



Overview of the winter of Thailand

About during December 2021 until late February 2022:

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

For the Upper Thailand:

- 1) The winter has started on 2nd November 2021 which is around 2 - 3 weeks later than normal and would to end at about late February 2022.
- 2) The mean minimum temperature around the Upper Thailand would be 20 - 21 °C which is 0.5 °C above normal (normal: 19.9 °C) and is to be chillier less than that of last year. (The mean minimum temperature of last year was 20.2 °C).
The extreme minimum temperature would be 6 – 7 °C which is to be around the upper portion of northern and northeastern parts while that of Bangkok Metropolis is to be 15 – 16 °C.
- 3) The chilliest period would mostly begin during the second half of December 2021 until late January 2022.
- 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 Surat Thani province downward, especially in 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) In 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 the first half of 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 – 20% 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.

Then until the end of January : 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.

For the first half 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 December until early of January: Densely abundant rainfall still occurs, especially along the east coast from Surat Thani 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.

Then until the middle 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 the first half of 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.

Then until the end of January, 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.

For the first half 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 the first half of December, cool weather occurs at some areas around the upper portion, with morning fog or haze. Thunder rain would appear at 20 % of the area with feasibly gusty wind at some areas on some days.

Then until the end of January, 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.

For the first half 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 December until early of January, densely abundant rainfall will occur, especially from Surat Thani 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 middle 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)

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

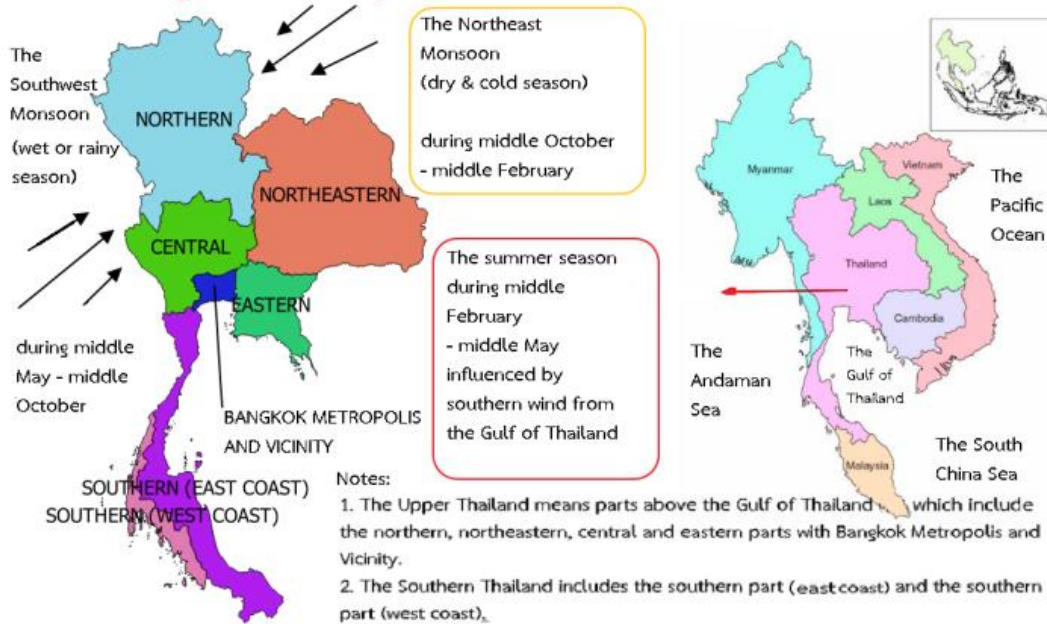
Bangkok Metropolis and Vicinity

During the first half of December, cool weather would occur at some days along with thunder rain is to appear at 20 % of the area.

Then until the end of January, cool weather would happen at many areas. Thick fog or haze is to occur at some areas at some periods.

During the first half 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.

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



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 2021
- 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,
Thai Meteorological Department,
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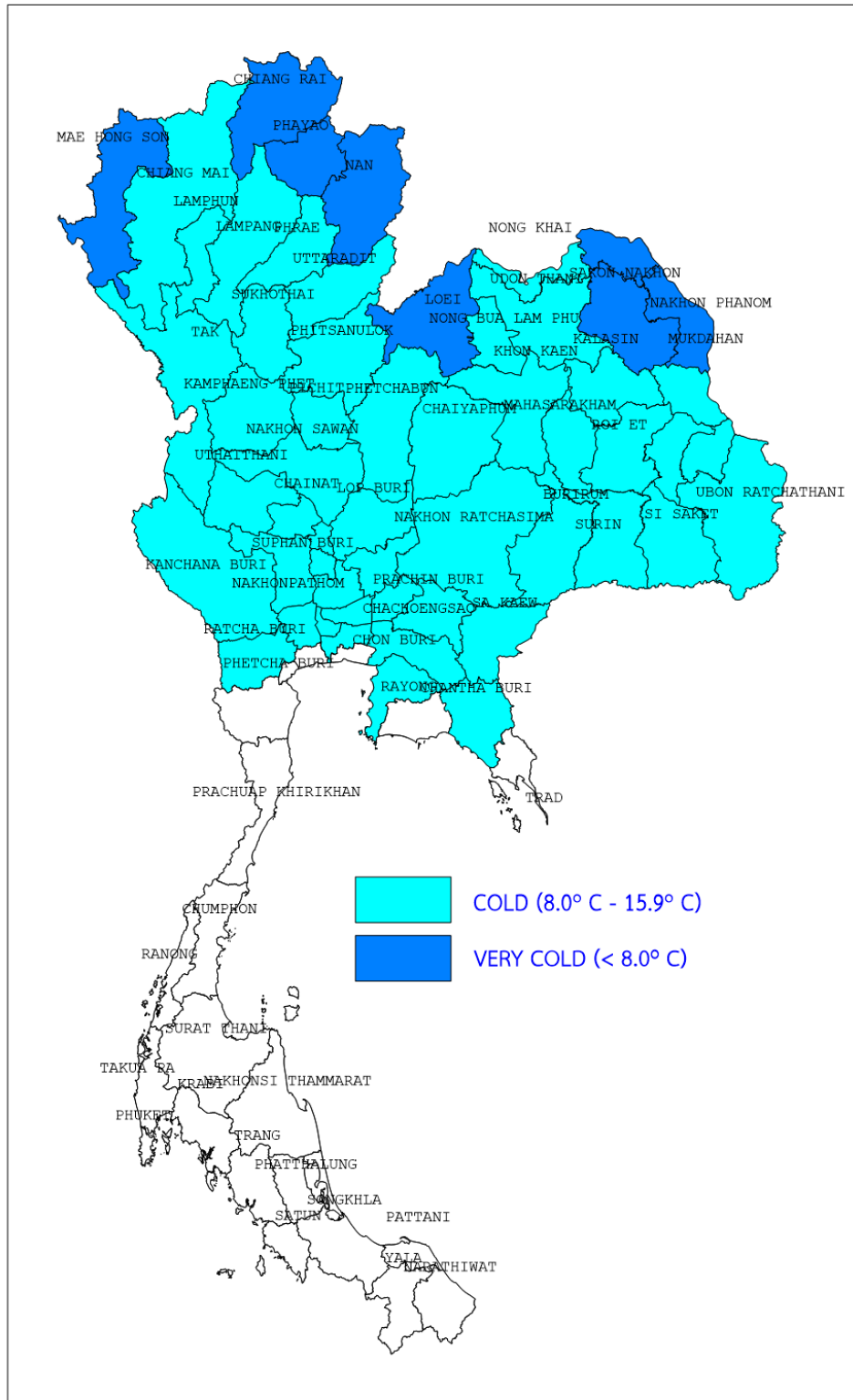
Table 1: Forecast of rain and mean minimum temperature.

Parts / Portions	December 2021	January 2022	February 2022	
			The 1 st half	The 2 nd half
<u>Northern</u> Upper Lower	15 - 17 °C. 17 - 19 °C. With slight rain in some areas.	14 - 16 °C. 16 - 18 °C. With slight rain in some areas.	16 - 18 °C. 18 - 20 °C. With slight rain in some areas.	18 - 20 °C. 20 - 22 °C.
	<u>Northeastern</u> Upper Lower	16 - 18 °C. 18 - 20 °C. With slight rain in some areas.	14 - 16 °C. 16 - 18 °C. With slight rain in some areas.	17 - 19 °C. 19 - 21 °C. With slight rain in some areas.
Central		21 - 23 °C. With slight rain in some areas.	19 - 21 °C. With slight rain in some areas.	20 - 22 °C. Warmer weather With slight rain in some areas.
	<u>Eastern including with its coastal zone</u>	21 - 23 °C. With slight rain in some areas.	20 - 22 °C. With slight rain in some areas.	21 - 23 °C. Warmer weather With 10% rainfall of the area
<u>Southern Thailand (east coast or the Gulf of Thailand)</u>		22 - 24 °C. Thunder rain at 60 - 80% of the area with isolated heavy to very heavy rain, mostly from Surat Thani province downward	21 - 23 °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. 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>		22 - 24 °C. With slight rain in some areas.	20 - 22 °C. With slight rain in some areas.	22 - 24 °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 - 2020)			Extreme Min. Temp. (A.D. 2020)	Forecast of extreme min. temp. of A.D. 2021	Extreme Min. Temp. (A.D. 1951 - 2021)			Extreme Min. Temp. (A.D. 2021)	Forecast of extreme min. temp. of A.D. 2022
	°C	Date	A.D.	°C	°C	°C	Date	A.D.	°C	°C
<u>Northern</u>										
Chiang Rai	1.5	25	2542	8.6	6-8	1.5	2	2517	9.1	7-9
Chiang Mai	3.8	25	2542	12.6	10-12	3.7	2	2517	12.6	10-12
Nan	2.7	25	2542	9.5	6-8	3.5	1	2517	8.5	7-9
Phitsanulok	8.9	26	2542	14.9	14-16	7.5	13	2498	13.4	13-15
<u>Northeastern</u>										
Sakhon Nakhon	4.0	30	2518	9.9	7-9	0.5	12	2498	7.7	6-8
		24	2542							
Nakhon Phanom	4.1	30	2518	8.6	7-9	1.8	12	2498	6.5	6-8
Nakhon Ratchasima	6.2	31	2518	13.5	13-15	4.9	12	2498	10.5	12-14
Ubon Ratchathani	8.5	30	2518	14.0	12-14	7.6	12	2498	9.5	11-13
<u>Central</u>										
Nakhon Sawan	7.7	25	2542	15.4	14-16	6.1	13	2498	12.3	13-15
Suphan Buri	10.0	31	2518	16.2	15-17	9.2	13	2498	12.5	13-15
Kanchanaburi	6.8	31	2518	14.4	13-15	5.5	13	2498	12.8	13-15
<u>Eastern</u>										
Sa Kaew	9.0	24	2542	15.3	14-16	11.4	12	2552	12.9	13-15
Chon Buri	12.0	29	2518	18.0	17-19	9.9	12	2498	14.0	14-16
<u>Southern</u>										
Prachuap Khiri Khan	11.4	31	2499	19.9	19-21	10.5	19	2506	15.7	19-21
Phuket	18.4	1	2525	20.5	20-22	17.4	4	2500	19.4	20-22
<u>Bangkok</u>										
Queen Sirikit NCC	10.5	30	2518	18.1	17-19	9.9	12	2498	16.1	15-17

Provincial map of possibly cold weather occurring at some periods during December 2021 – January 2022:



- 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.