Climate Monitoring and Prediction for the Maldives – December 2022

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PACIFIC SEAS STATE

December 19, 2022

In mid-December, SST in the central-eastern equatorial Pacific remain below-average. Key oceanic and atmospheric variables have remained consistent with La Niña conditions, though there are indications that this is weakening. A CPC La Niña Advisory still remains in place for December 2022. Several models in the plume predict SSTs to transition from the level of a La Niña to ENSO-neutral state during Jan-Mar, 2023. The official CPC/IRI outlook forecasts, La Niña and ENSO-neutral conditions are equally likely during Jan-Mar 2023, with ENSO-neutral becoming the most likely category in subsequent three seasons. Based on objective ENSO forecasts, La Niña is expected to transition into ENSO-neutral during Jan-Mar 2023, which remains the most likely category until Apr-Jun 2023. **(Text Courtesy IRI)**

INDIAN OCEAN STATE

December 21, 2022

0.5 ^{0}C above average SST was observed around southern Maldives.

Highlights

Monitored:

During November, the central islands received up to 15 mm above average rainfall while remaining islands received less. The average rainfall exceeded climatology in the central and southern islands by 26%; and was normal in the northern islands.

Predictions:

A transition from the level of a La Niña to ENSO-neutral state is expected in the months ahead. Seasonal climate predictions predict a climatological average from January to March 2023 for the Maldives.

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 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 100 mm of rain. Wind is north easterly.

MONITORING

Fortnightly Rainfall Monitoring:

Date	Rainfall		
	Northern Islands	Central Islands	Southern Islands
11th Dec	20 mm	40 mm	TR
12th Dec	10 mm	20 mm	5 mm
13th Dec	TR	TR	10 mm
14th Dec	30 mm	20 mm	20 mm
15th Dec	20 mm	20 mm	TR
16th Dec	5 mm	5 mm	-
17th Dec	TR	TR	TR
18th Dec	TR	10 mm	TR
19th Dec	20 mm	10 mm	-
20th Dec	5 mm	30 mm	-
21st Dec	10 mm	30 mm	TR
22nd Dec	5 mm	30 mm	TR
23rd Dec	TR	60 mm	TR
24th Dec	-	30 mm	TR
25th Dec	TR	5 mm	TR

Monthly and Seasonal Rainfall Monitoring: *In November, the central islands received up to 15 mm; while remaining islands received less. The cumulative rainfall during the last 365 days,*
shows for: Northern islands: Equal to the average of 1600 mm
Central islands: Excess of 325 mm from an average of 1250 mm average
Southern islands: Excess of 325 mm from an average of 1250 mm average

Dekadal Rainfall Estimates:

1-10 Dec, Dekadal rainfall estimated as; Northern Islands: 70 mm rainfall
Central Islands: *100 mm rainfall*
Southern Islands: *70 mm rainfall*

11-20 Dec, Dekadal rainfall estimated as; Northern Islands: 60 mm rainfall
Central Islands: 80 mm rainfall
Southern Islands: 30 mm rainfall

PREDICTIONS

Daily Rainfall Forecast:

Date	Rainfall		
	Northern Islands	Central Islands	Southern Islands
29th Dec	20 mm	10 mm	10 mm
30th Dec	20 mm	10 mm	10 mm
31st Dec	10 mm	20 mm	-
1st Jan	10 mm	20 mm	-
2nd Jan	-	10 mm	10 mm
3rd Jan	10 mm	20 mm	10 mm
4th Jan	-	20 mm	20 mm

Biweekly Rainfall Forecast:

NOAA/NCEF GFS model predicts higher probability of below-normal tercile by 50% in the northern islands and by 40% in the central islands between 31th Dec- 13th Jan.

Seasonal Rainfall and Temperature Forecast:

Below-normal precipitation tercile is 50% probable in the southern islands; and 40% probable in the central islands from Jan-Feb-Mar 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 6 & 7 and shall strengthen in the next two weeks (30 Dec – 11 Jan 2023). MJO in phases 6 & 7 usually suppress the rainfall over the Maldives.

Figures in Annexure

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