



ཨཱ། རྒྱལ་ཡོངས་ཚུད་ཕྱད་དང་གནམ་གཤིས་རིག་པའི་རྩེ་བ།

NATIONAL CENTRE FOR HYDROLOGY AND METEOROLOGY
THIMPHU: BHUTAN

"Centre of Excellence in Hydrology, Meteorology and Cryosphere Science and Services"



2 May, 2025

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.



ཨཱ། རྒྱལ་ཡོངས་ཆུ་དབྱུང་དང་གནམ་གཤིས་རིག་པའི་རྩེ་བ།

NATIONAL CENTRE FOR HYDROLOGY AND METEOROLOGY
THIMPHU: BHUTAN

"Centre of Excellence in Hydrology, Meteorology and Cryosphere Science and Services"



Observed weather over last week

Most of the stations across the country showed an increasing maximum temperature on day 2 of last week and then decreased for the rest of the week, and varied (increase in the middle of the week) minimum temperature throughout the week. Light rain was observed throughout the country. The table below displays observed real time rain and temperature data from regional meteorological stations over the last week.

Station		25 Apr	26 Apr	27 Apr	28 Apr	29 Apr	30 Apr	01 May
Babesa	Tmax (°C)	18.0	19.0	16.0	11.0	13.0	16.0	12.0
	Tmin (°C)	4.0	4.0	5.0	4.0	4.0	5.0	4.0
	Rain (mm)	0.0	0.0	14.6	6.4	1.8	21.8	3.8
Dagana	Tmax (°C)	23.0	24.0	24.5	24.0	19.0	22.0	19.0
	Tmin (°C)	13.0	13.5	16.0	13.0	11.0	11.0	13.0
	Rain (mm)	0.0	0.0	14.0	0.0	5.2	7.6	2.2
Chamkhar	Tmax (°C)	29.0	30.0	29.5	18.5	25.5	27.0	24.0
	Tmin (°C)	15.5	16.0	16.0	14.0	14.5	14.5	15.0
	Rain (mm)	0.0	0.0	2.6	1.2	8.4	1.0	0.4
Deothang	Tmax (°C)	25.5	26.0	23.5	17.0	17.5	23.5	19.5
	Tmin (°C)	15.0	16.0	15.0	12.5	14.0	12.0	13.0
	Rain (mm)	0.0	0.0	11.2	2.0	6.8	3.2	2.8
Gasa	Tmax (°C)	32.5	33.0	33.0	24.5	28.5	3.2	26.0
	Tmin (°C)	18.0	33.0	33.0	24.5	28.5	30.0	16.5
	Rain (mm)	0.0	0.0	2.2	1.0	2.4	1.0	0.0



ཨ། རྒྱལ་ཡོངས་ཁྲུང་ཕུང་དང་གནམ་གཤིས་རིག་པའི་ཨྱེ་བ།

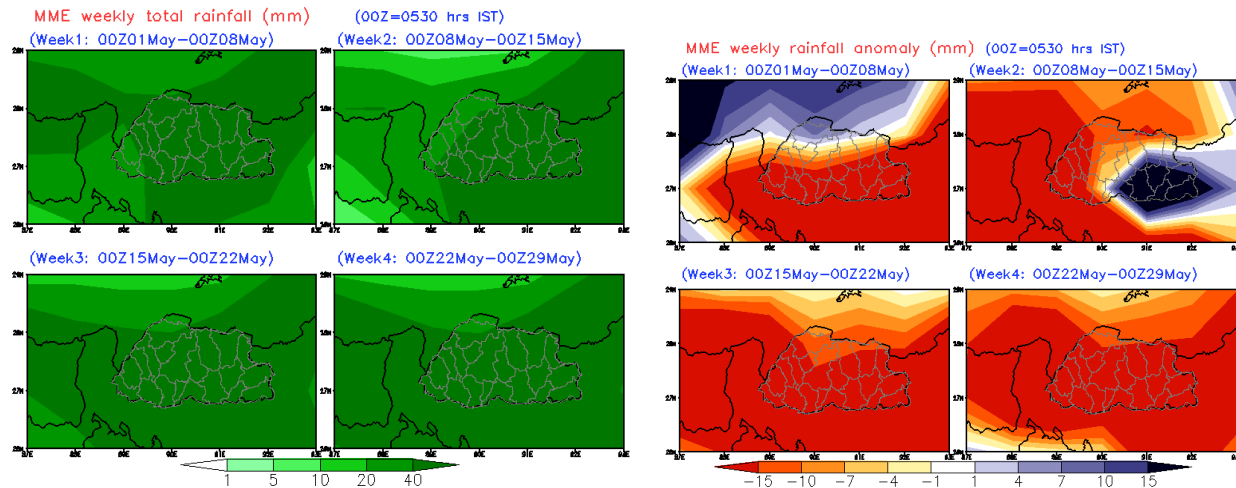
NATIONAL CENTRE FOR HYDROLOGY AND METEOROLOGY
THIMPHU: BHUTAN

"Centre of Excellence in Hydrology, Meteorology and Cryosphere Science and Services"



Weekly forecast for Bhutan

1. Rainfall Prediction



Week 1 (01 May - 08 May)

Below normal rainfall in the south and above normal in the north.

Week 2 (08 May - 15 May)

Above normal rainfall in the southeastern part of the country. The rest of the country is forecasted to be below normal rainfall.

Week 3 (15 May - 22 May) and Week 4 (22 May - 29 May)

Below normal rainfall throughout the country.



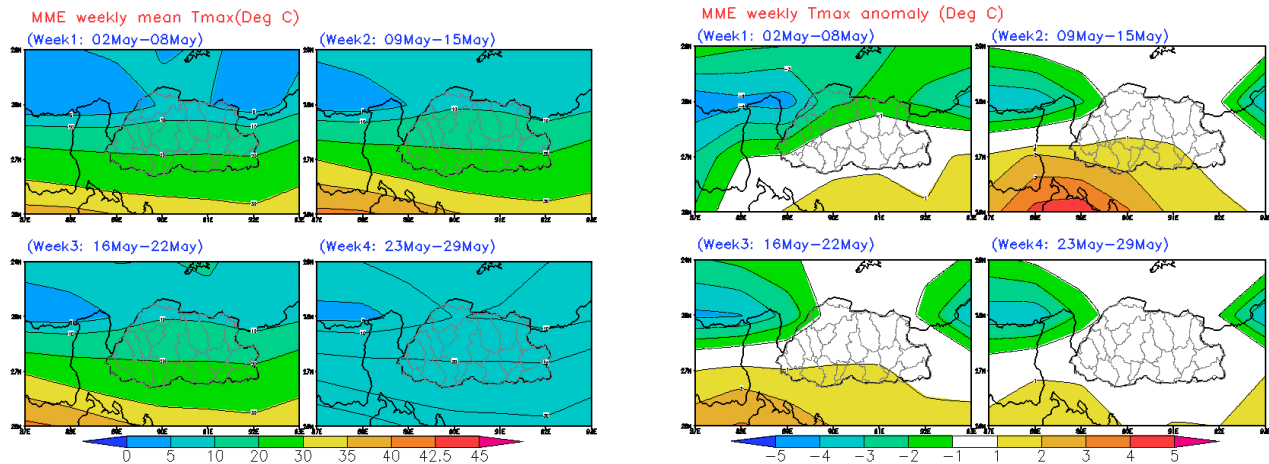
ཨ། རྒྱལ་ཡོངས་ཁྲུང་ཕུང་དང་གནམ་གཤིས་རིག་པའི་ལྷེ་བ།

NATIONAL CENTRE FOR HYDROLOGY AND METEOROLOGY
THIMPHU: BHUTAN

"Centre of Excellence in Hydrology, Meteorology and Cryosphere Science and Services"



2. Maximum Temperature Prediction



Week 1 (02 May - 08 May)

Normal maximum temperature throughout the region except below normal in the north.

Week 2 (09 May - 15 May), and Week 3 (16 May - 22 May)

Normal maximum temperature throughout the region except above normal in the south.

Week 4 (23 May - 29 May)

Normal maximum temperature throughout the region.



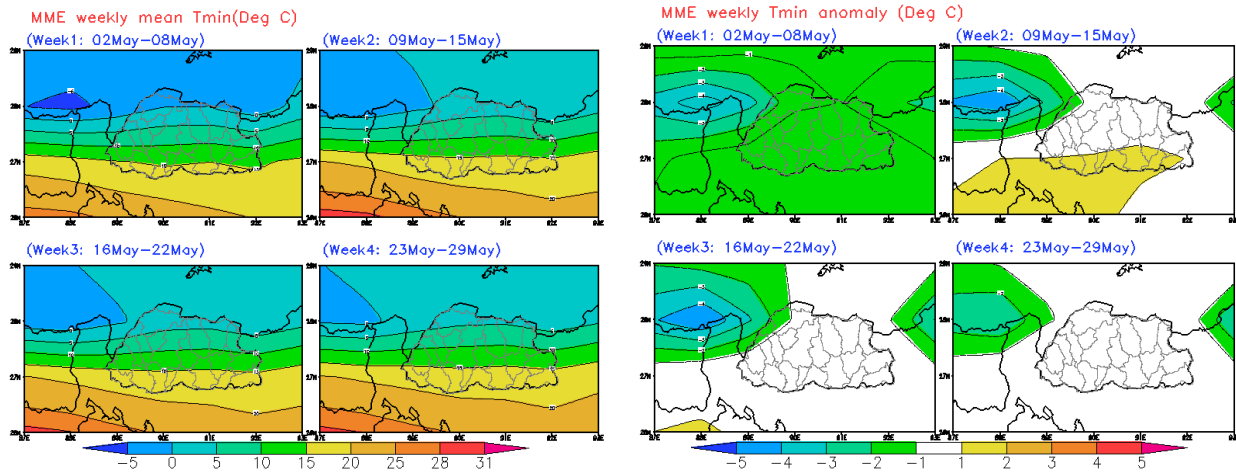
ཨ། རྒྱལ་ཡོངས་ཁྲུང་ཕུང་དང་གནམ་གཤིས་རིག་པའི་ཁྲེ་བ།

NATIONAL CENTRE FOR HYDROLOGY AND METEOROLOGY
THIMPHU: BHUTAN

"Centre of Excellence in Hydrology, Meteorology and Cryosphere Science and Services"



3. Minimum Temperature Prediction



Week 1 (02 May - 08 May)

Below normal minimum temperature throughout the region.

Week 2 (09 May - 15 May)

Normal minimum temperature throughout the region except above normal in the south.

Week 3 (16 May - 22 May) and Week 3 (23 May - 29 May)

Normal minimum temperature throughout the region.



ཨཱ། རྒྱལ་ཡོངས་ཚུད་ཕུད་དང་གནམ་གཤིས་རིག་པའི་རྩེ་བ།

NATIONAL CENTRE FOR HYDROLOGY AND METEOROLOGY
THIMPHU: BHUTAN

"Centre of Excellence in Hydrology, Meteorology and Cryosphere Science and Services"



Summary

- The rainfall is likely to be below normal for the rest of the month except above normal in the north and south for week1 and week 2 respectively.
- The maximum temperature is likely to be normal in the south and below normal in the north for the forest week, above normal in the south for the middle two weeks and normal for the rest of the month.
- The minimum temperature is likely to be below normal for the first week and gradually become normal for the rest of the month.

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



༄༅། རྒྱལ་ཡོངས་ཚུད་ཕྱད་དང་གནམ་གཤིས་རིག་པའི་རྩེ་བ།

NATIONAL CENTRE FOR HYDROLOGY AND METEOROLOGY
THIMPHU: BHUTAN

"Centre of Excellence in Hydrology, Meteorology and Cryosphere Science and Services"

