

# Climate Monitoring and Prediction for the Maldives – September 2023

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**A strong El Niño developed in June 2023 with a strong positive Indian dipole since then. These conditions are highly likely to continue until March 2023.**

## PACIFIC SEAS STATE

September 20, 2023

As of mid-Sep 2023, El Niño conditions in the central-eastern equatorial Pacific have strengthened further. Key oceanic and atmospheric variables are consistent with a moderate El Niño event. A CPC El Niño advisory remains in place for September 2023. Almost all of the models in the IRI ENSO prediction plume forecast a continuation of the El Niño event during boreal autumn into winter and early spring of 2024, with a subsequent weakening thereafter, and ENSO-neutral becoming the most likely category in May-Jul 2024 (57% chance).  
(Text Courtesy IRI)

## INDIAN OCEAN STATE

29 Aug – 4 Sep, 2023

1<sup>o</sup>C above average SST was observed around northern islands and 0.5<sup>o</sup>C was observed around the central and southern islands.

## Highlights

### Monitored:

In August, southern islands received up to 10 mm of rainfall, while other islands received less. North westerly winds prevailed during the month.

### Predictions:

Seasonal climate predictions predict a wet tendency for the entire islands from October to December 2023.

## Summary

### CLIMATOLOGY

#### Monthly Climatology:

In October, the northern half of the country usually receives up to 200 mm rain while the southern half receives up to 250 mm rain. Wind is westerly. The entire country usually receives up to 200 mm rain in November with no change in the wind direction from October. Usually in December, northern islands receive up to 150 mm while central and southern islands receive up to 200 mm and 250 mm rain respectively. Southern islands get north easterly wind while southern islands get northerly wind.

### MONITORING

#### Fortnightly Rainfall Monitoring:

Date	Rainfall		
	Northern Islands	Central Islands	Southern Islands
9 <sup>th</sup> September	10 mm	-	-
10 <sup>th</sup> September	60 mm	TR	-
11 <sup>th</sup> September	30 mm	30 mm	-
12 <sup>th</sup> September	TR	TR	-
13 <sup>th</sup> September	10 mm	TR	-
14 <sup>th</sup> September	TR	10 mm	TR
15 <sup>th</sup> September	30 mm	TR	-
16 <sup>th</sup> September	60 mm	TR	-
17 <sup>th</sup> September	20 mm	100 mm	TR
18 <sup>th</sup> September	60 mm	130 mm	TR
19 <sup>th</sup> September	20 mm	10 mm	-
20 <sup>th</sup> September	10 mm	5 mm	TR
21 <sup>st</sup> September	40 mm	40 mm	10 mm
22 <sup>nd</sup> September	10 mm	30 mm	5 mm
23 <sup>rd</sup> September	40 mm	40 mm	TR

TR - Trace Value

**Monthly and Seasonal Rainfall Monitoring:** In August, southern islands received up to 10 mm of rainfall, while northern and central islands received up to 5 mm.

## Monthly Temperature Monitoring:

	Northern Islands	Central Islands	Southern Islands
<b>T Max</b>	33.1°C	33.0°C	32.0°C
<b>T Min</b>	30.0°C	24.0°C	23.0°C

## Dekadal Rainfall Estimates

1-10 Sep, Dekadal rainfall estimated as; Northern Islands: 160 mm rainfall  
Central Islands: 160 mm rainfall  
Southern Islands: 80 mm rainfall

11-20 Sep, Dekadal rainfall estimated as; Northern Islands: 100 mm rainfall  
Central Islands: 160 mm rainfall  
Southern Islands: 5 mm rainfall

## PREDICTIONS

### Daily Rainfall Forecast:

Date	Rainfall		
	Northern Islands	Central Islands	Southern Islands
<b>25<sup>th</sup> September</b>	70 mm	10 mm	TR
<b>26<sup>th</sup> September</b>	10 mm	40 mm	-
<b>27<sup>th</sup> September</b>	10 mm	40 mm	20 mm
<b>28<sup>th</sup> September</b>	40 mm	40 mm	TR
<b>29<sup>th</sup> September</b>	20 mm	40 mm	TR
<b>30<sup>th</sup> September</b>	20 mm	TR	TR
<b>1<sup>st</sup> October</b>	40 mm	TR	10 mm

### Biweekly Rainfall Forecast:

NOAA/NCEP GFS model predicts higher probability of above-normal tercile by 70% for the northern and central islands; and near-neutral for the southern islands between 30<sup>th</sup> Sep - 13<sup>th</sup> Oct.

### Seasonal Rainfall and Temperature Forecast:

Above-normal tercile is 70% probable in the northern and central islands; and 45% probable in the southern islands from October-November-December 2023 and seasonal rainfall forecast is higher likelihood of near-neutral range.

### MJO Index:

The MJO is predicted by NOAA CPC to be in phases 4,5,6,7 & 8 respectively in the next two weeks (26 Sep – 8 Oct 2023). MJO in phase 4 and 5 is usually suppress 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>

