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SOUTH ASIA HYDROMET FORUM CLIMATE SERVICES WORKSHOP

Country Presentation: Overview of Climate Services in South Asia



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OUTLINE OF PRESENTATION

- 1.Current Status of Climate Services
- 2.Forecast Products and Delivery
- 3.Sectoral Advisories and Applications
- 4.Tools, Platforms and Data Use
- 5.Capacity and Gaps
- 6.Expectation from SAHF CS WG



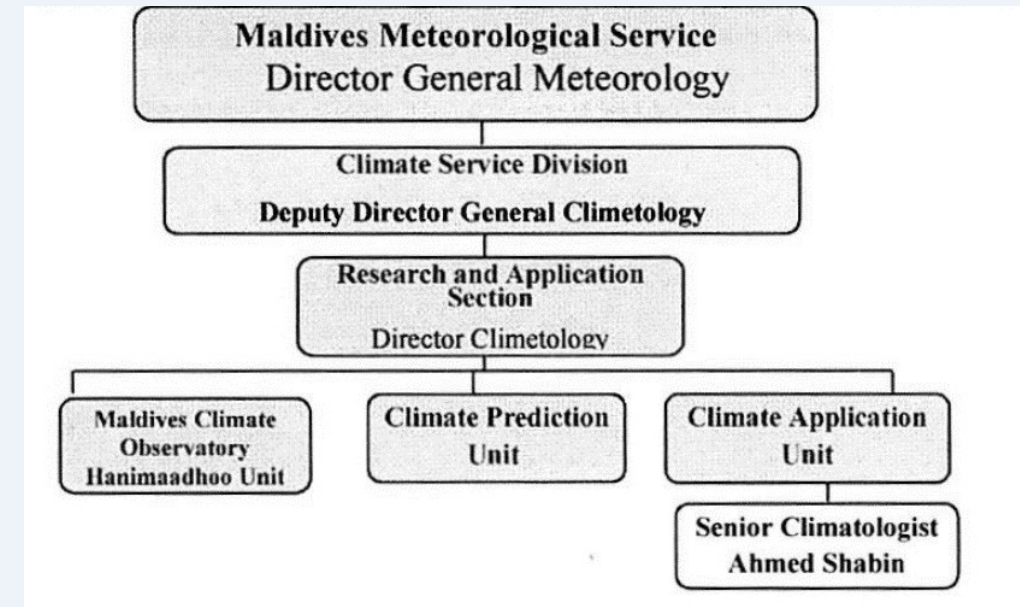
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CURRENT STATUS OF CLIMATE SERVICES

Overview of Institutional setup for climate services

- After a long break MMS re-established the Climate Division and staffed the Climate Application Unit in 2025.
- During the past decade or so, the climate services have been delivered by Forecasters and Observers, with the support of regional partners.



Timeline of Monsoon/Climate Forums in the Maldives





1st Monsoon Forum, Gn. Fuvahmulah (2 – 3 July 2012)



4th National Climate Outlook Forum, K. Male' (26 – 27 April 2015)



8th Monsoon Forum, L. Fonadhoo (10 May 2023)



9th Monsoon Forum, Equator Village, Gan, Addu City, (17 April 2025)



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FORECAST PRODUCTS AND DELIVERY



Rainfall and Temperature Outlook over Maldives

For June 2025

Summary

Rainfall is expected to be below normal over most parts of northern atolls, normal to slightly above normal over the central part and above normal over southern region of the country. The average temperature is expected to be higher than usual over the country.

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): All the models suggest ENSO-neutral conditions will persist during June 2025. A neutral ENSO (neither El Niño nor La Niña) is expected until at least October.

The Indian Ocean Dipole (IOD): Most models forecast IOD neutral condition during the month of June 2025.

Madden-Julian Oscillation (MJO): The MJO index is currently over the Western Pacific Ocean and has a weak amplitude. The majority of models predict that it will move eastward, crossing the Western Hemisphere and the African continent during the first week of the month and reaching the Indian Ocean in the middle of the month with weak amplitude.

Global Producing Centers and WMO Lead Centre Forecasts

The Probabilistic Multi-Model Ensemble of WMO LC-LRFMME strongly suggests below-normal rainfall over northern atolls, normal to slightly above normal over central and above normal over southern part of the country. Temperatures are predicted to be above normal across the country.

Condition of Rainfall and Temperature over the Maldives during June

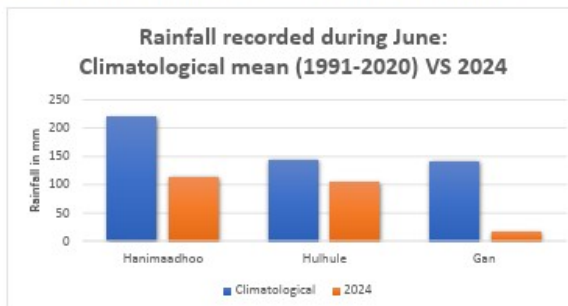


Figure 1- Rainfall was lower than climatological mean (1991 - 2020) over all regions (northern, central and southern atolls), where a significant decrease in rainfall was experienced over northern and southern atolls for the month of June 2024.

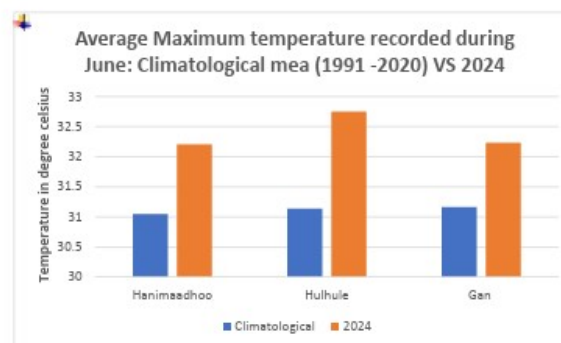


Figure 2: Maximum temperature was higher than climatological mean (1991 - 2020) at all station in the month of June 2024, showing the highest maximum temperature of 32.8°C recorded at Meteorological Office Hulhule.

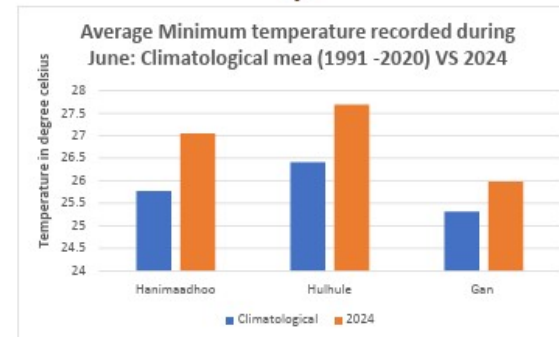


Figure 3: Minimum temperature was higher than climatological mean (1991 - 2020) at all station in the month of June 2024, showing the highest minimum temperature of 27.7°C recorded at Meteorological Office Hulhule.

Conclusion

Considering expected conditions of climate drivers and seasonal prediction, rainfall is expected to be below normal over most parts of northern atolls, normal to slightly above normal over the central part and above normal over southern region of the country. The average temperature is expected to be higher than normal across 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



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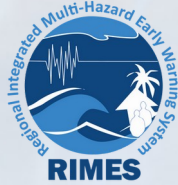
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SECTORAL ADVISORIES AND APPLICATIONS



UNDP Maldives

@UNDPMaldives



The Probable Area of Rainwater Harvesting (PARH) supported by @theGCF is a **NEW** addition to the Moosun App that will alert the public on potential areas & volume of 🌧️ to assist in rainwater harvesting & 💧 management contributing to #WaterSecurity in communities.
[@MetMaldives](#)



RAINWATER HARVESTING NOTIFICATIONS ON MOOSUN APP

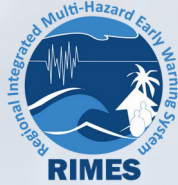


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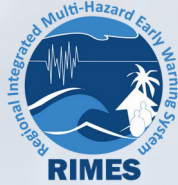


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TOOLS, PLATFORMS AND DATA USE

- Several DSS development initiatives are ongoing.
- We have just completed a 30 year dataset across all 5 long term observation stations, opening up several avenues for analysis and research.
- Ground truthing of the indigenous weather calendar is a work in the pipeline

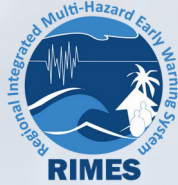


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CAPACITY AND GAPS

- A High performance computer has been installed.
- Focused Guidance on modelling and research.
- Funding support for contextualization and user engagement.

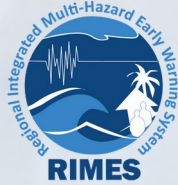


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EXPECTATIONS FOR SAHF CS WG

- Development of a MMS Data policy
- Joint training programs on climate data analysis, interpretations and application
- Regional workshops for enhancing skills on climate datasets, modelling, downscaling, and verification techniques
- Collaborative studies on regional climate drivers (e.g., ENSO, IOD, MJO) and their impacts
- Peer exchange and technical twinning among national meteorological and hydrological services (NMHSs)



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THANK YOU!