

# Climate Monitoring and Prediction for the Maldives – July 2023

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## PACIFIC SEAS STATE

July 19, 2023

As of mid-July 2023, the previously weak El Niño conditions in the central-eastern equatorial Pacific have strengthened gradually to a weak-to-moderate El Niño. Key oceanic and atmospheric variables are consistent with the weak El Niño, although atmospheric variables, particularly SOI, are currently in the ENSO-neutral range. CPC issued an El Niño advisory in July 2023, signaling the presence of the warm phase of the ENSO. Almost all of the models in the IRI ENSO prediction plume forecast an El Niño event during boreal summer, continuing into boreal autumn and winter, while weakening during the boreal spring of 2024. (Text Courtesy IRI)

## INDIAN OCEAN STATE

27 Jun – 3 Jul, 2023

0.5°C above average SST was observed around the southern Islands & near-neutral around the northern and central islands.

## Highlights

### Monitored:

In June, the northern and central islands received up to 10 mm of rainfall, while other islands received less. Westerly to north-westerly winds observed during the month.

### Predictions:

El Niño conditions are present and will continue through the Northern Hemisphere winter. Seasonal climate predictions predict a wet tendency for the entire islands from August to October 2023.

## Summary

### CLIMATOLOGY

#### Monthly Climatology:

In July, the entire country usually receives up to 200 mm average rainfall and the wind direction in July is usually westerly but with low speeds wind speed. In August and September, the rainfall in southern and central islands increases to 250 mm while in northern islands it remains about 200 mm. The wind direction and speed do not change.

### MONITORING

#### Fortnightly Rainfall Monitoring:

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

TR - Trace Value

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

## Monthly Temperature Monitoring:

	Northern Islands	Central Islands	Southern Islands
<b>T Max</b>	32.2°C	33°C	32°C
<b>T Min</b>	28.5°C	24.2°C	22.4°C

## Dekadal Rainfall Estimates

1-10 July, Dekadal rainfall estimated as; Northern Islands: 150 mm rainfall  
Central Islands: 100 mm rainfall  
Southern Islands: 80 mm rainfall

11-20 July, Dekadal rainfall estimated as; Northern Islands: 40 mm rainfall  
Central Islands: 20 mm rainfall  
Southern Islands: 20 mm rainfall

## PREDICTIONS

### Daily Rainfall Forecast:

Date	Rainfall		
	Northern Islands	Central Islands	Southern Islands
26 <sup>th</sup> July	40 mm	10 mm	20 mm
27 <sup>th</sup> July	20 mm	10 mm	40 mm
28 <sup>th</sup> July	10 mm	TR	40 mm
29 <sup>th</sup> July	TR	-	20 mm
30 <sup>th</sup> July	20 mm	-	10 mm
31 <sup>st</sup> July	10 mm	10 mm	10 mm
1 <sup>st</sup> Aug	TR	20 mm	40 mm

### Biweekly Rainfall Forecast:

NOAA/NCEP GFS model predicts higher probability of below-normal tercile by 40% for the southern islands; and near neutral tercile for the rest between 29<sup>th</sup> Jul - 11<sup>th</sup> Aug.

### Seasonal Rainfall and Temperature Forecast:

Above-normal tercile is 45% probable in the northern and central islands and 40% probable in the southern islands from August-September-October 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 5 & 6 respectively in the next two weeks (24 Jul – 7 Aug 2023). MJO in phase 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**
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  - Weekly Predictions from NOAA/NCEP
  - Seasonal Predictions from IRI<sup>1</sup>

