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Maldives Monthly Climate Outlook for December 2025

Summary

Considering the latest climate model outputs, prevailing large-scale climate drivers, and national climate data, the Maldives is likely to experience below-normal rainfall during December 2025. Both maximum and minimum temperatures are expected to remain slightly above average across the country.

1. Introduction

The Maldives Monthly Climate Outlook for December 2025 has been developed by integrating national climate data with guidance from both global and regional models. These include the Probabilistic Multi-Model Ensemble forecast from the WMO Lead Centre, the North American Multi-Model Ensemble (NMME), and the Regional Integrated Multi-Hazard Early Warning System (RIMES). In addition, monthly outlooks from the Copernicus Climate Change Service (C3S), Met Office and the APEC Climate Center (APCC) have been incorporated.

The forecast also considers key climate drivers such as the El Niño–Southern Oscillation (ENSO), the Indian Ocean Dipole (IOD), and the Madden–Julian Oscillation (MJO). These factors significantly influence temperature, rainfall, and atmospheric circulation in the region. Their inclusion enhances the accuracy and reliability of the climate outlook for the Maldives.

2. Current status and expected conditions of major climate drivers.

As of 23 November 2025, the El Niño–Southern Oscillation (ENSO) indicates that La Niña conditions are underway, with the Niño3.4 index at −0.93 °C. Current outlooks suggest that La Niña is likely to persist into December 2025.

Negative Indian Ocean Dipole (IOD) conditions are currently prevailing over the Indian Ocean, with an IOD index value of −0.60 °C. The negative IOD is expected to continue weakening, transitioning to neutral conditions by December (Bureau of Meteorology, 2025).

The Madden-Julian Oscillation (MJO) is presently in Phase 7 with an amplitude exceeding 1 and is likely to remain in the same phase with strong amplitude over the coming week (India Meteorological Department [IMD], 2025).

3. December Rainfall Climatology Vs Observed (2024)

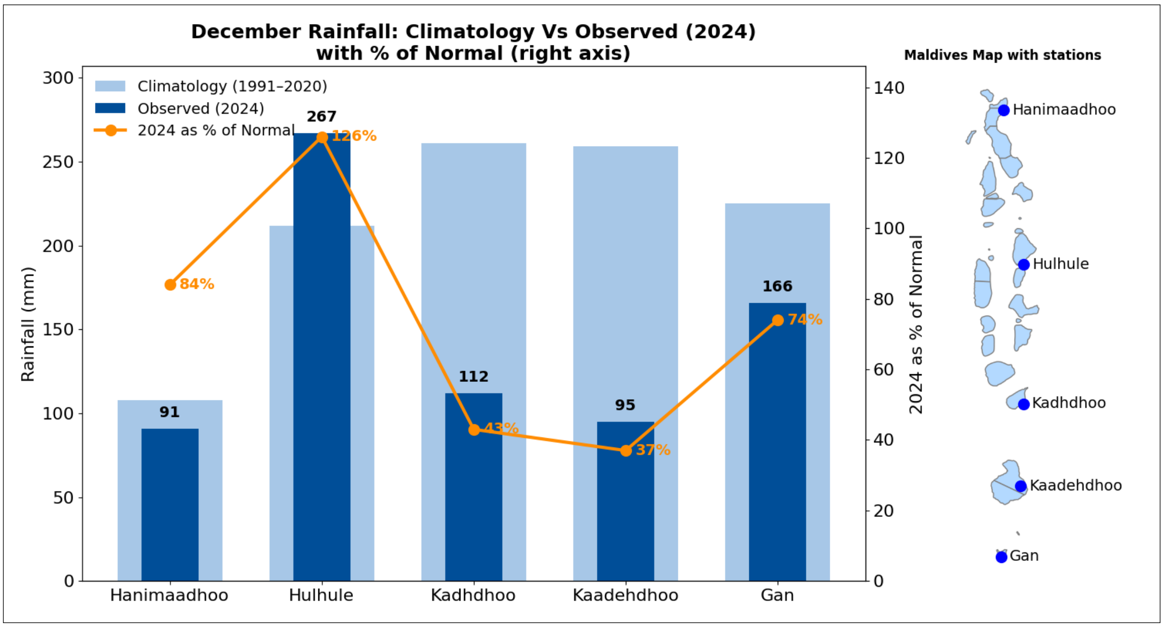

Figure 1: The chart compares December 2024 rainfall at five Meteorological stations in the Maldives with the long-term climatology (1991–2020). Hulhule' recorded the highest rainfall in 2024, exceeding its normal by a significant margin (126%). Hanimaadhoo and Gan also received below-average rainfall but remained closer to normal at 84% and 74%, respectively. In contrast, Kadhdhoo and Kaadehdhoo experienced substantial deficits, registering only 43% and 37% of their normal December rainfall. The spatial map highlights the locations of these stations across the Maldives.

4. Temperature Variation over the Maldives during December

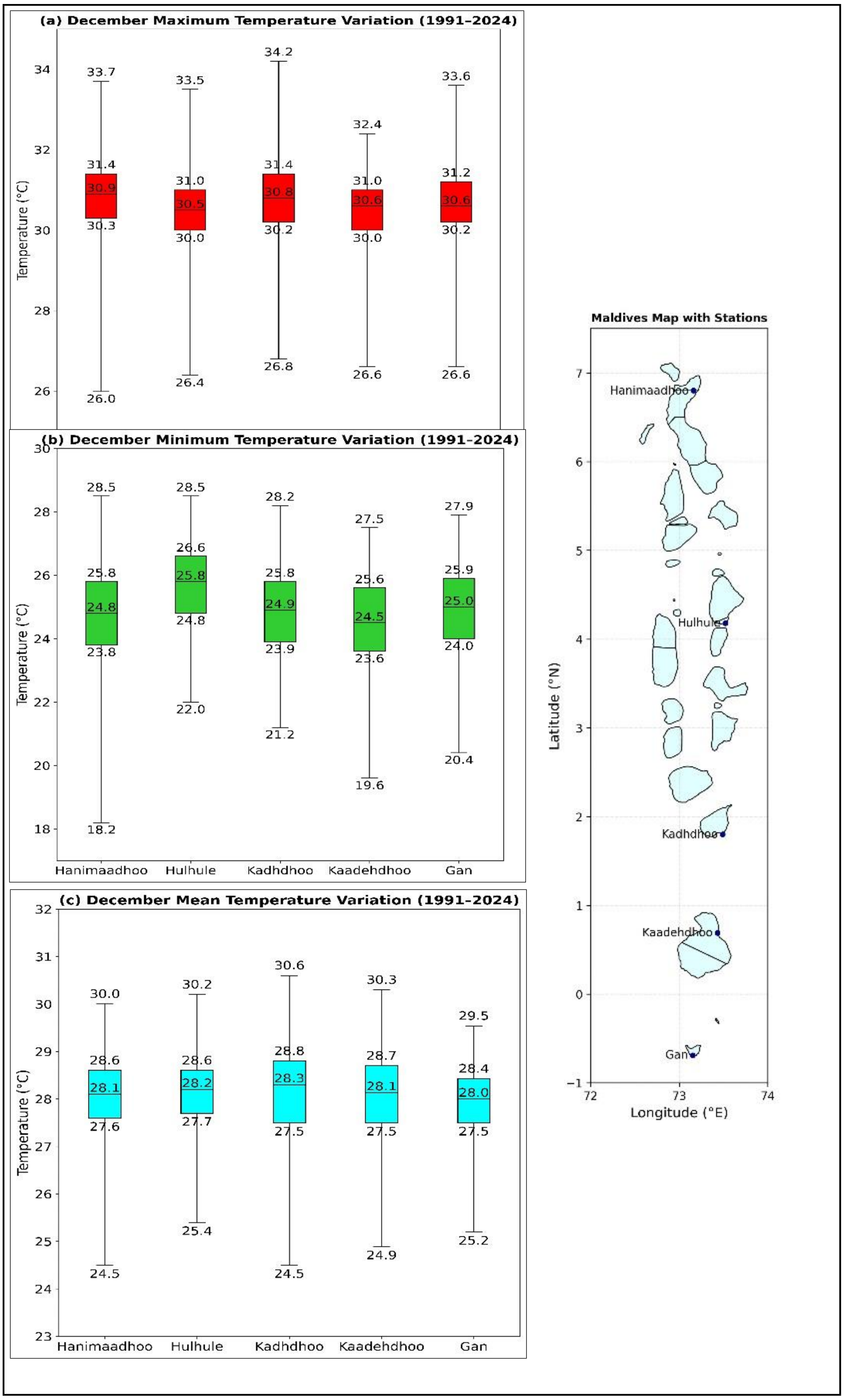
(a) December Maximum Temperature Variation (1991–2024)
Temperature (°C)
33.7
31.4
30.9
30.3
26.0
33.5
31.0
30.5
30.0
26.4
34.2
31.4
30.8
30.2
26.8
32.4
31.0
30.6
30.0
26.6
33.6
31.2
30.6
30.2
26.6
(b) December Minimum Temperature Variation (1991–2024)
Temperature (°C)
28.5
25.8
24.8
23.8
18.2
28.5
26.6
25.8
24.8
22.0
28.2
25.8
24.9
23.9
21.2
27.5
25.6
24.5
23.6
19.6
27.9
25.9
25.0
24.0
20.4
Hanimaadhoo
Hulhule
Kadhdhoo
Kaadehdhoo
Gan
(c) December Mean Temperature Variation (1991–2024)
Temperature (°C)
30.0
28.6
28.1
27.6
24.5
30.2
28.6
28.2
27.7
25.4
30.6
28.8
28.3
27.5
24.5
30.3
28.7
28.1
27.5
24.9
29.5
28.4
28.0
27.5
25.2
Hanimaadhoo
Hulhule
Kadhdhoo
Kaadehdhoo
Gan
Maldives Map with Stations
Hanimaadhoo
Hulhule
Kadhdhoo
Kaadehdhoo
Gan
Latitude (°N)
Longitude (°E)

Figure 2. The boxplots illustrate the observed daily temperature variations for December (1991–2024) at five meteorological stations in the Maldives. The highest observed December maximum temperatures range between 32.4–34.2°C, with Hanimaadhoo (33.7°C) and Kadhdhoo (34.2°C) recording the warmest peaks. For minimum temperatures, the warmest values reach 27.5–28.5°C, while the coolest minimums range between 18.2–22.0°C. The observed mean December temperatures generally fall between 28.0–28.3°C across the stations, indicating consistent average conditions throughout the country. Overall, the observed December temperatures show relatively small spatial variation across the Maldives. The map on the right shows the locations of the five stations.

5. Precipitation and Temperature Outlook for December 2025 over the Maldives

The Probabilistic Multi-Model Ensemble Forecast from the WMO Lead Centre indicates below-normal rainfall across the Maldives and above-normal 2-m temperatures for the month of December. Similarly, probabilistic forecasts from RIMES show below-normal rainfall across the country. Several other models, including the Met Office probabilistic forecast, also consistently point toward drier-than-normal conditions.

Considering the latest climate model outputs, the prevailing large-scale climate drivers, and national climate data, the Maldives is likely to experience below-normal rainfall during December 2025. Both maximum and minimum temperatures are expected to remain slightly above average across the country.

6. Conclusion

Climate indicators suggest that ENSO is likely to remain in a La Niña state, while the Indian Ocean Dipole (IOD) is expected to transition toward neutral conditions during December 2025. The Madden-Julian Oscillation (MJO) is currently in Phase 7 with an amplitude above 1 and is expected to remain in the same phase with strong amplitude over the coming week.

Considering the latest climate model outputs, prevailing large-scale climate drivers, and national climate data, the Maldives is likely to experience below-normal rainfall during December 2025. Both maximum and minimum temperatures are expected to remain slightly above average across the country.

Note: Rainfall categories used in the Maldives:

- Normal: 90% to 110% of the long-term average
- Above Normal: More than 110% of the long-term average
- Below Normal: Less than 90% of the long-term average