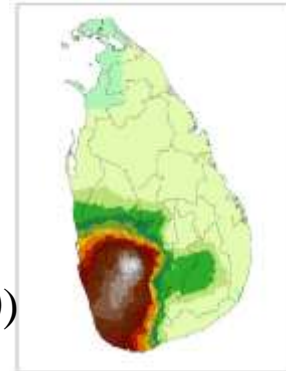


Seasonal Outlook: 2025 Southwest Monsoon(MJJAS)

Department of Meteorology
Seasonal Forecasting Division
May 2025

Overview

- The Southwest Monsoon is vital for agriculture, water resources, and the economy in Sri Lanka.
- Covers May to September; contributes ~30% of annual rainfall in Sri Lanka.

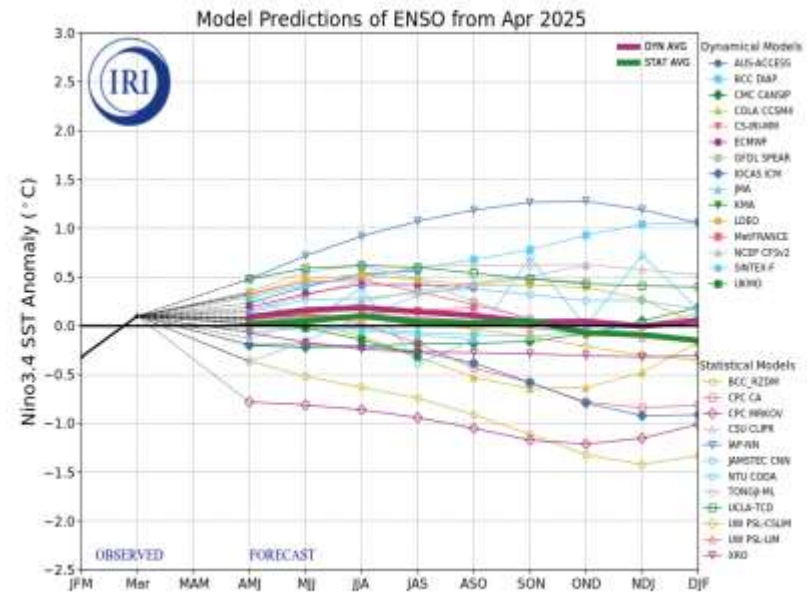
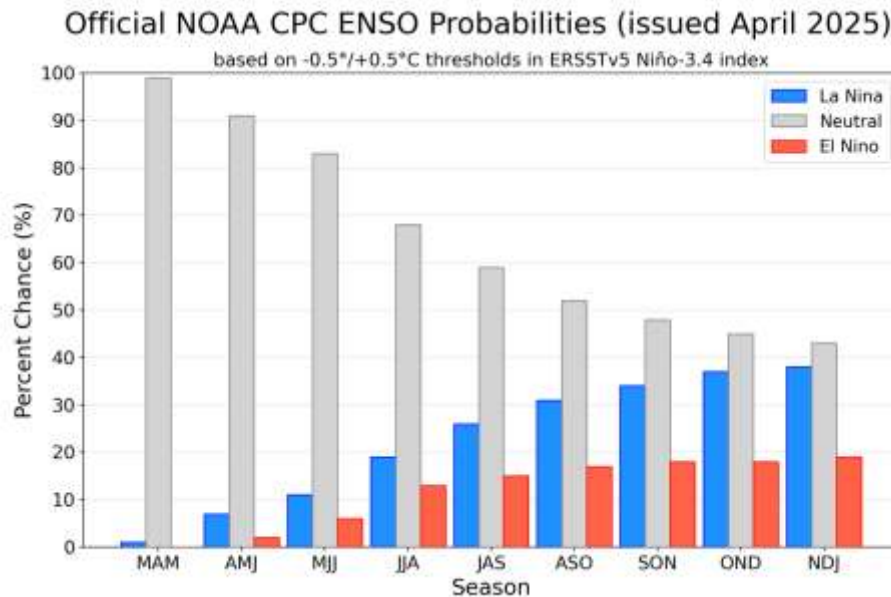


(averages of 1991-2020)

- Understanding seasonal outlooks helps enhance preparedness and planning.

2025 Climate Drivers: ENSO

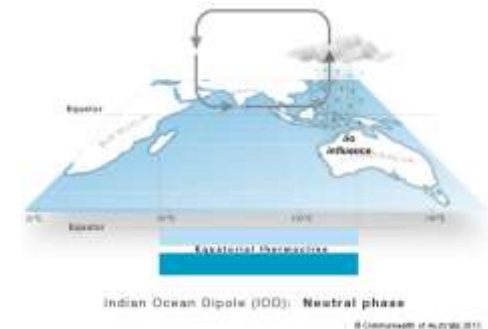
- ENSO: Transition from **La Niña to neutral/La Niña conditions** likely by mid-2025. **Most models favor ENSO-neutral**



Source: IRI

2025 Climate Drivers: IOD

- Indian Ocean Dipole (IOD): Neutral IOD conditions expected to persist.

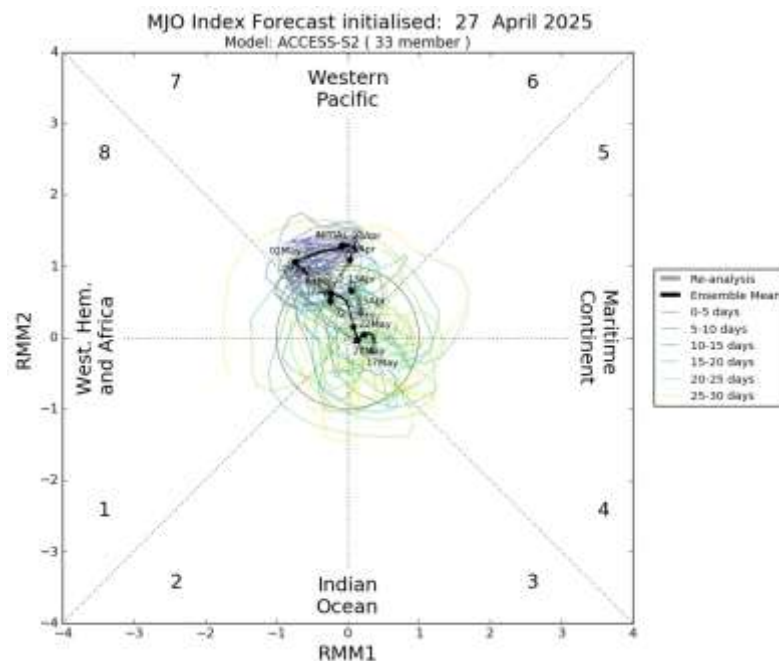


In a neutral IOD phase, sea surface temperatures across the tropical Indian Ocean are close to normal

Source: <http://www.bom.gov.au/>

2025 Climate Drivers: MJO

- Madden-Julian Oscillation (MJO): may influence intra-seasonal variability and active/break phases.



The Madden-Julian Oscillation (MJO) is the major fluctuation in tropical weather on weekly to monthly timescales. The MJO can be characterized as an eastward moving 'pulse' of cloud and rainfall near the equator that typically recurs every 30 to 60 days.

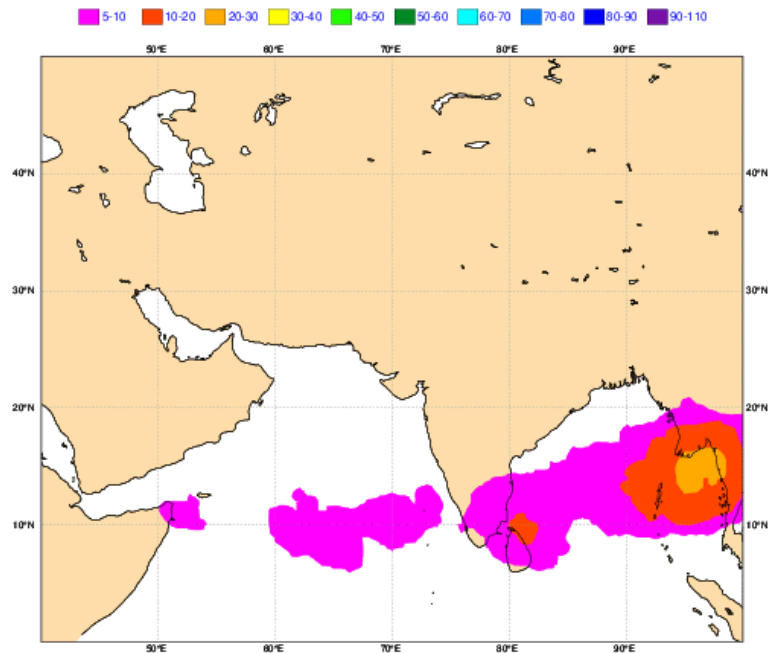
On May weak MJO persists (index is within the center circle the MJO is considered weak and in phase 7 & 8)

Source: <http://www.bom.gov.au/>

Possibility of Low Pressure Systems

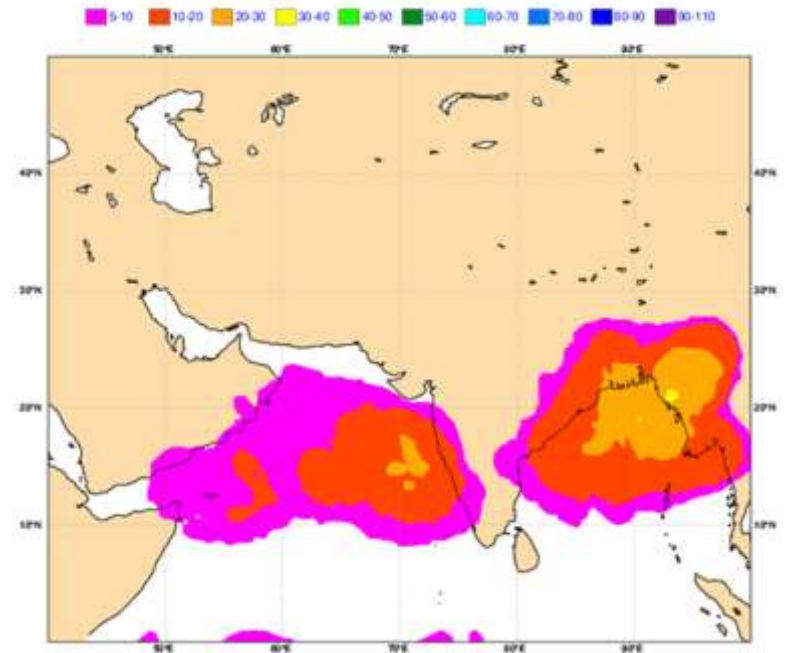
12-19 May

Weekly Mean Tropical Cyclone Strike Probability. Date: 20250427 0 UTC t+(192-360)
Probability of a TC passing within 300km radius



19 -26 May

Weekly Mean Tropical Cyclone Strike Probability. Date: 20250427 0 UTC t+(528-696)
Probability of a TC passing within 300km radius



Source: ECMWF



31st Session of South Asian Climate Outlook Forum (SASCOF-31) and Climate Services User Forum (CSUF)

**Pune, India
28 April 2025**

Technical Assistance

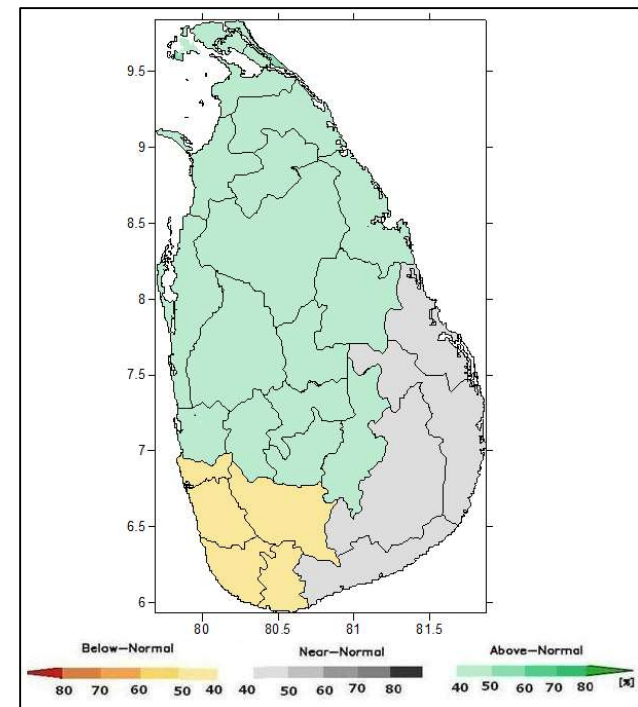
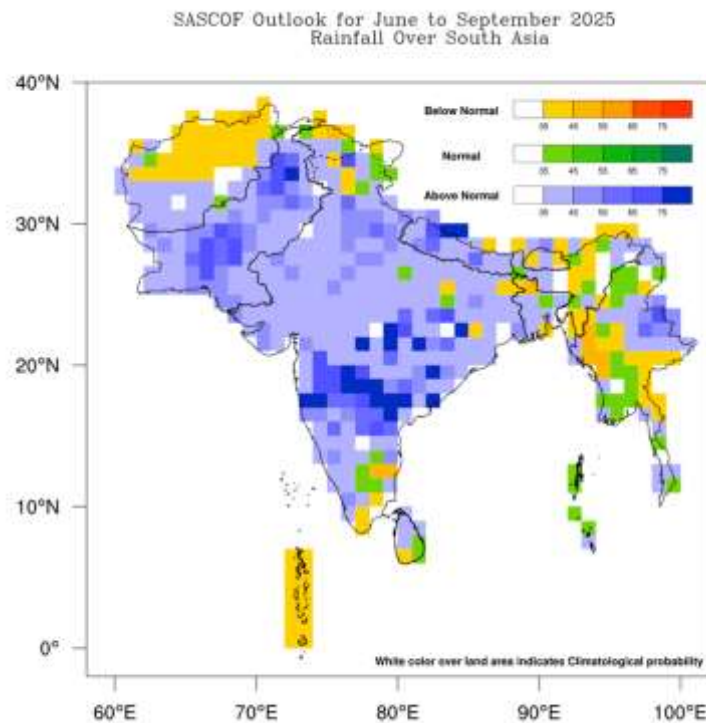
- WMO
- India Meteorological Department
- UK Met office
- Korea Meteorological Agency(KMA)
- China Meteorological Agency(CMA)
- Japan Meteorological Administration(JMA)

Participants

- India
- Sri Lanka
- Bangladeshi
- Myanmar
- Afghanistan
- Pakistan
- Maldives
- Bhutan
- Nepal

Seasonal Forecast (SASCOF): Rainfall

- Global models suggest below normal rainfall over South Western parts and near-normal to slightly above-normal rainfall elsewhere.

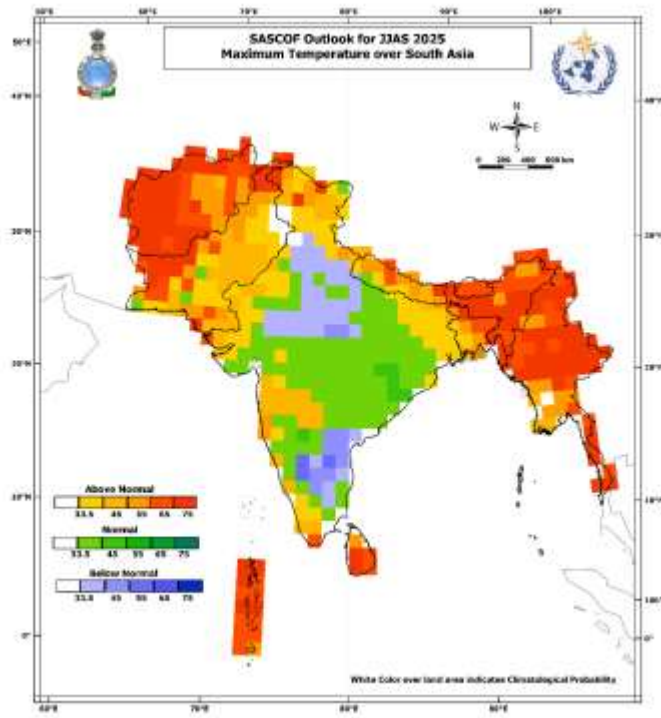


**South Asian Seasonal Climate
Outlook Forum (SASCOF)
Precipitation Outlook JJAS 2025**

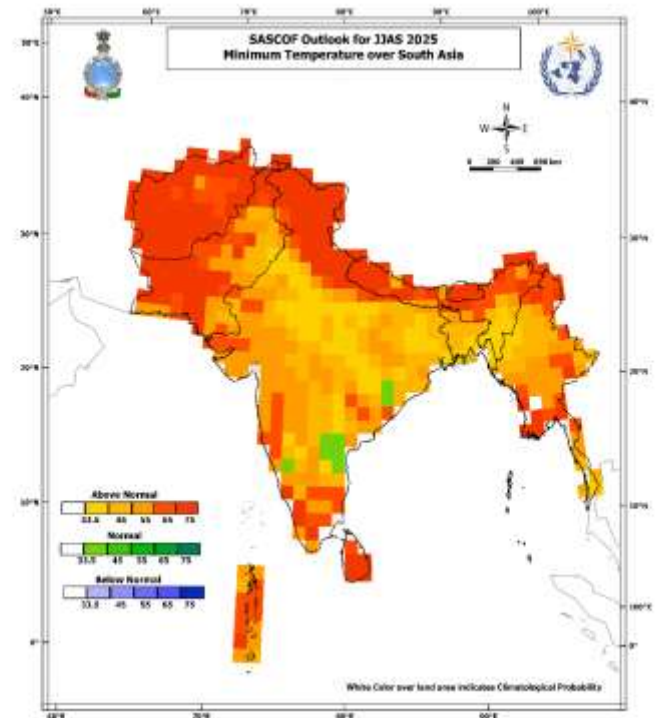
**National Precipitation
Outlook JJAS 2025**

Temperature Outlook: SASCOF

- Day temperatures expected to remain near to slightly above normal during the monsoon.
- Night temperatures may be elevated in rain-deficit regions.

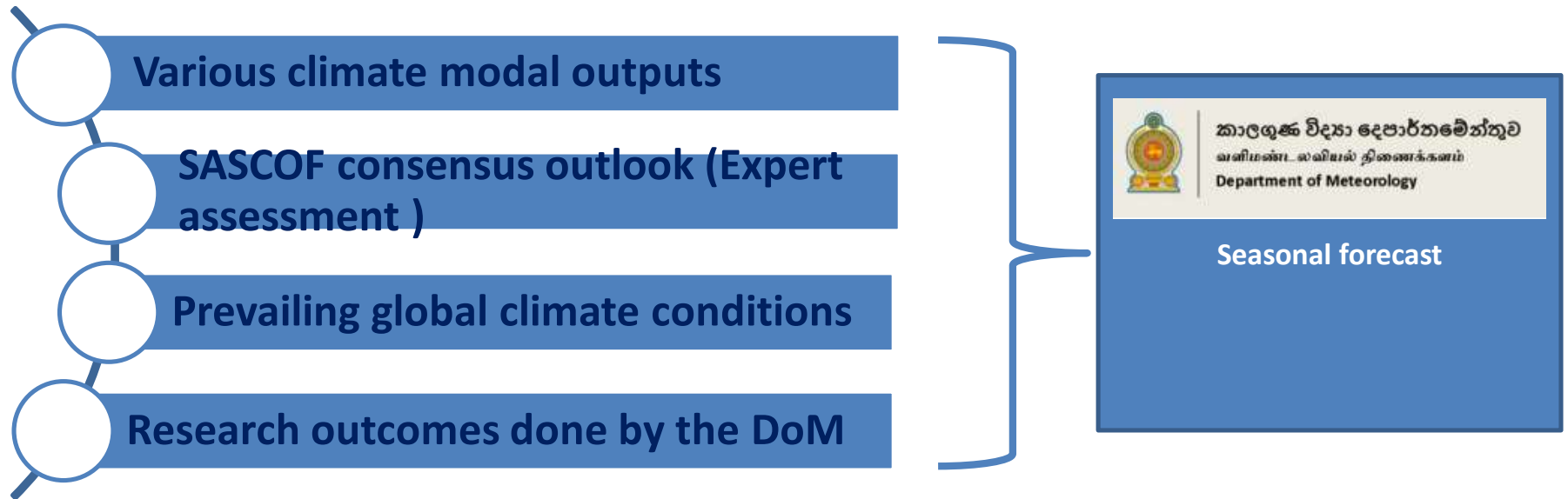


T_{Max} (Day temp.)



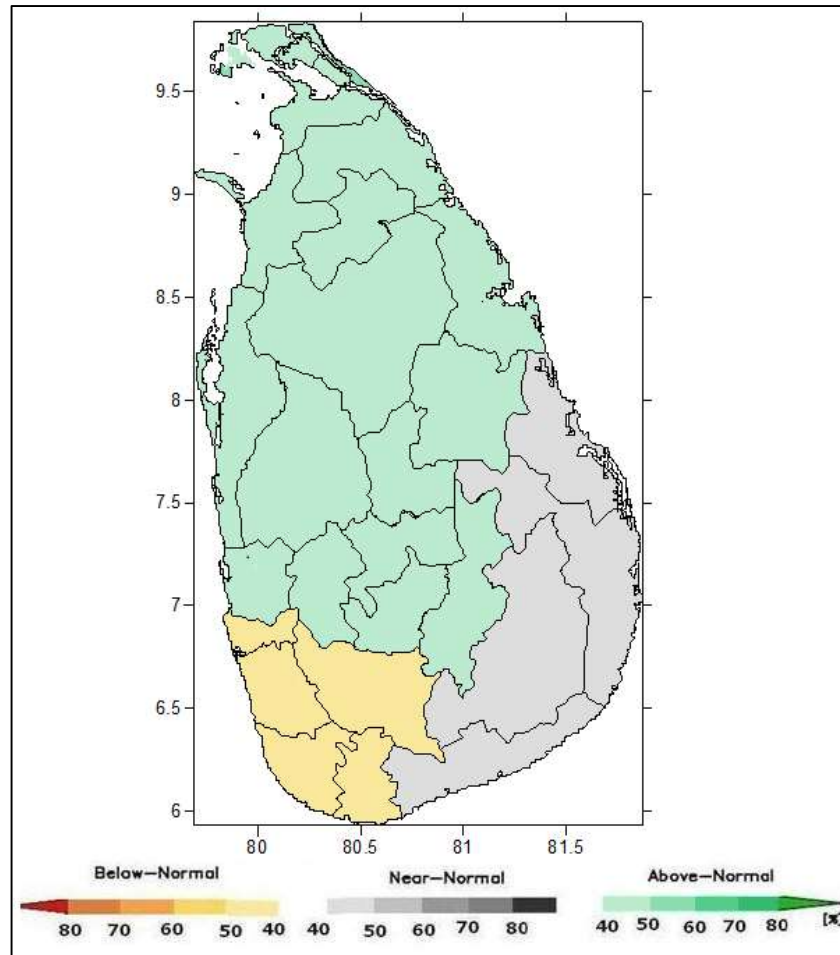
T_{Min} (Night temp.)

DoM Seasonal Prediction Procedure

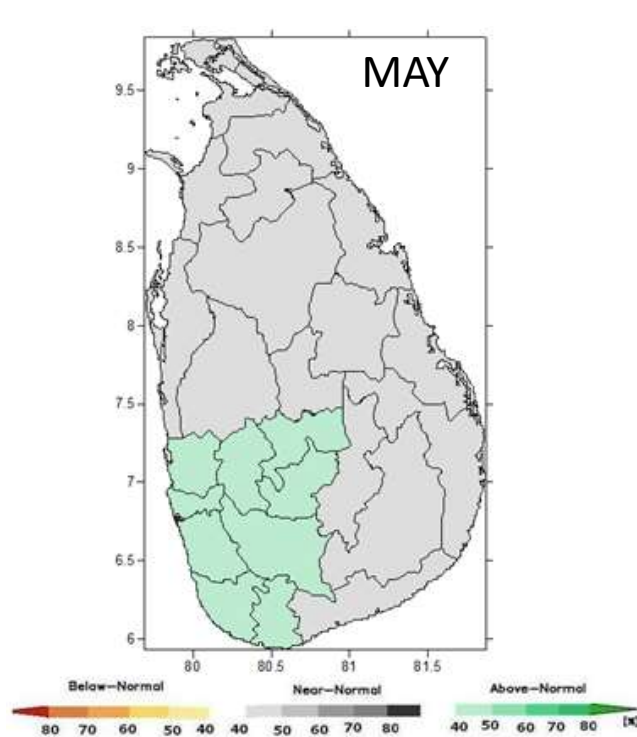


Seasonal Forecast (National): Rainfall

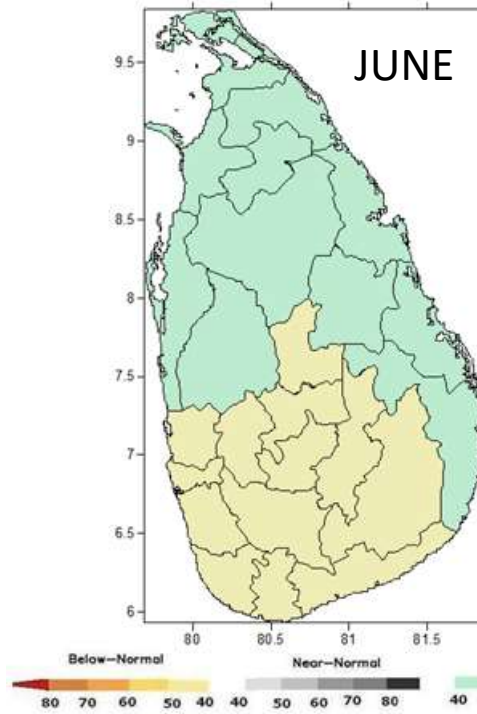
Southwest monsoon 2025



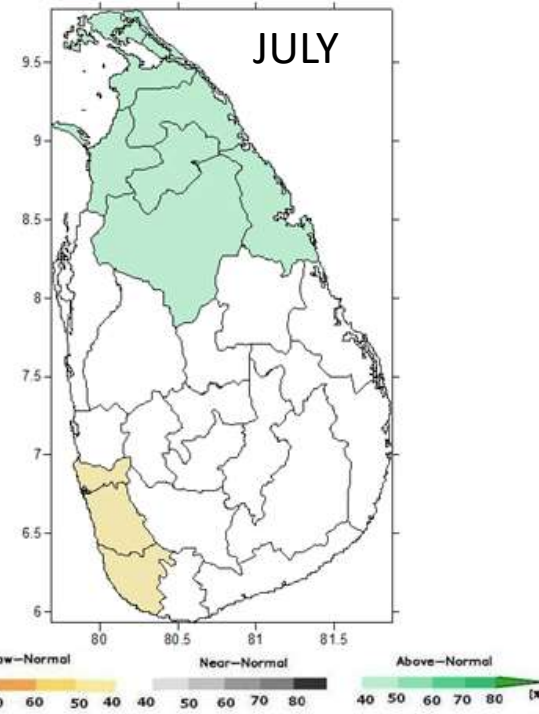
Monthly Rainfall Anomaly Forecast for May-June-July- 2025



Near or slightly above normal rainfall over SW parts and near normal elsewhere.

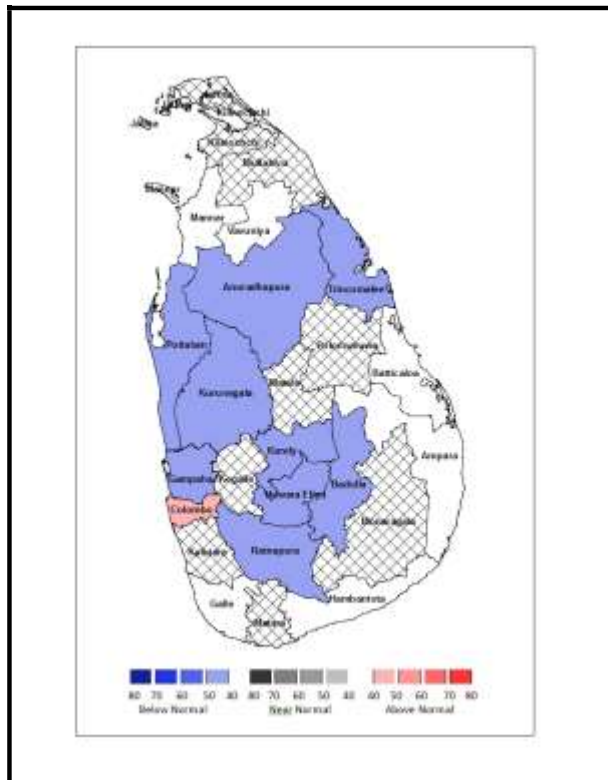


Below normal over western, Southern, Sabaragamuwa central and Uva provinces and near or slightly above normal elsewhere..

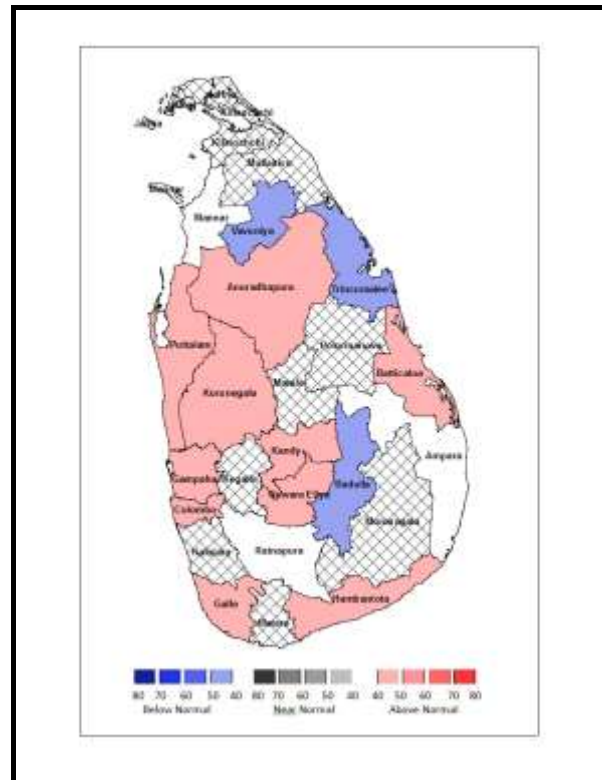


Near or slightly above normal over Northern province and Trincomalee and Anuradhpura districts and below normal over CBO, Kalutara and Galle and no signal for other areas.

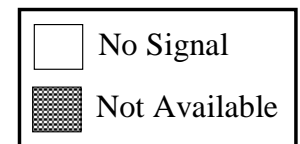
National Forecast for May: Temperature



T_{max}



T_{min}



Onset and Withdrawal Predictions

- Expected onset over Sri Lanka: Near normal around last week of May (26th May over Southern part of Sri Lanka)
- Withdrawal likely by early October.
- Monitoring daily updates from DoM will refine these estimates.

Risks and Uncertainties

- Forecast confidence affected by model divergence and intra-seasonal variability.
- Uncertainty in spatial distribution of rainfall.
- Extreme weather events (e.g., floods, landslides) possible despite normal aggregate rainfall.

Conclusion & Recommendations

- Overall outlook: Weak monsoon conditions with moderate confidence.
- However there is possibility for developing low pressure systems/depressions/cyclones in Bay of Bengal during latter part of May and early June.
- Stakeholders should stay updated with DoM's monthly and weekly advisories (www.meteo.gov.lk)

Service Delivery Systems

Updated Forecasts from Department Web site

Web: www.meteo.gov.lk

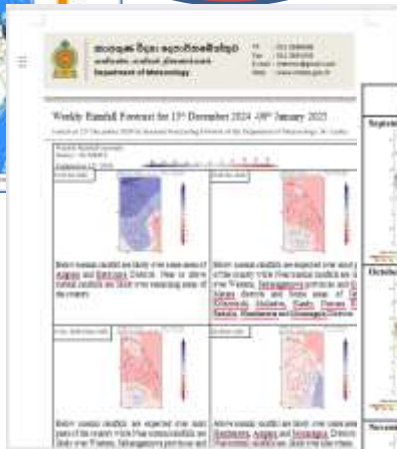
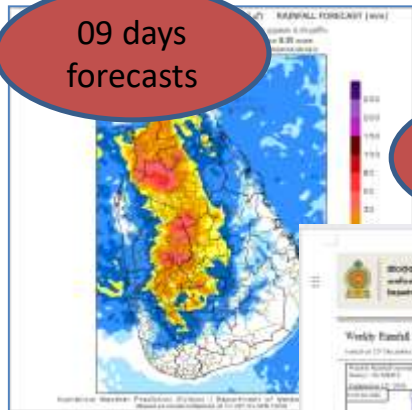
09 days forecasts

Weekly forecasts

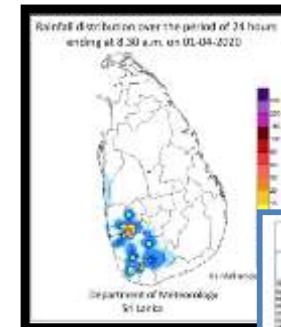
Monthly forecasts

Daily rainfalls

- ✓ E-Mail
- ✓ Web
- ✓ Social media
- ✓ Fax



Month	Rainfall forecast
September 2024	There is a higher chance of having near normal rainfalls over most parts of the country during the month of September 2024. Generally, there is a possibility for developing atmospheric disturbances during the month, particularly during latter part of the month. If so rainfall may increase.
October 2024	There is a probability of below normal over Northwestern provinces and near normal rainfalls over Northern, Uva, Sabaragamuwa and Eastern provinces. There is no clear signal for other areas during the month of October 2024. However, there is a possibility for developing low pressure systems, depressions or cyclones during the month. If so rainfall may increase over most parts.
November 2024	According to the available global model forecasts, there is no clear signal to issue a rainfall forecast for the month of November 2024. At such time there is a equal probability for having below or near or above normal rainfalls over the country during the month of November 2024. However, if La-Nina onset occurs in October or November 2024 (66% chance of La-Nina onset during SON 2024) there is a higher possibility of below average rainfall over most parts of Sri Lanka during November 2024. On the other hand, development of the synoptic scale systems such as low and depressions are also possible during the month. If so rainfall may increase.



Regional Rainfall Summary Report

Facebook: SLMetDept

Hotline: 011 2 686 686

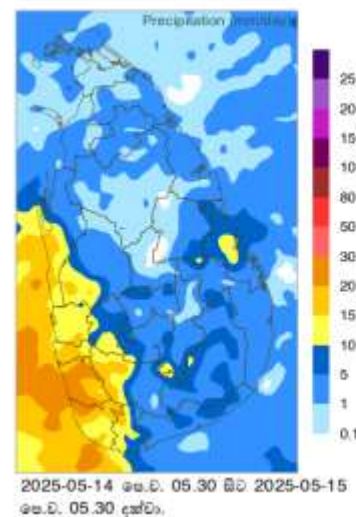
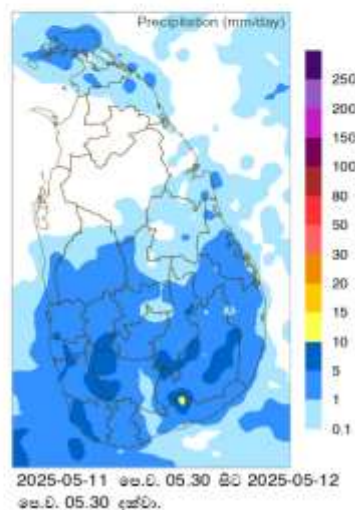
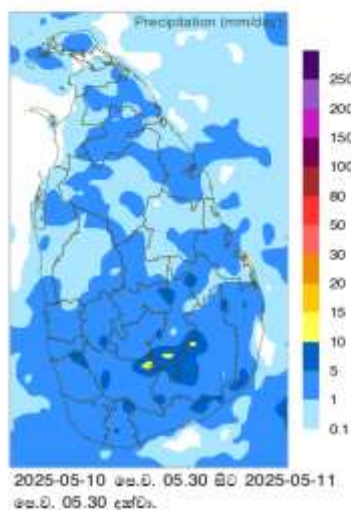
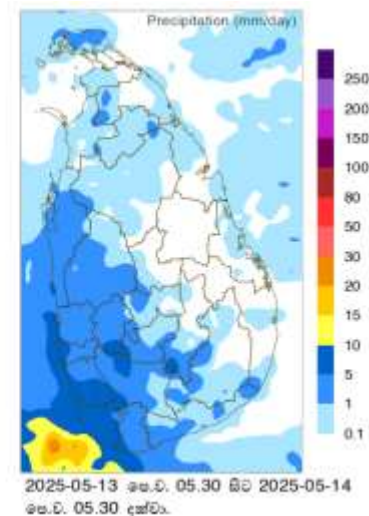
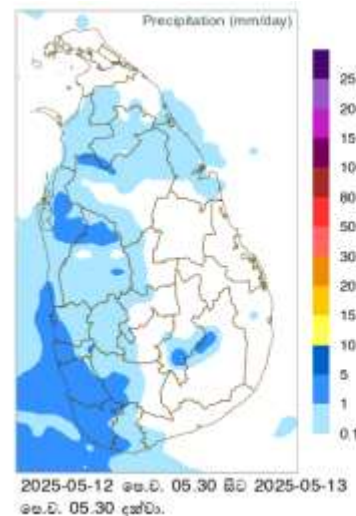
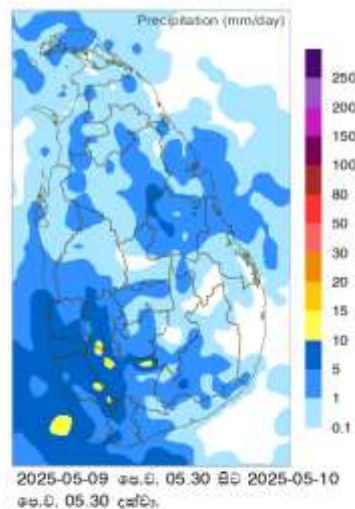
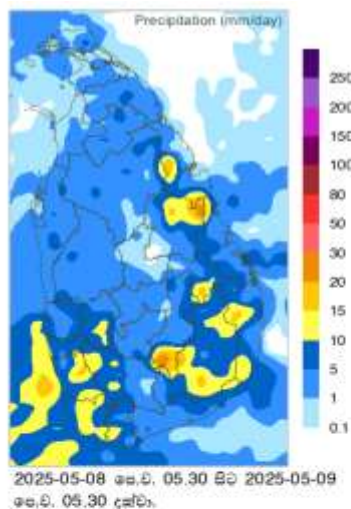
Attention is required for following areas

WWW.meteo.gov.lk

- Low pressure, depression and cyclones are possible to develop over and vicinity of Sri Lanka.
- General public are kindly requested to pay more attention for the instructions and advisories issued by authorized agencies particularly on agriculture, water sectors and weather related activities.



7 day forecast for rainfall



Stay Informed. Stay Prepared.

From the Seasonal Forecast Team

Thank you for your trust in climate services.