

## Climate Monitoring and Prediction for the Maldives – April 2019

Prepared by Staff from Foundation for Environment, Climate and Technology, Sri Lanka and USA, Maldives Meteorological Service, and Columbia University

(Ruchira Lokuhetti, Lareef Zubair, Chayana Gunatillake, Zahid and Michael Bell )

May 27, 2019

### PACIFIC SEAS STATE

**April 19, 2018**

SSTs in the tropical Pacific maintained a weak El Niño level during March and early April, while temperature anomalies of subsurface waters decreased somewhat but continued to be positive.

Patterns in the atmosphere show weak El Niño conditions. Collective model forecasts show a continuation of at least weak El Niño-level SSTs lasting through 2019.

(Text Courtesy IRI)

### INDIAN OCEAN STATE

**May 15, 2019**

1°C above average SST was observed around Maldives.

### MJO INDEX

The MJO was significant in Phase 2 from Apr 21-23; in Phase 3 from Apr 24-27; and in Phase 4 from Apr 28-30. Usually rainfall in Maldives is augmented in Phase 2.



[www.fb.com/fectmv](http://www.fb.com/fectmv)



[@fectmv](https://twitter.com/fectmv)

### Highlights

**Monitored:** During April, northern parts of the country received rainfall above than is normal for the season by more than 100 mm; and central and southern islands received normal rainfall. The northern islands received up to 300 mm of total rainfall; and central and southern islands up to 210 mm. The sea surface temperature around Maldives was 1 °C above normal. This is extremely warm.

**Predictions:** IMD GFS model predicts up to 40 mm of rainfall in the central islands and up to 20 mm in the southern and northern islands on May 27<sup>th</sup>. On the 28<sup>th</sup>, rainfall up to 70 mm is expected in central islands and up to 40 mm in the southern and northern islands. On the 29<sup>th</sup>, rainfall up to 40 mm of is expected in the southern islands and up to 20 mm in the central and northern islands. Long Range Weather prediction models simulations anticipate total rainfall up to 75 mm for the central parts of the country next week.

### Summary

#### CLIMATOLOGY

**Monthly Climatology:** In April, central and southern islands received rainfall up to 180 mm above the monthly average; and the northern islands up to 90 mm below the average. The northern islands received up to 150 mm of total rainfall; central and southern islands up to 450 mm.

#### MONITORING

##### Weekly Rainfall Monitoring:

Date	Rainfall
19 <sup>th</sup> April	Up to 20 mm in northern and central islands.
20 <sup>th</sup> April	Up to 50 mm in northern and central islands and up to 20 mm in southern islands.
21 <sup>st</sup> April	Up to 50 mm in southern islands.
22 <sup>nd</sup> – 28 <sup>th</sup> April	No Rainfall.
29 <sup>th</sup> April	Up to 10 mm in northern islands.
30 <sup>th</sup> April	Up to 50 mm in northern islands.
1 <sup>st</sup> May	Up to 20 mm in northern islands.
2 <sup>nd</sup> May	Up to 30 mm in northern islands.
3 <sup>rd</sup> May	Up to 20 mm in northern and central islands.

**Monthly and Seasonal Rainfall Monitoring:** In April, southern and central islands received normal rainfall for the season; and northern islands received up to 100 mm rainfall above than normal. The northern islands received up to 300 mm of total rainfall; central and southern islands up to 210 mm.

#### PREDICTIONS

**Weekly Rainfall Forecast:** According to IMD GFS rainfall up to 40 mm of is expected in the central islands and up to 20 mm in the southern and northern islands on May 27<sup>th</sup>. On the 28<sup>th</sup>, rainfall up to 70 mm is expected in central islands and up to 40 mm in the southern and northern islands. On the 29<sup>th</sup>, rainfall up to 40 mm of is expected in the southern islands and up to 20 mm in the central and northern islands. On the 30<sup>th</sup>, rainfall up to 40 mm is expected in the central islands and up to 10 mm in the southern islands. On June 1<sup>st</sup> rainfall up to 20 mm is expected in the central and northern islands and up to 10 mm in the southern islands. On the 2<sup>nd</sup> rainfall up to 40 mm is expected in the northern islands and up to 10 mm in the central islands. On the 3<sup>rd</sup> rainfall up to 40 mm is expected in the northern islands and up to 10 mm in the central and southern islands.

#### Inside this Issue

1. Rainfall Monitoring
  - a. Daily Satellite derived Rainfall Estimates
  - b. Monthly Rainfall derived from Satellite Rainfall Estimate
  - c. Monthly and Seasonal Monitoring
2. Ocean Surface Monitoring
3. Rainfall Predictions
  - a. Weekly Predictions from NOAA/NCEP
  - b. Seasonal Predictions from IRI<sup>1</sup>