



MONTHLY CLIMATE SUMMARY
For
May 2023

Meteorological Services Division
National Centre for Hydrology and Meteorology
Royal Government of Bhutan

Highlights

- The pre monsoon season is expected from March - May and during the month of May 2023, most parts of the regions received good amount of rainfall.
- The lowest daily minimum temperature was recorded at Haa met station (1.5°C).
- The highest daily maximum temperature was recorded at Phuentsholing met station (35.5°C)
- The highest daily rainfall was recorded at Phuentsholing met station (110.4 mm).
- Phuentsholing met station recorded the highest total rainfall of 524.0 mm for May month.
- All the computations are based on real time observed data of 20 Agrometeorological (Class A) stations.

Rainfall

Bhutan experiences the summer monsoon during the month of June to September. Bhutan received most of its annual rainfall during summer monsoon so, the Centre monitors the performance of monsoon and issue an outlook for the monsoon season. The normal is the monitoring of long-term average rainfall of Bhutan from (1996-2022). The relationship between the long-term average or normal (1996-2022) with the monthly real time observation data (2023) is also analyzed. For the month of May 2023, the country as a whole received near normal rainfall.

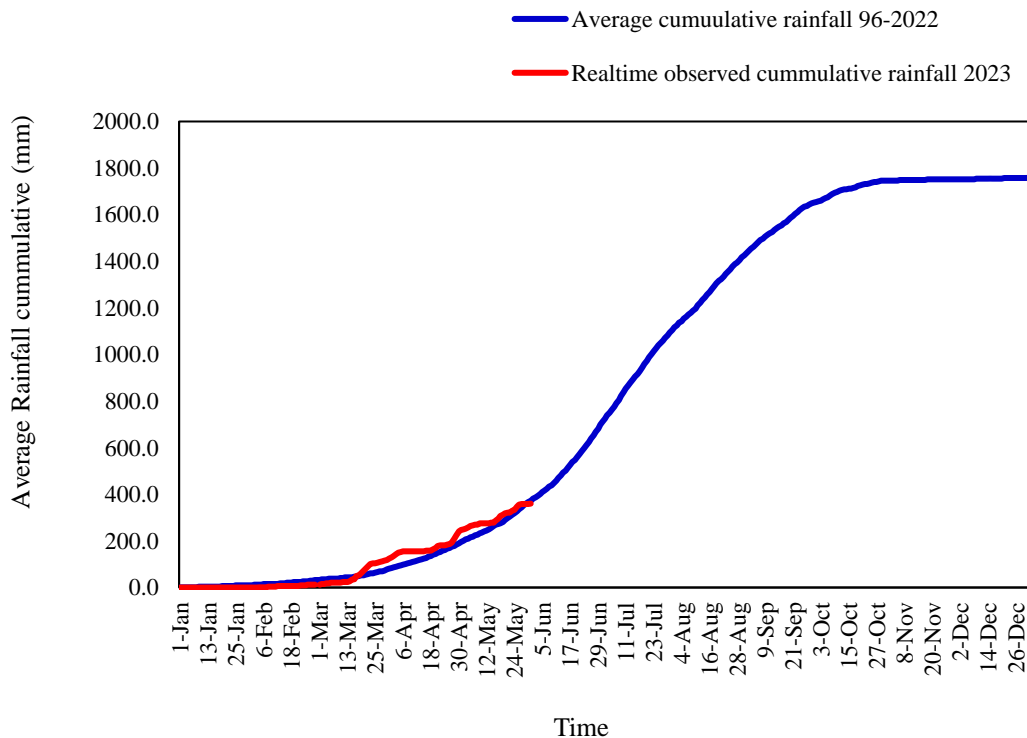


Figure 1: Observed rainfall (May 2023) against the long-term average (1996-2022)

Highest daily observation rainfall recorded at each met stations – May 2023

Table 1 Highest daily observation rainfall recorded at each met stations in May month

Stations	Rainfall (mm)
Bhur	69.0
Chamkhar	8.4
Dagana	25.4
Damphu	25.0
Deothang	73.2
Gasa	31.0
Haa	13.6
Kanglung	16.2
Mongar	13.0
Paro	7.5
Pemagatshel	10.6
Phuentsholing	110.4
Punakha	10.0
Babesa	6.0
Sipsu	81.2
Tangmachu	19.2
Trashiyangtse	17.8
Trongsa	15.2
Wangdue	3.0
Zhemgang	9.2

Total observation rainfall recorded at each met stations – May 2023

Table 2 Total observation rainfall recorded at each met stations in May month

Stations	Total Rainfall (mm)
Bhur	263.2
Chamkhar	49.2
Dagana	61.6
Damphu	38.2
Deothang	231.6
Gasa	237.0
Haa	70.3
Kanglung	63.2
Mongar	38.0
Paro	23.8

Pemagatshel	50.2
Phuentsholing	524.0
Punakha	24.4
Babesa	28.4
Sipsu	266.6
Tangmachu	80.4
Trashiyangtse	127.8
Trongsa	94.3
Wangdue	9.6
Zhemgang	71.8

The following map shows the spatial distribution of total rainfall across Bhutan during May 2023. The northern, southern and parts of southwest region received certain amount of rainfall as compared to other remaining regions.

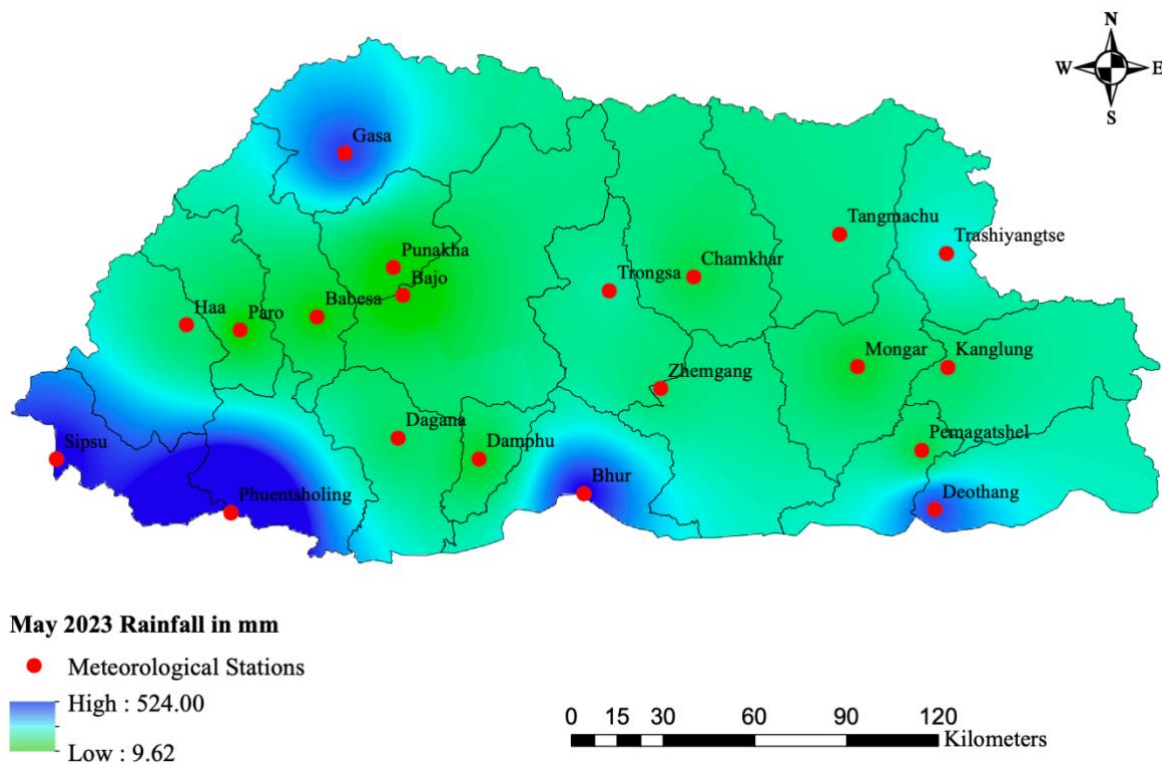


Figure 2: Spatial distribution of total rainfall during May 2023

Temperature

The normal is the monitoring of long-term average temperature of Bhutan from (1996-2022). The behavior of observed real time average temperature (2023) against the long-term average (1996-2021) is analyzed. Thus, for the month of May 2023, the observed average temperature was mostly near normal.

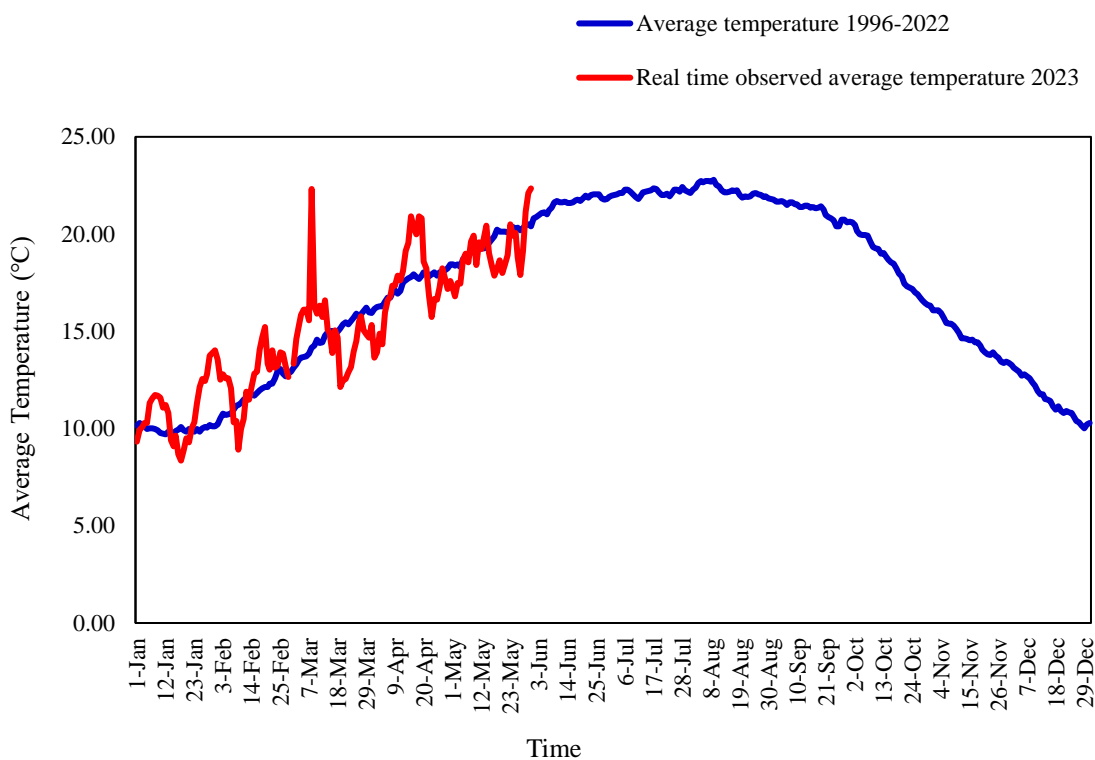


Figure 3: Average observed temperature (May 2023) against long-term average (1996-2022)

Highest daily maximum temperature recorded at each met stations – May 2023

Table 3 Highest daily maximum temperature recorded at each met stations in May month

Stations	Maximum Temperature (°C)
Bhur	34.0
Chamkhar	24.5
Dagana	31.0
Damphu	26.0
Deothang	30.0
Gasa	22.0
Haa	22.5

Kanglung	29.5
Mongar	31.0
Paro	28.0
Pemagatshel	31.5
Phuentsholing	35.5
Punakha	34.5
Babesa	29.2
Sipsu	34.5
Tangmachu	32.5
TrashiYangtse	30.0
Trongsa	26.5
Bajo	35.0
Zhemgang	28.0

Lowest daily minimum temperature recorded at each met stations – May 2023

Table 4 Lowest daily minimum temperature recorded at each met stations in May month

Stations	Minimum Temperature (°C)
Bhur	17.0
Chamkhar	3.5
Dagana	10.5
Damphu	12.0
Deothang	17.0
Gasa	3.0
Haa	1.5
Kanglung	8.0
Mongar	10.0
Paro	3.0
Pemagatshel	13.0
Phuentsholing	17.0
Punakha	15.0
Babesa	4.0
Sipsu	16.0
Tangmachu	13.5
TrashiYangtse	6.5
Trongsa	7.5
Bajo	13.5
Zhemgang	9.5

The map below shows the spatial variation of maximum, minimum and average temperature during May month.

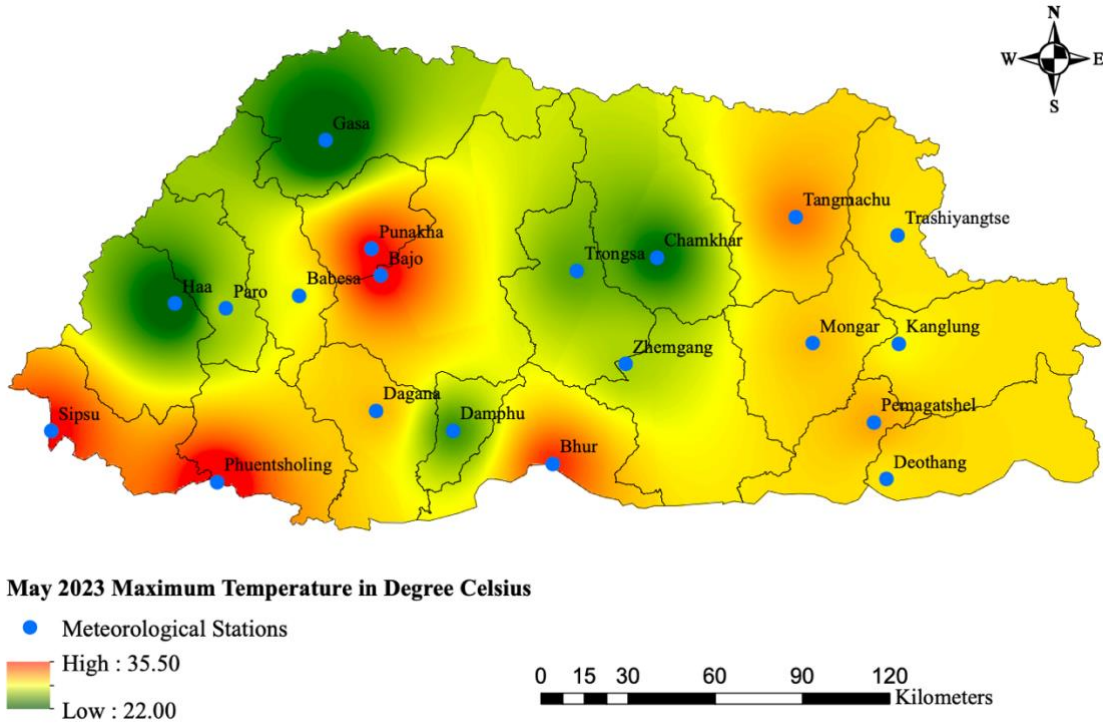


Figure 4: Spatial variation of maximum of maximum temperature during May 2023

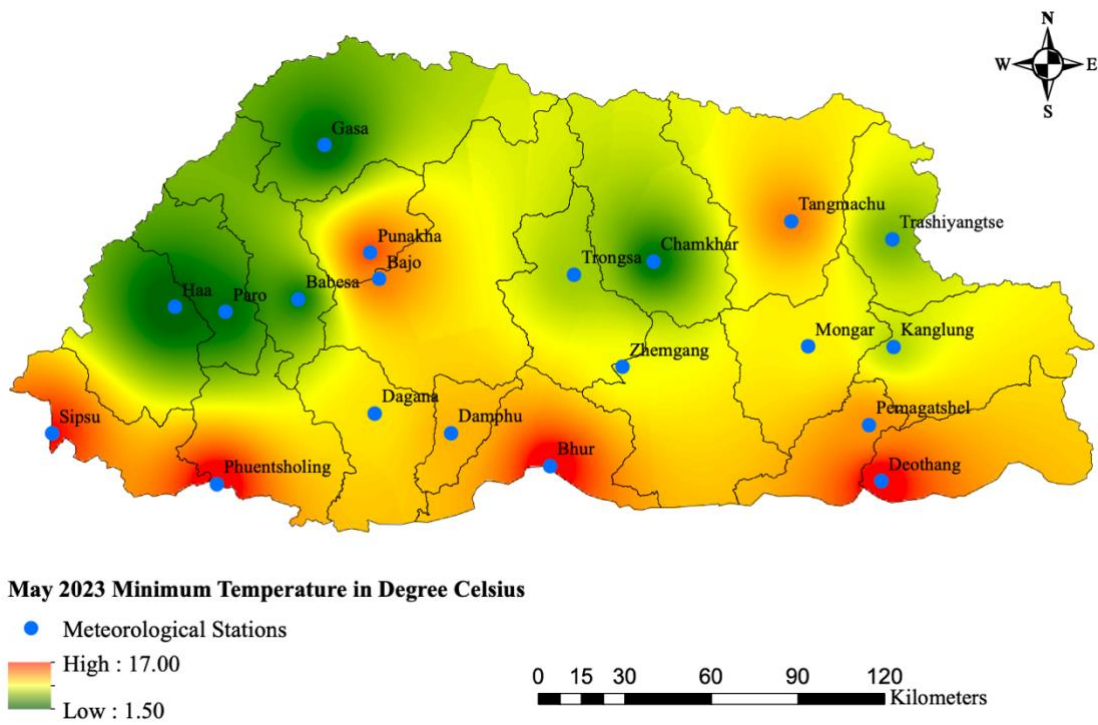


Figure 5: Spatial variation of minimum of minimum temperature during May 2023

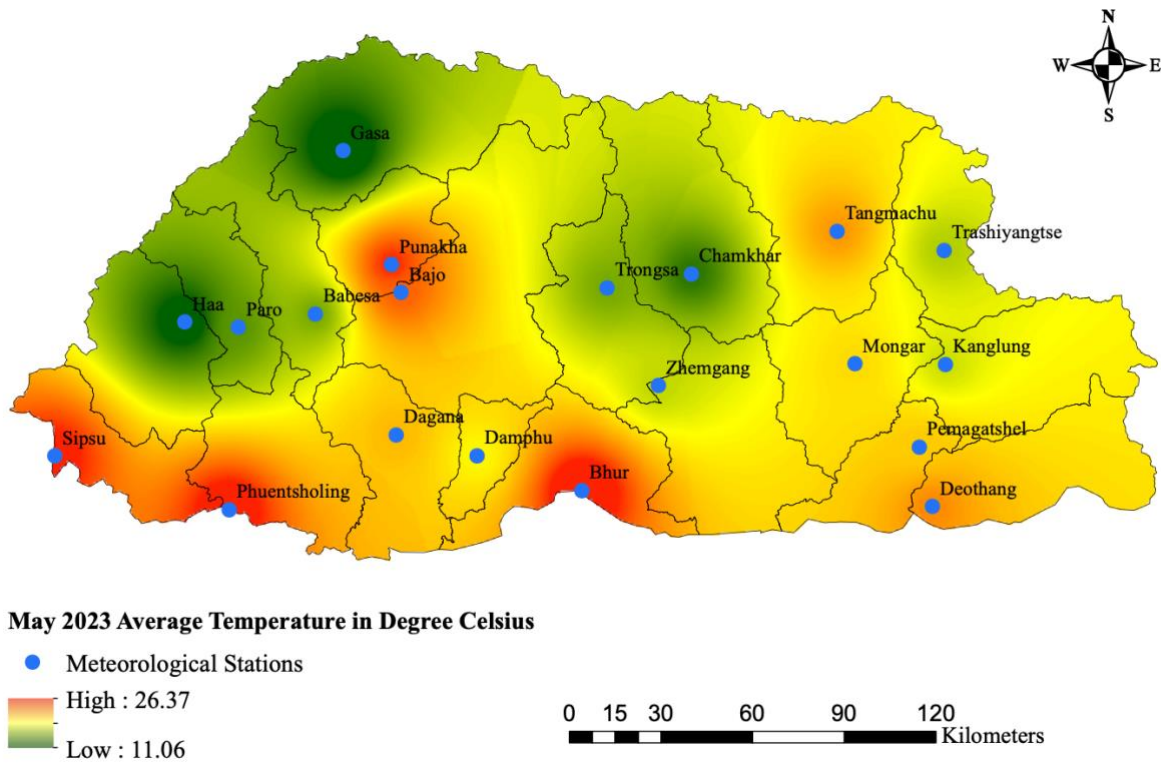


Figure 6: Spatial variation of average temperature during May 2023