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13 March, 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

Most of the stations across the country showed constant maximum temperature and minimum temperature throughout the week. Very light to moderate rainfall was recorded in some parts of the country, mainly towards the end of the week. The table below displays observed real time rain and temperature data from regional meteorological stations over the last week.

Station		06 Mar	07 Mar	08 Mar	09 Mar	10 Mar	11 Mar	12 Mar
Babesa	Tmax (°C)	20.5	16.5	17.0	20.0	21.0	21.5	19.5
	Tmin (°C)	9.0	9.5	9.5	9.0	8.0	8.0	9.0
	Rain (mm)	0.0	0.0	0.0	0.0	0.0	0.0	4.8
Dagana	Tmax (°C)	24.0	25.0	25.5	26.0	27.0	25.0	21.5
	Tmin (°C)	14.5	13.5	13.0	15.5	13.0	13.5	15.0
	Rain (mm)	0.0	0.0	0.0	0.0	0.0	0.0	22.0
Chamkhar	Tmax (°C)	19.0	13.0	15.0	18.0	20.5	18.0	17.5
	Tmin (°C)	8.0	8.5	7.0	6.5	7.0	4.0	5.5
	Rain (mm)	0.0	0.0	0.0	0.0	15.2	0.0	4.1
Dewathang	Tmax (°C)	32.0	32.0	32.0	29.0	31.0	31.0	24.0
	Tmin (°C)	18.0	19.0	20.0	20.0	19.0	19.5	20.0
	Rain (mm)	0.0	0.0	0.0	0.0	0.0	0.0	27.8
Gasa	Tmax (°C)	15.0	11.0	11.0	17.0	17.0	18.0	17.0
	Tmin (°C)	6.0	7.0	6.0	6.0	5.0	5.0	4.0
	Rain (mm)	0.0	1.4	0.0	1.4	0.0	0.8	15.2



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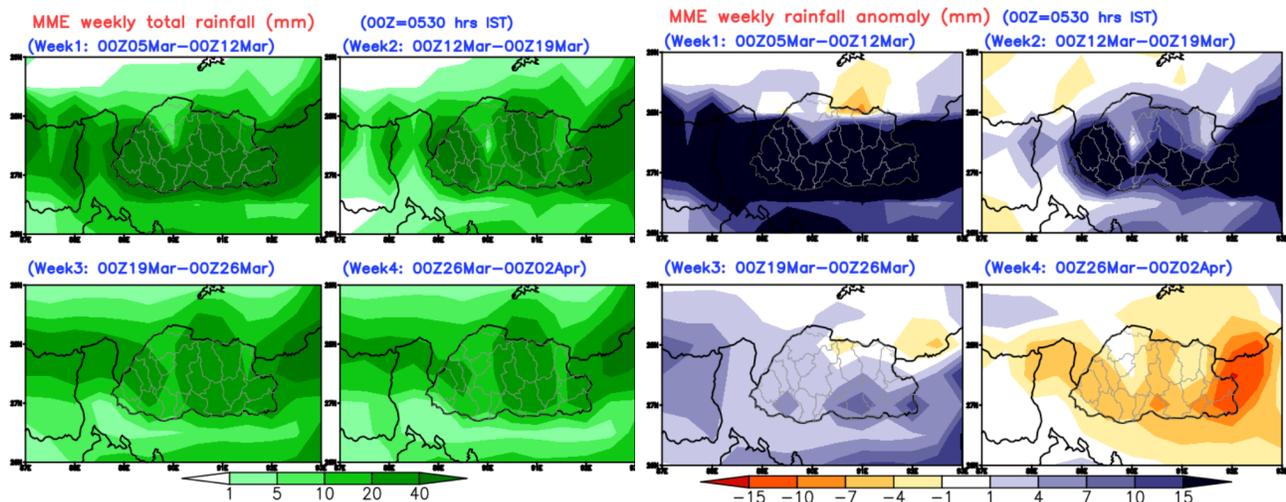
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Weekly forecast for Bhutan

1. Rainfall Prediction



Week 1 (05 Mar - 12 Mar), Week 2 (12 Mar - 19 Mar) and Week 3 (19 Mar - 26 Mar)

Above normal rainfall is expected over most parts of the country during the first three weeks. The intensity is higher in Week 1 and Week 2, and slightly decreases in Week 3.

Week 4 (26 Mar - 02 Apr)

Below normal rainfall is expected over many parts of the country during Week 4, with the eastern region likely to experience more pronounced dry conditions.



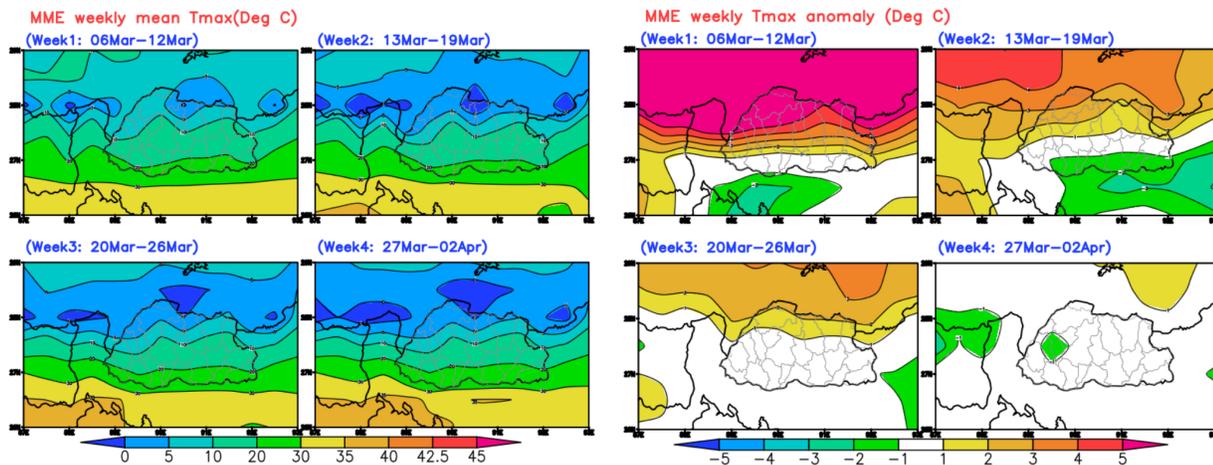
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2. Maximum Temperature Prediction



Week 1 (05 Mar - 12 Mar) and Week 2 (12 Mar - 19 Mar)

Above normal maximum temperature is expected during Week 1 and Week 2. The positive anomaly is more pronounced in Week 1 and remains above normal in Week 2, mainly over the northern parts of the country.

Week 3 (19 Mar - 26 Mar) and Week 4 (26 Mar - 02 Apr)

Maximum temperature is expected to weaken towards near normal conditions during Week 3 and Week 4. However, slightly below normal conditions are likely over isolated parts of the country.



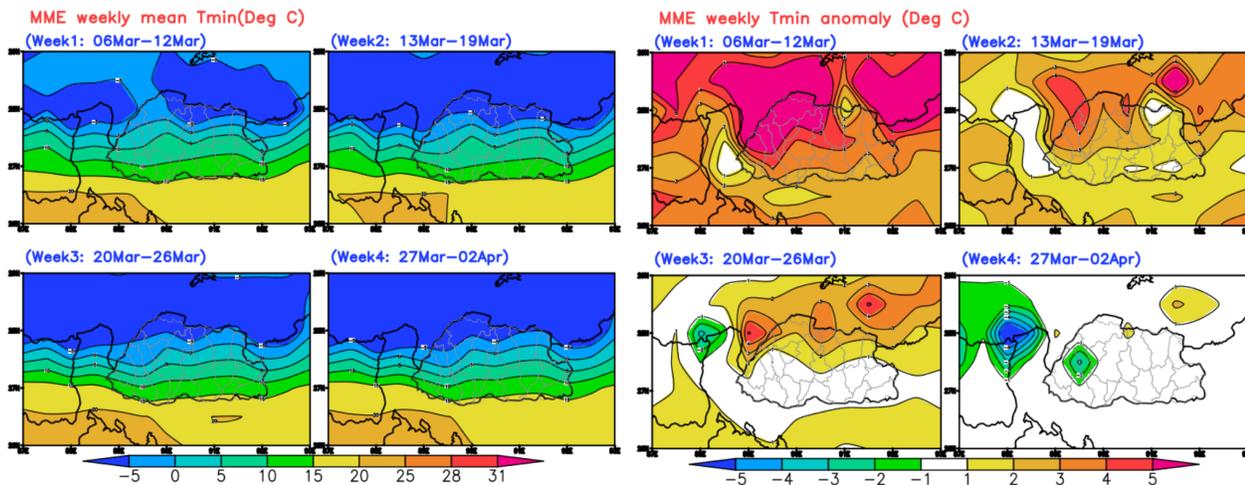
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3. Minimum Temperature Prediction



Week 1 (05 Mar - 12 Mar), Week 2 (12 Mar - 19 Mar) and Week 3 (19 Mar - 26 Mar)

Above normal minimum temperature is expected during the first three weeks. The positive anomaly is more pronounced in Week 1 and gradually weakens through Week 2 and Week 3.

Week 4 (26 Mar - 02 Apr)

Minimum temperature is expected to remain near normal over most parts of the country during Week 4, with below normal conditions over isolated western and central parts.

Summary

- Above normal rainfall is expected over most parts of the country during the first three weeks, followed by below normal rainfall in Week 4.
- Above normal maximum temperature is expected during the first two weeks, with near normal conditions likely in Week 3 and Week 4.
- Above normal minimum temperature is expected during the first three weeks, while near normal conditions are likely over most parts of the country in Week 4.



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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