Monthly Weather Summary in Thailand January 2019

In January 2019, the high pressure area from China occasionally extended its ridge to cover upper Thailand and the South China Sea caused cool weather in the whole areas of the northern and northeastern parts with cold weather in the upper portion. For the other regions, there were cool weather in several areas during early month when the high pressure areas was active as well as during late month that high pressure areas continuously covered upper Thailand. However, the average temperature during this month was above 1980-2010 normal in all regions with mean monthly temperature of 1.3 °C higher than normal. For rainfall, there was scanty rainfall in upper Thailand except for during 7-9 January that the westerly trough moved through the northern region inducing unseasonably rainfall at that time. In southern part, due to the effects of the northeast monsoon prevailing over the Gulf of Thailand and southern part, intermittent rainfall was observed throughout the month especially during January 3-5 that experienced widespread rain due to the influence of the tropical storm "Pabuk (1901)" which was the first tropical storm entering Thailand this year. It made landfall in southern part at Pak Phanang, Nakhon Si Thammarat province on January 4 and then moved through Krabi province before downgraded into tropical depression covering Phang-nga province on the following day. This storm induced abundant rainfall with successive of heavy to very heavy rainfall inducing flash flooding in many areas in southern part and strong wind with storm surge occurred in some places during January 3-5. The monthly rainfall were higher than normal in the northern part 23.5 mm (511%), southern part (east coast) 113.0 mm (189%) and southern part (west coast) 46.9 mm (178%) while it was lower than normal in the northeastern part 4.8 mm (100%), central part 5.0 mm (75%) and eastern part 9.9 mm (61%). The average total rainfall over Thailand in this month was 24.4 mm (149%) higher than normal.

1-10 January: The active high pressure areas covered upper Thailand during early period and later weakened in addition with the active northeast monsoon prevailed over the Gulf of Thailand and southern parts causing generally cool and cold weather in upper Thailand especially cold weather mainly in the upper portion of the northern and northeastern parts during early period after that temperature increased but cool weather remained in the northern and northeastern parts. The minimum temperature of the period was 10.9 °C, at Agrometeorological station in Nakhon Phanom province on January 1. In the mountainous areas and mountain tops, temperature climbed down to 3.0 °C at Kew Mae Pan in Chiang Mai province on January 3. There was cool weather in several areas in southern part mainly during the first half of the period. For rainfall, with the passage of the westerly trough over northern part during January 7-9, unusual rainfall was observed in the northern part with the maximum daily rainfall of 96.4 mm at Mae Jai in Phayao province on January 9. There was isolate rain with heavy rainfall in some areas in the central and eastern parts. For southern part, the tropical storm "Pabuk (1901)" made landfall over at Pak Panang, Nakhon Si Thammarat province on January 4 after that it moved through Nakhon Si Thammarat and Krabi provinces then downgraded into tropical depression covering Phang-nga province on January 5. It moved into the Andaman Sea then downgraded into the active low pressure cell and moved further into the upper Andaman Sea and later dissipated at 05.00 am on January 7. Pabuk brought torrential rain and squall to southern part of Thailand during January 3-5 especially in Surat Thani, Nakhon si thammarat, Yala and Pattani provinces on January 3 and at Ranong, Krabi and Trang provinces on January 5. Gusty

wind was reported at Songkhla, Pattani and Narathiwat provinces on January 3 and at Nakhon Si Thammarat and Phatthalung provinces on January 4. Moreover Pabuk brought storm surge at Songkhla province on January 5 as well as high sea water reports in Samut Sakhon, Samut Songkhram, Rayong, Chanthaburi, Trat, Phetchaburi, Prachuap Khiri Khan and Chumphon provinces on January 5 and boat sank in Pattani province on January 4. The heaviest daily rainfall was 303.9 mm at Nakhon Si Thammarat Rubber Experiment Station, Chawang in Nakhon Si Thammarat on January 4.

11-20 January : The weak high pressure area covered upper Thailand and the South China Sea during early period after that the another moderate high pressure areas extended to covered the mentioned areas and weakened during late period. In addition the weak northeast monsoon which prevailed over the Gulf of Thailand and southern part was strengthened during late week. These conditions caused cool weather in the northern and northeastern parts throughout the period with cold weather in some areas during late period whereas cool weather remained in several areas for the rest parts. The minimum temperature of the period was 13.8 $^{\circ}$ C at Mae Sariang in Mae Hong Son province on January 17 and at Umphang in Tak province on January 19. Minimum temperature dropped to 0.8 °C in the area of mountain top at Kew Mae Pan in Chiang Mai province on January 16. For rainfall, there was light to moderate rainfall in some areas of upper Thailand for few days with the maximum daily rainfall of 30.6 millimeter at Rat Burana District Office in Bangkok on January 14. While isolated to scattered rain was found in southern part nearly the whole period with heavy rainfall in some areas except for fairly widespread rain with heavy rainfall in some areas on January 12 and January 17. The highest daily rainfall was 71.7 millimeter at Southern Meteorological Center (west coast), Thalang in Phuket province on January 14.

21–31 January : Under the ridge of rather active high pressure areas extending to dominate upper Thailand and the South China Sea accompanied with the prevailing of the northeast monsoon over the Gulf of Thailand and southern part. The weather was cool in Thailand nearly the whole areas almost the period with cold weather in many areas of northern and northeastern parts and also in some areas of the central and eastern parts. The lowest temperature 10.8 °C was measured at Umphang in Tak province on January 28, 29 and 30 and dropped to 2.0 °C at Kew Mae Pan, Doi Inthanon in Chiang Mai province on January 24. There was slightly rainfall in some areas of the central and eastern parts for few days with the maximum daily rainfall of 8.0 millimeter at Pilot Station in Samut Prakarn province on January 31. In southern part, rainfall relative decreased both amount and distribution with isolated rain and heavy rainfall in some areas along the east coast. The highest daily rainfall was 42.0 mm at Mueang in Chumphon province on January 31.

Climate Center Meteorological Development Division Meteorological Department

<u>Note</u> : 1. Rainfall, temperatures and natural disasters in this report were updated up to February 4, 2019.

^{2. &}quot;Pabuk" mean big fresh water fish contributed by Lao (PDR)



Track of tropical storm "PABUK" entering Thailand in January 2019

Monthly Current Report Rainfall and Accumulative Rainfall January 2019

Northern Thailand

	Temperature (°c)		Rainfall (mm)		Accumulative rainfall (mm)	
					Since I January	
Station		Above		Above		Above
	Mean	or below	Actual	or below	Actual	or below
		normal		normal		normal
Chiang Rai	22.0	2.3	65.1	57.6	65.1	57.6
Mae Hong Son	21.5	0.9	55.4	49.0	55.4	49.0
Phayao	22.1	1.5	30.8	25.1	30.8	25.1
Chiang Mai	23.7	2.2	67.8	63.6	67.8	63.6
Tha Wang Pha	22.8	2.2	23.3	16.3	23.3	16.3
Nan	23.6	2.2	89.2	84.8	89.2	84.8
Lamphun	23.4	1.7	38.6	35.8	38.6	35.8
Lampang	24.0	1.8	26.9	24.1	26.9	24.1
Mae Sariang	22.3	1.9	46.7	45.2	46.7	45.2
Phrae	24.3	2.0	32.7	26.9	32.7	26.9
Uttaradit	25.8	1.7	5.6	0.1	5.6	0.1
Bhumibol Dam	24.3	0.6	8.5	5.9	8.5	5.9
Tak	25.5	1.4	14.3	12.2	14.3	12.2
Mae Sot	24.8	2.4	32.0	30.3	32.0	30.3
Umphang	22.3	2.1	2.3	-4.5	2.3	-4.5
Phitsanulok	26.1	1.3	20.2	16.3	20.2	16.3
Lom Sak	26.5	2.2	0.0	-4.8	0.0	-4.8
Phetchabun	26.6	2.5	0.0	-5.6	0.0	-5.6
Wichian Buri	26.9	1.6	0.0	-7.7	0.0	-7.7
Kamphaeng Phet	26.2	1.4	2.7	0.4	2.7	0.4
Over the area	24.2	1.8	28.1	23.5	28.1	23.5
				511%		511%

Northeastern Thailand

	Temperature (^o c)		Rainfall (mm)		Accumulative rainfall (mm) Since 1 January	
Station		Above		Above		Above
	Mean	or below	Actual	or below	Actual	or below
		normal		normal		normal
Nong Khai	24.8	2.3	0.0	-8.3	0.0	-8.3
Loei	23.9	2.2	0.0	-6.2	0.0	-6.2
Udon Thani	24.4	1.6	0.0	-6.3	0.0	-6.3
Nakhon Phanom	24.4	2.2	0.0	-3.0	0.0	-3.0
Sakon Nakhon	23.9	1.8	0.0	-4.7	0.0	-4.7
Mukdahan	24.2	1.6	0.0	-3.7	0.0	-3.7
Khon Kaen	25.2	1.8	0.0	-4.0	0.0	-4.0
Kosum Phisai	25.5	1.8	0.0	-3.5	0.0	-3.5
Roi Et	25.2	1.9	0.0	-3.6	0.0	-3.6
Chaiyaphum	26.0	1.8	0.0	-4.5	0.0	-4.5
Ubon Ratchathani	25.7	1.5	0.0	-2.0	0.0	-2.0
Tha Tum	25.8	1.8	0.0	-5.1	0.0	-5.1
Surin	25.7	1.6	0.0	-5.6	0.0	-5.6
Nakhon Ratchasima	25.9	1.6	0.0	-8.2	0.0	-8.2
Chok Chai	25.5	1.1	0.0	-4.0	0.0	-4.0
Nang Rong	25.2	0.9	0.0	-4.7	0.0	-4.7
Over the area	25.1	1.7	0.0	-4.8	0.0	-4.8
				-100%		-100%

NOTES : 1) Mean temperature is the average of daily dry-bulb temperature 2) "T" is trace, rainfall amount less than 0.1 mm.

"blank" is incomplete data.

4) Temperature and rainfall are preliminary data.

Monthly Current Report Rainfall and Accumulative Rainfall January 2019

Central Thailand

	Temperature (^o c)		Rainfall (mm)		Accumulative rainfall (mm) Since 1 January	
Station		Above		Above		Above
	Mean	or below	Actual	or below	Actual	or below
		normal		normal		normal
Nakhon Sawan	27.0	1.5	0.0	-4.3	0.0	-4.3
Bua Chum	26.1	1.1	0.0	-6.7	0.0	-6.7
Lop Buri	27.5	1.1	0.0	-5.7	0.0	-5.7
Suphan Buri	27.1	1.4	0.8	-2.9	0.8	-2.9
Thong Pha Phum	25.7	0.9	1.4	-4.0	1.4	-4.0
Kanchanaburi	27.2	1.2	9.1	5.8	9.1	5.8
Bangkok Airport	27.6	0.6	0.8	-10.6	0.8	-10.6
Bangkok Metropolis	28.0	1.0	1.1	-12.2	1.1	-12.2
Over the area	27.0	1.1	1.7	-5.0	1.7	-5.0
				-75%		-75%

Eastern Thailand

	Temperature (°c)		Rainfall (mm)		Accumulative rainfall (mm) Since 1 January	
Station		Above		Above		Above
	Mean	or below	Actual	or below	Actual	or below
		normal		normal		normal
Prachin Buri	28.2	1.4	0.0	-7.7	0.0	-7.7
Kabin Buri	26.6	0.3	0.0	-9.0	0.0	-9.0
Aranyaprathet	27.5	1.4	0.0	-5.4	0.0	-5.4
Chon Buri	28.3	1.4	3.6	-6.3	3.6	-6.3
Ko Sichang	27.8	1.3	0.0	-10.9	0.0	-10.9
Pattaya	27.4	1.1	7.7	-7.9	7.7	-7.9
Sattahip	26.5	0.3	44.1	18.5	44.1	18.5
Rayong	27.0	0.8	4.9	-15.8	4.9	-15.8
Chanthaburi	27.8	1.4	0.0	-18.7	0.0	-18.7
Khlong Yai	27.5	1.0	1.4	-35.8	1.4	-35.8
Over the area	27.5	1.1	6.2	-9.9	6.2	-9.9
				-61%		-61%

NOTES : 1) Mean temperature is the average of daily dry-bulb temperature

2) "T" is trace, rainfall amount less than 0.1 mm.

3) "blank" is incomplete data.

4) Temperature and rainfall are preliminary data.

Monthly Current Report Rainfall and Accumulative Rainfall January 2019

Southern Thailand, east coast

	Temperature (°c)		Rainfall (mm)		Accumulative rainfall (mm) Since 1 January	
Station		Above		Above		Above
	Mean	or below	Actual	or below	Actual	or below
		normal		normal		normal
Phetchaburi	26.9	1.1	8.8	-2.6	8.8	-2.6
Hua Hin	27.0	1.0	11.7	-0.1	11.7	-0.1
Prachuap Khiri Khan	26.0	0.6	117.2	92.8	117.2	92.8
Chumphon	26.5	0.8	241.5	182.1	241.5	182.1
Surat Thani	26.1	0.5	109.3	72.5	109.3	72.5
Ko Samui	27.4	0.6	222.6	136.4	222.6	136.4
Nakhon Si Thammarat	26.6	0.6	418.1	272.7	418.1	272.7
Songkhla	27.8	0.7	171.2	96.4	171.2	96.4
Hat Yai Airport	26.8	0.8	112.2	58.4	112.2	58.4
Pattani Airport	26.9	0.9	246.9	196.0	246.9	196.0
Narathiwat	26.7	0.6	239.9	138.3	239.9	138.3
Over the area	26.8	0.8	172.7	113.0	172.7	113.0
				189%		189%

Southern Thailand, west coast

	Temperature (^o c)		Rainfall (mm)		Accumulative rainfall (mm)	
					Since I January	
Station		Above		Above		Above
	Mean	or below	Actual	or below	Actual	or below
		normal		normal		normal
Ranong	27.3	0.6	61.2	51.2	61.2	51.2
Takua Pa	27.0	0.6	108.6	69.2	108.6	69.2
Phuket	28.9	0.8	50.2	19.9	50.2	19.9
Phuket Airport	27.8	0.8	180.6	144.4	180.6	144.4
Ko Lanta	28.1	0.5	11.2	-3.7	11.2	-3.7
Trang Airport	27.5	0.7	56.7	24.2	56.7	24.2
Satun	28.2	0.7	44.5	23.3	44.5	23.3
Over the area	27.8	0.6	73.3	46.9	73.3	46.9
				178%		178%

NOTES : 1) Mean temperature is the average of daily dry-bulb temperature

2) "T" is trace, rainfall amount less than 0.1 mm.

3) "blank" is incomplete data.

4) Temperature and rainfall are preliminary data.







