## The 2021 rainy season overview

The rainy season of Thailand this year is expected to begin around the middle of $2^{\text {rd }}$ week of May and will end in mid-October 2020. The total rainfall of the whole country during this rainy season will be 5-10\% above normal and more than last year. (The total rainfall last year during the rainy season is 3 percent less than normal value, while in whole year is less than the normal 4 percent)

For the first half of the rainy season (mid-May to July) the total amount of rain will be 10 percent over than normal while the second half of the rainy season (September to mid-October) the total amount of rain will be near normal values.

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


Tropical cyclones (depressions, tropical storms and typhoons): For the rainy season of this year, 2-3 tropical cyclones are expected to move toward Thailand. It favors a high chance to move pass the northeastern and northern parts in August or September.

## Seasonal Outlook

During mid and end of May to the end of June, from the beginning of this rainy season, increasing amount of rain and continuous rain day are predicted with mostly 40-60 percent of the area and heavy rain in many areas. But the eastern and southwestern will be expected 60-80 percent of the area with heavy rain in many areas and very heavy in some places. This is because of the southwest monsoon prevails over the Andaman Sea and Thailand which will have quite strong periodically and also there is trough lies over the upper Thailand. In addition, there may be a strong low pressure area in the Andaman Sea which can develop to be a depression or cyclone and move to the west of Thailand.

During the first half of July, the amount and distribution of rainfall will reduce. Thus, dry spell may occur and causing to water shortage for agricultural usage at many areas, specifically at repeated drought areas outside irrigation zones. The reason is that the Southwest Monsoon prevailing over the Andaman Sea and Thailand will weaken whereas the monsoon trough is about to move up to prevail over the southern part of China.

Then during middle July until September, densely abundant rainfall will come back. The rainfall will be mostly $60-80 \%$ of the area along with heavy rain amount at many areas and very heavy rain amount at some areas, especially in August and September. Consequently, flash and forest flood together with overflow would feasibly appear at many areas. The reason is that the Southwest Monsoon prevailing over the Andaman Sea and Thailand comes back actively and continuously. The Monsoon will become active periodically while the monsoon trough prevails over the Upper Thailand occasionally.

And in October, the northern and northeastern parts will meet less rainfall and start to meet morning chilly weather, especially at the upper parts. Nevertheless, the central and eastern part and the Southern Thailand will still meet densely abundant rainfall further together with heavy rain amount at many areas and very heavy rain amount at some areas. The reason is that high-pressure air mass areas from China will begin to prevail over the upper portion of both of the northern and northeastern parts. In addition, the Southwest Monsoon trough will move downward to prevail over the lower portion of the central part, the upper portion of the Southern Thailand and the eastern part. Moreover, the former prevailing Southwest Monsoon over Thailand will transform to become the prevailing Northeast Monsoon instead.

## Details for each part are as the following:

The Northern part: For May, the total rain amount is expected to be $20 \%$ above normal (normal: 178 mm ). Then June to October, the total rain amount is expected to be near normal (normal: 156, 176, 223, 218 and 124 mm consecutively).
The Northeastern part: For May and September, the total rain amount is expected to be $10 \%$ and 5\% above normal (normal: 187 and 242 mm consecutively). While the other month, total rain amount will be near normal (normal: 203, 211, 266 and 117 mm respectively).
The central part: For May, the total rain amount is expected to be $20 \%$ above normal (normal: 172 mm ). Then June to October, the total rain amount is expected to be near normal (normal: 145, 156, 181, 257 and 187 mm consecutively).
The eastern part For May, the total rain amount is expected to be 10\% above normal (normal: 224 mm ). Then June to October, the total rain amount is expected to be near normal (normal: 262, 278, 303, 330 and 225 mm consecutively).
The Southern Thailand (east coast: The Gulf of Thailand): For May and October, the total rain amount is expected to be 10\% and 5\% above normal (normal: 144 and 255 mm consecutively). While June, the total rain amount will be 10\% below normal (normal: 113 mm ). For in July to September the total rain amount will be near normal (normal: 119, 124 and 150 mm respectively). The Southern Thailand (west coast: The Andaman Sea): For May and October, the total rain amount is expected to be 10\% and 5\% above normal (normal: 310 and 367 mm consecutively). While June, the total rain amount will be 10\% below normal (normal: 312 mm ). For in July to September the total rain amount will be near normal (normal: 337, 399 and 424 mm respectively). Bangkok Metropolis and Vicinity: For May, the total rain amount is expected to be $20 \%$ above normal (normal: 248 mm ). Then June to October, the total rain amount is expected to be near normal (normal: 157, 175, 219, 334 and 292 mm consecutively).

## Caution:

1. Sometimes, heavy to very heavy rain amounts occur continuously for many days. As a result, flash with overflow may inundate, specifically during August until September. Thus, the public should follow the daily weather forecast news closely further.
2. During the period of tropical cyclones moving near or pass Thailand, gusty wind and raining at extra huge areas with heavy to very heavy rain amount will occur at many areas. Furthermore, gusty wind waves will appear at coastal areas; wave height may reach 3-4 meters at some periods. Thus, the public and mariners should be cautious of these natural hazards and follow the news attentively during the tropical cyclone periods further.

The 2021 rain prediction comparing with normal

| Part | May | June | July | August | September | October |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Northern | $20 \%$ Above <br> Normal | Near Normal | Near Normal | Near Normal | Near Normal | Near Normal |
| Northeastern | $10 \%$ Above <br> Normal | Near Normal | Near Normal | Near Normal | $5 \%$ Above <br> Normal | Near Normal |
| Central | $20 \%$ Above <br> Normal | Near Normal | Near Normal | Near Normal | Near Normal | Near Normal |
| Eastern | $10 \%$ Above <br> Normal | Near Normal | Near Normal | Near Normal | Near Normal | Near Normal |
| Southern (The Gulf <br> of Thailand) | $10 \%$ Above <br> Normal | $10 \%$ Below <br> Normal | Near Normal | Near Normal | Near Normal | $5 \%$ Above <br> Normal |
| Southern (The <br> Andaman Sea) | $10 \%$ Above <br> Normal | $10 \%$ Below <br> Normal | Near Normal | Near Normal | Near Normal | $5 \%$ Above <br> Normal |
| Bangkok Metropolis <br> and Vicinity | $20 \%$ Above <br> Normal | Near Normal | Near Normal | Near Normal | Near Normal | Near Normal |

## Rain amount (millimeters) prediction for the 2021 rainy season

| Part | May | June | July | August | September | October |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Northern | 190-230 | 140-180 | 160-200 | 200-250 | 200-250 | 100-140 |
| Northeastern | 180-220 | 190-230 | 190-230 | 234-290 | 230-280 | 100-140 |
| Central | 150-190 | 110-150 | 140-180 | 160-200 | 220-270 | 170-210 |
| Eastern | 210-260 | 230-280 | 250-300 | 280-330 | 280-330 | 200-250 |
| Southern (The Gulf of Thailand) | 130-170 | 90-120 | 100-140 | 100-140 | 130-170 | 230-280 |
| Southern (The <br> Andaman Sea) | 300-370 | 260-310 | 310-360 | 370-420 | 400-450 | 340-390 |
| Bangkok Metropolis and Vicinity | 240-290 | 140-180 | 160-200 | 190-230 | 280-330 | 270-320 |

## Remarks:

- Normal means average during the 30-year period (A.D. 1981 - 2010 or B.E. 2524 - 2553).
- This long-range climate forecast is created by applying some climate models and statistical methods, please follow daily weather forecast for more accuracy.
- The next updated seasonal forecast may be published online before the end of April 2021.
- Further enquiry of monthly climate, 3-month climate and seasonal forecasts can be preceded at Tel: (662)-398-9929 or Fax: (662)-383-8827 and www.tmd.go.th/en, climate tab.

