



Rainfall and Temperature Outlook over Maldives

For October 2024

Summary

Rainfall is expected to be normal over northern atolls and southern-most atolls, below average over rest of the country. The average temperature is expected to be slightly higher than usual.

Introduction

This consensus outlook on rainfall and temperature for the Maldives has been prepared through assessments including prevailing regional and global climate conditions and prediction of various climate models, seasonal forecast of WMO Lead Centre for Long-Range Forecast Multi-Model Ensemble (LC-LRFMME), North American Multi-Model Ensemble (NMME) Forecasts of Monthly Climate Anomalies, climate driver update of Bureau of Meteorology (BoM) and monthly forecasts of European Centre for Medium-Range Weather Forecasts (ECMWF).

Current status and expected condition of major climate drivers.

El Niño Southern Oscillation (ENSO) neutral conditions are present with near-to-below-average equatorial sea surface temperatures (SSTs) in the central and eastern Pacific Ocean. Many global models indicate high probability of development of the La Niña conditions for the October-December season.

The Indian Ocean Dipole (IOD). Global models predict the likelihood of IOD remaining neutral during the season.

Madden-Julian Oscillation (MJO) over phase 1 at the beginning of the month, is predicted to propagate eastwards into the Indian Ocean and Maritime continent during the 1st two weeks and reach the Western Pacific towards end of the month.

Calibration of climate models

The Climate Predictability Tool (CPT) was used to downscale global model outputs to a local scale. These results indicate slightly below-normal rainfall across the country.

Global Producing Centres and WMO Lead Centre Forecasts

The Probabilistic Multi-Model Ensemble of WMO LC-LRFMME suggests below-normal rainfall over northern and central atolls. Temperatures are predicted to be above-normal across the country.



Condition of Rainfall and Temperature over the Maldives during October

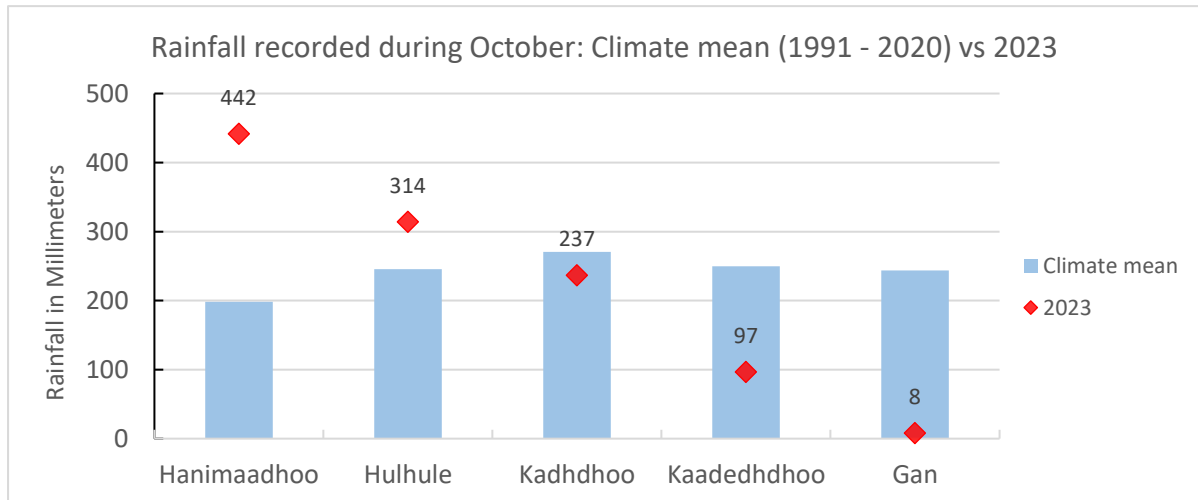


Figure 1- The rainfall in October 2023 was above average in Hanimaadhoo and Hulhule, below average in other stations.

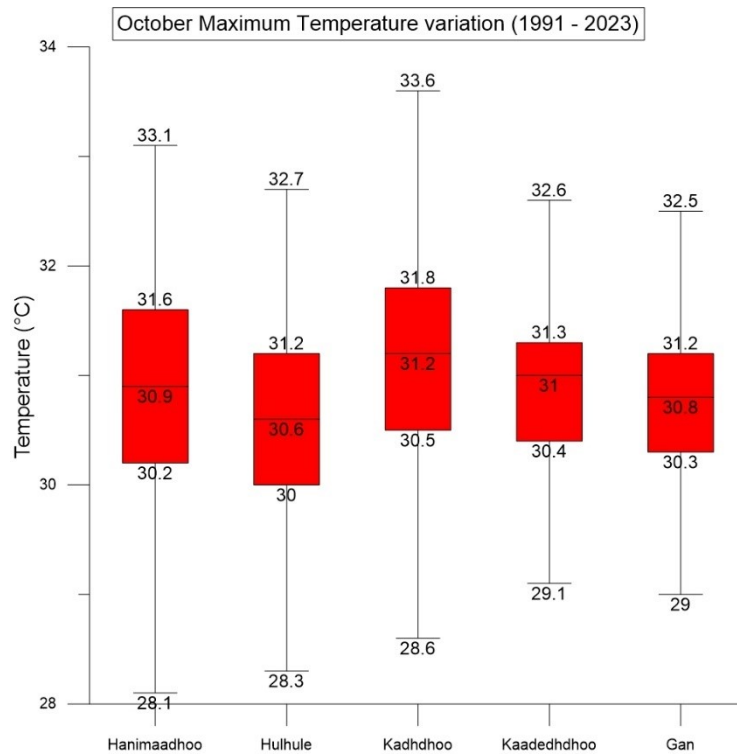


Figure 2: Daily maximum temperature range at Meteorological stations during October for the period 1991-2023, showing the highest maximum temperature of 33.6°C recorded at Meteorological Office Kadhdhoo.

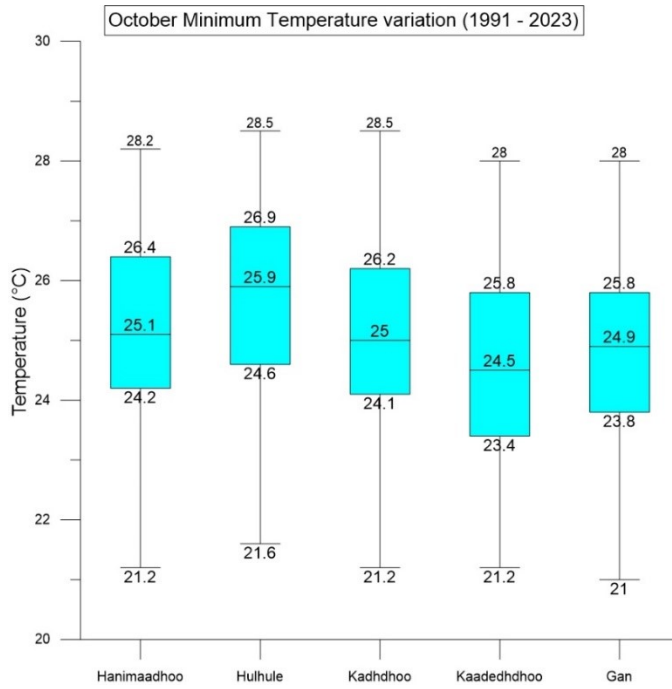


Figure 3: Daily minimum temperature range at the Meteorological stations during October for the period 1991-2023, showing the lowest minimum temperature of 21.0°C at the Meteorological Offices, Gan.

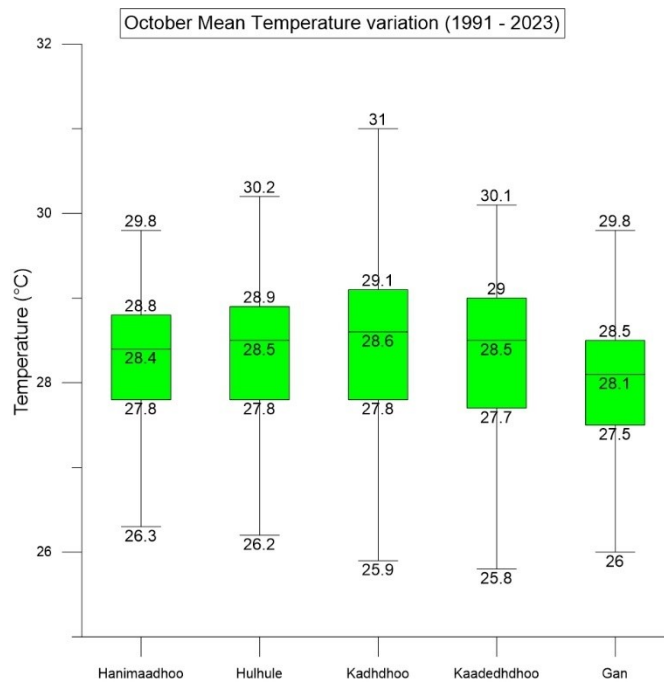


Figure 4: Daily mean temperature range at Meteorological stations during October for the period 1991-2023, showing most (50%) of the time, the daily average temperature lies between 27.8– 28.8°C in Hanimaadhoo, 27.8 – 28.9°C in Hulhule, 27.8 – 29.1 °C in Kadhdhoo, 27.7– 29.0 °C in Kaadedhdhoo and 27.5 – 28.5 °C in Gan.





Conclusion

Considering the MJO signal over the Indian Ocean during the 1st two weeks of the month, along with the forecasts of Multi-Model Ensemble of WMO Lead Centre, NMME, CPT analysis and climate data of the Maldives, rainfall is expected to be normal over northern atolls and southern-most atolls, below average over rest of the country. The average temperature is expected to be slightly higher than usual.

Note:

Normal: Amount of rainfall between 90% - 110% of the average for the period.

Above normal: Amount of rainfall more than 110% of the average for the period.

Below Normal: Amount of rainfall less than 90% of the average for the period

