

# Climate Monitoring and Prediction for the Maldives – December 2023

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## PACIFIC SEAS STATE December 19, 2023

As of mid-Dec 2023, El Niño conditions in the central-eastern equatorial Pacific remain strong with key oceanic and atmospheric variables consistent with an ongoing El Niño event. A CPC El Niño advisory remains in place for December 2023. Almost all the models in the IRI ENSO prediction plume forecast a continuation of the El Niño event during the rest of the boreal winter and spring of 2024, which rapidly weakens thereafter. ENSO-neutral conditions become the most likely category in Apr-Jun. of 2024, and remain so during the next two seasons of the forecast period. For Jul-Sep 2024, no single category stands out as dominant, with ENSO-neutral and La Niña being equally likely. By Aug-Oct 2024, La Niña becomes the most probable category, with a likelihood of 52%. (Text Courtesy IRI)

## INDIAN OCEAN STATE 5 – 11 Dec, 2023

0.5°C - 1°C above average SST was observed around the Maldives.

## Highlights

### Monitored:

In November, some of the northern and central islands received up to 20 mm of rainfall, while remaining islands received less. South-easterly winds prevailed during the month of November over the southern islands of MV.

### Predictions:

Seasonal climate predictions predict a wet tendency for the entire Maldives from January to March 2024.

## 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	TR	TR	TR
18 <sup>th</sup> December	TR	TR	10 mm
19 <sup>th</sup> December	5 mm	TR	5 mm
20 <sup>th</sup> December	10 mm	30 mm	5 mm
21 <sup>st</sup> December	40 mm	40 mm	10 mm
22 <sup>nd</sup> December	10 mm	80 mm	50 mm
23 <sup>rd</sup> December	TR	10 mm	5 mm
24 <sup>th</sup> December	-	10 mm	10 mm
25 <sup>th</sup> December	TR	10 mm	30 mm
26 <sup>th</sup> December	TR	10 mm	50 mm
27 <sup>th</sup> December	-	40 mm	100 mm
28 <sup>th</sup> December	10 mm	100 mm	10 mm
29 <sup>th</sup> December	30 mm	50 mm	50 mm
30 <sup>th</sup> December	50 mm	100 mm	30 mm
31 <sup>st</sup> December	125 mm	125 mm	50 mm

TR - Trace Value

**Monthly and Seasonal Rainfall Monitoring:** In November, some of the northern and central islands received up to 20 mm of rainfall, while southern islands received up to 10 mm.

## Monthly Temperature Monitoring:

	Northern Islands	Central Islands	Southern Islands
<b>T Max</b>	32.5°C	32.2°C	32.0°C
<b>T Min</b>	27.7°C	23.8°C	24.2°C

## Dekadal Rainfall Estimates

1-10 Dec, Dekadal rainfall estimated as; Northern Islands: 100 mm rainfall  
Central Islands: 200 mm rainfall  
Southern Islands: 50 mm rainfall

11-20 Dec, Dekadal rainfall estimated as; Northern Islands: 50 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>2<sup>nd</sup> January</b>	20 mm	20 mm	TR
<b>3<sup>rd</sup> January</b>	70 mm	40 mm	10 mm
<b>4<sup>th</sup> January</b>	40 mm	20 mm	10 mm
<b>5<sup>th</sup> January</b>	20 mm	40 mm	10 mm
<b>6<sup>th</sup> January</b>	TR	10 mm	-
<b>7<sup>th</sup> January</b>	TR	40 mm	20 mm
<b>8<sup>th</sup> January</b>	TR	TR	-

### Biweekly Rainfall Forecast:

NOAA/NCEP GFS model predicts higher probability of above-normal tercile by 40% for some of the northern islands; and below-normal tercile by 40% for the central and southern islands between 6<sup>th</sup> - 19<sup>th</sup> January.

### Seasonal Rainfall and Temperature Forecast:

Above-normal tercile is 50% probable in the central and southern islands; and 45% probable in the northern islands from January-February- March 2024 and seasonal rainfall forecast is higher likelihood of wetter range for the Maldives.

### MJO Index:

The MJO is predicted by NOAA CPC to be in phases 2 and 3 in the next two weeks (1 Jan – 15 Jan 2024). MJO in phases 2 & 3 is usually enhances the rainfall over the Maldives.

## Figures in Annexure

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

