

# Climate Monitoring and Prediction for the Maldives – December 2024

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## PACIFIC SEAS STATE

December 19, 2024

As of mid-December 2024, ENSO-neutral conditions persist in the equatorial Pacific, and both oceanic and atmospheric indicators remain in an ENSO-neutral state. The IRI ENSO prediction plume forecasts slightly higher chances for ENSO-neutral conditions for Dec-Feb, 2025, with a continuation of ENSO-neutral conditions from Jan-Mar, 2025 to Jul-Sep 2025. For Aug-Oct 2025, no specific ENSO category emerges as favored. In summary, ENSO-neutral conditions are expected to persist through the boreal winter, spring and summer of the 2025. (Text Courtesy IRI)

## INDIAN OCEAN STATE

3 –9 December, 2024

0.5°C above average SST was observed around the northern and central islands, and near-neutral SST was observed around the southern islands of Maldives.

## Highlights

### Monitored:

In November, the central islands received up to 12 mm of rainfall; while remaining islands received less. Westerly winds prevailed for the central and southern Maldives during the month of November.

### Predictions:

La Niña conditions are most likely to emerge in November 2024-January 2025 (59% chance), with a transition to ENSO-neutral most likely by March-May 2025 (61% chance).

## Summary

### CLIMATOLOGY

#### Monthly Climatology:

In January, northern islands receive up to 50 mm of rain while central and southern islands receive up to 100 mm and 250 mm of rain respectively. Wind is north easterly. Usually in February, northern islands receive rainfall less than 50 mm while central islands receive up to 50 mm rain and southern islands receive up to 100 mm of rain. Wind is north easterly. In March, northern and central islands receive rainfall up to 50 mm while southern islands receive up to 100 mm of rain. Wind is north easterly.

### MONITORING

#### Fortnightly Rainfall Monitoring:

Date	Rainfall		
	Northern Islands	Central Islands	Southern Islands
17 <sup>th</sup> December	50 mm	100 mm	TR
18 <sup>th</sup> December	10 mm	10 mm	10 mm
19 <sup>th</sup> December	30 mm	5 mm	10 mm
20 <sup>th</sup> December	80 mm	80 mm	40 mm
21 <sup>st</sup> December	30 mm	50 mm	20 mm
22 <sup>nd</sup> December	TR	5 mm	TR
23 <sup>rd</sup> December	-	TR	30 mm
24 <sup>th</sup> December	-	TR	10 mm
25 <sup>th</sup> December	-	20 mm	20 mm
26 <sup>th</sup> December	-	TR	TR
27 <sup>th</sup> December	-	TR	20 mm
28 <sup>th</sup> December	TR	TR	TR
29 <sup>th</sup> December	5 mm	10 mm	-
30 <sup>th</sup> December	5 mm	10 mm	-
31 <sup>st</sup> December	20 mm	50 mm	-

TR - Trace Value

#### Monthly and Seasonal Rainfall Monitoring

**Monthly Average:** In November, the central islands received up to 12 mm of rainfall, northern and southern islands received up to 10 mm rainfall.

## Monthly Temperature Monitoring:

	Northern Islands	Central Islands	Southern Islands
<b>T Max</b>	32.7°C	33.0°C	32.0°C
<b>T Min</b>	23.9°C	24.5°C	23.4°C

## Dekadal Rainfall Estimates

11-20 December, Dekadal rainfall estimated as; Northern Islands: 160 mm rainfall  
Central Islands: 160 mm rainfall  
Southern Islands: 60 mm rainfall

21-31 December, Dekadal rainfall estimated as; Northern Islands: 60 mm rainfall  
Central Islands: 100 mm rainfall  
Southern Islands: 40 mm rainfall

## PREDICTIONS

### Daily Rainfall Forecast:

Date	Rainfall		
	Northern Islands	Central Islands	Southern Islands
<b>03<sup>rd</sup> January</b>	10 mm	130 mm	TR
<b>04<sup>th</sup> January</b>	40 mm	40 mm	10 mm
<b>05<sup>th</sup> January</b>	130 mm	20 mm	TR
<b>06<sup>th</sup> January</b>	70 mm	20 mm	20 mm
<b>07<sup>th</sup> January</b>	70 mm	20 mm	20 mm
<b>08<sup>th</sup> January</b>	20 mm	10 mm	TR

### Biweekly Rainfall Forecast:

NOAA/NCEP GFS model predicts higher probability of above-normal tercile by 50% for the northern islands, by 60% for the central islands and by 40% for the southern islands between 4<sup>th</sup> -17<sup>th</sup> January.

### Seasonal Rainfall and Temperature Forecast:

Above-normal tercile is 45% probable in the northern and central islands; and below-normal tercile is 50% probable in the southern islands from January-February-March 2025 and seasonal rainfall forecast is higher likelihood of above-normal range for the Maldives.

### MJO Index:

The MJO is predicted by NOAA CPC to be in phases 8 and 1 respectively in the next two weeks (1 – 15 January 2024). MJO in phase 8 usually suppress the rainfall and phase 1 slightly enhance the rainfall over the Maldives.

## Figures in Annexure

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- **Ocean Surface Monitoring**
- **Rainfall Predictions**
  - Weekly Predictions from NOAA/NCEP
  - Seasonal Predictions from IRI<sup>1</sup>

