



**Maldives
Meteorological
Service**



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

GENERAL CLIMATE DURING THE MONTH OF AUGUST

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 9-12 miles per hour in central and northern atolls and 7-8 miles per hour over southern atolls.

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 170- 230 millimeters of rainfall is received over the country.





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

OVERVIEW - SEPTEMBER 2022

OVERVIEW FOR THE WHOLE COUNTRY

- ❖ The total rainfall received over the country is higher (by 23%) as compared to last September of 2021.
- ❖ The northern and central regions received more rainfall compared to September 2021, however the southern regions received fewer (by 15%) in September 2022.
- ❖ The highest maximum temperature is recorded in north and central regions and the lowest minimum temperature is recorded in the southern regions.
- ❖ The total sunshine recorded for the country increased by 8% and all regions received more sunshine compared to September 2021.
- ❖ Prevailed mean wind was relatively stronger over central regions compared with 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 219mm, while it was 162mm during September 2021. (36% increase in 2022)
- ❖ Heaviest rainfall in 24 hours was 87.8mm received on 4th September.
- ❖ There were 13 rain days in this September as compared to 14 days in September 2021. However, total amount of rainfall received during this September is relatively more than that of last September of 2021.

CENTRAL REGION

- ❖ The total rainfall received in Hulhule' meteorological station is 216mm, while it was 134mm during September 2021. (61% increase in 2022)
- ❖ Heaviest rainfall in 24 hours was 71.9mm received on 4th September.
- ❖ There were 14 rain days in this September as compared to 11 days in September 2021.

SOUTHERN REGION

- ❖ The total rainfall received in Gan meteorological station is 159mm, while it was 187mm during September 2021. (15% decrease in 2022)
- ❖ Heaviest rainfall in 24 hours was 70.6mm received on 27th September.
- ❖ There were only 7 rain days in this September as compared to 10 days in September 2021.

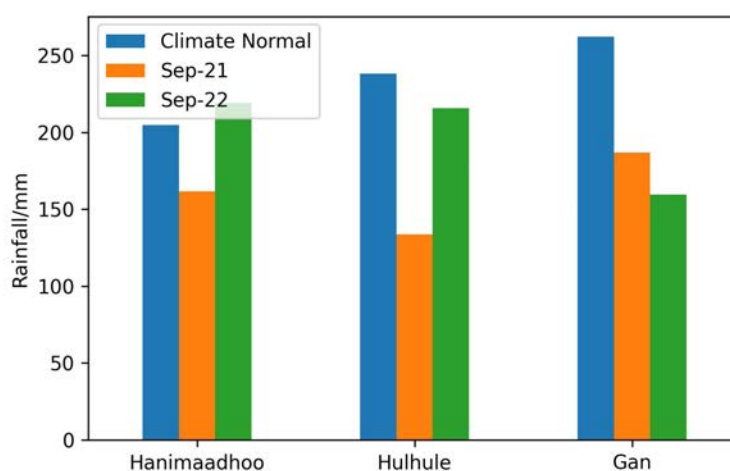


Figure1: The graph shows the monthly variation between the climate average of September vs the monthly rainfall of September 2021 and 2022.

TEMPERATURE

NORTHERN REGION

- ❖ The highest temperature recorded in September 2022 was 32.3 °C on the 29th of the month. The maximum temperature varied between 32.3 and 29.0°C during this period. The maximum temperature recorded in September 2021 was 33.6 °C, on the 1st.
- ❖ The lowest minimum temperature recorded was 23.0°C of the 4th of September. The minimum temperature varied between 23.0 and 27.5 °C in this period. The minimum temperature recorded on September 2021 is 22.9 °C on the 27th Day.
- ❖ The mean temperature of September 2022 is 27.8 °C.

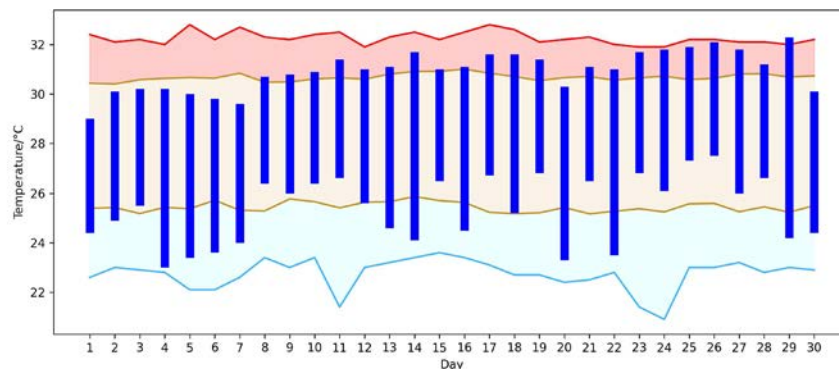


Figure 2: Daily Temperature of Hanimaadhoo met station during the month of September.

(The blue bars show September 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 September.)

CENTRAL REGION

- ❖ The highest temperature recorded in September 2022 was 32.4°C on the 20th of the month. The maximum temperature varied between 32.4 and 28.1°C during this period. The maximum temperature recorded in September 2021 was 32.3 °C, on the 13th.
- ❖ The lowest minimum temperature recorded was 22.9°C of the 5th of September. The minimum temperature varied between 22.9 and 27.7 °C in this period. The minimum temperature recorded on 2021 September is 21.9 °C on the 15th.
- ❖ The mean temperature of September 2022 is 28.3 °C.

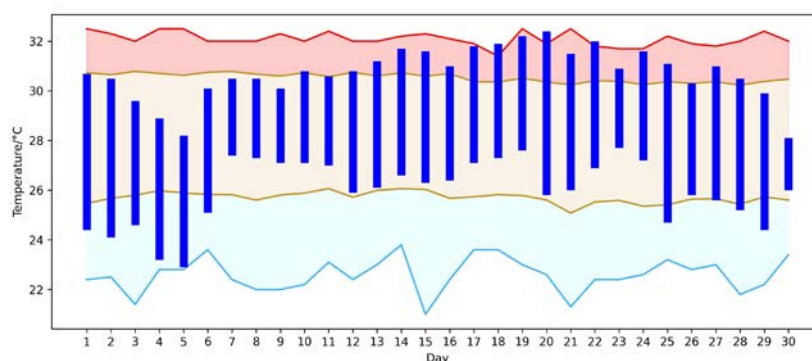


Figure 3: Daily Temperature of Hulhule' met station during the month of September.

(The blue bars show September 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 September.)

SOUTHERN REGION

- ❖ The highest temperature recorded in September 2022 was 31.8 °C on three occasions, 11th, 19th and 22nd of the month. The maximum temperature varied between 31.8 and 29.0°C during this period. The maximum temperature recorded in September 2021 was 32.5°C, on the 14th.
- ❖ The lowest minimum temperature recorded was 22.0 °C of the 25th of September. The minimum temperature varied between 22.0 and 27.2°C in this period. The minimum temperature recorded on September 2021 is 23.0 °C on the 14th.
- ❖ The mean temperature of September 2022 is 28.0 °C.

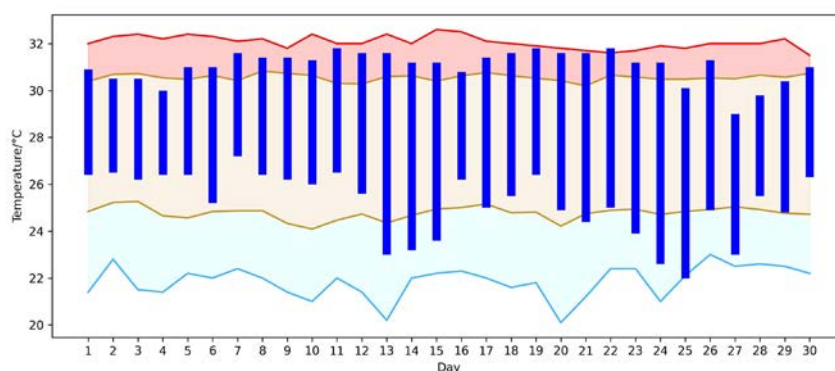


Figure 4: Daily temperature variation of Gan met station during the month of September.

(The blue bars show September 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 September.)

SUNSHINE

NORTHERN REGION

- ❖ The climate average sunshine for September is 208.4 hours for Hanimaadhoo station.
- ❖ September 2022 recorded a total of 244.5 hours of sunshine which is above the climate average.
- ❖ This is higher compared to the September 2021's total sunshine, which adds to 217.7 hours from 29 days.
- ❖ Out of the 30 days, only 1 days did not receive any direct sunshine due to cloudy sky.

CENTRAL REGION

- ❖ The climate average sunshine for September is 217.4 hours for Hulhule' station.
- ❖ September 2022 recorded a total of 237.7 hours of sunshine which is above the climate average.
- ❖ This is similar compared to the September 2021's total sunshine, which adds to 236.0 hours from 27 days.
- ❖ Out of the 30 days, 2 days did not receive any direct sunshine due to cloudy sky.

SOUTHERN REGION

- ❖ The climate average sunshine for September is 196.6 for Gan station.
- ❖ September 2022 recorded a total of 238.7 hours of sunshine which is above the climate average.
- ❖ This is higher compared to the 2021's total sunshine, which adds to 216.0 hours from 27 days.
- ❖ Out of the 30 days, 3 days did not receive any direct sunshine due to cloudy sky.

NORTHERN REGION

- ❖ The maximum gust wind was recorded on two occasions, the 5th of September 2022 at 00:39 hrs and on the 7th of September 2022 at 02:32 midnight. The speed of the wind was 31knots (36mph) and the direction in which it was recorded is from the North west and West north west respectively.
- ❖ The maximum wind recorded on September 2021 was 36knots (41mph) from West.

CENTRAL REGION

- ❖ The maximum gust wind was recorded on the 5th of September 2022 at 16:44 hrs in the afternoon. The speed of the wind was 39knots (45mph) and the direction in which it was recorded is from the West.
- ❖ The maximum wind recorded on September 2021 is 46knots (53mph) from West north west.

SOUTHERN REGION

- ❖ The maximum gust wind was recorded on the 27th of September 2022 at 2236 hrs in the evening. The speed of the wind was 36knots (41mph) and the direction in which it was recorded is from the West.
- ❖ The maximum wind recorded on September 2021 is a the same as the September of 2022, 36knots (41mph) 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	5	8	0
40-50 mph	0	2	1
> 50 mph	0	0	0

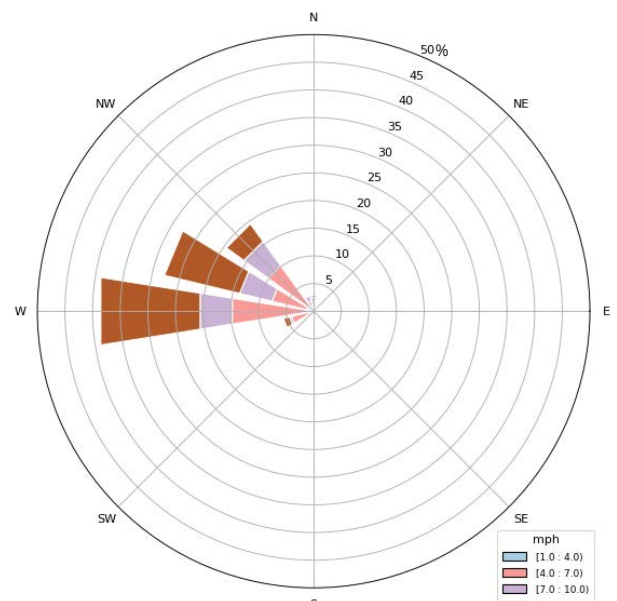
Table 1: Maximum wind speed frequency (greater than 30mph)

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 September 2021 (8 knots or 9mph).

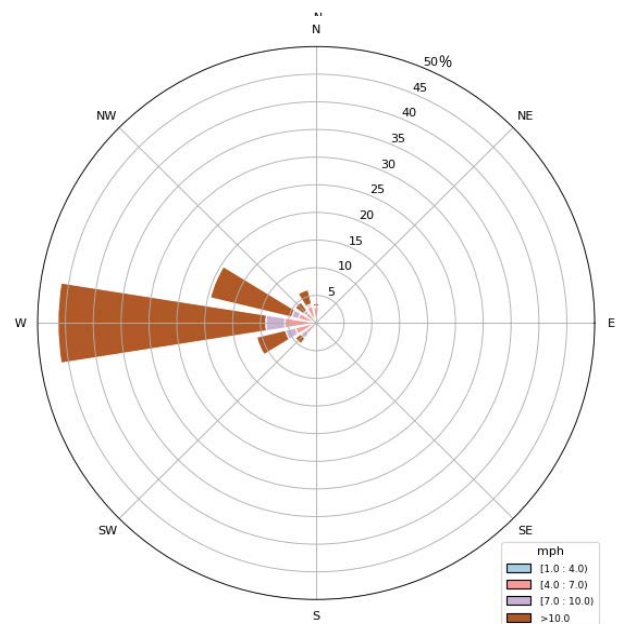
Figure 5: Wind rose diagram for the month of September 2022, Hanimaadhoo met station.



CENTRAL REGION

- ❖ The mean wind speed and direction of Hulhule' station is 11 knots (13mph) from West, which is similar to the September 2021 average of 10 knots (12mph).

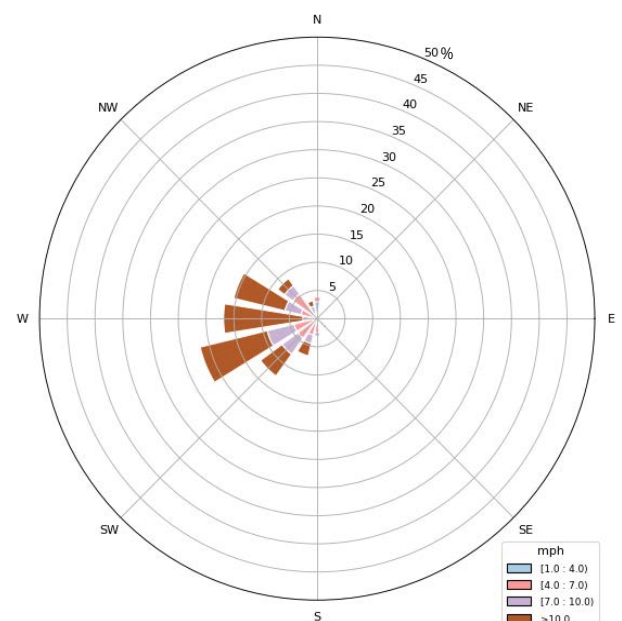
Figure 6: Wind rose diagram for the month of September 2022, Hulhule' met station.



SOUTHERN REGION

- ❖ The mean wind speed and direction of Gan station is 8 knots (10mph) from West south west, which is slightly higher than the September 2021 average of 7 knots (8mph).

Figure 7: Wind rose diagram for the month of September 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: Altocumulus cloud layer over Male' City during a sunset. (Photo: MMS)



Climate Report - September 2022
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