

## Experimental Climate Monitoring and Prediction

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8 August 2018

### Highlights

- The NCEP weekly rainfall forecast predicts total rainfall up to 45 mm in Kegalla, Ratnapura and Galle districts during 7<sup>th</sup> - 13<sup>th</sup> August.
- Between 30 Jul – 5 Aug: up to 50 mm of rainfall was recorded in Ratnapura district on the 30<sup>th</sup>.
- From 29 Jul – 4 Aug: minimum temperature of 15 °C was recorded from Nuwara Eliya district while eastern coastal regions of the island recorded a maximum temperature between 35-40 °C.
- From 30 Jul – 5 Aug: up to 48 km/h, northwesterly winds were experienced by the entire island.
- 0.5 °C below average sea surface temperature was observed in the western seas of Sri Lanka.

### Monitoring

#### Rainfall

**Weekly Monitoring:** On July 30<sup>th</sup>, Ratnapura district received up to 50 mm of rainfall; Kegalla, Kalutara and Galle districts up to 30 mm; Colombo, Kandy, Nuwara Eliya, Badulla, Monaragala and Matara districts up to 20 mm; and Puttalam, Gampaha, Kurunegala and Hambantotoa districts up to 10 mm. On the 31<sup>st</sup>, Nuwara Eliya and Kurunegala districts received up to 20 mm; and Gampaha, Colombo, Kegalla, Ratnapura and Ampara districts received up to 10 mm. On August 1<sup>st</sup>, Kalutara, Galle and Ratnapura districts received up to 10 mm of rainfall; and Kandy, Nuwara Eliya, Badulla, Monaragala and Ampara districts up to 5 mm. On the 2<sup>nd</sup>, Kalutara and Ratnapura districts received up to 5 mm of rainfall. On the 3<sup>rd</sup>, Monaragala and Ampara districts received up to 10 mm. No significant rainfalls were recorded in any part of the island on the 4<sup>th</sup>. On the 5<sup>th</sup>, Gampaha, Kegalla, Nuwara Eliya, Kalutara and Ratnapura districts received up to 5 mm of rainfall.

**Total Rainfall for the Past Week:** The RFE 2.0 tool shows total rainfall 25-50 mm of total rainfall in Ratnapura district; and up to 10-25 mm in Colombo, Kalutara, Kegalla, Nuwara Eliya, Monaragala and Ampara districts. Below average rainfall up to 10-25 mm is shown Kandy, Gampaha, Colombo, Kalutara, Galle, Matara, Hambantota and Ratnapura districts.

**Monthly Monitoring:** During July - above average rainfall conditions up to 60 mm were experienced by Nuwara Eliya, Monaragala and northern regions of Ampara districts; and rest of the island experienced up to 60 mm of below average rainfall. The CPC Unified Precipitation Analysis tool shows up to 150 mm of total rainfall in Kegalla, Ratnapura, Colombo, Nuwara Eliya and Kalutara districts; and up to 100 mm in Badulla, Monaragala, and Gampaha districts.

#### Ocean State (Text Courtesy IRI)

##### **Pacific sea state: July 18, 2018**

In mid-July 2018, the east-central tropical Pacific waters reflected ENSO-neutral conditions, with slightly above average SST. The key atmospheric variables also suggested neutral conditions. The subsurface water temperature continued to be above-average. The official CPC/IRI outlook calls for neutral conditions through northern summer season, with a 65% chance of El Niño development during fall, rising to 70% for winter 2018-19. An El Niño watch is in effect. The latest forecasts of statistical and dynamical models collectively favor weak El Niño development by late summer or early fall, growing to weak or moderate strength during late fall and winter; forecasters are largely buying into this scenario now that the spring barrier is largely passed.

##### **Indian Ocean State**

0.5 °C below average sea surface temperature was observed in the western seas of Sri Lanka.

## Predictions

### Rainfall

#### 14-day prediction:

##### NOAA NCEP models:

From 7<sup>th</sup> –13<sup>th</sup> Aug: Total rainfall between 35-45 mm in Kegalla, Ratnapura and Galle districts; between 25-35 mm in Gampaha, Kegalla, Kandy, Nuwara Eliya and Matara districts; between 15-25 mm in Puttalam, Kurunegala, Matale, Badulla and Monaragala districts.

From 14<sup>th</sup> – 20<sup>th</sup> Aug: Total rainfall between 15-25 mm in Gampaha, Kegalla, Matale, Kandy, Nuwara Eliya, Ratnapura and Galle districts.

#### IMD NCMWRF Forecast:

9<sup>th</sup> Aug: Up to 40 mm of rainfall in Nuwara Eliya district; and up to 20 mm in Kandy, Badulla, Monaragala, Ampara, Colombo, Kalutara and Galle districts.

10<sup>th</sup> Aug: Up to 80 mm in Galle and Matara districts; and up to 10 mm in Gampaha, Kegalla, and Kalutara districts.

#### IRI Model Forecast:

From 5<sup>th</sup> – 10<sup>th</sup> Aug: Total rainfall up to 50 mm expected in Gampaha, Colombo, Kalutara and Galle districts.

### MJO based OLR predictions

#### For the next 15 days:

MJO shall suppress the rainfall in Sri Lanka.

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Official hydro-meteorological statements are provided by the Sri Lanka Department of Meteorology and Department of Irrigation.

### FECT BLOG

Past reports available at <http://fectsl.blogspot.com/> and <http://fectsl.wordpress.com/>

### FECT WEBSITES

<http://www.climate.lk> and <http://www.tropicalclimate.org/>



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