

Climate Monitoring and Prediction for the Maldives – October 2023

Prepared by Staff at Foundation for Environment, Climate and Technology, Maldives and Sri Lanka and Columbia University

Nipuni Alahakoon, Dilrukshi Kulasooriya, Mohammed Luthfi, Lareef Zubair, A. Afaaf and Michael Bell

October 30, 2023

PACIFIC SEAS STATE

October 19, 2023

As of mid-Oct 2023, El Niño conditions in the central-eastern equatorial Pacific have plateaued at the level of a moderate El Niño event (NINO3.4 = 1.5). Key oceanic and atmospheric variables are consistent with a moderate El Niño event. A CPC El Niño advisory remains in place for October 2023. Almost all of the models in the IRI ENSO prediction plume forecast a continuation of the El Niño event during rest of boreal autumn, winter and early spring of 2024, with a subsequent weakening thereafter, and ENSO-neutral becoming the most likely category in May-Jul, and Jun-Aug 2024.

(Text Courtesy IRI)

INDIAN OCEAN STATE

3 – 9 Oct, 2023

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

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.

Highlights

Monitored:

In September, northern islands and some of the central islands received up to 10 mm of rainfall. North westerly winds prevailed during the month.

Predictions:

Seasonal climate predictions predict a wet tendency for the entire islands from November to January 2024.

Summary

CLIMATOLOGY

Monthly Climatology:

In November, the whole country usually receives up to 200 mm rain. The wind is westerly. 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. Northern islands get north-easterly wind while southern islands get northerly wind. In January northern islands receive up to 50 mm rain while central and southern islands receive up to 100 mm and 250 mm rain respectively. The wind is northeasterly.

MONITORING

Fortnightly Rainfall Monitoring:

Date	Rainfall		
	Northern Islands	Central Islands	Southern Islands
14 th October	60 mm	TR	-
15 th October	TR	TR	TR
16 th October	TR	TR	TR
17 th October	5 mm	-	TR
18 th October	10 mm	20 mm	5 mm
19 th October	30 mm	20 mm	TR
20 th October	10 mm	20 mm	TR
21 st October	10 mm	40 mm	TR
22 nd October	20 mm	60 mm	-
23 rd October	10 mm	10 mm	-
24 th October	10 mm	20 mm	-
25 th October	5 mm	10 mm	TR
26 th October	TR	20 mm	30 mm
27 th October	TR	30 mm	20 mm
28 th October	TR	20 mm	10 mm

TR - Trace Value

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

Monthly Temperature Monitoring:

	Northern Islands	Central Islands	Southern Islands
T Max	34.3°C	33.0°C	32.0°C
T Min	23.9°C	25.0°C	25.6°C

Dekadal Rainfall Estimates

1-10 Oct, Dekadal rainfall estimated as; Northern Islands: 250 mm rainfall
Central Islands: 200 mm rainfall
Southern Islands: 20 mm rainfall

11-20 Oct, Dekadal rainfall estimated as; Northern Islands: 160 mm rainfall
Central Islands: 80 mm rainfall
Southern Islands: 5 mm rainfall

PREDICTIONS

Daily Rainfall Forecast:

Date	Rainfall		
	Northern Islands	Central Islands	Southern Islands
31st October	40 mm	40 mm	TR
1st November	40 mm	40 mm	10 mm
2nd November	10 mm	20 mm	10 mm
3rd November	TR	20 mm	40 mm
4th November	20 mm	70 mm	20 mm
5th November	20 mm	70 mm	TR
6th November	20 mm	70 mm	20 mm

Biweekly Rainfall Forecast:

NOAA/NCEP GFS model predicts higher probability of above-normal tercile by 50% for the northern and central islands; and above-normal tercile by 45 - 50% for the southern islands between 4th - 17th Nov.

Seasonal Rainfall and Temperature Forecast:

Above-normal tercile is 70% probable in the northern and central islands; and 50% probable in the southern islands from November-December-January 2024 and seasonal rainfall forecast is higher likelihood of near-neutral range.

MJO Index:

The MJO is predicted by NOAA CPC to be in phase 1 in the next two weeks (30 Oct – 13 Nov 2023). MJO in phase 1 is usually suppress the rainfall over the Maldives.

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

