

The seasonal forecast of Thailand during the 2016 – 2017 winter (Revised Edition) Issued on 28 November 2016

Thai Meteorological Department

Weather characteristic prediction for the coming winter of Thailand About December 2016 until middle February 2017:

This coming winter season of 2016 - 2017 follows that

- Mean minimum temperature in upper Thailand is near normal around 18-19 $^{\circ}$ C and colder than that of the last 2 – 3 years ago. The extreme minimum temperature of Thailand is around 6–7 $^{\circ}$ C in upper portion of Northern and Northeastern parts. For Bangkok Metropolis and neighbor provinces, the extreme minimum temperature is around 14–15 $^{\circ}$ C.

- The coldest period is during the 2nd half of December till middle January.

- The mountain tops and mountainous areas will face up cold to very cold weather with possible frost.

- The Southern Thailand is cool mostly at the upper portion of the part and still faces up to dense rainfall mostly in December, especially at the eastern coast (the Gulf of Thailand) from Surat Thani province downward. In other words, the Southern Thailand will face up to heavy rain at many areas and very heavy rain at some areas. Together with the area favors a high chance to be affected by some tropical cyclones in the South China Sea. Additionally, a monsoon trough places over the area at some periods causing flash flood overflowing at many areas. Whereas wind waves in the Gulf of Thailand will be active from time to time at 2 – 4 meters high while those in the Andaman Sea around 1 meter high.

- The winter season will finished at about middle February 2017.

General Climatic Characteristics

Upper Thailand (Northern, Northeastern, Central and Eastern parts)

During December until January: the northern and northeastern parts will face up to colder or cooler weather widely at many areas with thunder rains and gusty winds at some areas whereas the central and eastern parts will face up to cold or cool weather widely. For mountain tops and mountainous areas – cold to very cold weather with possible frost will occur. Due to the northeastern monsoon prevailing over Thailand continuously almost all of the winter season together with active high pressure air mass areas prevailing over Thailand periodically, for during the 1st period at the high pressure air mass areas starts to prevail, thunder rains and gusty winds will develop at some areas. Furthermore, occasionally westerly wind waves will prevail over the Upper Thailand bringing about thunder rains, gusty winds and possible hails at some areas.

Later, at the 1st half of February: warmer weather with thick fog at many areas including with hot weather at many areas during day time, while morning cold or cool weather occurs at the northern and northeastern parts because of weakening high pressure air mass areas over the Upper Thailand. <u>Southern Thailand</u>

During December until middle January: dense rainfall with heavy rain at many areas and very heavy rain at some areas, especially at the eastern coast from Surat Thani province downward. Thus, flash flood may overflow at some areas. While wind waves in the Gulf of Thailand will be active from time to time since active northeastern monsoon prevails over the Gulf of Thailand and the Southern Thailand periodically, specifically in November and December. Additionally, the monsoon trough will place over the upper, central and lower portion of the Southern Thailand in October, November and December consecutively. Moreover, some tropical cyclones are highly possible to move near or through the Southern Thailand further.

During middle January till the 1st half of February: the amount and distribution of rainfall will reduce for the prevailing northeastern monsoon over the Gulf of Thailand and the Southern Thailand weakening and changing to be the prevailing eastern or southeastern winds instead.

Details of each part are as follows:

Northern and Northeastern part:

During December and January, cold or cool weather occurs widely. Besides, very cold weather appears at many areas at some periods with thick fog at many areas. For mountain tops and mountainous areas, cold to very cold weather happens with frost occurring at some periods.

Then at the 2nd half of February, warmer weather with thick fog occurs at many areas. Hot weather happens at many areas during day time but morning cold or cool weather still appears.

Central and Eastern parts:

During December and January, cold or cool weather occurs widely, specifically around the mountainous areas of Nakhon Sawan, Uthaithani, Kanchana Buri, Ratcha Buri, Suphan Buri, Saraburi, Nakornnayok, Chachoengsao, Prachin Buri and Chantha Buri. Including with thick fog will occur at many areas at some periods.

Then at the 1st half of February, warmer weather occurs with thick fog at many areas. Hot weather appears at day time while the upper portion and mountainous areas are still cool in the morning.

Southern Thailand - Eastern Coast (The Gulf of Thailand side):

During December till middle January, dense rainfall with active wind waves will occur. Especially, during November and December, thunder rains happen at 70 – 80% of the area with heavy rain at many areas and very heavy rain at some areas, mostly from Surat thani province downward. Consequently, flash flood will overflow at some areas. For wind waves in the Gulf of Thailand, they will be 2 – 4 meters high at some periods.

Afterward, the amount and distribution of rainfall will lessen. However, the lower portion of the part still faces up to rainfall at 20 – 30% of the area with heavy rain at some areas on some days.

Southern Thailand – Western Coast (The Andaman Sea):

December, thunder rains happen at 20 - 30% of the area while wind waves in the Andaman Sea will be 1 - 2 meters high.

Later since January onwards, the amount and distribution of rainfall will reduce at 10% of the area.

Bangkok Metropolis and neighbor provinces:

During December and January, cool weather occurs widely with very cold weather at some areas on some days.

Then at the 1st half of February, warmer weather starts to appear with hot weather at day time.

Cautions:

1. In December, active low pressure air mass cells develop in the lower portion of the South China Sea. Then, they strengthen to become tropical cyclones (depressions, tropical storms or typhoons) and are highly possible to move pass the Gulf of Thailand toward the Southern Thailand. As a result, the Southern Thailand will face up to rainfall occurring widely with heavy to very heavy rain at many areas. Furthermore, wind waves around the Gulf of Thailand are actively windy at 2 - 4 meters high. Thus, the public should follow the weather forecast news from the Thai Meteorological Department closely further.

2. During December and January, frost may occur at mountain tops or mountainous areas with thick fog at many areas, specifically at the northern and northeastern parts. Thus, the public should be cautious with road accidents.

3. During January and February, westerly wind waves may pass from Myanmar through the Upper Thailand causing thunder rain and gusty wind to occur and possible hail at some areas.

Remarks:

- Daily minimum temperature criteria for the winter season:

Cool air	=	16.0 - 22.9 °C.
Cold air	=	8.0 - 15.9 °C.
Very cold air	=	below 8.0 °C.

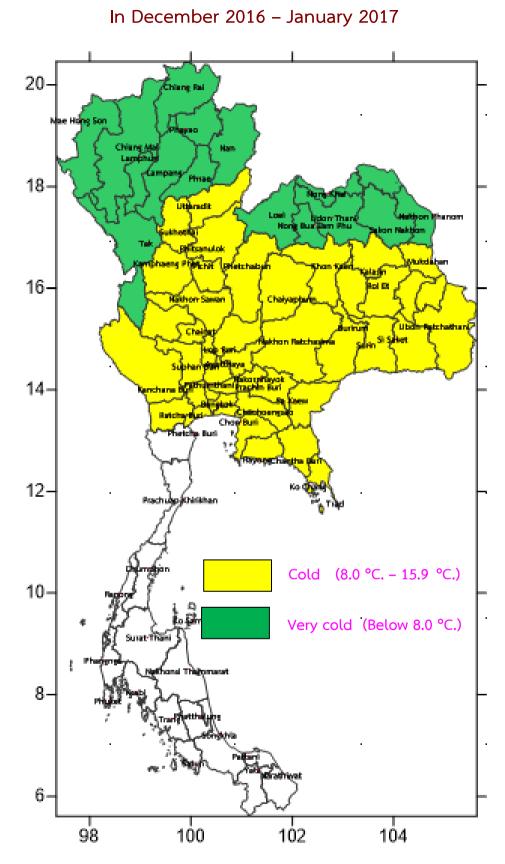
- These long rang climate expectation is derived from utilizing statistical methods and climate model analyses.

- This expectation will be updated at the last week of December 2016.

- Monthly or seasonal climate forecast can be enquired at Tel: 02-398-9929 or Fax: 02-383-8827

- Please follow weather forecast news and climate forecasts at <u>www.tmd.go.th</u> or at <u>www.tmd.go.th/en</u>: climate tab.

Climatological Center, Meteorological Development Bureau Thai Meteorological Department November 2016



Map for possible areas for cold air



1. This map is for the long range prediction purpose. Thus, please follow up daily weather forecast news further for more accuracy.

2. This map does not include mountain top and mountainous area data.

Regions	December2016	January 2017	February 2017		
			First half	Second half	
Upper	14-16 °C.	14-16 [°] C.	16-18 [°] C.	18-20 °C.	
Northern	With slightly rain in some area	With slightly rain in some area	With slightly rain in some area		
Lower	16-18 °C.	C. 16-18 °C.		20-22 °C.	
Upper	15-17 °C.	15-17 °C.	17-19 °C. 19-21 °C.		
Northeastern	With slightly rain in some area	With slightly rain in some area	With slightly rain in some are		
Lower	17-19 °C.	17-19 [°] C.	19-21 °C.	21-23 °C.	
Central	19-21 °C.	20-22 °C.	21-23 [°] C.	23-25 °C.	
	With slightly rain in some area	With slightly rain in some area	With slightly rain in some ar		
East	20-22 °C.	20-22 °C.	21-23 °C.	23-25 °C.	
	With slightly rain in some area	With slightly rain in some area	With 10% rainfall of the are		
	21-23 °C.	21-23 °C.	22-24 °C.		
Southern	With 60-70% thunder rain	With 30-40% thunder rain	With 20-30% thunder rain o		
Thailand	of the area, mostly from	of the area, mostly during	the area, mostly around the		
(East coast)	the Surat Tani province	the first half of the month	lower portion		
	downward				
Southern	22-24 °C.	22-24 °C.	22-24 °C.		
Thailand	With 20-30% thunder rain	With 10% rainfall of the area	With 10% rainfall of the area		
(West coast)	of the area.				
Bangkok	21-23 °C.	22-24 °C.	22-24 °C.	24-26 °C.	
Metropolis and	With slightly rain in some area	With slightly rain in some area	With 10% rair	nfall of the area	
Vicinity					

Mean minimum temperature and rainfall prediction for each part of Thailand during the winter of 2016 – 2017

	December					January				
	Extreme minimum temperature (1951-2013)		minimum temperative forecast	Ext. minimum temperature forecast in 2016	Extreme minimum temperature (1951-2014)			Extreme minimum temperature in 2016	Ext. minimum temperature forecast in 2017	
	(°C.)	Date	Year	(°C.)	(°C.)	(°C.)	Date	Year	(°C.)	(°C.)
Northern										
Chiang Rai Chiang Mai Phitsanulok	1.5 3.8 8.9	25 25 26	1999 1999 1999	13.5 15.6 17.8	5-7 7-9 10-12	1.5 3.7 7.5	2 2 13	1974 1974 1955	8.1 10.0 12.3	6-8 8-10 11-13
Northeastern loei	2.2	31	1973 1975	12.8	6-8	0.1	2	1974	10.5	6-8
Nakhon Phanom Nakhon Ratchasima Ubon Ratchathani	4.1 6.2 8.5	30 31 30	1975 1975 1975	14.0 17.1 15.1	7-9 11-13 12-14	1.8 4.9 7.6	12 12 12	1955 1955 1955	10.7 12.0 13.0	7-9 11-13 12-14
Central Nakhon Sawan Suphanburi Kanchanaburi	7.7 10.0 6.8	25 31 31	1999 1975 1975	17.3 18.6 18.2	11-13 12-14 11-13	6.1 9.2 5.5	13 13 13	1955 1955 1955	14.0 14.3 13.6	12-14 13-15 12-14
Eastern Sa kaew Chon Buri	9.0 12.0	24 29	1999 1975	18.3 21.0	13-15 14-16	11.4 9.9	12 12	2009 1955	14.5 16.4	14-16 15-17
South Prachuap Khiri Khan Phuket	11.4 18.4	31 1	1956 1982	20.3 21.2	18-20 20-22	10.5 17.8	19 4	1963 1957	14.0 20.9	18-20 20-22
Bangkok	10.5	30	1975	20.6	14-16	9.9	12	1955	14.8	15-17

Extreme minimum temperature statistic and prediction during December 2016 – January 2017

Remark : Not including mountainous area data.