



MONTHLY CLIMATE SUMMARY
For
April 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 the country receive relatively good amount of rain during that period. During the month of April 2023, most parts of the regions received good amount of rainfall.
- The lowest daily minimum temperature was recorded at Haa met station (-0.5°C).
- The highest daily maximum temperature was recorded at Phuentsholing and Punakha met station (35.0°C)
- The highest daily rainfall was recorded at Phuentsholing met station (124.6 mm).
- Sipsu met station recorded the highest total rainfall of 420.2 mm for April 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 April 2023, the country as a whole received near normal rainfall.

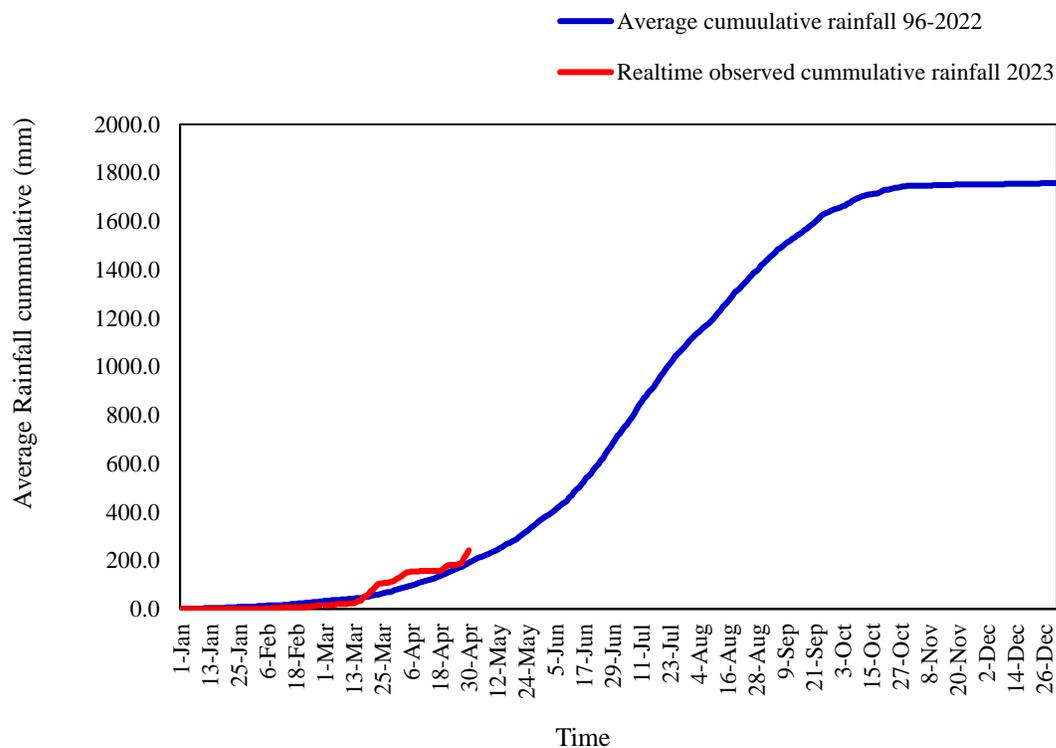


Figure 1: Observed rainfall (April 2023) against the long-term average (1996-2022)

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

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

Stations	Rainfall (mm)
Bhur	51.4
Chamkhar	13.3
Dagana	13.4
Damphu	17.0
Deothang	45.0
Gasa	23.6
Haa	7.6
Kanglung	33.2
Mongar	18.2
Paro	4.6
Pemagatshel	33.8
Phuentsholing	124.6
Punakha	4.0
Babesa	6.4
Sipsu	98.2
Tangmachu	17.2
Trashiyangtse	19.4
Trongsa	25.6
Bajo	4.2
Zhemgang	15.0

Total observation rainfall recorded at each met stations – April 2023

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

Stations	Total Rainfall (mm)
Bhur	265.5
Chamkhar	72.8
Dagana	48.1
Damphu	50.0
Deothang	216.6
Gasa	146.9
Haa	46.7
Kanglung	89.6
Mongar	59.0
Paro	19.0

Pemagatshel	162.8
Phuentsholing	359.6
Punakha	4.1
Babesa	28.6
Sipsu	420.2
Tangmachu	70.3
Trashiyangtse	89.9
Trongsa	118.5
Bajo	16.2
Zhemgang	66.5

The following map shows the spatial distribution of total rainfall across Bhutan during April 2023. The southern region received good amount of rainfall as compared to other remaining regions.

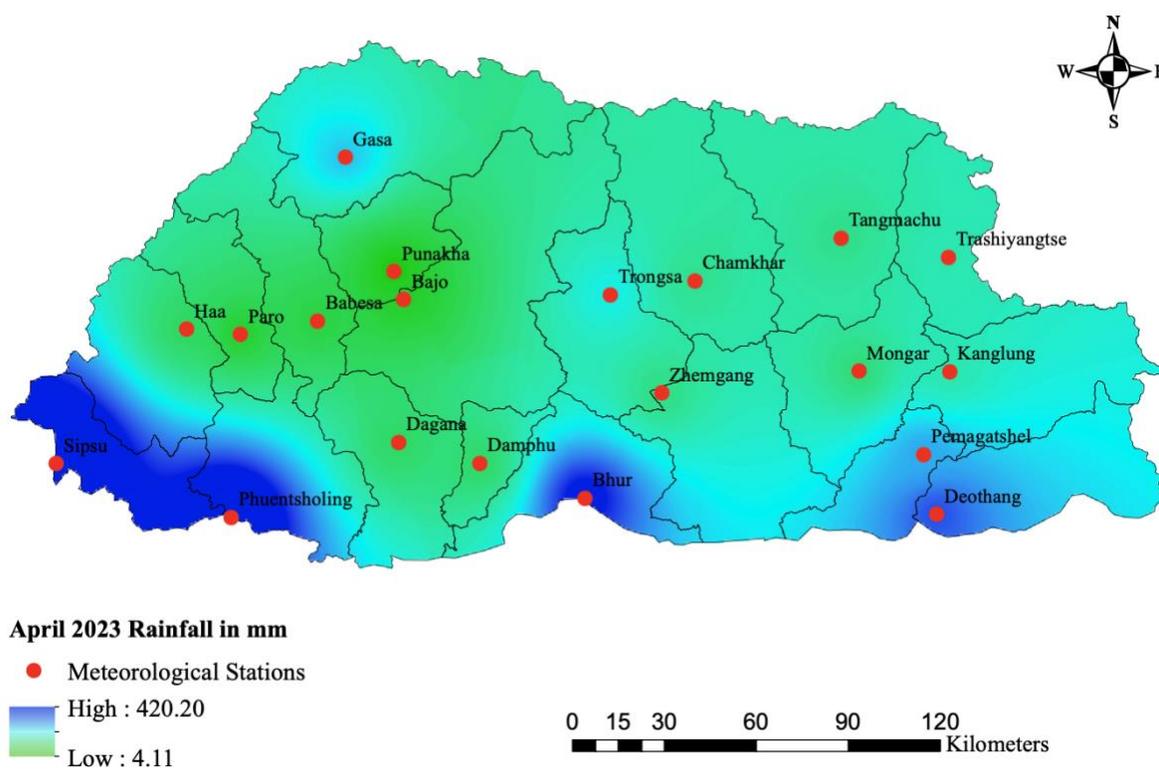


Figure 2: Spatial distribution of total rainfall during April 2023

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 (1996-2022) is analyzed. Thus, for the month of April 2023, the observed average temperature was mostly near normal to slightly above normal.

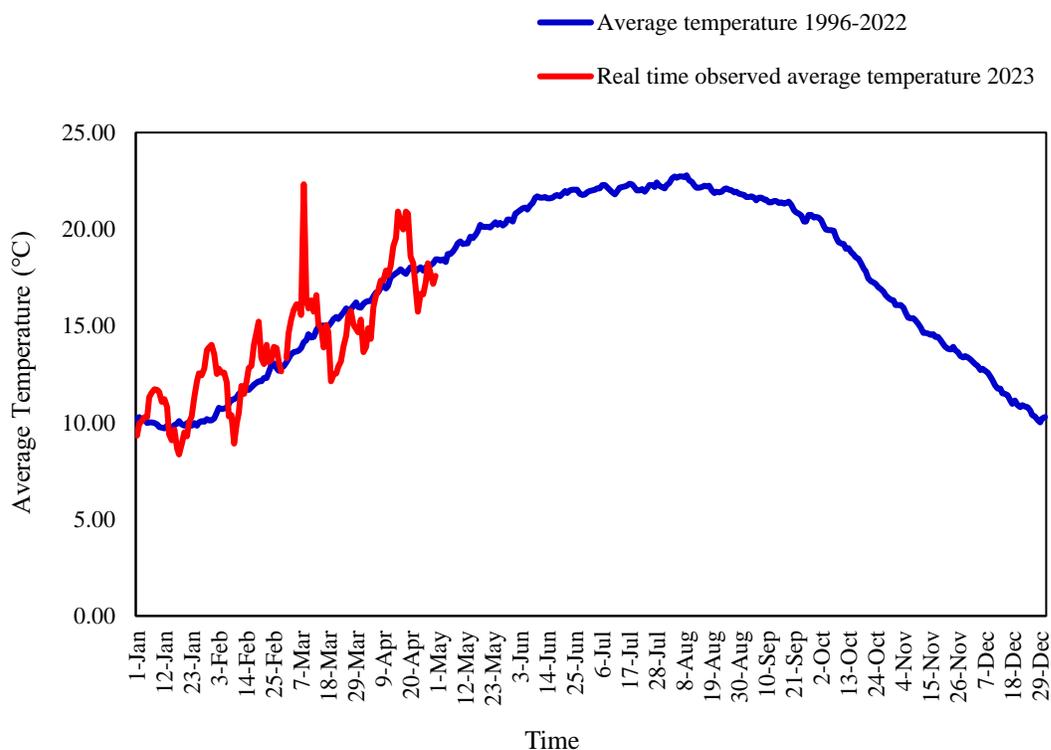


Figure 3: Average observed temperature (April 2023) against long-term average (1996-2022)

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

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

Stations	Maximum Temperature (°C)
Bhur	33.0
Chamkhar	23.0
Dagana	31.0
Damphu	26.0
Deothang	29.0
Gasa	21.5
Haa	20.5

Kanglung	28.0
Mongar	28.0
Paro	24.0
Pemagatshel	31.5
Phuentsholing	35.0
Punakha	35.0
Babesa	24.5
Sipsu	34.0
Tangmachu	32.0
TrashiYangtse	29.0
Trongsa	25.0
Bajo	33.0
Zhemgang	27.0

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

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

Stations	Minimum Temperature (°C)
Bhur	17.0
Chamkhar	1.5
Dagana	10.0
Damphu	9.0
Deothang	14.5
Gasa	1.5
Haa	-0.5
Kanglung	7.5
Mongar	10.0
Paro	2.0
Pemagatshel	8.5
Phuentsholing	13.0
Punakha	14.0
Babesa	2.0
Sipsu	14.0
Tangmachu	12.0
TrashiYangtse	6.0
Trongsa	4.5
Bajo	11.0
Zhemgang	7.5

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

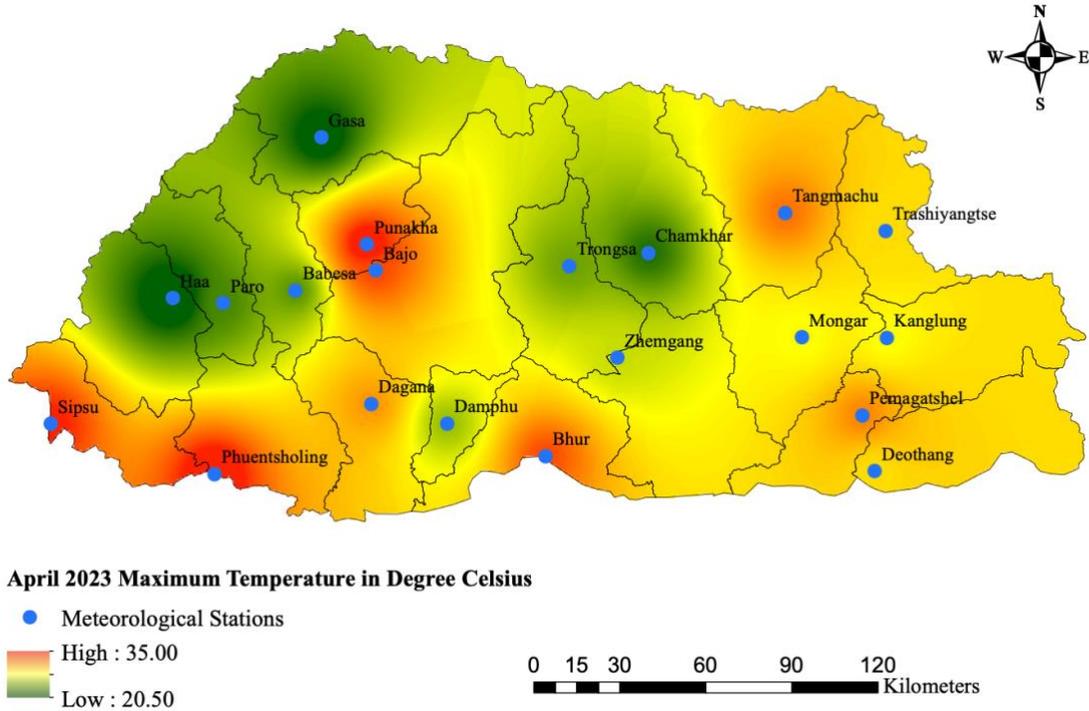


Figure 4: Spatial variation of maximum of maximum temperature during April 2023

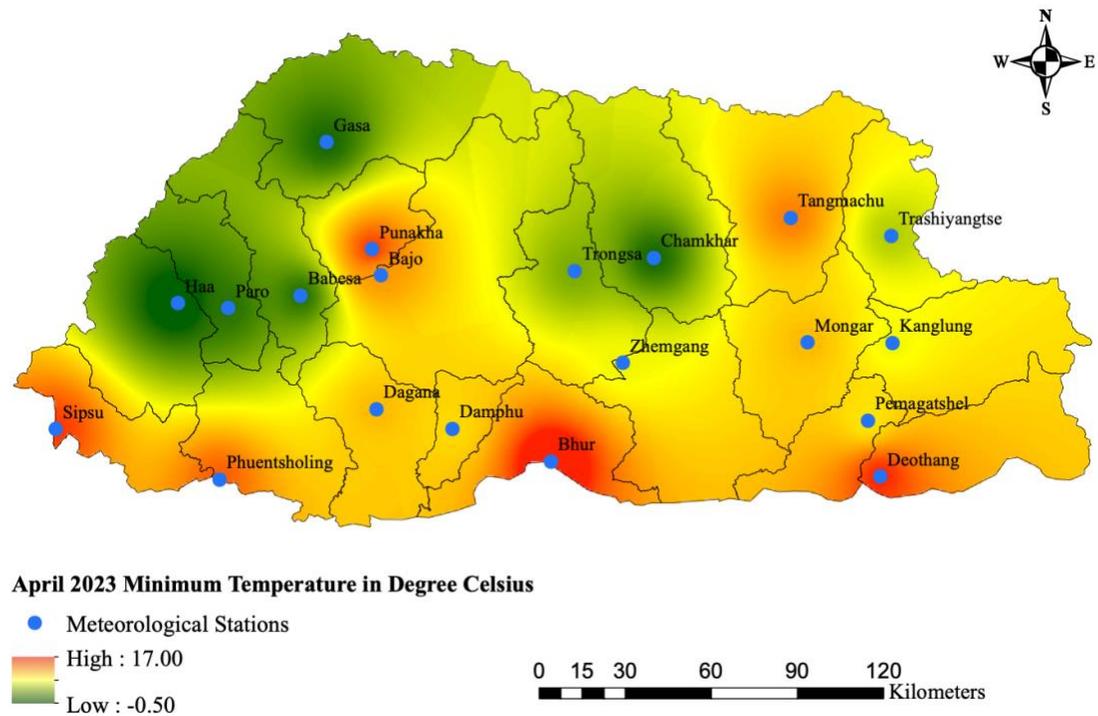
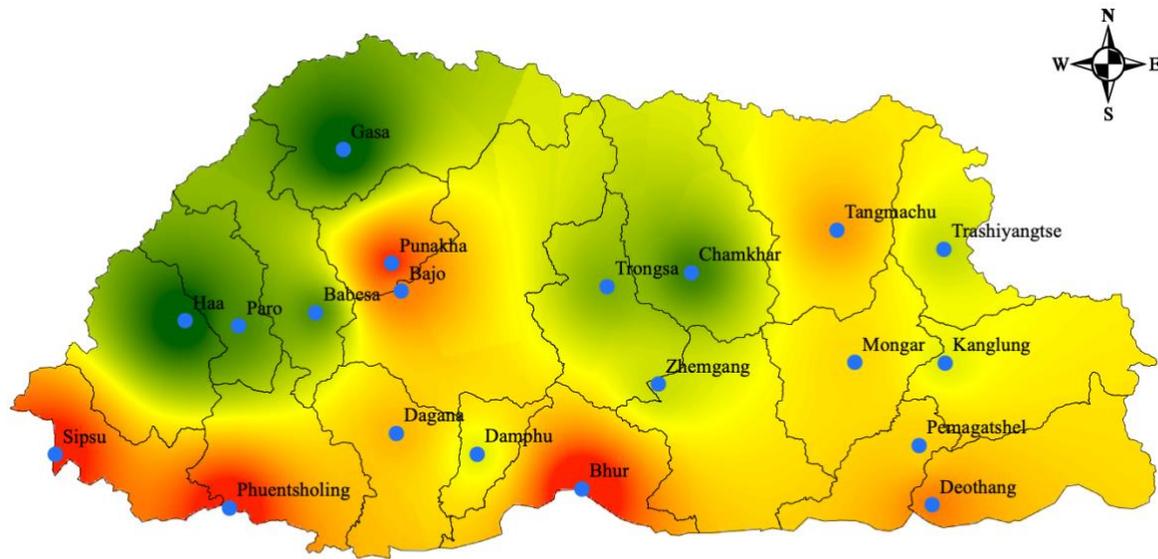


Figure 5: Spatial variation of minimum of minimum temperature during April 2023



April 2023 Average Temperature in Degree Celsius

- Meteorological Stations
- High : 25.67
- Low : 9.18



Figure 6: Spatial variation of average temperature during April 2023