

# MINISTRY OF DIGITAL ECONOMY AND SOCIETY, THAI METEOROLOGICAL DEPARTMENT

#### 3-month Climate Prediction of Thailand

During February - April 2022

Issued on 31 January 2022

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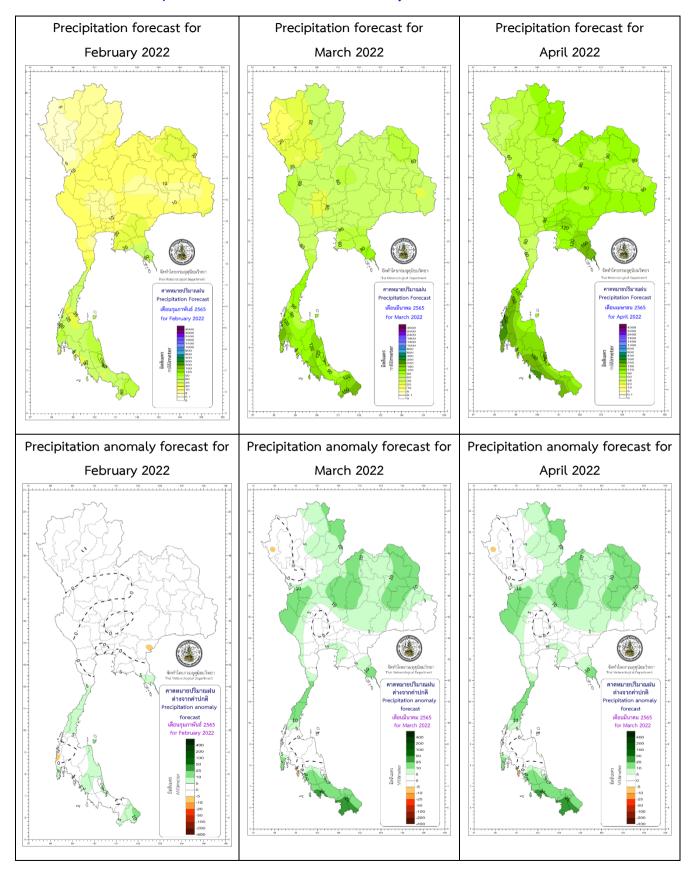
Thailand climate for February – March - April from 30-year normal (A.D. 1991 - 2020 or B.E. 2534 - 2563 baseline average)

February Normally, this month is during the transition period from the winter to the summer. In other words, the high-pressure air mass areas prevailing over Thailand will start to weaken. Still, common weather of Thailand is still to be cool with morning fog whereas that of the northern and northeastern parts is still cold to very cold at some areas, mostly during the 1<sup>st</sup> half of this month. Afterward, rising temperature occurs due to prevailing hotly southerly wind replacing the northeastern monsoon. Thus, the start of the summer appears since the middle of this month onward. Furthermore, rain at the Southern Thailand will be less than that of the past month, especially at the East Coast.

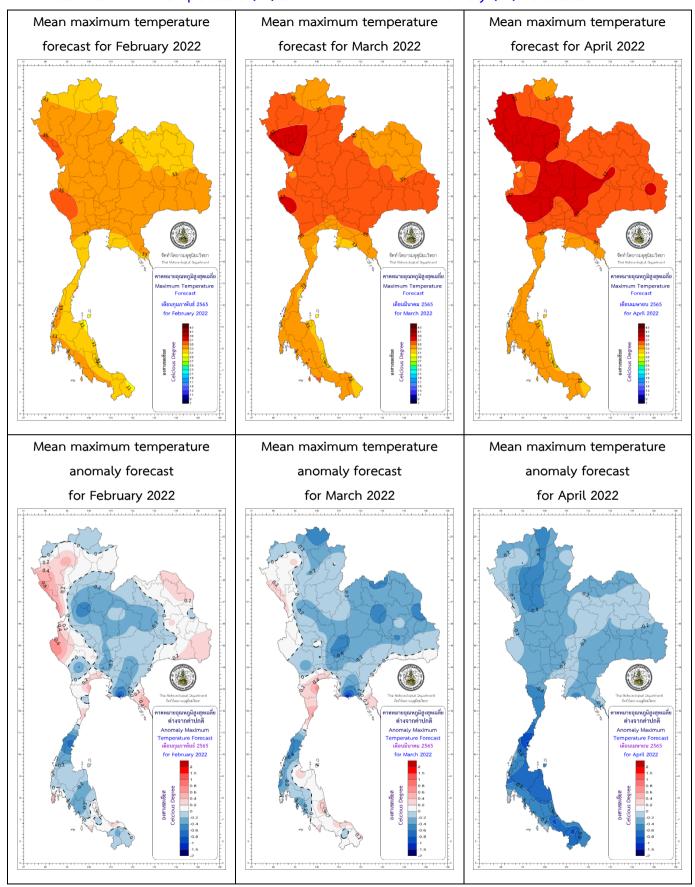
March Sweltering and dry weather with little humidity appears along with very hot weather on some days, specifically at the Upper Thailand due to mostly prevailing southerly wind over Thailand. However, at some periods, coldly high-pressure air masses from China will meet hot air masses already prevailing over Thailand. This brings about summer thunderstorms, specifically around the Upper Thailand. The summer thunderstorms often occur during short duration and at narrow areas. Commonly, severely gusty wind often appears too and feasibly causes damages to life and property.

April This is the most sweltering month for the whole year, especially around the Upper Thailand. Often, hot to very hot weather occurs together with low-pressure air mass cells along with more heat prevailing over the Upper Thailand. The reason is that this month is at the duration of the Sun radiates perpendicularly to the plane of Thailand. As a result, summer thunderstorms occur influencing the rain amount of this month to increase more than that of the past month in every part of Thailand.

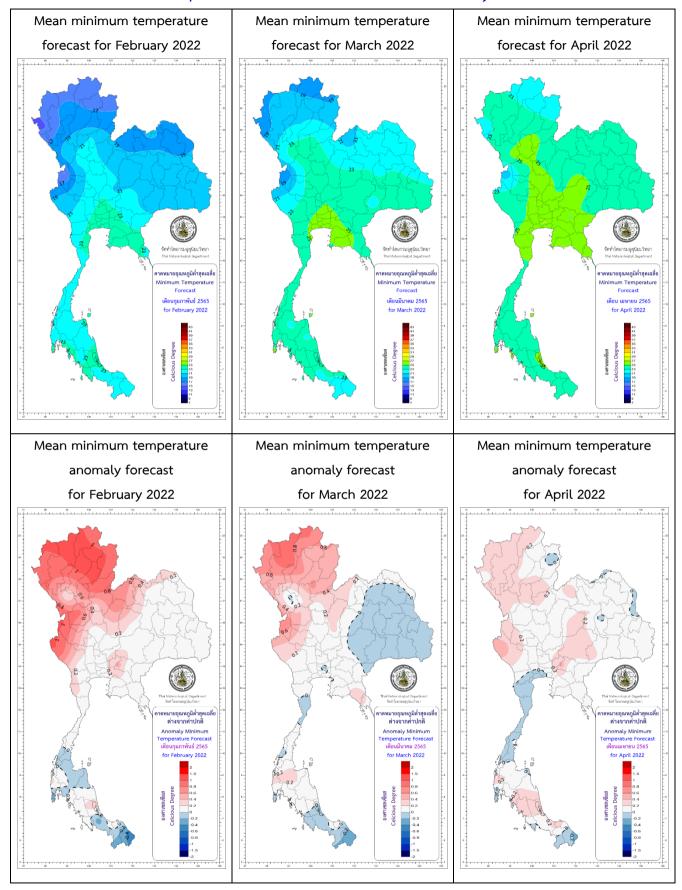
#### Precipitation (mm/month) and Anomaly (mm/month) Forecast:



#### Anomaly (°C) Forecast:



### Anomaly (°C) Forecast:



## \*\*\* Caution: \*\*\*

<u>February 2022:</u> Some upper-air westerly wind waves moving easterly from the Myanmar direction may pass the Upper Thailand and the western portion of Thailand causing the area to meet thunder rain with gusty wind at some areas and possibly falling hail.

March and April 2022: Frequently, summer thunderstorms occur as thunder rain with gusty wind and perhaps falling hail at some areas causing life and property damages. Consequently, the public should follow weather forecast news from the Thai Meteorological Department closely further.

#### Below right Image source:

 $https://www.researchgate.net/figure/Study-area-the-Indochina-Peninsula-in-Monsoon-Southeast-Asia\_fig5\_296329477$ 

#### The below Image illustrates 7 parts of Thailand with seasons and Monsoons or wind: The Northeast Monsoon The Southwest (dry & cold season) Monsoon NORTHERN during middle October (wet or rainy - middle February season) NORTHEASTERN Pacific Ocean CENTRAL The summer season during middle February - middle May during middle The May - middle influenced by Gulf of Andaman southern wind from October Sea BANGKOK METROPOLIS the Gulf of Thailand AND VICINITY The South China Sea SOUTHERN (EAST COAST) 1. The Upper Thailand means parts above the Gulf of Thailand which include SOUTHERN (WEST COAST) the northern, northeastern, central and eastern parts with Bangkok Metropolis and 2. The Southern Thailand includes the southern part (east coast) and the southern

part (west coast),

Table 1: Prediction of Rain (mm = millimeters), Rainy Days (days) and comparing with normal

|              | Prediction    |       |             |            |       |              |            |       |              |          |       | Normal (Baseline period: 1991-2020) |       |       |       |  |  |
|--------------|---------------|-------|-------------|------------|-------|--------------|------------|-------|--------------|----------|-------|-------------------------------------|-------|-------|-------|--|--|
| Part         | February 2022 |       |             | March 2022 |       |              | April 2022 |       |              | February |       | March                               |       | April |       |  |  |
|              | Rain          | Rainy | Comparing   | Rain       | Rainy | Comparing    | Rain       | Rainy | Comparing    | Rain     | Rainy | Rain                                | Rainy | Rain  | Rainy |  |  |
|              | (mm)          | Days  | with normal | (mm)       | Days  | with normal  | (mm)       | Days  | with normal  | (mm)     | Days  | (mm)                                | Days  | (mm)  | Days  |  |  |
| Northern     | Less          |       |             |            |       | 20%          |            |       | 10%          |          |       |                                     |       |       |       |  |  |
|              | than 10       | 1-2   | Near normal | 30-50      | 3-5   | Above        | 60-90      | 7-10  | Above        | 9.8      | 1.4   | 31.8                                | 3.1   | 70.4  | 7.0   |  |  |
|              | triair 10     |       |             |            |       | normal       |            |       | normal       |          |       |                                     |       |       |       |  |  |
| Northeastern | Less          |       |             |            |       | 20%          |            |       | 10%          |          |       |                                     |       |       |       |  |  |
|              | than 10       | 2-3   | Near normal | 40-70      | 4-6   | Above        | 80-110     | 8-11  | Above        | 15.6     | 2.5   | 45.1                                | 4.8   | 85.1  | 8.0   |  |  |
|              |               |       |             |            |       | normal       |            |       | normal       |          |       |                                     |       |       |       |  |  |
| Central      | Less          |       |             | 00.50      | 0.5   | 10%          | 70.400     |       | 10%          | 40.5     |       | 07.0                                | 0.1   | 74.6  |       |  |  |
|              | than 10       | 2-3   | Near normal | 30-50      | 3-5   | Above        | 70-100     | 6-9   | Above        | 10.5     | 1.6   | 37.0                                | 3.4   | 71.6  | 6.4   |  |  |
| _            |               |       |             |            |       | normal       |            |       | normal       |          |       |                                     |       |       |       |  |  |
| Eastern      | 10-30         | 3-4   | Near normal | 60-90      | 5-7   | 10%<br>Above | 100-140    | 8-11  | 20%<br>Above | 32.0     | 3.1   | 64.5                                | 5.4   | 101.3 | 8.3   |  |  |
|              | 10-30         | 3-4   | Near Hormat | 60-90      | 5-1   | normal       | 100-140    | 0-11  | normal       | 32.0     | 5.1   | 64.5                                | 5.4   | 101.5 | 0.3   |  |  |
| Southern     |               |       | 10%         |            |       | 10%          |            |       | 20%          |          |       |                                     |       |       |       |  |  |
| Thailand     | 90-130        | 4-6   | Above       | 80-110     | 5-7   | Above        | 80-110     | 7-10  | Above        | 43.8     | 3.7   | 87.3                                | 5.4   | 85.8  | 7.3   |  |  |
|              | 70-130        | 4-0   | normal      | 00-110     | 3-1   | normal       | 00-110     | 1-10  | normal       | 45.0     | 3.1   | 01.5                                | 5.4   | 05.0  | 1.5   |  |  |
| (East Coast) |               |       | - Horriac   |            |       | 100/         |            |       |              |          |       |                                     |       |       |       |  |  |
| Southern     |               |       | 10%         |            |       | 10%          |            |       | 10%          |          |       |                                     |       |       |       |  |  |
| Thailand     | 40-70         | 3-5   | Above       | 100-140    | 7-10  | Above        | 170-210    | 12-15 | Above        | 39.1     | 3.6   | 113.5                               | 7.6   | 177.1 | 12.7  |  |  |
| (West Coast) |               |       | normal      |            |       | normal       |            |       | normal       |          |       |                                     |       |       |       |  |  |
| Bangkok      |               |       |             |            |       | 10%          |            |       | 20%          |          |       |                                     |       |       |       |  |  |
| Metropolis   | 10-30         | 1-3   | Near normal | 40-70      | 4-6   | Above        | 100-140    | 7-10  | Above        | 17.8     | 2.5   | 48.3                                | 4.6   | 95.0  | 7.9   |  |  |
| and Vicinity |               |       |             |            |       | normal       |            |       | normal       |          |       |                                     |       |       |       |  |  |

Table 2: Prediction of Mean Maximum Temperature (Tmax) and Mean Minimum Temperature (Tmin) (°C) comparing with normal:

|                |               |            |             | Normal (Baseline period: 1991-2020)* |             |             |            |       |             |          |      |       |      |       |      |
|----------------|---------------|------------|-------------|--------------------------------------|-------------|-------------|------------|-------|-------------|----------|------|-------|------|-------|------|
| Part .         | February 2022 |            |             | March 2022                           |             |             | April 2022 |       |             | February |      | March |      | April |      |
|                | Mean          | Mean       | Comparing   | Mean                                 | Mean        | Comparing   | Mean       | Mean  | Comparing   | Mean     | Mean | Mean  | Mean | Mean  | Mean |
|                | Tmax          | Tmin       | with Normal | Tmax                                 | Tmin        | with Normal | Tmax       | Tmin  | with Normal | Tmax     | Tmin | Tmax  | Tmin | Tmax  | Tmin |
| Northern       | 33-38         | 16-18      | Near        | 35-37 20                             | 20-22       | Below       | 36-38      | 23-25 | Below       | 33.8     | 17.4 | 36.1  | 20.6 | 37.2  | 23.6 |
|                |               |            | normal      |                                      | 20-22       | normal      |            |       | normal      |          |      |       |      |       |      |
| Northeastern 3 | 32-34 1       | 17-19      | Near        | 34-36                                | 36 22-24    | Below       | 35-37      | 24-26 | Below       | 33.0     | 19.5 | 35.2  | 22.7 | 36.2  | 24.6 |
|                |               | 11-19      | normal      | 34-30                                |             | normal      |            |       | normal      |          |      |       |      |       |      |
| Central        | 34-36         | 19-21      | Near        | 35-37                                | 23-25       | Below       | 36-38      | 24-26 | Below       | 34.8     | 21.7 | 36.5  | 23.9 | 37.5  | 25.3 |
|                |               |            | normal      | 33-31                                | 25-25       | normal      |            |       | normal      |          |      |       |      |       |      |
| Eastern        | 32-34         | 21-23      | Near        | 33-35 24-                            | 24-26       | Below       | 34-36      | 25-27 | Below       | 33.0     | 23.4 | 33.9  | 25.0 | 34.7  | 25.9 |
|                |               |            | normal      |                                      | 2120        | normal      |            |       | normal      |          |      |       |      |       |      |
| Southern (East | 30-32         | 22-24      | Below       | 32-34                                | 23-25       | Near        | 33-35      | 24-26 | Below       | 31.6     | 22.9 | 32.8  | 23.7 | 33.9  | 24.7 |
| Coast)         |               |            | normal      |                                      |             | normal      |            |       | normal      |          |      |       |      |       |      |
| Southern       | 32-34         | 2-34 22-24 | Belwo       | 33_35                                | 33-35 23-25 | Below       | 33-35      | 24-26 | Below       | 33.7     | 23.3 | 34.3  | 23.9 | 34.2  | 24.7 |
| (West Coast)   |               |            | normal      | JJ-JJ                                |             | normal      |            |       | normal      |          |      |       |      |       |      |
| Bangkok and    | 33-35         | 22-24      | Near        | 33-35                                | 25-27       | Near        | 34-36      | 26-28 | Below       | 33.5     | 24.3 | 34.6  | 26.0 | 35.6  | 26.9 |
| Vicinity       |               | 22-24      | normal      |                                      |             | normal      | 34 30      |       | normal      |          | 24.5 | 54.0  | 20.0 | 33.0  |      |

Remarks: - \* Normal means average during the 30-year period (A.D. 1991 – 2020 or B.E. 2534 – 2563).

- This long-range climate forecast is created by applying some climate models and statistical methods, the public then should follow the daily weather forecast news from the Thai Meteorological Department for more accuracy further.
- The next 3-month climate forecast will be published online before the end of December 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

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