

Experimental Climate Monitoring and Prediction

by: Ruchira Lokuhetti, Chalani Malge, Janan Visvanathan,
Lareef Zubair and Michael Bell¹ (FECT and IRI¹)

16 August 2018

Highlights

The IRI rainfall forecast predicts total rainfall up to 100 mm in Colombo and Kalutara districts during 15th - 20th August.

Between 8 - 14 Aug: up to 50 mm of rainfall was recorded in Ratnapura, Kegalla and Colombo districts on the 8th.

From 5 - 11 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.

Monitoring

Rainfall

Weekly Monitoring: On August 8th, Ratnapura, Kegalla and Colombo districts received up to 50 mm of rainfall; Gampaha, Kalutara and Nuwara Eliya districts up to 40 mm; Kandy and Galle districts up to 30 mm; and Badulla, Monaragala and Ampara districts up to 20 mm. On the 9th, Kurunegala district received up to 30 mm; and Kegalla, Ratnapura and Nuwara Eliya districts received up to 20 mm. On the 10th, Nuwara Eliya and Badulla districts received up to 10 mm of rainfall. On the 11th, Galle, Matara and Ratnapura districts received up to 20 mm of rainfall; and Kalutara district up to 10 mm. On the 12th, Matale, Kandy, Nuwara Eliya, Kegalla and Badulla districts received up to 10 mm. On the 13th, Nuwara Eliya district received up to 30 mm of rainfall; Kurunegala, Matale, Kandy, Badulla, Kegalla, Kalutara, Ratnapura and Monaragala districts up to 20 mm; and Puttalam, Anuradhapura and Hambantota districts up to 10 mm. On the 14th, Jaffna and Kilinochchi districts received up to 30 mm; and Kandy, Matale and Badulla districts up to 10 mm.

Total Rainfall for the Past Week: The RFE 2.0 tool shows total rainfall 50-75 mm of total rainfall in Kegalla, Ratnapura, Nuwara Eliya and Kandy districts; and up to 25-50 mm in Kurunegala, Matale, Gampaha, Colombo, Kalutara, Galle, Matara and Badulla districts. Above average rainfall up to 25-50 mm is shown for Kegalla, Ratnapura and Nuwara Eliya districts; and up to 10-25 mm in Kurunegala, matale, Kandy, Colombo and Matara districts. Below average rainfall up to 25-50 mm is shown Anuradhapura and Ampara districts; and up to 10-25 mm in Trincomalee, Badulla and Monaragala 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: August 9, 2018

In early August 2018, the east-central tropical Pacific waters reflected ENSO-neutral conditions, with near-average SST, slightly lower than a month ago. The key atmospheric variables also suggested neutral conditions. However, the subsurface water temperature continued to be above-average. The official CPC/IRI outlook calls for neutral conditions through the rest of northern summer season, with a 60% 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 early fall, growing to weak or moderate strength during late fall and winter; forecasters are buying into this scenario now that the spring barrier is passed.

Indian Ocean State

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

Predictions

Rainfall

14-day prediction:

NOAA NCEP models:

From 15th – 21st Aug: Total rainfall between 45-55 mm in Kegalla, Ratnapura, Galle and Matara districts; between 35-45 mm in Gampaha, Nuwara Eliya and Badulla districts; between 15-25 mm in Puttalam, Kurunegala and Kandy districts.

From 22nd – 28th Aug: Total rainfall between 15-25 mm in Kandy and Nuwara Eliya districts.

IMD NCMWRF Forecast:

17th Aug: Up to 80 mm of rainfall in Anuradhapura, Gampaha, Kegalla and Kandy districts; up to 40 mm in Puttalam, Kurunegala, Batticaloa and Polonnaruwa districts; and up to 20 mm Trincomalee, Matale, Nuwara Eliya, Ratnapura and Kalutara districts.

18th Aug: Up to 20 mm in Gampaha and Nuwara Eliya districts.

IRI Model Forecast:

From 15th – 20th Aug: Total rainfall up to 100 mm expected in Colombo and Kalutara districts; Gampaha, Ratnapura and Galle districts up to 75 mm; and Puttalam, Kurunegala, Kegalla and Matara districts up to 50 mm.

MJO based OLR predictions

For the next 15 days:

MJO shall suppress the rainfall in Sri Lanka in the next 10 days and shall not have an impact on the following 5 days.

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/>

www.fb.com/fectsl

@climate.lk