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Maldives Meteorological Service

Rainfall and Temperature Outlook over Maldives For May 2020

Summary

Rainfall likely normal in northern and central atolls while southern atolls most likely to receive above normal rainfall during May 2020. Average Temperature likely above normal throughout 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 above average Equatorial Sea Surface Temperatures (SSTs) across most of the Pacific Ocean. Most of the models indicate ENSO neutral condition to persist during May 2020.

Indian Ocean Dipole (IOD): IOD remain neutral and models indicate same condition throughout May.

Madden-Julian Oscillation (MJO): MJO currently enhanced over Maritime Continent. The amplitude likely become weak before emerge into Pacific. It is expected to be over Western Hemisphere and Africa with chances of increasing amplitude by mid-May and over Indian Ocean thereafter.

Calibration of climate models

Calibration of GCM output with station observed rain data suggests above normal rainfall across the country with one station showing below normal for May 2020.



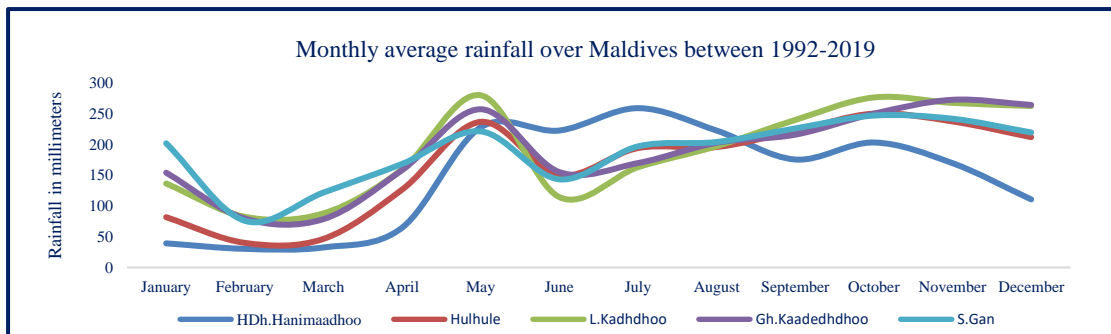


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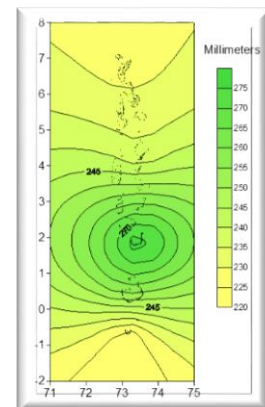
Probabilistic Multi-Model Ensemble of WMO lead centre for long-range climate indicates normal rainfall in northern atolls and above normal rainfall in central and southern atolls. Most of individual models suggest above normal rainfall in southern and central atolls, normal to below normal in northern atolls during this month.

All models indicate above normal temperature throughout the country during May 2020.

Climate condition



Southwest monsoon (Hulhangu Moosun) establishes over Maldives during mid-May. It begins from southern atolls and propagates northward. Gauge recorded rainfall (1992-2019) in five stations show a peak rainfall in May and on average northern part of southern atolls receive relatively higher rainfall than rest of the country during this month.



Conclusion

By considering Multi-Model Ensemble of WMO Lead Centre with individual models, IRI forecasts, climate data, expected MJO signal over Indian Ocean, calibration of GCM output with station rainfall, northern and central atolls likely to receive normal rainfall while southern atolls most likely receive above normal rainfall during May 2020.

Spatial distribution of rainfall over the country during May

Temperature likely above normal during May 2020.

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.



References

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