



MINISTRY OF DIGITAL ECONOMY AND SOCIETY,
THAI METEOROLOGICAL DEPARTMENT

Winter 2020 – 2021 forecast of Thailand

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Overview of the winter of Thailand

About during November 2020 until late February 2021:

The winter of Thailand this year is expected as the following:

For the Upper Thailand:

- 1) The winter started at 22 October 2019, which is 1 weeks later than normal and is to end at about late February 2021.
- 2) The mean minimum temperature around the Upper Thailand would be about 21 °C which is 1 °C above normal (normal: 19.9 °C) and is to be nearly last year. (The mean minimum temperature of last year was 20.9 °C).
The extreme minimum temperature would be 8–9 °C which is to be around the upper portion of northern and northeastern parts while that of Bangkok Metropolis is to be 16–17 °C.
- 3) The chilliest period would mostly begin during the 2nd half of December 2020 until late January 2021.
- 4) For mount tops and mountainous areas, the weather would become cold to very cold with frost happening often.

For the Southern Thailand:

- 1) Chilly weather occurs at some areas on some days, mostly at the upper portion. Densely abundant rainfall still happens along the east coast from Chumphon province downward, especially during November and December. Heavy rain appears at many areas together with very heavy rain occurs at some areas. Consequently, flash or forest flood with overflow inundates at some areas. Furthermore, wind waves in the Gulf of Thailand would be active from time to time with 2 – 4 meters high at some periods while those in the Andaman Sea are to be 1 – 2 meters high.
- 2) During November and December, there will be a tropical storm moving in the lower portion of the South China Sea. They favor a high chance to move near or pass the Gulf of Thailand toward the Southern Thailand. Thus, the Southern Thailand will meet vast areas of rainfall with heavy to very heavy rain at many areas.

** A map demonstrating 7 parts of Thailand is on below Page 4:

Climate Outlook

The Upper Thailand (northern, northeastern, central and eastern parts)

During November until early December: The northern and northeastern parts would meet commonly chilly and cold weather at some places on some days. While the central and eastern parts would meet cool weather at many areas at the upper portion.

Moreover, the amount and distribution of rainfall will reduce; still thunder rain occurs at 10 – 30% of the area with gusty wind at some areas. The reason is that high-pressure air mass areas from China will prevail over the northern and northeastern parts from time to time; being mostly moderately active. Additionally, the Northeast Monsoon will prevail over the Upper Thailand for almost all of this period.

During the middle of December until early February : The weather will become chillier. Specifically, the northern and northeastern parts are to meet commonly chilly. For mount tops and mountainous areas, the weather will become cold to very cold with frost happening at some periods. For the central and eastern parts, cool weather appears commonly with cold weather occurring at many areas at some periods, mostly at the upper portion. The reason is that high-pressure air mass areas from China still prevail over Thailand from time to time continuously; mostly being moderately active, together with the Northeast Monsoon prevails over Thailand.

During the middle and late of February: The weather will fluctuate as warming weather happens including with hot weather at many areas during daytime along with morning thick fog or haze at many areas. The northern and northeastern parts still meet morning chilly weather although the high-pressure air mass areas prevailing over the Upper Thailand weakens.

The Southern Thailand

During November until middle of January: Densely abundant rainfall still occurs, especially along the east coast from Chumphon province downward. Thunder rain occurs at 60 – 80% of the area with heavy rain at many areas and very heavy rain at some areas. As a result, flash or forest flood with overflow will inundate at some areas.

Meanwhile, wind waves in the Gulf of Thailand will be active periodically, sometimes they are to be 2 – 4 meters high. The reason is that the Northeast Monsoon prevailing over the Gulf of Thailand and the Southern Thailand will be active from time to time, specifically during November and December.

Moreover, a monsoon trough would prevail over the upper, middle, and lower portions of the Southern Thailand during some periods in October, November, and December consecutively. Besides, some active low-pressure air mass cells or tropical cyclones would feasibly move near or pass the Southern Thailand.

During the end of January till late of February: The amount and distribution of rainfall will lessen because the prevailing Northeast Monsoon over the Gulf of Thailand and the Southern Thailand weakens. As a matter of fact, the Northeast Monsoon will transform into prevailing eastern or southeastern winds instead.

Details for each part are as the following:

The northern and northeastern parts

During November until early December, cool weather almost commonly occurs with morning fog or haze and cold weather at some areas on some days. Thunder rain would happen at 10–20% of the area together with gusty wind at some areas on some days.

During the middle of December until early February, the weather becomes chillier, cold weather almost commonly occurs with thick fog or haze at many areas on some days. For mount tops and mountainous areas, the weather will become cold to very cold with frost happening at some periods.

During the middle and late of February, the weather would fluctuate. In fact, the weather becomes warmer and hot weather occurs at many areas during daytime with thick fog or haze at many areas. Nevertheless, chilly weather still happens in the morning.

The central and eastern parts

During November until early December, cool weather occurs at some areas around the upper portion, with morning fog or haze. Thunder rain would appear at 20–30% of the area with feasibly gusty wind at some areas on some days.

During the middle of December until early February, cool weather occurs almost commonly with cold weather at many areas during some periods, specifically at the upper portion and mountainous areas. Thick fog or haze would also appear at many areas during some periods.

During the middle and late of February, weather would fluctuate. Warmer weather is to appear with hot weather at many areas during daytime. Thick fog or haze would also happen at many areas during some periods. Nevertheless, the upper portion and mountainous areas would meet morning cool weather.

The Southern Thailand (east coast or the Gulf of Thailand)

During November until middle of January, densely abundant rainfall will occur, especially from Chumphon province downward. Thunder rain would occur at 60 – 80% of the area with heavy rain at many areas and very heavy rain at some areas. Consequently, flash or forest flood with overflow will inundate at some areas. Furthermore, wind waves will become active as 2 – 4 meters high at some periods.

During the end of January till late of February, the amount and distribution of rainfall will reduce. Still, the lower portion would meet rainfall at 30 – 40% of the area with heavy rain at some areas on some days.

The Southern Thailand (west coast or the Andaman Sea)

November, thunder rain would occur at 40 – 60% of the area with heavy rain at some areas whereas wind waves in the Andaman Sea are to be 1 – 2 meters high.

During the start of December until late of February, the amount and distribution of rainfall will lessen; rainfall still occurs at 10 – 20% of the area.

Bangkok Metropolis and Vicinity

During November until early December, cool weather would occur at some days along with thunder rain is to appear at 20 – 30% of the area.

During the start of December until late January, cool weather would happen at many areas. Thick fog or haze is to occur at some areas at some periods.

During February, weather would fluctuate. Warmer weather is to appear with cool weather at some areas on some days. Hot weather would also occur during daytime.

Caution:

- 1) During December and January, frost often occurs around mount tops with thick fog or haze happening at many areas, especially at the northern and northeastern parts. Thus, the public should proceed with caution while driving vehicles further.
- 2) During January and February, some westerly wind waves may pass Myanmar toward the Upper Thailand influencing thunder rain, gusty wind, and falling hail to occur at some areas.

Remarks:

- 1) The extreme minimum temperature criteria during the winter season:

Cool	refers to	16.0 – 22.9 °C
Cold	refers to	8.0 – 15.9 °C
Very cold	refers to	< 8.0 °C
- 2) This long-range climate forecast is created by applying some climate models and statistical methods.
- 3) This forecast *may be* updated during the last week of November 2020
- 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 or at www.climate.tmd.go.th.

Climate Center, Meteorological Development Division,
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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

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

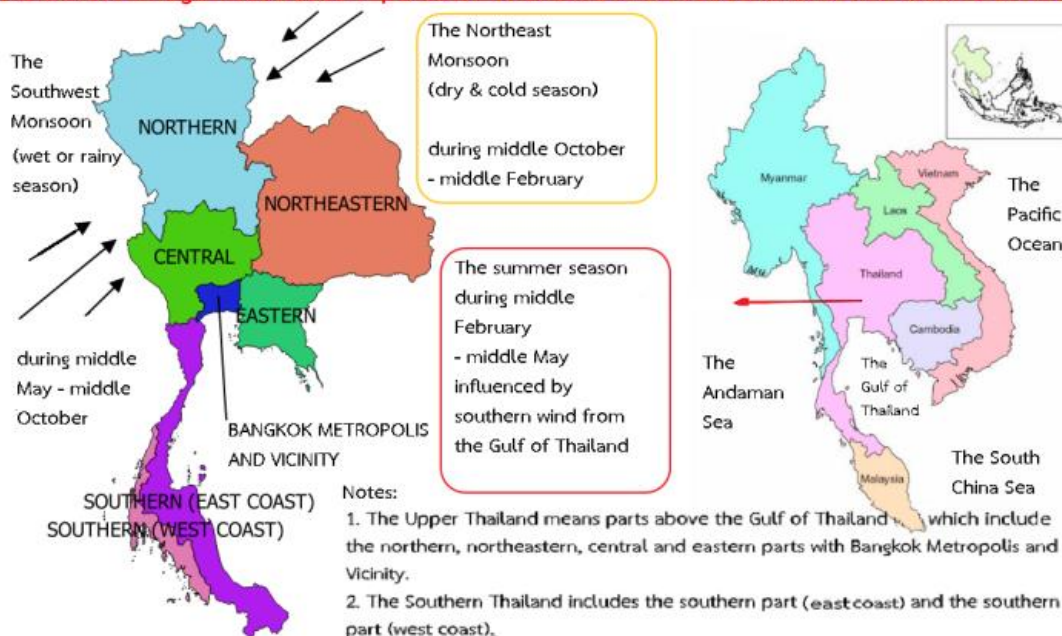


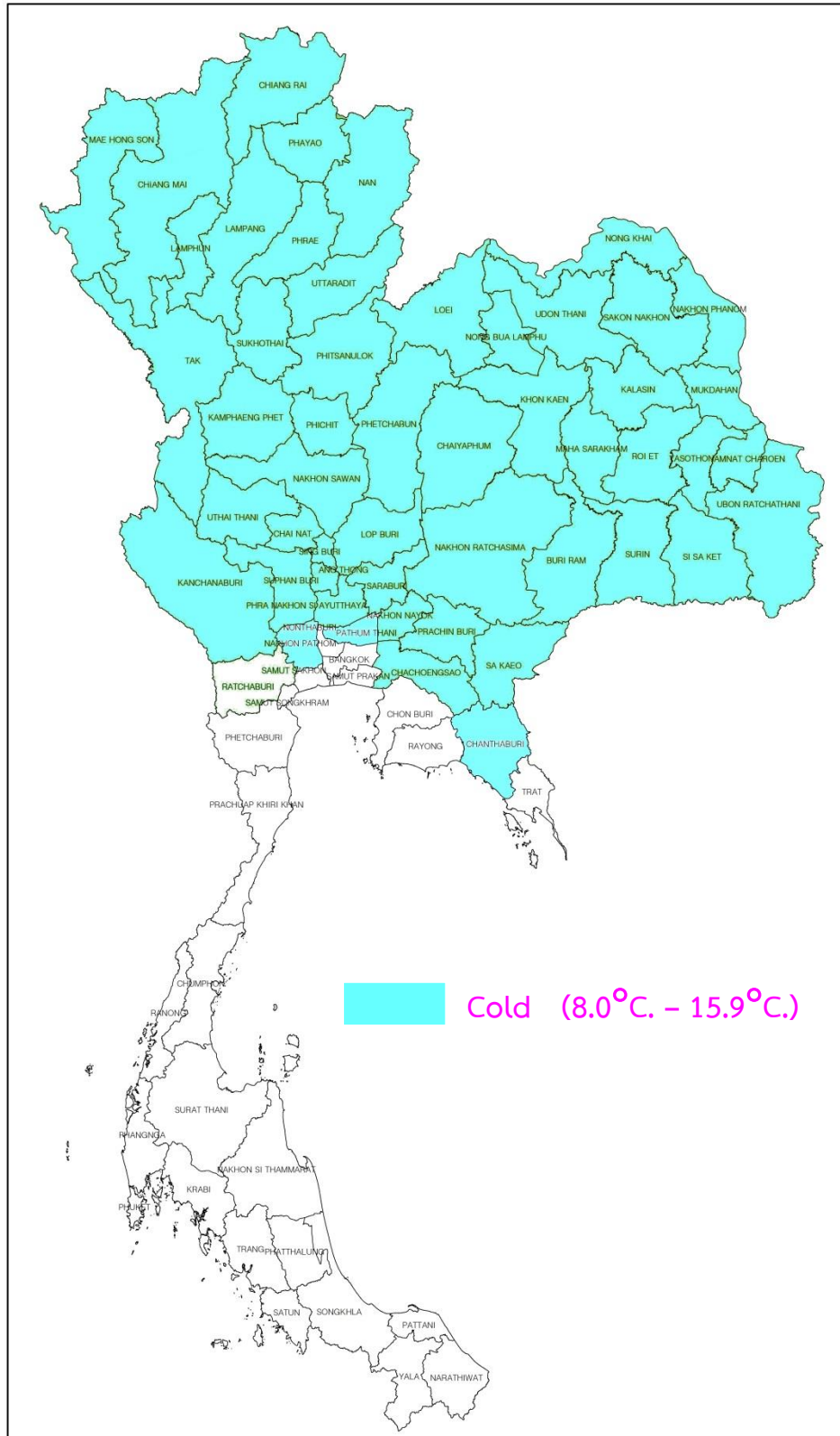
Table 1: Forecast of rain and mean minimum temperature.

Parts / Portions	November 2020	December 2020	January 2021	February 2021	
				The 1 st half	The 2 nd half
<u>Northern</u> Upper Lower	20 – 22 °C. 22 - 24 °C. With 10 - 20% rainfall of the area	16 – 18 °C. 18 – 20 °C. With slight rain in some areas.	17 - 19°C. 19 - 21°C. With slight rain in some areas.	18 - 20°C. 20 - 22°C. With slight rain in some areas.	20 - 22°C. 22 - 24°C.
	<u>Northeastern</u> Upper Lower	20 - 22°C. 22 - 24°C. With 10 - 20% rainfall of the area	17 - 19°C. 19 - 21°C. With slight rain in some areas.	17 - 19°C. 19 - 21°C. With slight rain in some areas.	18 - 20°C. 20 - 22°C. With slight rain in some areas.
Central		23 - 25°C. With 10 - 20% rainfall of the area	21 – 23 °C. With slight rain in some areas.	21 - 23°C. With slight rain in some areas.	22 - 24°C. Warmer weather With slight rain in some areas.
	<u>Eastern including with its coastal zone</u>	23 - 25°C. With 20 - 30% rainfall of the area	22 – 24 °C. With slight rain in some areas.	21 - 23°C. With slight rain in some areas.	22 - 24°C. Warmer weather With 10% rainfall of the area
<u>Southern Thailand (east coast or the Gulf of Thailand)</u>		23 - 25°C. Thunder rain at 60 - 80% of the area and isolated heavy to very heavy rain, mostly from Chumphon province downward	22 - 24°C. Thunder rain at 60 - 80% of the area with isolated heavy to very heavy rain, mostly from Surat Thani province downward	22 - 24°C. With 30 - 40% rainfall of the area and isolated heavy rain, mostly at the lower portion of the part	22 - 24°C. With 10 - 20% rainfall of the area mostly at the lower portion of the part
	<u>Southern Thailand (west coast or the Andaman Sea)</u>	23 - 25°C. Thunder rain at 40 - 60% of the area with isolated heavy rain	23 - 25°C. With 20 - 30% rainfall of the area	22 - 24°C. With 10 - 20% rainfall of the area	23 - 25°C. With 10% rainfall of the area
<u>Bangkok Metropolitan and Vicinity</u>	24 - 26°C. With 20 - 30% rainfall of the area	23 - 25°C. With slight rain in some areas.	22 - 24°C. With slight rain in some areas.	23 - 25°C. Warmer weather With 10% rainfall of the area	24 - 26°C. Warmer weather
				With 10% rainfall of the area	

Table 2 : Forecast of extreme minimum temperature.**Note:** Excluding the extreme minimum temperature of mount tops and mountainous areas.

Parts Provinces	December					January				
	Extreme Min. Temp. (A.D. 1951 - 2019)			Extreme Min. Temp. (A.D. 2019)	Forecast of extreme min. temp. of A.D. 2020	Extreme Min. Temp. (A.D. 1951 - 2020)			Extreme Min. Temp. (A.D. 2020)	Forecast of extreme min. temp. of A.D. 2021
	°C	Date	A.D.	°C	°C	°C	Date	A.D.	°C	°C
<u>Northern</u>										
Chiang Rai	1.5	25	1999	5.1	8-10	1.5	2	1974	7.5	9-11
Chiang Mai	3.8	25	1999	10.5	13-15	3.7	2	1974	10.8	14-16
Nan	2.7	25	1999	5.2	8-10	3.5	1	1974	6.8	9-11
Phitsanulok	8.9	26	1999	10.4	14-16	7.5	13	1955	15.1	15-17
<u>Northeastern</u>										
Sakhon Nakhon	4.0	30	1975	7.3	8-10	0.5	12	1955	12.8	8-10
		24	1999							
Nakhon Phanom	4.1	30	1975	7.5	8-10	1.8	12	1955	11.7	8-10
Nakhon Ratchasima	6.2	31	1975	13.7	15-17	4.9	12	1955	16.5	15-17
Ubon Ratchathani	8.5	30	1975	12.3	14-16	7.6	12	1955	14.5	14-16
<u>Central</u>										
Nakhon Sawan	7.7	25	1999	12.4	15-17	6.1	13	1955	18.0	16-18
Suphan Buri	10.0	31	1975	15.1	16-18	9.2	13	1955	16.1	17-19
Kanchanaburi	6.8	31	1975	11.2	14-16	5.5	13	1955	14.4	15-17
<u>Eastern</u>										
Sa Kaew	9.0	24	1999	15.0	16-18	11.4	12	2009	18.0	16-18
Chon Buri	12.0	29	1975	15.0	18-20	9.9	12	1955	20.0	19-21
<u>Southern</u>										
Prachuap Khiri Khan	11.4	31	1956	17.5	19-21	10.5	19	1963	19.5	19-21
Phuket	18.4	1	1982	20.2	21-23	17.4	4	1957	22.7	21-23
<u>Bangkok</u>										
Queen Sirikit NCC	10.5	30	1975	16.6	16-18	9.9	12	1955	18.7	16-18

Provincial map of possibly cold weather occurring at some periods during December 2020 – January 2021:



- Notes:** 1. This is a long-range forecast, then please follow daily weather forecast further.
- 2. Excluding the extreme minimum temperature of mount tops and mountainous areas.