

Climate Monitoring and Prediction for the Maldives – May 2023

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PACIFIC SEAS STATE

May 19, 2023

In mid-May 2023, the previous negative SST anomalies in the central-eastern equatorial Pacific have dissipated.

Currently, the basin is characterized by warmer SST anomalies in the eastern and central Pacific regions, while the values in the western Pacific are currently in the ENSO-neutral range.

Key oceanic and atmospheric variables are now consistent with developing El Niño conditions. CPC issued an El Niño watch in April 2023, signaling the start of the warm phase of the ENSO, which remains effective in May 2023. According to the IRI ENSO prediction plume, most of the models forecast an El Niño that persists throughout the entire forecast period. (Text Courtesy IRI)

INDIAN OCEAN STATE

May 8, 2023

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

Highlights

Monitored:

During April, the majority of the central islands and southern islands received up to 5 mm of rainfall, while other islands received less.

Predictions:

A transition from ENSO-neutral is expected in the next couple of months, with a greater than 90% chance of El Niño persisting into the Northern Hemisphere winter. Seasonal climate predictions predict a dry and warmer tendency from June to August 2023 for the Maldives.

Summary

CLIMATOLOGY

Monthly Climatology:

In June, average rainfall usually is about 250 mm in the northern islands and 150 mm in the southern islands. Wind direction in June is usually westerly but with low speeds. In July, the entire country receives up to 200 mm average rainfall and the wind speed and direction does not change. In August, 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 are similar to previous months.

MONITORING

Fortnightly Rainfall Monitoring:

Date	Rainfall		
	Northern Islands	Central Islands	Southern Islands
14 th May	40 mm	40 mm	10 mm
15 th May	50 mm	5 mm	TR
16 th May	10 mm	5 mm	TR
17 th May	TR	5 mm	TR
18 th May	-	5 mm	5 mm
19 th May	TR	TR	10 mm
20 th May	TR	TR	10 mm
21 st May	10 mm	5 mm	TR
22 nd May	20 mm	20 mm	10 mm
23 rd May	5 mm	TR	30 mm
24 th May	-	TR	10 mm
25 th May	TR	TR	TR
26 th May	TR	5 mm	10 mm
27 th May	40 mm	TR	TR
28 th May	20 mm	5 mm	TR

TR - Trace Value

Monthly and Seasonal Rainfall Monitoring: In April, the majority of the central islands and southern islands received up to 5 mm of rainfall, while other islands received less than 5 mm.

Monthly Temperature Monitoring:

	Northern Islands	Central Islands	Southern Islands
T Max	33.1°C	33°C	32.2°C
T Min	24.1°C	23.5°C	21.4°C

Dekadal Rainfall Estimates

1-10 May, Dekadal rainfall estimated as; Northern Islands: 100 mm rainfall
Central Islands: 150 mm rainfall
Southern Islands: 250 mm rainfall

11-20 May, Dekadal rainfall estimated as; Northern Islands: 100 mm rainfall
Central Islands: 150 mm rainfall
Southern Islands: 70 mm rainfall

PREDICTIONS

Daily Rainfall Forecast:

Date	Rainfall		
	Northern Islands	Central Islands	Southern Islands
30th May	40 mm	70 mm	70 mm
31st May	40 mm	130 mm	130 mm
1st June	40 mm	130 mm	70 mm
2nd June	40 mm	70 mm	40 mm
3rd June	40 mm	40 mm	20 mm
4th June	20 mm	70 mm	20 mm
5th June	20 mm	70 mm	10 mm

Biweekly Rainfall Forecast:

NOAA/NCEP GFS model predicts higher probability of above-normal tercile by 45-50% for the entire island between 3rd June - 16th June.

Seasonal Rainfall and Temperature Forecast:

Below-normal precipitation tercile is 40% probable in the northern islands; 45% probable in the central islands and 50% is probable in the southern islands from June-July-August 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 7,8,1,2 & 3 respectively in the next two weeks (29 May – 12 May 2023). MJO in phase 7 & 8 usually suppress the rainfall over the Maldives. And thereafter, slightly enhance the rainfall during mid-June 2023.

Figures in Annexure

Inside this Issue

- **Rainfall Monitoring**
 - Daily Satellite derived Rainfall Estimates
 - Monthly Rainfall derived from Satellite Rainfall Estimate
 - Monthly and Seasonal Monitoring
- **Ocean Surface Monitoring**
- **Rainfall Predictions**
 - Weekly Predictions from NOAA/NCEP
 - Seasonal Predictions from IRI¹

