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MINISTRY OF DIGITAL ECONOMY AND SOCIETY, THAI METEOROLOGICAL DEPARTMENT

Summer 2020 forecast

From late February - middle May 2020

Issued on 27 January 2020

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Climate prediction of the summer 2020 during the 4th week of February till middle May 2020

The summer of Thailand this year is expected to begin about the 4th week of February which is few later than usual and will end at about middle May. The weather will be commonly sweltering. In fact, mean maximum temperature around the Upper Thailand is above normal around 0.5 °C (Normal: 35.4 °C) which is to be about 36 °C and higher than that of last year (the mean maximum temperature during the summer 2019 was 36.7 °C) while mean total rain is to be slightly below normal.

Furthermore, summer thunderstorms may occur at many areas as thunder rain, gusty wind and perhaps falling hail at some areas possibly causing life, property and crop damages. However, the falling rain amount will not be suitable at many areas for utilization, consumption and agricultural demands, specifically at repeated drought areas outside irrigation zones. As a result, the public should consume water economically with optimized benefits and prepare for summer thunderstorm protection further.

General weather characteristics

For the Upper Thailand, during late February until middle March, commonly sweltering weather appears during day time with thick fog at many areas. Except at northern and northeastern parts, morning cool weather happens. The reason is that weak high-pressure areas from China still prevailed over the upper portion of the northern and northeastern parts.

Then during middle March till late April, commonly sweltering weather occurs with very hot weather at many areas during some periods. The extreme maximum temperature is to be 40-43 °C. Also, summer thunderstorms may develop at many areas on some days as thunder rain, gusty wind including with feasibly falling hail. Thus, heat will be remediated together with periodically prevailing heat low-pressure air mass cells and prevailing southerly or southeasterly wind bringing about moisture from the Gulf of Thailand for nearly this whole period.

Afterward from late April until the 1st half of May, variable weather occurs. In other words, commonly sweltering weather with hot to very hot weather happens on some days. Also, thunder rain will appear at many areas because prevailing southerly or southeasterly wind starts to transform into prevailing southwestern monsoon instead.

For the Southern Thailand, during late February until late April, 20-30% rainfall area with hot weather occurs at many areas during some periods whereas wind waves in the Gulf of Thailand and the Andaman Sea are to be about 1 meter. The reason is that the prevailing easterly or southeasterly wind over the Gulf of Thailand and the Southern Thailand transforms into southwestern monsoon prevailing over the Andaman Sea and the Southern Thailand instead.

Later from late April onward, the Southern Thailand will meet more rain continuously. Especially around the west coast, 60-80% rainfall area appears with heavy to very heavy rain at some areas. Moreover, wind waves in the Andaman Sea will become more active as 2-3 meters high at some periods while those in the Gulf of Thailand are to be 1 meter high. The reason is that the prevailing easterly or southeasterly wind over the Gulf of Thailand and the Southern Thailand transforms into southwestern monsoon prevailing over the Andaman Sea and the Southern Thailand instead.

+++ Cautions +++

<u>Fire and forest fire:</u> During this summer, the sweltering weather will influence to bring about fire and forest fire easily. Then, the public should be cautious in using fuel for their activities.

Tropical cyclones: During late April until May, some low-pressure air mass cells may develop at the Andaman Sea. Also, they can strengthen to become depressions, tropical storms and cyclones further. As a result, they may move northerly toward easterly to the western side of Thailand. Thus, the western portion of the northern and central parts of Thailand and also the Southern Thailand will meet more rain. Consequently, flash and forest flood may inundate the areas.

Table A: showing details of the weather prediction with extreme maximum temperature for each part.

Part	The weather prediction	The extreme maximum temperature
Northern and	Commonly sweltering weather with very hot weather at many areas	40 – 43 °C around Mae Hong Son, Chiang Mai, Lamphun,
northeastern	during some periods. Thunder rain at many areas on some days. In	Lampang, Phrae, Tak, Uttaradit, Sukhothai, Kampaengphet,
	addition, gusty wind with falling hail happens at some areas helping	Phitsanulok, Phetchabun, Phichit, Loei, Nong Khai, Nong Bua
	remediate some heat.	Lumphu, Beung Kan, Udon Thani, Nakhon Phanom, Sakon
		Nakhon, Mukdaharn, Chaiyaphum, Khon Kaen, Maha Sarakham,
		Kalasin, Roi Et, Yasothon, Amnat Charoen, Nakhon Ratchasima,
		Buriram, Surin, Si Sa Ket and Ubon Ratchathani provinces.
Central and	Sweltering weather commonly with very hot weather at many areas	40 – 42 °C around Nakhon Sawan, Uthai Thani, Chainat, Sing
Eastern including	during some periods, mostly at the upper portion. Along with thunder	Buri, Ang Thong, Suphan Buri, Lop Buri, Saraburi, Phra Nakhon Si
with their coastal	rain at many areas on some days and possibly gusty wind and falling	Ayudthaya, Kanchanaburi, Ratchaburi, Phthum Thani, Nakhon
areas.	hail at some areas helping remediating some heat.	Nayok, Prachin Buri and Sa Kaew provinces.
Southern	Hot weather at many areas during some periods with 20-30% rainfall	38 − 39 °C around Surat Thani, Nakhon Si Thammarat,
Thailand	area. Wind waves in the Gulf of Thailand and the Andaman Sea are to	Songkhla, Yala and Trang provinces.
	be about 1 meter high. And from late April onward, rain amount will	
	increase, specifically at the west coast with heavy to very heavy rain	
	at some areas. Also, wind waves in the Andaman Sea will be more	
	active with 2-3 meters high at some periods.	
Bangkok	Commonly hot weather, especially since middle March until late April.	38 - 39 °C.
Metropolitan and	Together with rainfall on some days, thus helping remediate some	
Vicinity	heat.	

Remarks:

- Daily rainfall area (% of the area) criteria: Isolated: > 0 until < 20% Widely scattered: >= 20 until < 40% Scattered: >= 40 until < 60%

Almost widespread: >=60 until < 80% Widespread >= 80%

- Daily rainfall amount (millimeters) criteria: From 07.00 – 07.00 AM (UTC 00+7)

Light: > 0 until 10.0

Moderate: >=10.1 until <=35.0 Heavy: >=35.1 until <90

Very heavy: >= 90.1

- Daily minimum temperature criteria for the winter season:

Cool weather = 18.0 - 22.9 °C.

Moderately cold weather = 16.0 - 17.9 °C.

Cold weather = 8.0 - 15.9 ° C.

Very cold weather = <= 7.9 ° C.

- Daily maximum temperature criteria for the summer season:

Hot weather = 35.0 - 39.9 ° C.

Very hot weather = >= 40.0 $^{\circ}$ C.

- Normal means average during the 30-year period (A.D. 1981 – 2010 or B.E. 2524 – 2553)

- These long-range forecasts are utilized by applying some climatic models and statistical methods, the public then should follow the daily weather news from the Thai Meteorological Department further.
- The next summer 2020 forecast will be update about last week of February 2020.
- Further enquiry of monthly climate, 3-month climate and seasonal forecasts can be preceded at Tel: 02-398-9929 or Fax: 02-383-8827.
- Please follow monthly climate, 3-month climate and seasonal forecasts at www.tmd.go.th/en/ at the climate tab.

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Table B: Mean maximum temperature (°C) prediction of Thailand during the 2020 summer with Normal.

Part	The 2 nd ha Februar		March	1	April		The 1 st half of May			
	Mean Maximum Temp.	Normal	Mean Maximum Temp.	Normal	Mean Maximum Temp.	Normal	Mean Maximum Temp.	Normal		
Northern	33-35	34.6	35-37	36.1	37-39	37.1	35-37	35.4		
Northeastern	33-35	33.9	35-37	35.1	36-38	36.1	34-36	34.9		
Central	33-35	35.2	35-37	36.1	37-39 37.0		35-37	35.8		
Eastern	32-34	33.3	33-35	33.8	34-36	34.7	34-36	34.1		
Southern Thailand (East Coast)	31-33	31.8	32-34	32.6	33-35	33.7	33-35	33.6		
Southern Thailand (West Coast)	33-35	34.1	34-36	34.4	34-36	34.2	32-34	33.0		
Bangkok Metropolis and Vicinity	33-35	33.6	34-36	34.3	35-37	35.4	34-36	34.8		

Table C: Rain amount (millimeters) prediction of Thailand during the 2020 summer with Normal.

Part	The 2 st ha Februa		Marc	h	April		The 1 st half of May			
	Rain amount	Normal	Rain amount	Normal	Rain amount	Normal	Rain amount	Normal		
Northern	< 10	6.9	15-30	28.1	60-90	71.3	70-100	80.2		
Northeastern	< 10	9.7	30-50	44.7	70-100	86.3	70-100	83.6		
Central	< 10	5.9	20-40	36.0	60-90	79.5	70-00	83.5		
Eastern	10-20	17.0	40-60	62.1	80-110	98.9	80-110	98.6		
Southern Thailand (East Coast)	< 10	10.7	50-70	68.4	60-90 75.4		60-90	71.7		
Southern Thailand (West Coast)	10-20	13.2	70-100 88.8		140-180	160.6	130-170	147.0		
Bangkok Metropolis and Vicinity	< 10	9.3	20-40	20-40 42.1		91.4	100-140	116.4		

Table D: Extreme maximum temperature (Ext. = ^oC) statistic for the past February - May of last year (2019)

	February 2019			March 2019				Apri	l 2019	May 2019		
Part	Ext.	Date	At	Ext.	Date	At	Ext.	Date	At	Ext.	Date	At
Northern	39.7	24	Thoen district,	41.5	21	Mueang district,	44.2	18	Thoen district,	43.0	3	Mueang district,
			Lampang province.			Sukhothai province.			Lampang province.			Lampang province.
											3,4	Mueang district,
												Uttaradit province.
Northeastern	39.6	9	Mueang district,	41.5	23	Kosum Phisai district,	43.4	20,21	Mueang district,	32.5	2	Mueang district,
			Chaiyaphum			Maha Sarakham			Loei province.			Loei province.
			province.			province.						
Central	39.0	24	Mueang district,	41.4	22	Thong Pha Phum	42.5	21	Mueang district,	42.5	3	Mueang district,
			Kanchana Buri			district, Kanchana Buri			Nakhon Sawan			Nakhon Sawan
			province.			province.			province.			province.
								25	Mueang district,			
									Kanchana Buri			
									province.			
Eastern	38.5	9	Aranya Prathet	40.5	23	Kabin Buri district,	40.3	24,26	Aranya Prathet	40.3	3	Mueang district,
			district, Sa Kaew			Prachin Buri province.			district, Sa Kaew			Prachin Buri
			province.						province.			province.
Southern Thailand	37.0	24	Phrasaeng district,	39.2	15	Sa Dao district,	39.9	14,21	Nong Plub,	39.5	2	Mueang district,
(east coast)			Surat Thani			Songkhla province.			Hua Hin district,			Prachuab Khirikhan
			province.						Prachuab Khirikhan			province.
									province.		3	Mueang district,
												Surat Thani province

Table D: Extreme maximum temperature (Ext. = °C) statistic for the past February – May of last year (2019) (Continued)

	February 2019			March 2019			April 2019			May 2019		
Part	Ext.	Date	At	Ext.	Date	At	Ext.	Date	At	Ext.	Date	At
Southern Thailand	37.1	24,27	Mueang district,	38.4	15	Nuea Khlong district,	38.8	25	Nuea Khlong district,	36.7	20	Mueang district,
(west coast)			Satun province.			Krabi province.			Krabi province.			Phuket province.
		<u> </u>										
The whole of Thailand	39.7	24	Thoen district,	41.5	21	Mueang district,	44.2	18	Thoen district,	43.0	3	Mueang district,
			Lampang province.			Sukhothai province.			Lampang province.			Lampang province.
					23	Kosum Phisai district,					3,4	Mueang district,
						Maha Sarakham						Uttaradit province.
						province.						
Bangkok Metropolis	36.6	23	Queen Sirikhit	38.8	22	Bangkok Airport,	39.7	20	Queen Sirikhit	40.0	2	Queen Sirikhit
and Vicinity			National			Don Mueang district.			National			National
			Convention						Convention Center,			Convention
			Center, Klong Toei						Klong Toei district.			Center, Klong Toei
			district.									district.

Map A shows provinces of possibly very hot weather during some periods from Middle March – late April 2020.

