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NATIONAL CENTRE FOR HYDROLOGY AND METEOROLOGY  
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21 August, 2026

## Extended Range Prediction for Bhutan

### Background

Extended Range Prediction (ERP) for Bhutan is prepared with the support from the Indian Meteorological Department (IMD), Government of India. The model used for the system is CFSv2 coupled model (Atmospheric and Ocean model) which runs once every week (Wednesday), with the 16 Ensemble Members at the horizontal resolution of around 25 km, and the products are made available the next day (Thursday). Therefore, the ERP products for Bhutan will be generated every Friday. ERP for Bhutan is carried out for two climate variables, rainfall and temperature.

Generally, the forecast output is produced on a weekly basis for a period of a month for both the variables. The current products available from NCHM are on pilot basis which needs further studies and validation with the ground observations until the product is fully operationalized.



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### Observed weather over last week

Both maximum and minimum temperatures remained relatively stable throughout the week, with only minor day-to-day fluctuations observed in some areas. Moderate rainfall was recorded across several regions during the reporting period. The table below presents the real-time rainfall and temperature data collected from the Regional Meteorological Centres over the past week.

| Station    |           | 14 Aug | 15 Aug | 16 Aug | 17 Aug | 18 Aug | 19 Aug | 20 Aug |
|------------|-----------|--------|--------|--------|--------|--------|--------|--------|
| Thimphu    | Tmax (°C) | 28.5   | 27     | 25.5   | 26     | 26.5   | 27     | 26     |
|            | Tmin (°C) | 15.5   | 16.5   | 16     | 13.5   | 15     | 16     | 16.5   |
|            | Rain (mm) | 0      | 0      | 0      | 4.4    | 0      | 2.6    | 5.4    |
| Dagana     | Tmax (°C) | 28     | 28     | 26     | 25.5   | 23.5   | 28     | 27.5   |
|            | Tmin (°C) | 20     | 19     | 19     | 19.5   | 19.5   | 18.5   | 19     |
|            | Rain (mm) | 0      | 0      | 2      | 10     | 0.4    | 0      | 0.2    |
| Bumthang   | Tmax (°C) | 25.5   | 26     | 23.5   | 25.5   | 23.5   | 24     | 25.5   |
|            | Tmin (°C) | 16.5   | 16     | 15.5   | 16.5   | 16.5   | 16.5   | 17.5   |
|            | Rain (mm) | 0      | 0      | 0      | 2.5    | 8.9    | 9.2    | 1.6    |
| S/Jongkhar | Tmax (°C) | 32.5   | 33.5   | 31     | 31.5   | 31.5   | 30.5   | 31     |
|            | Tmin (°C) | 24     | 23.5   | 23.5   | 23     | 24     | 23.5   | 23     |
|            | Rain (mm) | 0      | 0      | 15.8   | 0      | 0      | 0      | 0      |
| Gasa       | Tmax (°C) | 22     | 22     | 18     | 18     | 20     | 22     | 22     |
|            | Tmin (°C) | 15     | 15     | 10     | 14     | 14     | 12     | 15     |
|            | Rain (mm) | 19     | 30     | 0      | 7.4    | 1.8    | 1.6    | 16.2   |



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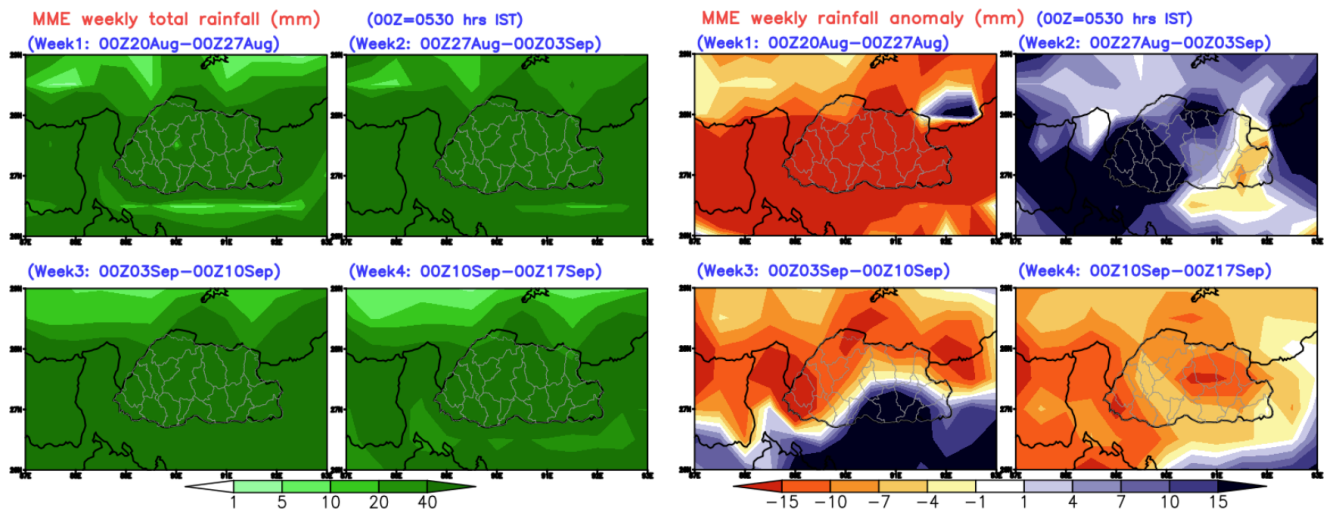
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## Weekly forecast for Bhutan

### 1. Rainfall Prediction



#### Week 1 (21 Aug - 27 Aug)

Below-normal rainfall conditions are likely to prevail across much of the country during the week 1.

#### Week 2 (28 Aug - 03 Sep) and Week 3 (04 Sep - 10 Sep)

Above-normal rainfall conditions are likely over the central, south-western, and northern parts of the country during Week 2. In Week 3, above-normal rainfall conditions are expected to prevail over the south-eastern parts of the country.

#### Week 4 (11 Sep - 17 Sep)

Below-normal rainfall is likely over the western and eastern parts of the country, while near-normal rainfall is expected across most other areas during Week 4.



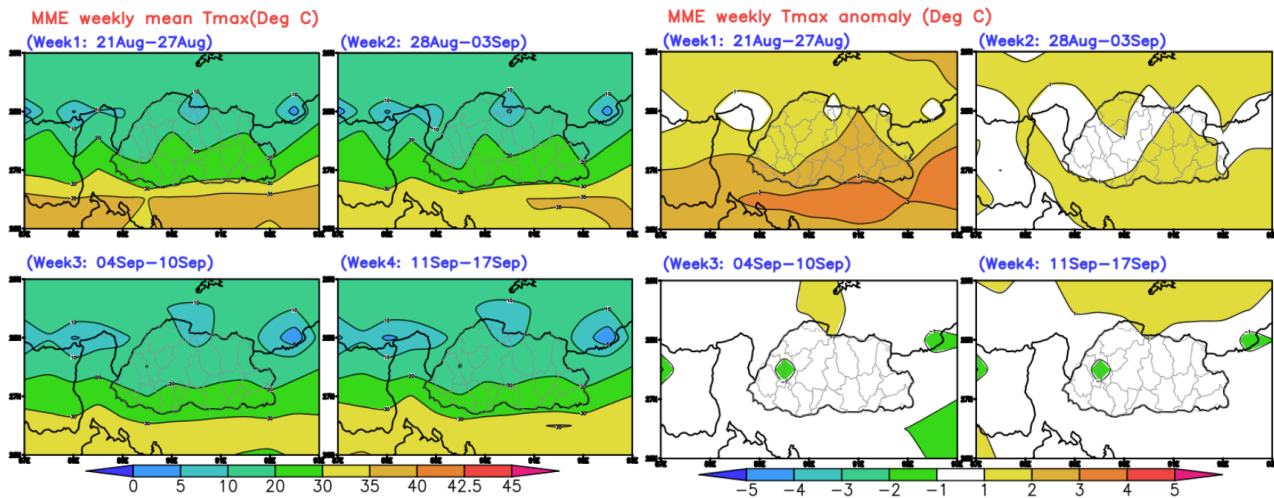
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## 2. Maximum Temperature Prediction



### Week 1 (21 Aug - 27 Aug) and Week 2 (28 Aug - 03 Sep)

Above-normal maximum temperatures are likely to prevail across the southern belt and parts of the western region of the country over the next two weeks, while temperatures in the remaining areas are expected to remain near normal.

### Week 3 (04 Sep - 10 Sep) and Week 4 (11 Sep - 17 Sep)

Near-normal maximum temperatures are likely to prevail throughout the country during the final two weeks.



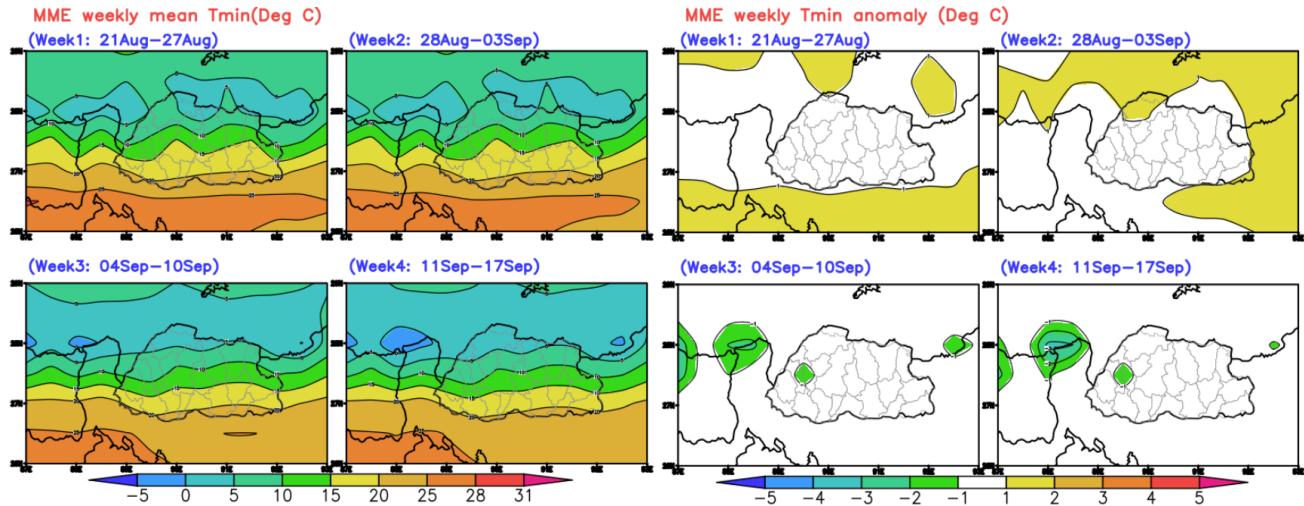
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### 3. Minimum Temperature Prediction



Week 1 (21 Aug - 27 Aug), Week 2 (28 Aug - 03 Sep), Week 3 (04 Sep - 10 Sep) and Week 4 (11 Sep - 17 Sep)

Minimum temperatures are expected to remain near normal over most parts of the country during the coming weeks.

#### Summary

- Rainfall is likely to be mostly below normal in Week 1, above normal over central, south-western, and northern areas in Week 2, below normal over the south-east in Week 3, and below normal over western and eastern areas in Week 4, with near-normal conditions elsewhere.
- Above-normal maximum temperatures are likely over the southern belt and parts of the western region during the first two weeks, with near-normal maximum temperatures expected countrywide in the final two weeks.
- Minimum temperatures are expected to remain near normal over most parts of the country during the coming weeks.



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### Classification of rainfall for 24 Hours

|                          |                             |
|--------------------------|-----------------------------|
| No rainfall              | 0.0 mm                      |
| Very light rainfall      | 0.1 to 0.9 mm               |
| Light rainfall           | 1.0 to 10.0 mm              |
| Moderate rainfall        | 11.0 to 30.0 mm             |
| Heavy rainfall           | 31.0 to 70.0 mm             |
| Very heavy rainfall      | 71.0 to 150.0 mm            |
| Extremely heavy rainfall | Equal or more than 151.0 mm |