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Maldives Meteorological Service

Rainfall and Temperature Outlook over Maldives

For September 2020

Summary

While normal rainfall is expected in central and southern atolls, an increase of 10% in rainfall is likely in northern atolls during September 2020. Temperature is expected to be above normal across the country during this month.

Introduction

This consensus outlook for Maldives has been developed through assessments including prevailing regional and global climate condition and prediction of various models, seasonal forecast of WMO Lead Centre for Long-Range Forecast Multi-Model Ensemble (LC-LRFMME), NMME Probability Forecasts of Monthly Climate Anomalies and calibrating climate models.

El Niño -Southern Oscillation (ENSO): ENSO-neutral condition prevails with currently near to below average Equatorial Sea Surface Temperatures (SSTs) across central and eastern Pacific Ocean. Chances are high for the developing of La Niña condition.

Indian Ocean Dipole (IOD): IOD condition is currently neutral. However, some models indicate a negative threshold value for the month.

Madden-Julian Oscillation (MJO): Enhanced MJO signal over eastern Indian Ocean is currently propagating eastward and likely to weaken gradually during the 1st week of September. It is expected to emerge into phase 4 and become enhanced in the 2nd week. The signal is likely over phase 5 by 3rd week.

Calibration of climate models

Calibration of some GCM output with station observed rainfall data show slightly above normal rainfall across the country.

Global Producing Centres and Lead Centre





Probabilistic Multi-Model Ensemble of WMO Lead Centre for Long Range Forecast Multi-Model Ensemble indicates above normal rainfall over northern-most atolls and normal rain over rest of the country for September 2020. Most of individual models indicate normal-to-above normal rainfall in both northern and central atolls and normal rainfall in southern atolls.

Probabilistic Multi-Model Ensemble of WMO Lead Centre for Long Range Forecast Multi-Model Ensemble indicates above normal Temperature across the country for September 2020. All individual models indicate above normal Temperature in all areas.

Climate condition

Southwest monsoon (Hulhangu Moosun) continues over Maldives.

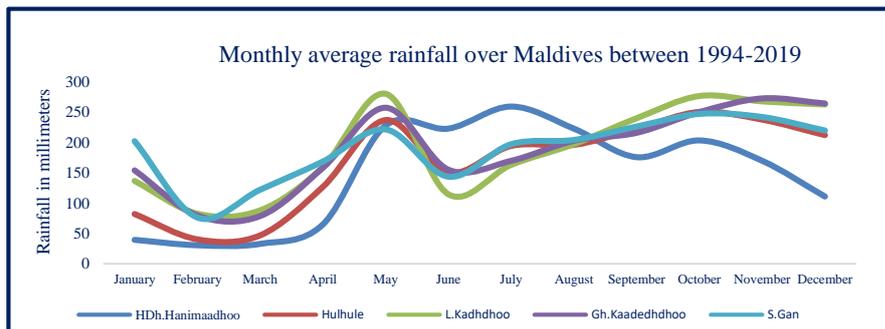


Figure 1 Peak rainfall in May and October.

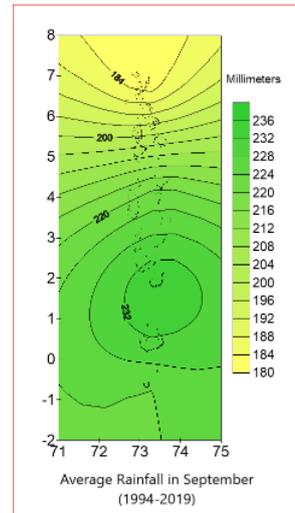


Figure 2 Spatial distribution of rainfall over the country during September

Figure 1 shows monthly rainfall recorded in five Meteorological stations. There is an increasing trend in rainfall in all areas except northern station. It is a gradual decrease over that area.

Figure 2 shows spatial distribution of rainfall across the country during September. Highest amount rainfall receives in northern part of southern atolls and relatively less rain records over northern atolls.

Conclusion

By considering the Multi-Model Ensemble of WMO Lead Centres, individual models, climate data, expected MJO, IOD and ENSO conditions, above normal rainfall is likely in northern atolls while normal rainfall is expected to central and southern atolls during September 2020.

Temperature is likely to be above normal across the country during the month.

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.

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