

Maldives Monthly Climate Outlook

For September 2025

Summary

Rainfall is likely to be below-normal in all areas. Maximum temperature is expected to be normal over part of northern and central atolls, and above-normal over rest of the country. Minimum temperature is expected to be above-normal in all areas.

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, Rainfall and temperature outlook for south Asia, monthly climate anomalies and monthly forecasts of European Centre for Medium-Range Weather Forecasts (ECMWF).

Current status and expected condition of major climate drivers.

The El Niño Southern Oscillation (ENSO) conditions remain in neutral state, with near average sea surface temperatures (SSTs) across most of the equatorial Pacific Ocean. The conditions are predicted to continue through the remaining period of Northern Hemisphere summer. There is also a La Niña Watch in effect, indicating development of La Niña. However, the likelihood remains low and similar to ENSO-neutral conditions.

The Indian Ocean Dipole (IOD) is neutral and most climate models indicate the likely conditions of weak negative IOD towards end of the month.

The Madden-Julian Oscillation (MJO) is currently over Western Pacific with weak amplitude. Most models predict enhanced MJO during later half of the month and the signal over Indian Ocean 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. The assessed precipitation models indicate a slightly drier than normal condition, particularly over northern part of the Maldives.

Global Producing Centres and WMO Lead Centre Forecasts



The Probabilistic Multi-Model Ensemble from the WMO LC-LRFMME for September indicates a higher probability of below-normal rainfall across most parts of the country. The temperature outlook shows a higher probability for above-normal temperatures across the country.

Temperature and Rainfall Climatology over the Maldives during September

- Temperature

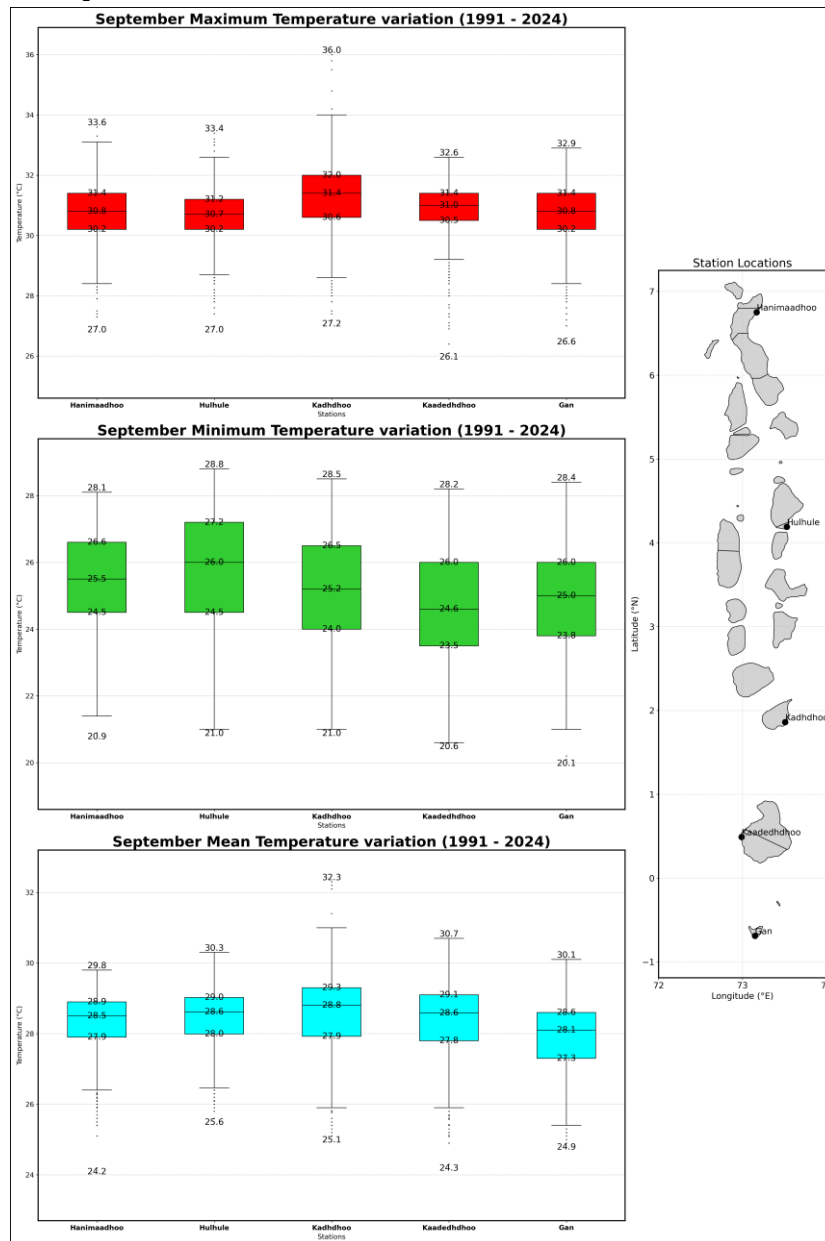


Figure 1 The image presents the distribution of daily maximum, minimum and mean temperatures recorded at five meteorological stations for the period 1991 – 2024. The small map on the right highlights the geographical location of these stations. The distribution of temperature indicates that Kadhdhoo with more extreme values in both maximum and minimum temperatures, while Hulhule with higher mean temperatures relative to the other stations.



• Rainfall

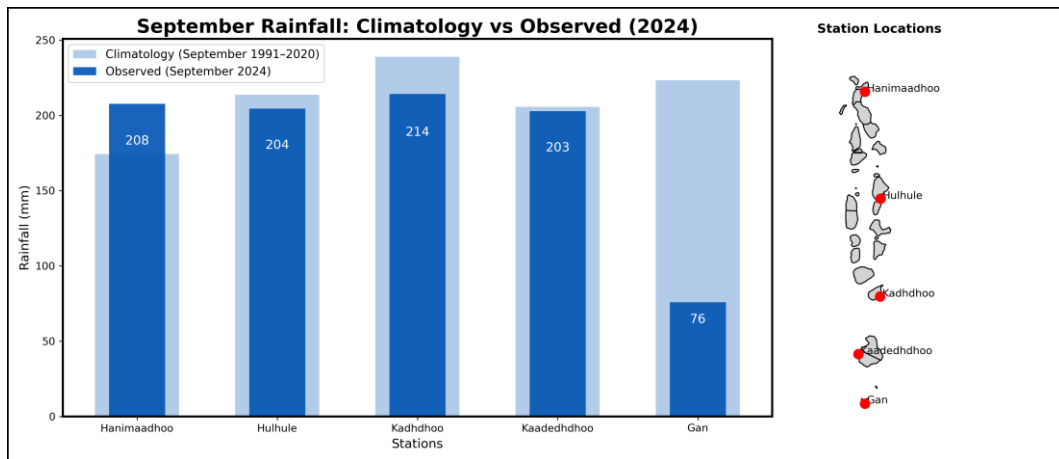


Figure 2 The image presents the comparison of September rainfall climatology for the period 1991-2020 with observed rainfall in September 2024 for five stations across Maldives and the map on the right side, highlights the geographical locations of the rainfall stations. The light-colored bars represent the long-term climatology and darker bars show rainfall observed in September 2024, with values labeled on each bar. Hanimaadhoo received higher rainfall than climate mean, Hulhule, Kadhdhoo and Kaadeddhoo were slightly below-normal, while Gan recorded significantly deficit rainfall compared to log-term average. It shows rainfall varied widely across the country with wetter than usual in northern atolls, drier in southern-most atolls and near normal over rest of the country.

Outlook for rainfall and temperature over the Maldives

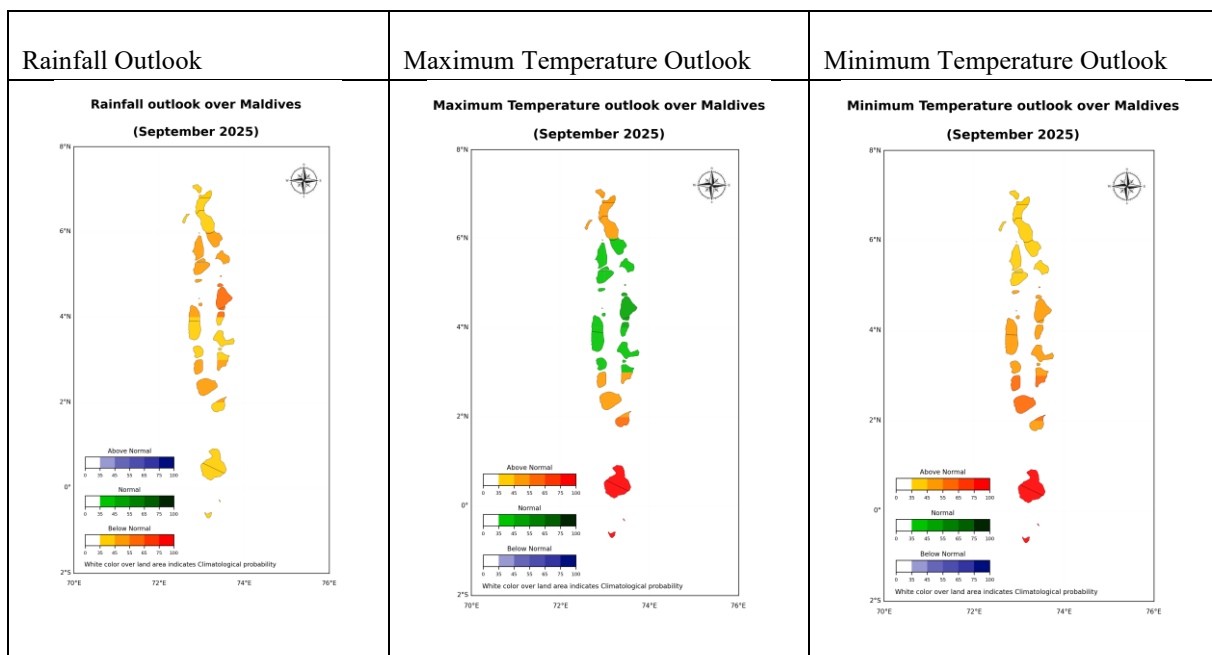


Figure 3: The image presents outlook for rainfall, maximum temperatures and minimum temperatures for September 2025. In the rainfall map, purple shades represent above-normal, green shades for normal and orange shades for below-normal conditions. In temperature maps, orange shades represent above-normal, green shades represent normal, and purple represent below-normal conditions. The rainfall outlook suggests below-normal rainfall in all area of Maldives. Maximum temperature outlook indicates normal over some parts of northern and central atolls and above-normal over rest of the country. The minimum temperature outlook suggests above-normal across the entire country.



Conclusion

Considering the expected conditions of climate drivers, and seasonal prediction from global and regional centers, rainfall is likely to be below-normal across all areas of Maldives. Maximum temperatures are expected to be normal over part of northern and central atolls, and above-normal in the rest areas. Minimum temperatures are expected to be above-normal throughout the country.

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

