



Rainfall and Temperature Outlook over Maldives

For January 2025

Summary

Rainfall is expected to below-normal over southern-most 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) neutral conditions are prensent with near-to-below average equatorial sea surface temperatures (SSTs) in the central and eastern Pacific Ocean. Global models indicate emerging La Niña conditions in November 2024 – January 2025. The Indian Ocean Dipole (IOD). Most models forecast neutral condiction of IOD. Madden-Julian Oscillation (MJO) index is currently located over Western Pacific. Most models suggest eastward propagation of the MJO and reach over Indian Ocean during later half 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.

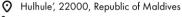
Global Producing Centres and WMO Lead Centre Forecasts

The Probabilistic Multi-Model Ensemble of WMO LC-LRFMME suggests above-normal rainfall over northern atolls and below-normal 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 December

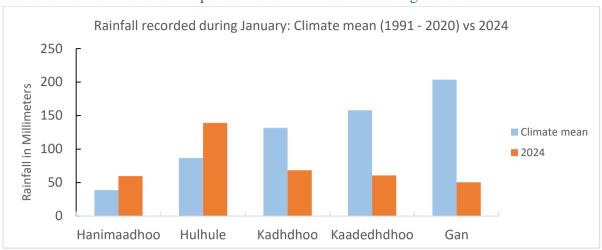


Figure 1- The rainfall in January 2024 was above average in central and northern atolls and below average in southern atolls.

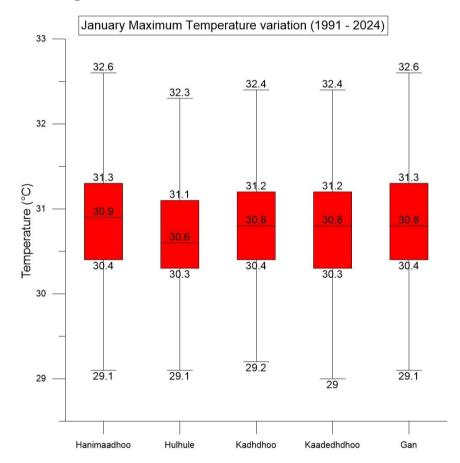
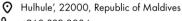


Figure 2: Daily maximum temperature range at Meteorological stations in January for the period 1991-2024, showing the highest maximum temperature of 32.6°C recorded at Meteorological Office Hanimaadhoo and Gan.









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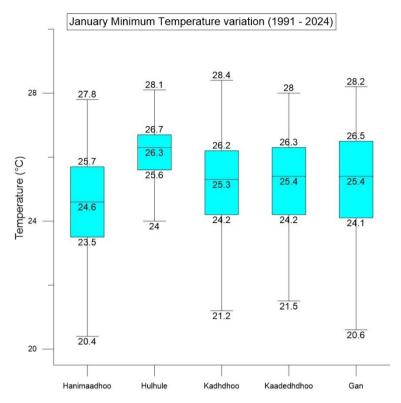


Figure 3: Daily minimum temperature range at the Meteorological stations in January for the period 1991-2024, showing the lowest minimum temperature of 20.4°C at the Meteorological Offices, Hanimaadhoo

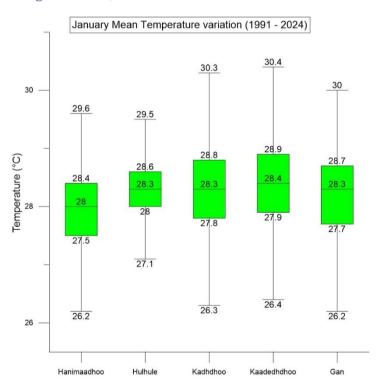
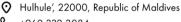


Figure 4: Daily mean temperature range at Meteorological stations in January for the period 1991-2024, showing most (50%) of the time, the daily average temperature lies between 27.5–28.4°C in Hanimaadhoo, 28.0 - 28.6°C in Hulhule, 27.8 - 28.8°C in Kadhdhoo, 27.9 - 28.9°C in Kaadedhdhoo and 27.7 - 28.7°C in Gan.











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Conclusion

Considering the convective phase of MJO and most of the climate models, rainfall is expected to below-normal over southern-most atolls and above-normal over rest of the country. The average temperature is expected to be slightly higher than usual.

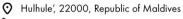
Note:

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











AT THE FRONTLINE OF CLIMATE ACTION