



Rainfall and Temperature Outlook over Maldives

For February 2025

Summary

Rainfall is expected to be below-normal over southern atolls and above-normal 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 of the prevailing and prediction of global climate conditions, and seasonal forecasts from different climate models including WMO Lead Centre for Long-Range Forecast Multi-Model Ensemble (LC-LRFMME), North American Multi-Model Ensemble (NMME), multi-model ensemble climate prediction of RIMES, forecasts of monthly climate anomalies 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): La Niña conditions are present with below average equatorial sea surface temperature (SST) in the central and east-central Pacific Ocean. Some global models suggest possibility of La Niña to persist through February-April 2025, with a likely transition to ENSO-neutral conditions during March-May.

The Indian Ocean Dipole (IOD): Most models forecast IOD neutral condition.

Madden-Julian Oscillation (MJO): MJO index is currently located over Maritime Continent with high amplitude. Most models indicate its eastward propagation and reach over the Indian Ocean with weak amplitude 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 above-normal rainfall over northern atolls and part of central atolls, below-normal rainfall over rest the country.

Global Producing Centres and WMO Lead Centre Forecasts

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





Condition of Rainfall and Temperature over the Maldives during February

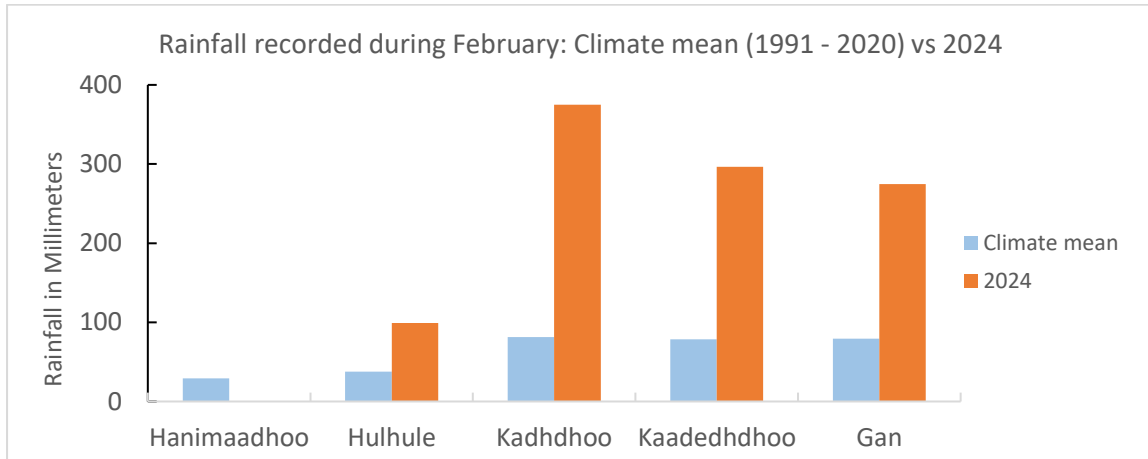


Figure 1- Rainfall was significantly increased across the country except northern atolls, where a highly deficient rainfall was experienced for the month of February 2024.

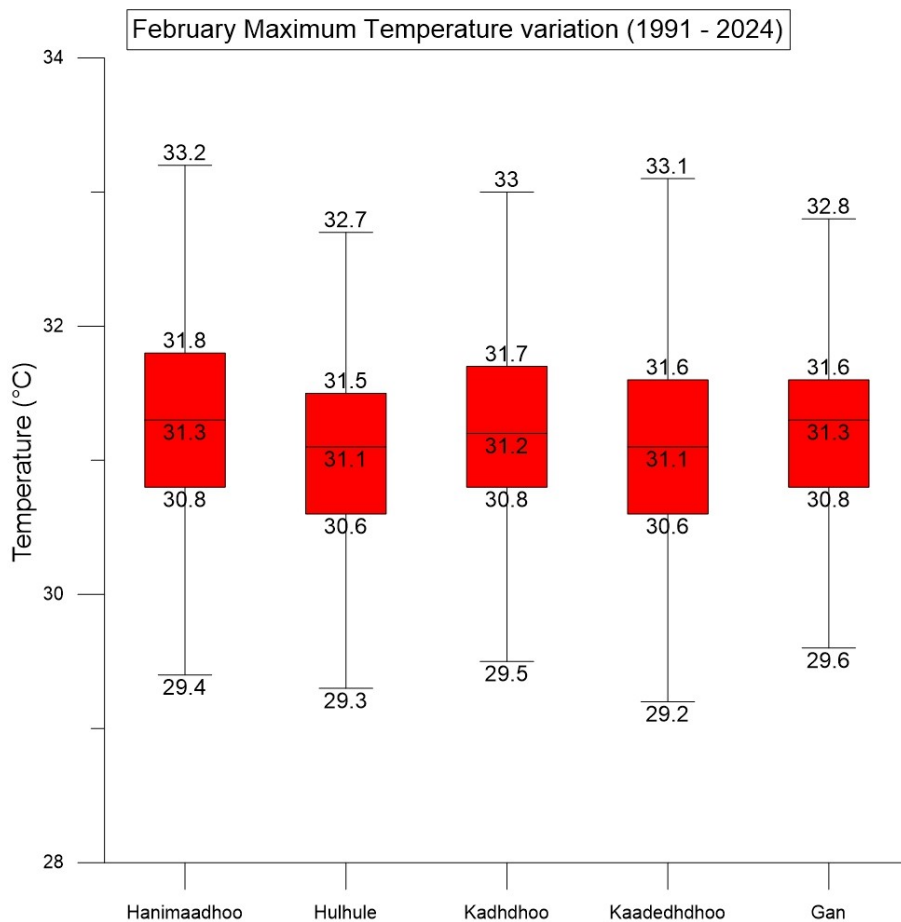


Figure 2: Daily maximum temperature range at Meteorological stations in February for the period 1991-2024, showing the highest maximum temperature of 33.2°C recorded at Meteorological Office Hanimaadhoo.



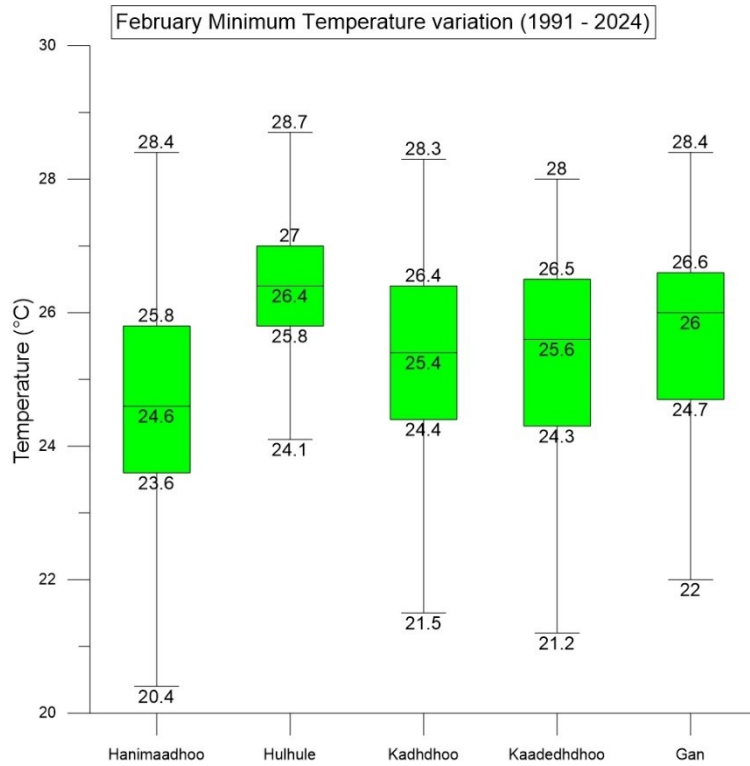


Figure 3: Daily minimum temperature range at the Meteorological stations in February for the period 1991-2024, showing the lowest minimum temperature of 20.4°C at the Meteorological Offices, Hanimaadhoo

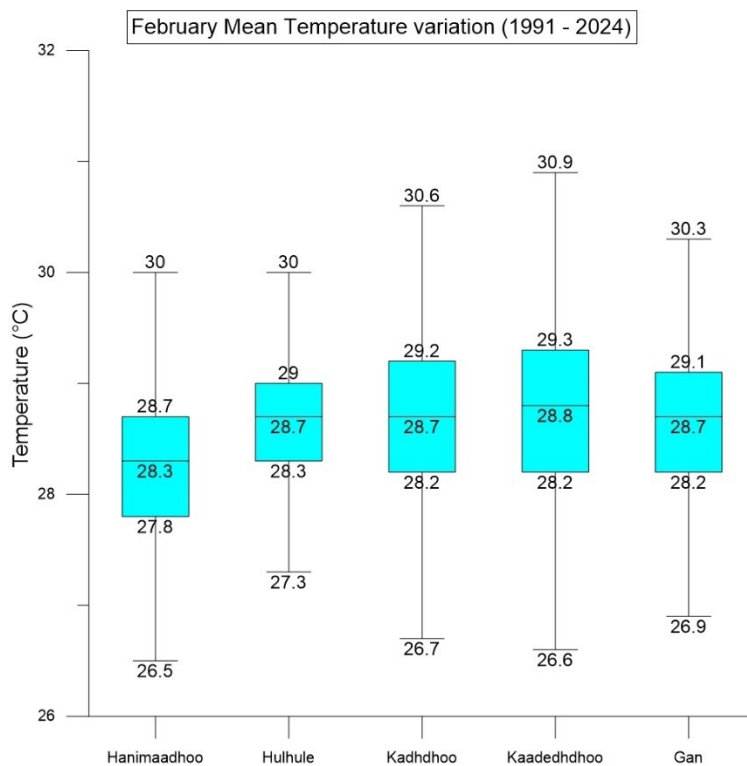


Figure 4: Daily mean temperature range at Meteorological stations in February for the period 1991-2024, showing most (50%) of the time, the daily average temperature lies between 27.8–28.7°C in Hanimaadhoo, 28.3 – 29.0°C in Hulhule, 28.2 – 29.2 °C in Kadhdhoo, 28.2 – 29.3 °C in Kaadedhdhoo and 28.2 – 29.1 °C in Gan.





Conclusion

Considering expected conditions of climate drivers, seasonal prediction and observed rainfall over the country, rainfall is expected to be below-normal over southern atolls and above-normal 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

