



MONTHLY CLIMATE SUMMARY
For
February 2022

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

Highlights

- The winter monsoon season is expected from December – February and it is usually dry and the country receive less rainfall during that period. During the month of February, parts of the central and eastern regions received certain amount of rainfall as compared to other regions.
- Heavy snowfall was observed over the northern and high passes and moderate snowfall was observed over the western, central, and eastern parts of the country on 4th, 5th, 6th, 20th, 21st February 2022.
- The lowest daily minimum temperature was recorded at Haa met station (-12.5°C).
- The highest daily maximum temperature was recorded at Phuentsholing met station (28.5°C)
- The highest daily rainfall was recorded at Dagana met station (74.4mm).
- Phuentsholing met station recorded the highest total rainfall of 174.6mm for February month.
- All the computations are based on real time observed data of 20 Agrometeorological (Class A) stations and there are some discontinuities in the data for few stations due to the lockdown.

Rainfall

Bhutan experiences the winter monsoon during the month of December to February and it is normally dry. However, Bhutan received most of its annual rainfall during summer monsoon so, the Center 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 (1996-2021). The relationship between the long-term average or normal (1996-2021) with the monthly real time observation data (2022) is also analyzed. For the month of February, the country as a whole received near normal rainfall.

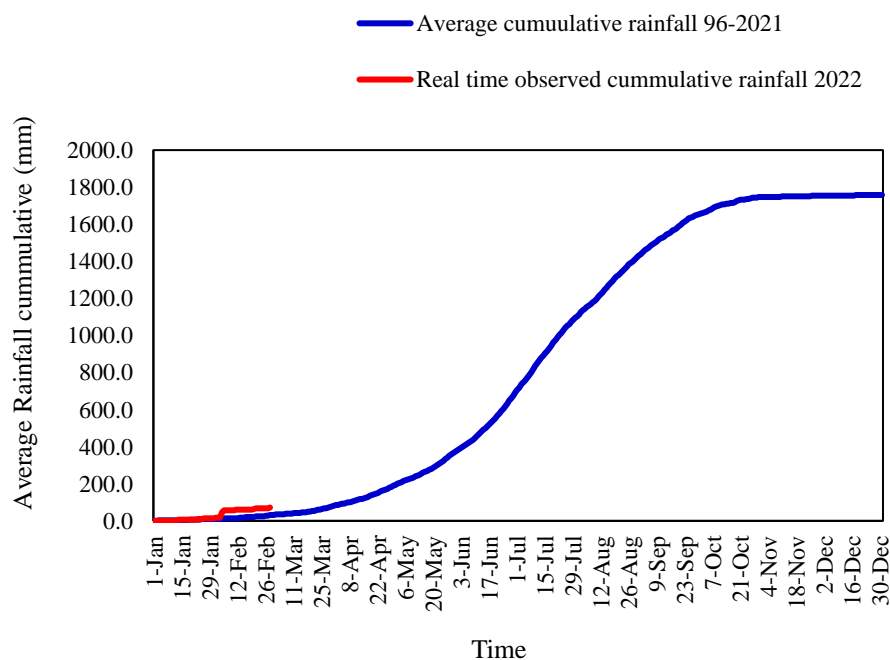


Figure 1: Observed rainfall (February 2022) against the long-term average (1996-2021)

Highest daily observation rainfall recorded at each met stations – February 2022

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

The data continuity for Bhur station is disrupted due to the lockdown.

Stations	Rainfall (mm)
Chamkhar	27.0
Dagana	74.4
Damphu	41.4
Deothang	31.6
Gasa	26.0
Haa	24.6
Kanglung	27.2
Mongar	38.2
Paro	3.0
Pemagatshel	39.8
Phuentsholing	46.5
Punakha	33.6
Babesa	6.6
Sipsu	17.2
Tangmachu	28.5
Trashiyangtse	22.0
Trongsa	13.2
Wangdue	35.2
Zhemgang	32.6

Total observation rainfall recorded at each met stations – February 2022

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

Stations	Total Rainfall (mm)
Chamkhar	30.3
Dagana	92.4
Damphu	59.2
Deothang	70.5
Gasa	72.7
Haa	36.0
Kanglung	50.8
Mongar	63.8
Paro	4.8
Pemagatshel	93.5

Phuentsholing	174.6
Punakha	59.6
Babesa	14.6
Sipsu	63.2
Tangmachu	34.6
Trashiyangtse	36.6
Trongsa	34.2
Wangdue	39.4
Zhemgang	63.3

The following map shows the spatial distribution of total rainfall across Bhutan during February 2022. The parts of southwestern regions received comparatively good amount of rainfall as compared to other remaining regions.

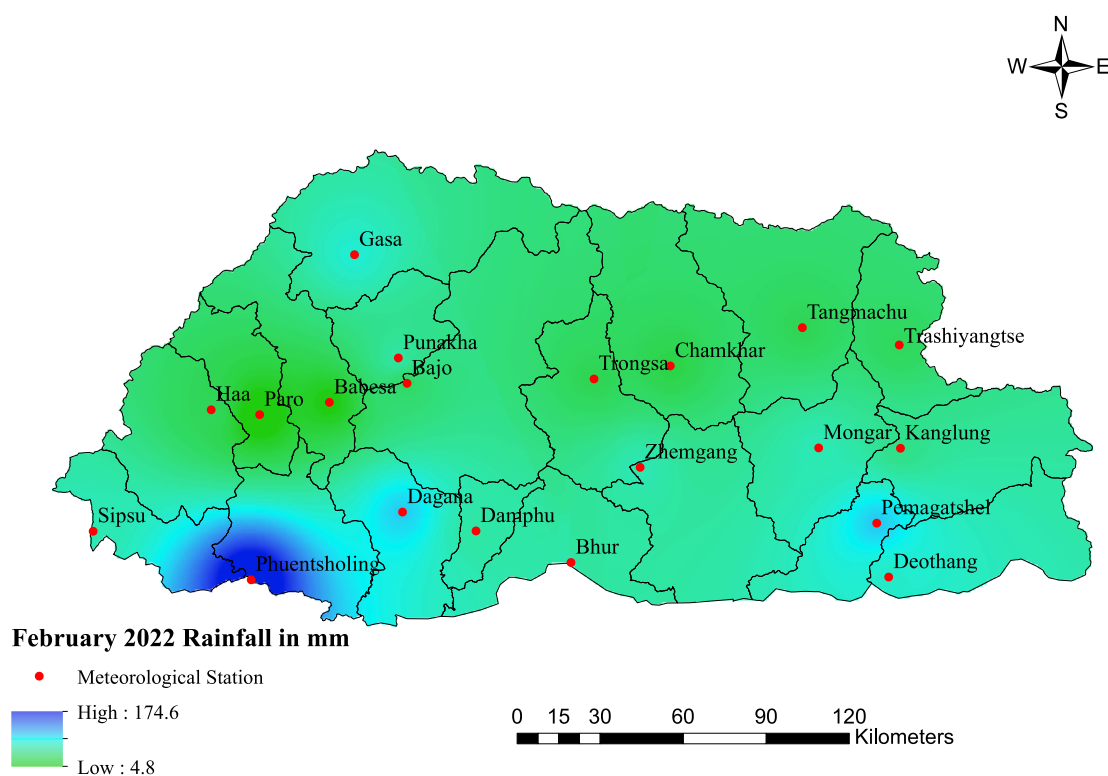


Figure 2: Spatial distribution of total rainfall during February 2022

Temperature

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

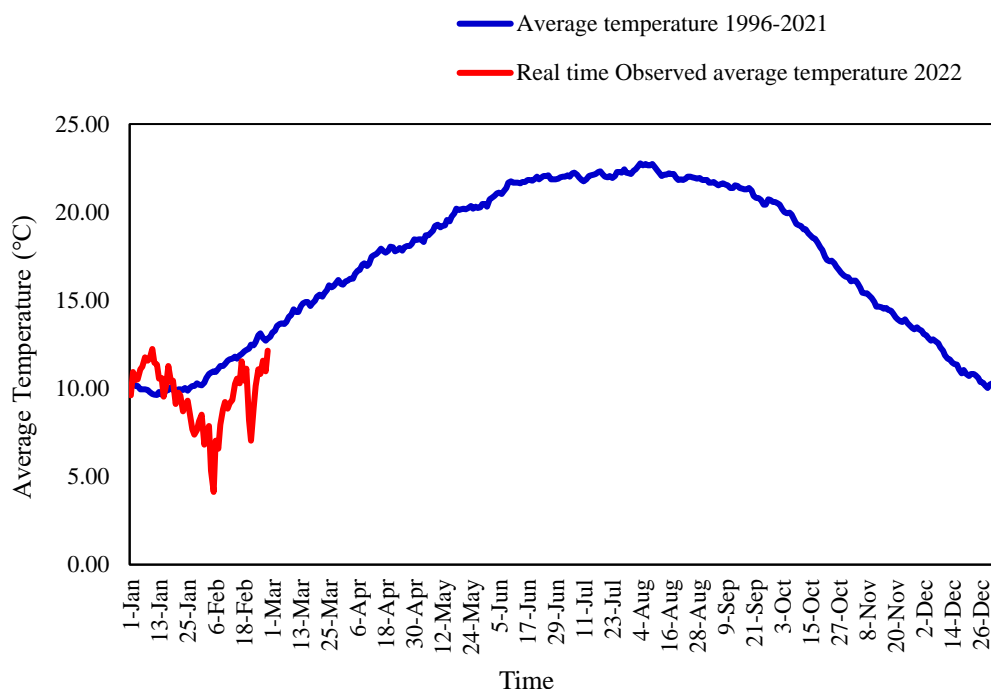


Figure 3: Average observed temperature (February 2022) against the long-term average (1996-2021)

Highest daily maximum temperature recorded at each met stations – February 2022

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

Stations	Maximum Temperature (°C)
Chamkhar	15.0
Dagana	23.5
Damphu	16.0
Deothang	21.5
Gasa	11.0
Haa	11.0
Kanglung	18.5
Mongar	20.0
Paro	16.0
Pemagatshel	21.0

Phuentsholing	28.5
Punakha	25.5
Babesa	16.0
Sipsu	26.0
Tangmachu	22.5
TrashiYangtse	21.5
Trongsa	16.5
Bajo	22.5
Zhemgang	15.5

Lowest daily minimum temperature recorded at each met stations – February 2022

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

Stations	Minimum Temperature (°C)
Chamkhar	-12.5
Dagana	1.5
Damphu	0.5
Deothang	1.0
Gasa	-8.5
Haa	-12.5
Kanglung	-1.0
Mongar	1.0
Paro	-6.0
Pemagatshel	0.0
Phuentsholing	8.0
Punakha	2.5
Babesa	-7.0
Sipsu	7.5
Tangmachu	1.5
TrashiYangtse	-4.0
Trongsa	-2.5
Bajo	2.0
Zhemgang	-0.5

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

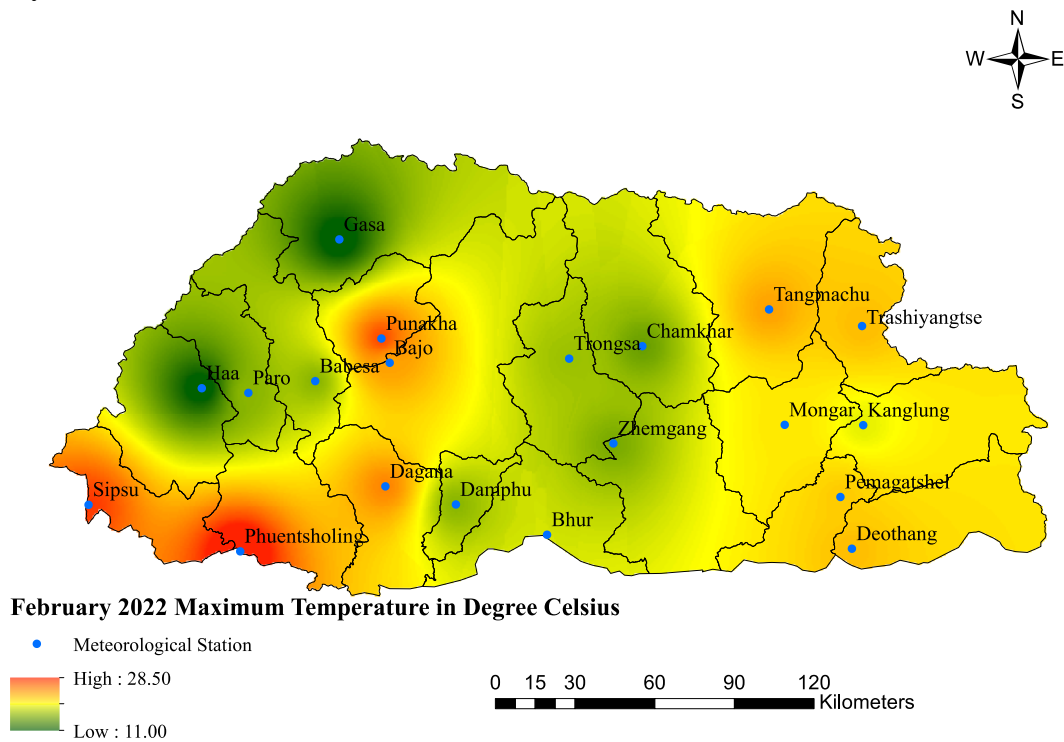


Figure 4: Spatial variation of maximum of maximum temperature during February 2022

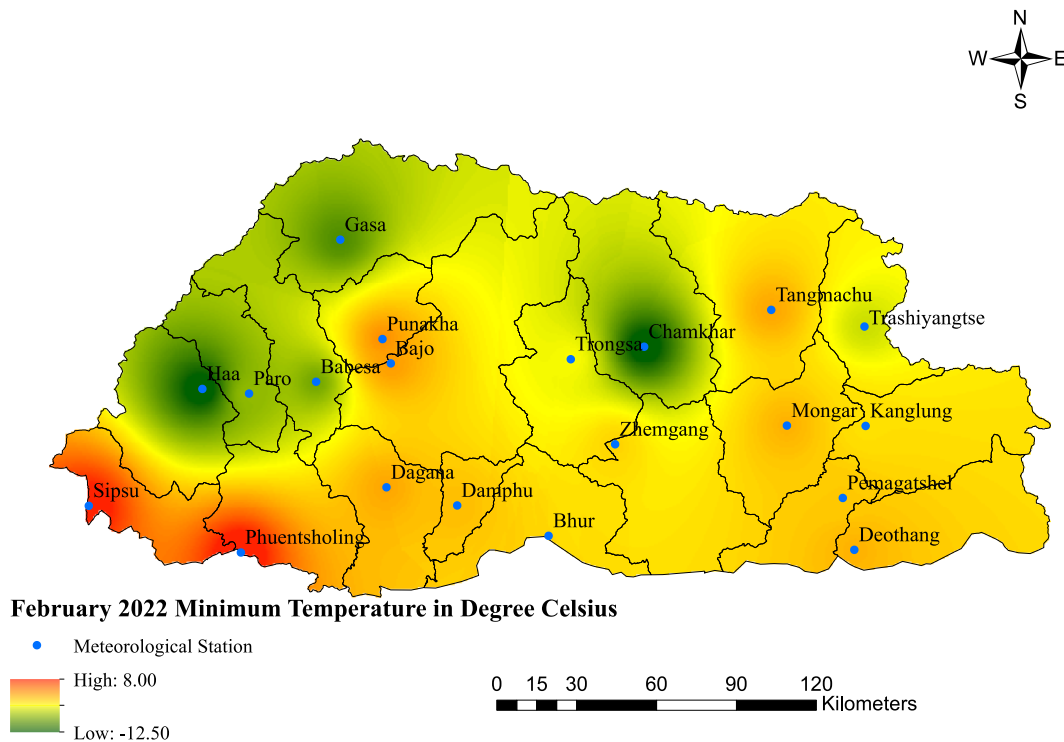


Figure 5: Spatial variation of minimum of minimum temperature during February 2022

Weather events – February 2022

SI No.	Type of weather events	Date	Location	Impact
1	Snowfall	4 th , 5 th , 6 th , 20 th , 21 st February, 2022	Heavy snowfall was observed over the northern and high passes and moderate snowfall was observed over the western, central, and eastern parts of the country.	Roadblock at various parts of the country
<i>Source of information: Department of Road (DoR) for update on the road condition</i>				