-25	Near	31-33	22-24	Near	32.3	24.3	32.4	23.4	31.9	22.0
	31-33		normal			normal			normal		24.3				
Southern (East	31-33	23-25	Near	30-32	23-25	Near	29-31	22-24	Near	31.6	23.9	30.6	23.6	30.0	23.0
Coast)			normal			normal			normal						
Southern	30-32	32 23-25	Near	21_22	31-33 23-25	Near	30-32	22-24	Near	31.3	23.9	31.6	23.8	31.6	23.4
(West Coast)			normal	31-33		normal			normal						
Bangkok and Vicinity	32-34	25-27	Near normal	31-33	24-26	Near normal	31-33	23-25	Near normal	32.7	25.1	32.6	24.4	31.8	22.8

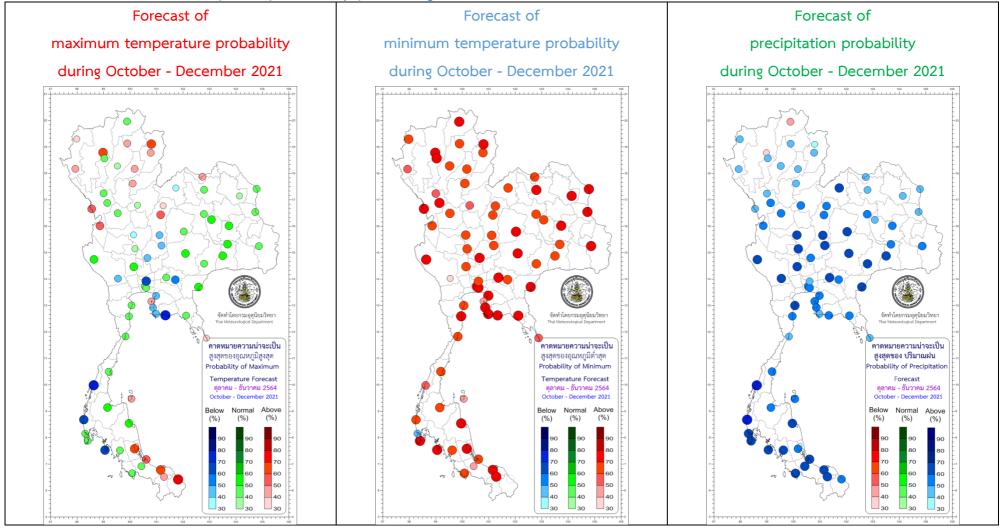
Remarks: - * Normal means average during the 30-year period (A.D. 1981 – 2010 or B.E. 2534 – 2563).

- 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,

Thai Meteorological Department,

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.