



**Maldives
Meteorological
Service**



CLIMATE REPORT *July 2022*

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INTRODUCTION

The monthly climate report produced by Maldives Meteorological Service provides a general overview of the climate of Maldives for that particular month in terms of temperatures, rainfall, wind and sunshine. This report discusses general climatic conditions for the month of July 2022 and compares them with July 2021 data and also checks on the long-term climatic condition of the month of July.

GENERAL CLIMATE DURING THE MONTH OF JULY

Southwest monsoon brings fresh and cool westerly breeze over the country. Temperature gets slightly lowered due to cool breeze, cloudy sky and continued rainfall. Even though its rainy season, there will be periods of sunshine and fine weather days as well.

Winds are predominantly from west in northern and central atolls at an average speed of 11-12 miles per hour. While winds over southern atolls vary between South and West at an average speed of 6-7 miles per hour.

Average daily maximum temperature varies between 30 - 31 °C over the country, while average daily minimum temperature varies between 24 - 26 °C over the country.

Southwest monsoon continues to bring relatively good amount of rainfall. On average 260 millimeters of rainfall is received over northern atolls while central and southern atolls receive about 160-200 millimeters of rainfall.

Cloudy condition prevails, however, there are relatively good periods of sunshine as well. On average 6-7 hours of daily sunshine is received over the country.

OVERVIEW - JULY 2022

OVERVIEW FOR THE WHOLE COUNTRY - JULY 2022

- ❖ The total rainfall received over the country is higher (by 66%) as compared to last July 2021.
- ❖ Rainfall received in all three regions has increased in July 2022, and a significantly high rainfall (by 237%) was received in the central region as compared to last July 2021.
- ❖ The highest maximum temperature is recorded in the central regions and the lowest minimum temperature is recorded in the southern region.
- ❖ The total sunshine recorded for the country as whole were less (about 18%) as compared to July 2021.
- ❖ Only southern atolls received more sunshine as compared to July 2021.
- ❖ Prevailed mean wind was relatively low in the southern regions as compared to the rest of the country.

HISTORICAL RECORDS OF MALDIVES

	NORTH	CENTRAL	SOUTH
 HIGHEST MAX TEMPERATURE	35.0°C 30 th April 2016	34.9°C 3 th June 2020	33.6°C 17 th April 1998
 LOWEST MIN TEMPERATURE	18.2°C 23 th Dec 2002	19.0°C 23 th Nov 1984	19.7°C 24 th March 2015
 STRONGEST WIND	NW-89.7mph 28 th Aug 1991	W-71.3mph 3 rd Nov 1978	SW-103.5mph 29 th May 1991
 HIGHEST 24HRS RAINFALL	189.0mm 31 st May 2017	175.9mm 23 rd Dec 1977 Hulhule'	228.4mm 24 th Nov 2015
		200.0mm 11 th Dec 1998 Male'	

NORTHERN REGION

- ❖ The total rainfall received in Hanimaadhoo meteorological station is 265mm, while it was 170mm during July 2021. (57% increase in 2022)
- ❖ Heaviest rainfall in 24 hours was 39mm received on 29th July.
- ❖ There were 21 rain days in this July as compared to 13 days in July 2021.

CENTRAL REGION

- ❖ The total rainfall received in Hulhule' meteorological station is 384mm, while it was 114mm during July 2021. (237% increase in 2022)
- ❖ Heaviest rainfall in 24 hours was 140mm received on 17th July.
- ❖ There were 19 rain days in this July as compared to 8 days in July 2021.

SOUTHERN REGION

- ❖ The total rainfall received in Gan meteorological station is 334mm, while it was 306mm during July 2021. (9% increase in 2022)
- ❖ Heaviest rainfall in 24 hours was 73mm received on 21st July.
- ❖ There were 16 rain days in this July as compared to 21 days in July 2021, but a 9% increase in rainfall is received in this July.

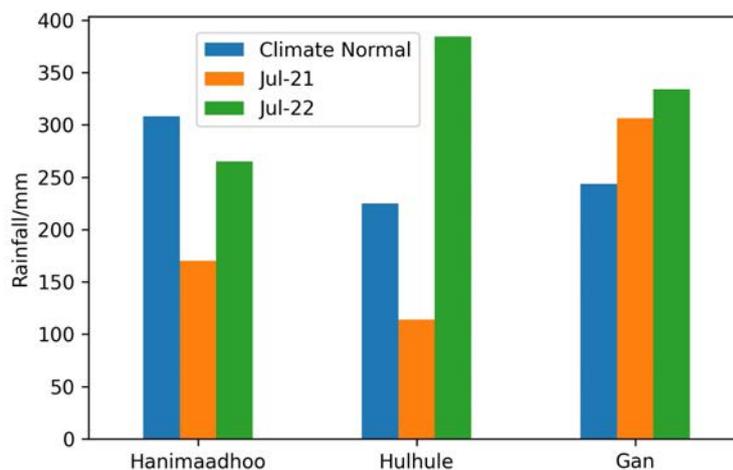


Figure1: The graph shows the monthly variation between the climate average of July vs the monthly rainfall of July 2021 and 2022.

TEMPERATURE

NORTHERN REGION

- ❖ The highest temperature recorded in July 2022 was 32.4°C on 6th of the month. The maximum temperature varied between 32.4 and 29.0°C during this period. The maximum temperature recorded in July 2021 was 32.9 °C, on four occasions, 4,16,18, and on 26th.
- ❖ The lowest minimum temperature recorded was 23.1°C of the 27th of July. The minimum temperature varied between 23.1 and 27.4 °C in this period. The minimum temperature recorded on July 2021 is 23.9 °C on the 24th Day.
- ❖ The mean temperature of July 2022 is 28.1 °C.

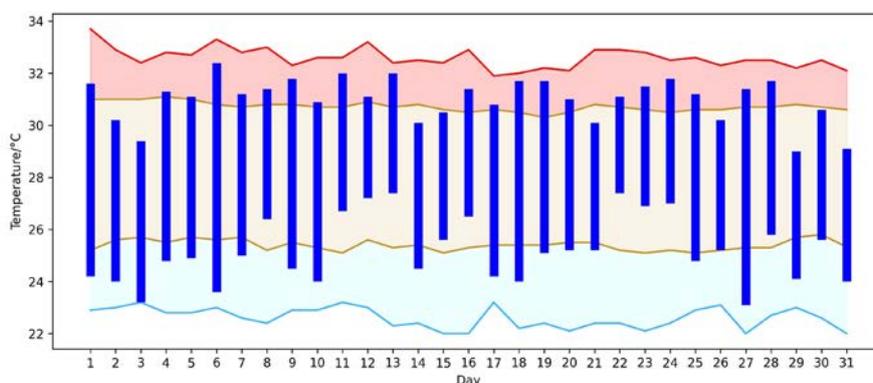


Figure 2: Daily Temperature of Hanimaadhoo met station during the month of July

(The blue bars show July 2022 daily temperature range. The red top line shows the highest recorded value of that particular day of the month and the lower blue line represents the lowest value of that particular day of the month. The yellow line represents the climate average range of daily temperatures during the month of July.)

CENTRAL REGION

- ❖ The highest temperature recorded in July 2022 was 32.6°C on the 14th & 15th of the month. The maximum temperature varied between 32.6 and 28.9°C during this period. The maximum temperature recorded in July 2021 was 32.8 °C, on the 23rd.
- ❖ The lowest minimum temperature recorded was 22.5°C of the 2nd of July. The minimum temperature varied between 22.5 and 28.2 °C in this period. The minimum temperature recorded on 2021 July is 24.4 °C on the 25th.
- ❖ The mean temperature of July 2022 is 28.6 °C.

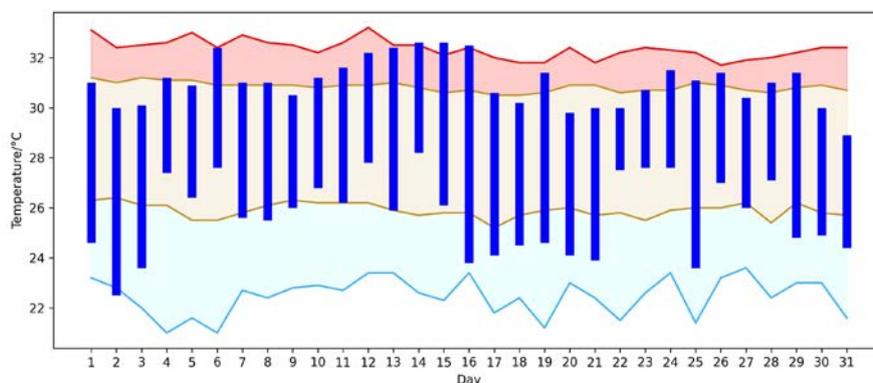


Figure 3: Daily Temperature of Hulhule' met station during the month of July

(The blue bars show July 2022 daily temperature range. The red top line shows the highest recorded value of that particular day of the month and the lower blue line represents the lowest value of that particular day of the month. The yellow line represents the climate average range of daily temperatures during the month of July.)

SOUTHERN REGION

- ❖ The highest temperature recorded in July 2022 was 32.4 °C on the 15th of the month. The maximum temperature varied between 32.4 and 27.2°C during this period. The maximum temperature recorded in July 2021 was also 32.4°C, on the 2nd & 5th.
- ❖ The lowest minimum temperature recorded was 22.2 C of the 29th of July. The minimum temperature varied between 22.2 and 27.4°C in this period. The minimum temperature recorded on July 2021 is 22.4 °C on the 8th & 15th.
- ❖ The mean temperature of July 2022 is 28.8 °C.

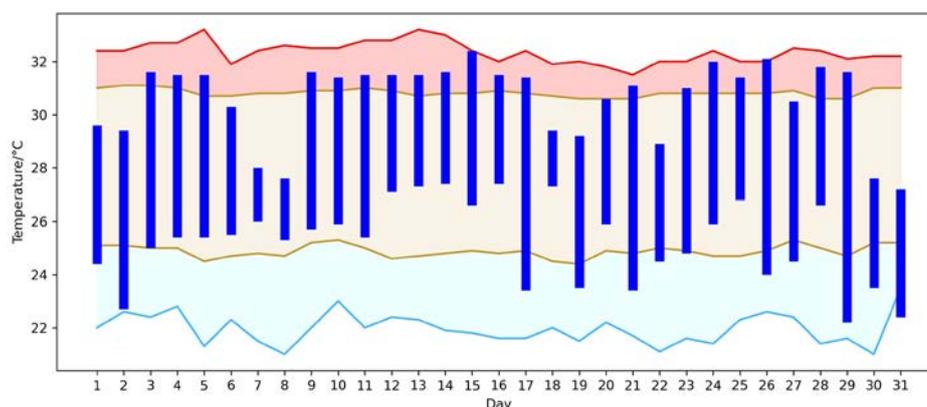


Figure 4: Daily temperature variation of Gan met station during the month of July.

The blue bars show July 2022 daily temperature range. The red top line shows the highest recorded value of that particular day of the month and the lower blue line represents the lowest value of that particular day of the month. The yellow line represents the climate average range of daily temperatures during the month of July.)

SUNSHINE

NORTHERN REGION

- ❖ The climate average sunshine for July is 195.5 hours for Hanimaadhoo station.
- ❖ July 2022 recorded a total of 144 hours of sunshine which is below the climate average.
- ❖ Out of the 31 days, 4 days did not receive any direct sunshine due to cloudy sky.
- ❖ This is lower (by 21%) compared to the July 2021's total sunshine, which adds to 182 hours from 25 days.

CENTRAL REGION

- ❖ The climate average sunshine for July is 212.4 hours for Hulhule' station.
- ❖ July 2022 recorded a total of 148 hours of sunshine which is significantly lower than the climate average.
- ❖ Out of the 31 days, 2 days did not receive any direct sunshine due to cloudy sky.
- ❖ This is significantly lower (by 35%) compared to the July 2021's total sunshine, which adds to 227 hours from 29 days.

SOUTHERN REGION

- ❖ The climate average sunshine for July is 204.6 for Gan station.
- ❖ July 2022 recorded a total of 162 hours of sunshine which is below the climate average.
- ❖ Out of the 31 days, 6 days did not receive any direct sunshine due to cloudy sky.
- ❖ This is higher (by 11%) compared to the 2021's total sunshine, which adds to 146 hours from 30 days.

NORTHERN REGION

- ❖ The maximum gust wind was recorded on the 2nd of July 2022 at 09:05 hrs in the morning. The speed of the wind was 43knots (49mph) and the direction in which it was recorded is from the North west.
- ❖ The maximum wind recorded on July 2021 was 36knots (41mph) from West.

CENTRAL REGION

- ❖ The maximum gust wind was recorded on three occasions, 1st, 2nd, &3rd of July 2022. The speed of the wind was 41knots (47mph) and the direction in which it was recorded is from the West north west.
- ❖ The maximum wind recorded on July 2021 is 42knots (48mph) from West.

SOUTHERN REGION

- ❖ The maximum gust wind was recorded on the 17th of July 2022 at 1403 hrs in the afternoon. The speed of the wind was 36knots (41mph) and the direction in which it was recorded is from the North north west.
- ❖ The maximum wind recorded on July 2021 is 35knots (40mph) from West.

Table 1 below shows the frequency of maximum winds for the three regions. The unit used for wind speed is miles per hour (mph).

WIND SPEED	NORTH	CENTRAL	SOUTH
30-40 mph	7	9	6
40-50 mph	10	8	3
> 50 mph	0	0	0

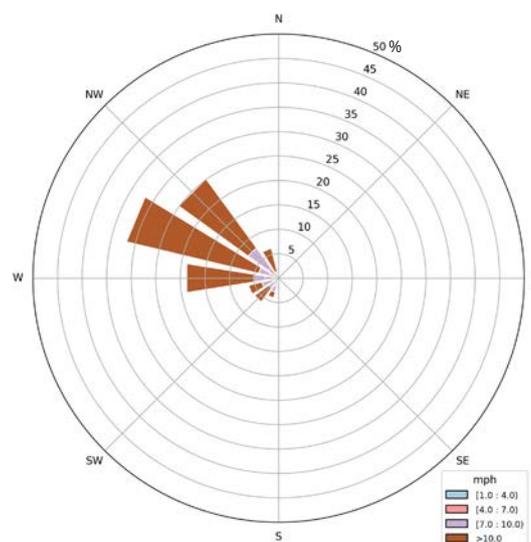
Table 1: Maximum wind speed frequency (greater than 30mph)

MEAN WIND & WINDROSE

NORTHERN REGION

- ❖ The mean wind speed and direction of Hanimaadhoo station is 10 knots (12mph) from West, which is slightly higher than July 2021 (9knots or 10mph).

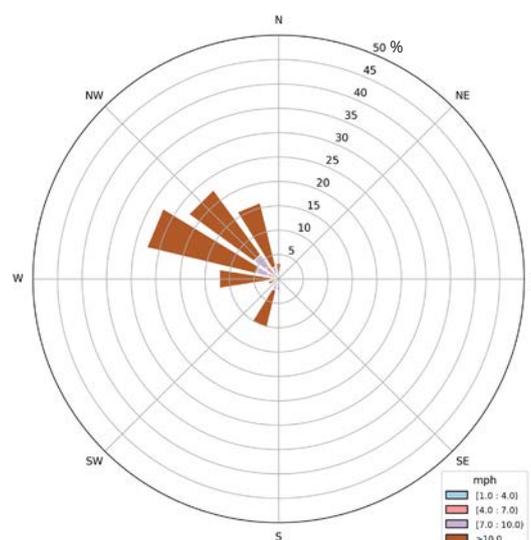
Figure 5: Wind rose diagram for the month of July 2022, Hanimaadhoo met station.



CENTRAL REGION

- ❖ The mean wind speed and direction of Hulhule' station is 12 knots (13mph) from West, which is higher than the July 2021 average of 11knots (12mph).

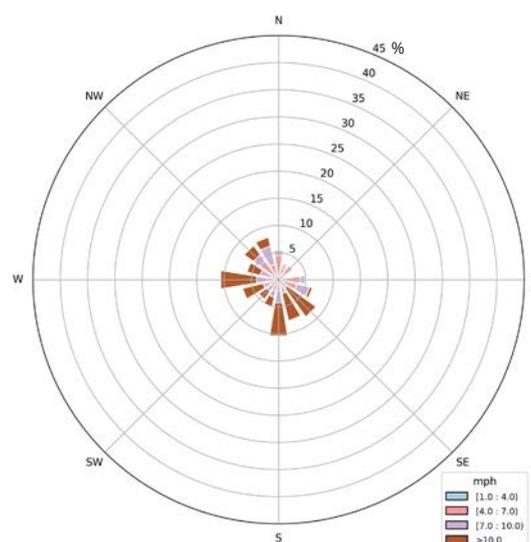
Figure 6: Wind rose diagram for the month of July 2022, Hulhule' met station.



SOUTHERN REGION

- ❖ The mean wind speed and direction of Gan station is 8 knots (9mph) from West, which is slightly higher than the July 2021 average of 7knots (8mph).

Figure 7: Wind rose diagram for the month of July 2022, Gan met station.



DESCRIPTION & TERMINOLOGIES

In this report, the climate information of Maldives is divided into three regions, North, Central and South. The information presented as North is obtained from the data collected from HDh Hanimaadhoo meteorological station (6.748326, 73.169380). Information presented as Central is the data collected in Hulhule' meteorological station (4.192767, 73.5269378) and the south represents the data collected from S Gan meteorological station (-0.6903831, 73.149961).

UNITS OF MEASUREMENTS

Except where noted, temperature is given in Degrees Celsius, Rainfall is given in millimeters (mm), Wind is given in miles per hour (mph) and Sunshine is given in hours.

OBSERVATION TIMES

- ❖ Maximum temperatures are for the 24 hours from 17:00 local time to 17:00 on the date mentioned.
- ❖ Minimum temperatures are for the 24 hours from 08:00 local time to 08:00 on the date mentioned.
- ❖ Daily Rainfall are for the 24 hours from 08:00 local time to 08:00 on the date mentioned.
- ❖ Maximum wind is in the 24 hours from 05:00 local time to 05:00 on the date mentioned.

CLIMATOLOGICAL VALUES

The climatological averages used in the visuals and tables are observations from 1991-2020.

HISTORICAL RECORDS

The historical records of each station given is from all the data collected from that station. The initial date of data collection is different from individual stations.

Front cover: A Cumulonimbus cloud observed from the south of S. Gan. (Photo: MMS-Gan)



Climate Report - July 2022
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