



**Maldives
Meteorological
Service**



CLIMATE REPORT *October 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 October 2022 and compares them with October 2021 data and also checks on the long-term climatic condition of the month of October.

GENERAL CLIMATE DURING THE MONTH OF OCTOBER

Southwest monsoon continues to bring fresh and cool westerly breeze over the country. Temperature is in decreasing trend due to continuation of cool breeze, cloudy sky and the rainfall. Even though it is rainy season, there will be periods of sunshine and fine weather days as well.

Winds predominantly vary from Southwest to Northwest at an average speed of 12 miles per hour in central atolls and 8-10 miles per hour over rest of the country.

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 especially over central and southern atolls. On average 240- 270 millimeters of rainfall is received over central and southern atolls while northern atolls receive about 200 millimeters of rainfall.





Cloudy condition prevails, however, there are relatively good periods of sunshine as well. On average 7 - 7hrs 30 minutes of daily sunshine is received over the country.

OVERVIEW - OCTOBER 2022

OVERVIEW FOR THE WHOLE COUNTRY

- ❖ The total rainfall received over the country is higher (by 55%) as compared to last October of 2021.
- ❖ The central and the southern regions received more rainfall compared to October 2021, however the northern regions received fewer (by 5%) in October 2022.
- ❖ The highest maximum temperature is recorded in northern regions and the lowest minimum temperature is recorded in the southern regions.
- ❖ The total sunshine recorded for the country decreased by 15% and all regions received fewer sunshine compared to October 2021.
- ❖ Prevailed mean wind was relatively stronger over central and southern regions compared with the northern regions.

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 229mm, while it was 243mm during October 2021. (6% decrease in 2022)
- ❖ Heaviest rainfall in 24 hours was 49.2mm received on 18th October.
- ❖ There were 21 rain days in this October as compared to 17 days in October 2021. However, total amount of rainfall received during this October is fewer than that of last October of 2021.

CENTRAL REGION

- ❖ The total rainfall received in Hulhule' meteorological station is 294mm, while it was 161mm during October 2021. (82% increase in 2022)
- ❖ Heaviest rainfall in 24 hours was 60.6mm received on 12th October.
- ❖ There were 14 rain days in this October as compared to 11 days in October 2021.

SOUTHERN REGION

- ❖ The total rainfall received in Gan meteorological station is 373mm, while it was 174mm during October 2021. (115% increase in 2022)
- ❖ Heaviest rainfall in 24 hours was 69.6mm received on 6th October.
- ❖ There were 18 rain days in this October as compared to 13 days in October 2021.

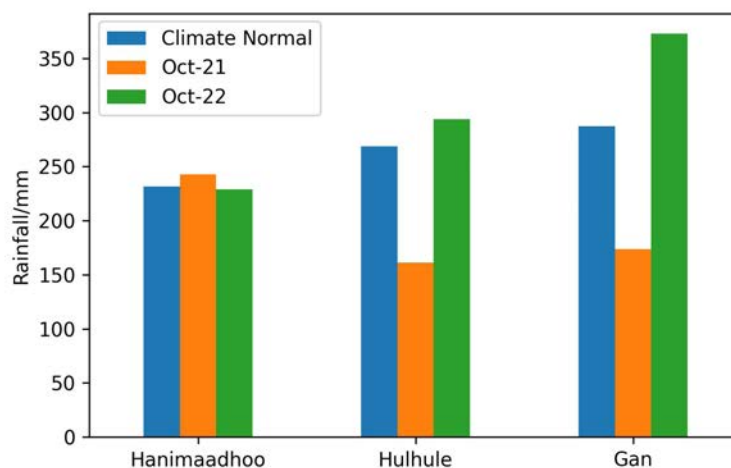


Figure1: The graph shows the monthly variation between the climate average of October vs the monthly rainfall of October 2021 and 2022.

TEMPERATURE

NORTHERN REGION

- ❖ The highest temperature recorded in October 2022 was 31.7 °C on the 9th and 30th of the month. The maximum temperature varied between 31.7 and 29.4°C during this period. The maximum temperature recorded in October 2021 was 32.7 °C, on the 27th.
- ❖ The lowest minimum temperature recorded was 23.5°C of the 18th of October. The minimum temperature varied between 23.5 and 27.3 °C in this period. The minimum temperature recorded on October 2021 is also 23.5 °C on the 31st.
- ❖ The mean temperature of October 2022 is 27.5 °C.

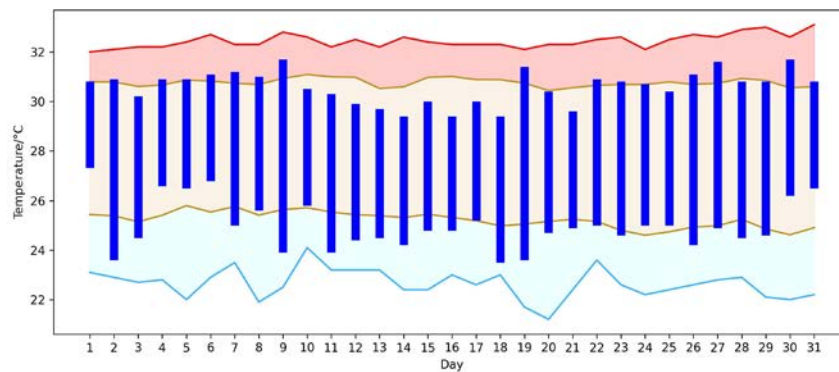


Figure 2: Daily Temperature of Hanimaadhoo met station during the month of October.

(The blue bars show October 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 October.)

CENTRAL REGION

- ❖ The highest temperature recorded in October 2022 was 31.4°C on two consecutive days, the 6th and the 7th of the month. The maximum temperature varied between 31.4 and 28.8°C during this period. The maximum temperature recorded in October 2021 was 33.0 °C, on the 8th.
- ❖ The lowest minimum temperature recorded was 23.4°C of the 1st of October. The minimum temperature varied between 23.4 and 27.9 °C in this period. The minimum temperature recorded on 2021 October is also 23.4 °C on the 17th.
- ❖ The mean temperature of October 2022 is 28.1 °C.

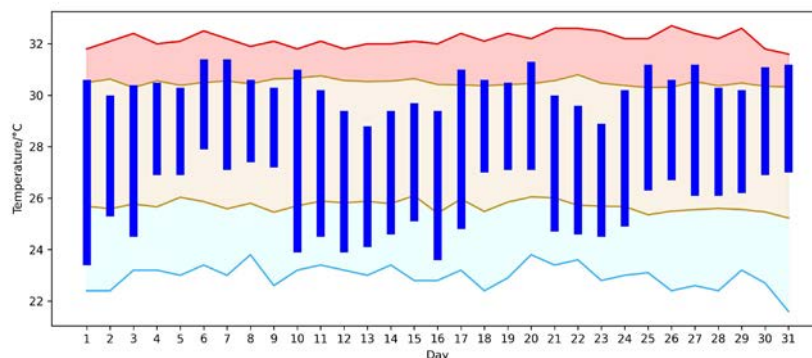


Figure 3: Daily Temperature of Hulhule' met station during the month of October.

(The blue bars show October 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 October.)

SOUTHERN REGION

- ❖ The highest temperature recorded in October 2022 was 31.4 °C on the 2nd, 5th, and 8th of the month. The maximum temperature varied between 31.4 and 25.7°C during this period. The maximum temperature recorded in October 2021 was 32.2°C, on the 4th, 26th, and 30th.
- ❖ The lowest minimum temperature recorded was 22.5 °C of the 7th of October. The minimum temperature varied between 22.5 and 26.8°C in this period. The minimum temperature recorded on October 2021 is also 22.5 °C on the 12th.
- ❖ The mean temperature of October 2022 is 27.6 °C.

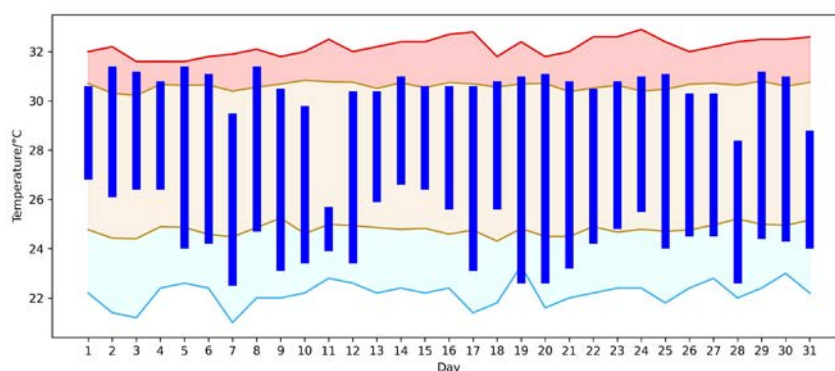


Figure 4: Daily temperature variation of Gan met station during the month of October.

(The blue bars show October 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 October.)

SUNSHINE

NORTHERN REGION

- ❖ The climate average sunshine for October is 241 hours for Hanimaadhoo station.
- ❖ October 2022 recorded a total of 175.7 hours of sunshine which is below the climate average.
- ❖ This is slightly lower compared to the October 2021's total sunshine, which adds to 192.5 hours from 28 days.
- ❖ Out of the 31 days, only 2 days did not receive any direct sunshine due to cloudy sky.

CENTRAL REGION

- ❖ The climate average sunshine for October is 229.8 hours for Hulhule' station.
- ❖ October 2022 recorded a total of 200.1 hours of sunshine which is lower than the climate average.
- ❖ This is lower compared to the October 2021's total sunshine, which adds to 265.7 hours from 30 days. (Decreased by 25%)
- ❖ Out of the 31 days, 2 days did not receive any direct sunshine due to cloudy sky.

SOUTHERN REGION

- ❖ The climate average sunshine for October is 219.1 for Gan station.
- ❖ October 2022 recorded a total of 204.8 hours of sunshine which is below the climate average.
- ❖ This is lower compared to the 2021's total sunshine, which adds to 228.7 hours from 28 days.
- ❖ Out of the 31 days, 3 days did not receive any direct sunshine due to cloudy sky.

NORTHERN REGION

- ❖ The maximum gust wind was recorded on the 18th of October 2022 at 09:26 hrs in the morning. The speed of the wind was 34knots (39mph) and the direction in which it was recorded is from the West south west.
- ❖ The maximum wind recorded on October 2021 was 35knots (40mph) from West.

CENTRAL REGION

- ❖ The maximum gust wind was recorded on the 12th of October 2022 at 10:25 hrs in the morning. The speed of the wind was 42knots (48mph) and the direction in which it was recorded is from the West.
- ❖ The maximum wind recorded on October 2021 is 44knots (51mph) from West.

SOUTHERN REGION

- ❖ The maximum gust wind was recorded on the 12th of October 2022 at 1723 hrs in the afternoon. The speed of the wind was 38knots (44mph) and the direction in which it was recorded is from the West.
- ❖ The maximum wind recorded on October 2021 is 43knots (49mph) from West north 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	10	7
40-50 mph	0	3	4
> 50 mph	0	0	0

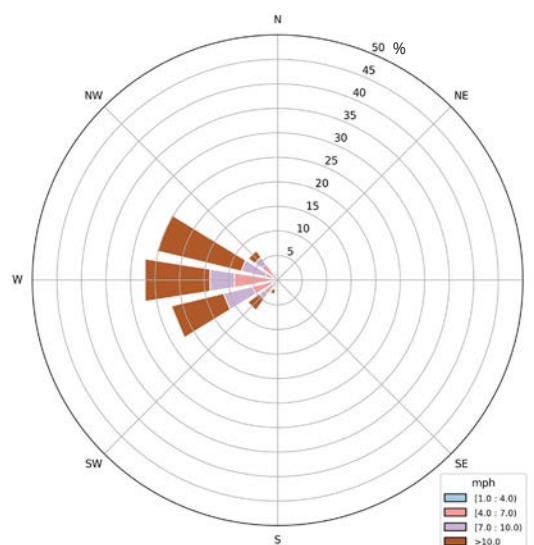
Table 1: Maximum wind speed frequency (greater than 30mph)

MEAN WIND & WINDROSE

NORTHERN REGION

- ❖ The mean wind speed and direction of Hanimaadhoo station is 8 knots (9mph) from West, which is similar to the October 2021 (8 knots or 9 mph).

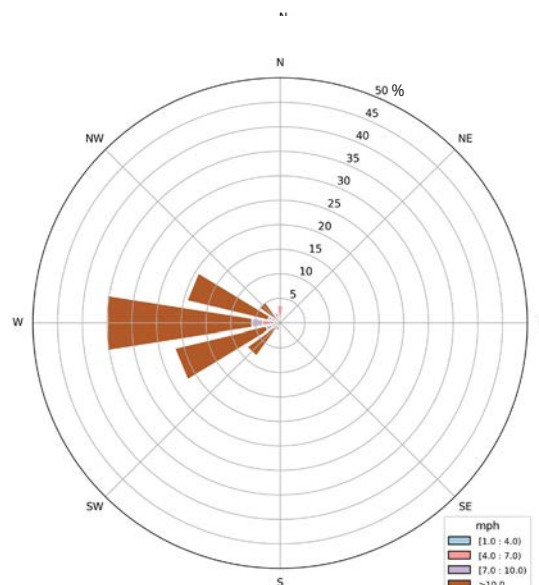
Figure 5: Wind rose diagram for the month of October 2022, Hanimaadhoo met station.



CENTRAL REGION

- ❖ The mean wind speed and direction of Hulhule' station is 12 knots (14mph) from West, which is similar to the October 2021 average of 13 knots (14 mph).

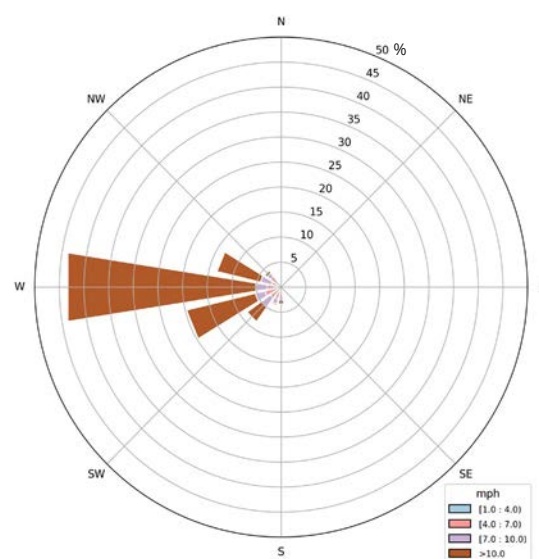
Figure 6: Wind rose diagram for the month of October 2022, Hulhule' met station.



SOUTHERN REGION

- ❖ The mean wind speed and direction of Gan station is 11 knots (13mph) from West, which is slightly lower than the October 2021 average of 11 knots (13 mph).

Figure 7: Wind rose diagram for the month of October 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 double rainbow and a cumulonimbus cloud observed from Hulhule' met office.
(Photo: MMS)



Climate Report - October 2022
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