

## Probabilistic Rainfall Forecast for August 2019

The probabilistic rainfall forecast for August 2019 for Sri Lanka as given below.

Figure 1 represents the consensus forecast for month of August 2019. Below normal rainfall is likely over the districts along western coast. Such as Puttalam, Gampaha, Colombo, Kaluthara, Galle districts and as well as Kurunegala district. Above normal rainfall is likely over Nuwaraeliya, Badulla, Monaragala, Ampara and Hambantota districts during August 2019.

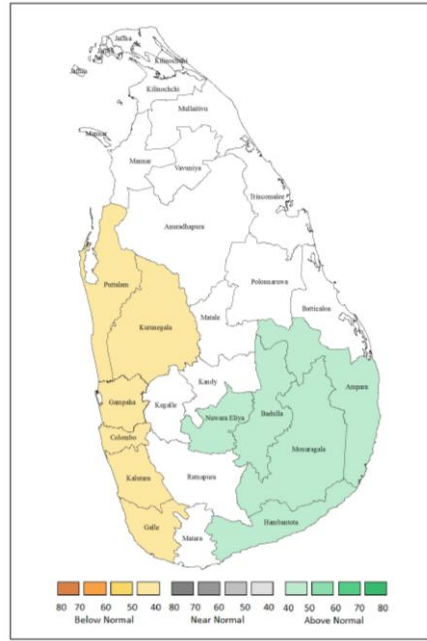


Fig 1.Consensus Probabilistic rainfall forecast for August 2019

Figure 2 represents the weekly rainfall anomaly forecast for August 2019 from Japanese Meteorological Administration (JMA) model. Below normal rainfall can be expected during the first week and above normal rainfall can be expected during second week over the island (Fig 2). During third and fourth weeks also it can be expected below normal rainfall over the Island. According to the monthly rainfall anomaly forecast for August 2019 from Japanese Meteorological Administration (JMA) model (Fig. 3), slightly below normal rainfall can be expected in all over the country.

Fig.4 represents the weekly precipitation anomaly forecast of ECMWF EPS monthly precipitation forecasting system. According to the figure during the first week of August it is expected below normal rainfall over the southwestern parts of island. During the second and third weeks above normal rainfall is likely along the south western coastal regions. During the fourth week no signal can be seen over the region.

Figure 5 represents the multi-model ensemble probabilistic rainfall forecast for August 2019 from Forecast Customization System (FOCUS) for Sri Lanka, developed by Regional Integrated Multi-Hazard Early Warning System(RIMES). According to the FOCUS, there is a higher probability of receiving above normal rainfall in wet zone and dry zone for the month of August 2019. There is no signal for intermediate zone, accordingly equal chances of receiving below normal, near normal or above normal rainfall in intermediate zone for the month of August 2019.

The district wise average rainfall is given in the column 2 of the table 1. Chance (probability) of receiving below/about/above average is given in the columns 3, 4, and 5 respectively in the table 1.

The probabilistic rainfall forecast for August 2019 for Sri Lanka as given below.

Table 1

District	Average rainfall (mm) –(August)	Probability %		
		Below	Normal	Above
Colombo	162.5	60	20	20
Kalutara	247.8	60	20	20
Galle	239.8	55	25	20
Matara	191.6	35	30	35
Hambantota	49.2	25	25	50
Ampara	57.3	25	25	50
Batticaloa	60.5	35	25	40
Trincomalee	80.7	40	25	35
Mullaithivu	48.0	40	25	35
Jaffna	33.3	30	30	40
Killinochchi	25.9	30	30	40
Mannar	19.2	30	30	40
Puttalam	23.1	45	25	30
Gampaha	129.1	55	25	20
Kegalle	262.9	55	25	20
Ratnapura	196.4	35	25	40
Monaragala	49.9	25	25	50
Badulla	76.3	20	25	55
Pollonnaruwa	54.0	35	30	35
Vavuniya	56.5	40	25	35
Anuradapura	40.5	30	30	40
Kurunegala	58.1	45	30	25
Matale	59.2	35	25	40
Kandy	154.0	40	25	35
Nuwaraeliya	234.5	25	25	50

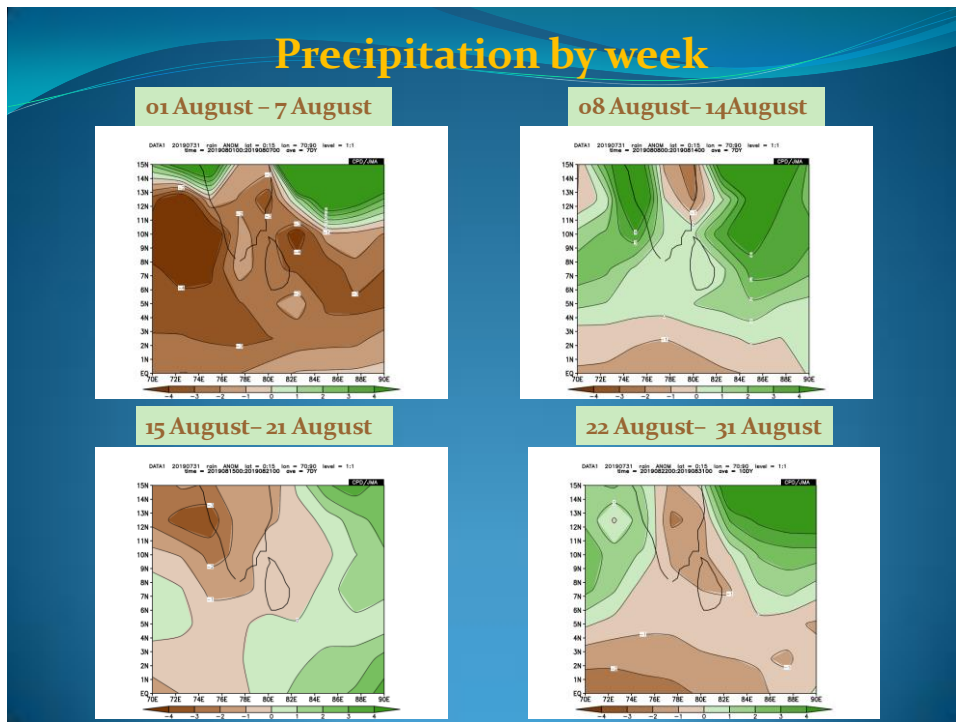


Fig 2. Weekly Rainfall anomaly forecast for August 2019 (04 August – 10 August, Upper left), (11 August – 17 August, Upper right), (18 August – 21 August Lower left) and (22 August–28 August, Lower right) from JMA model.

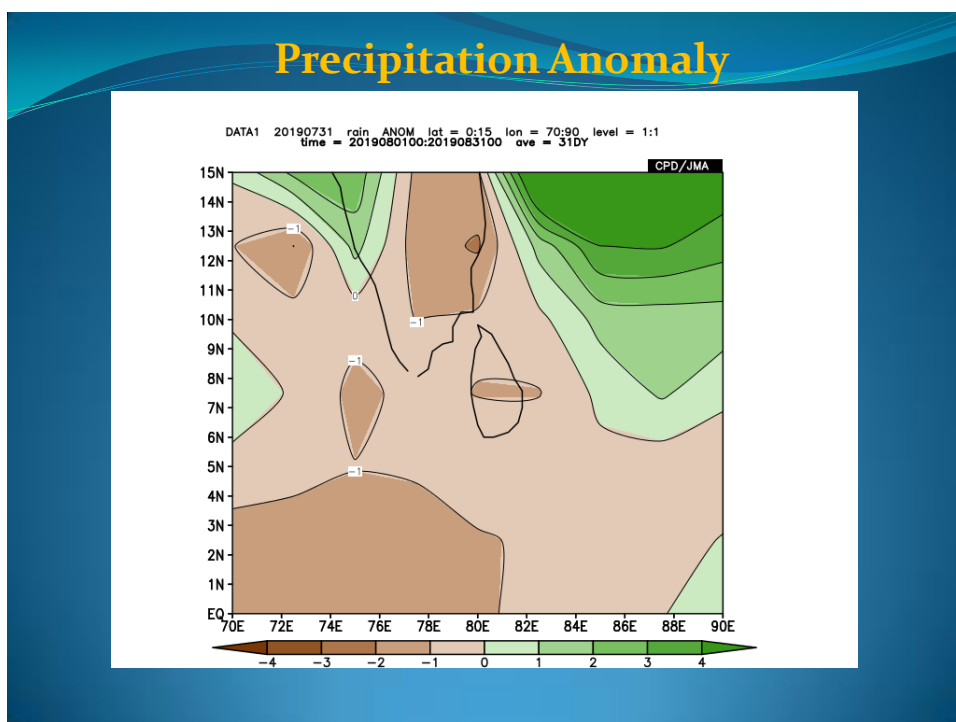


Fig 3. Rainfall anomaly forecast for August 2019 (mm/day) from JMA model

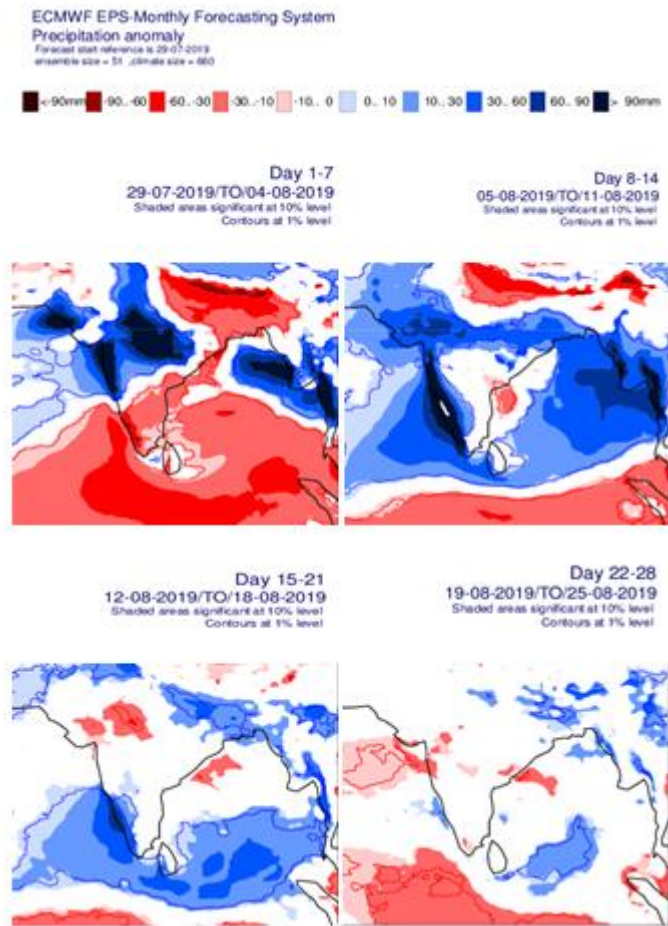


Fig 4.ECMWF EPS monthly precipitation forecast for August 2019

Figure 6 represents the probabilistic rainfall forecast from Climate Predictability tool (CPT) for August 2019. According to the CPT below normal rainfall can be expected in Kurunegala, Puttalam, Gampaha, Colombo, Kalutara, Galle and Kegalle districts. There is a higher probability of receiving above normal rainfall in Nuwara eliya, Badulla, Monaragala, Hambantota and Ampara districts. There is no signal for all other districts for the month of August 2019. It indicates that below normal, about normal or above normal rainfall can be expected in those districts during the August 2019.

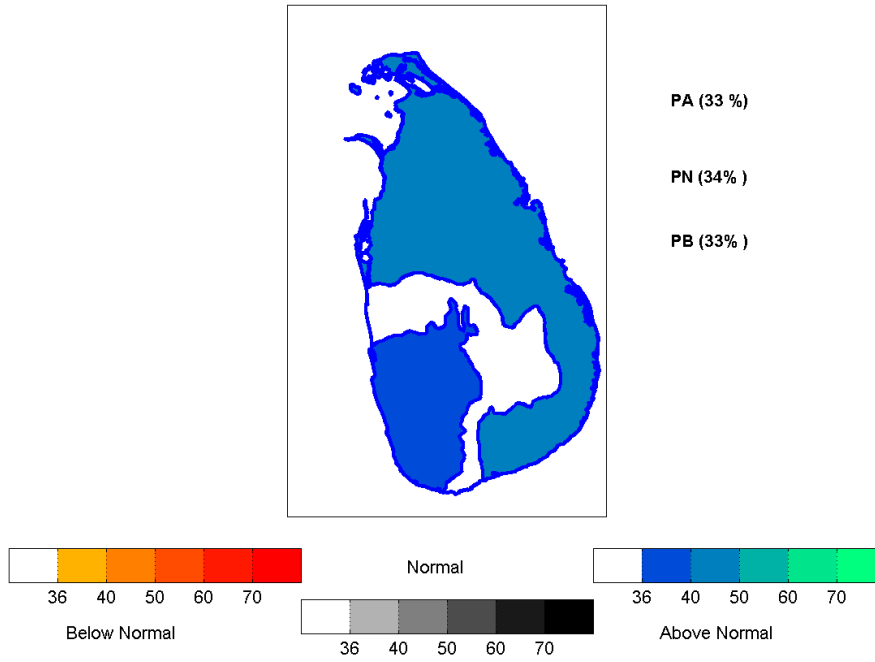


Fig 5. Multi-model ensemble probabilistic forecast for August2019 from RIMES Forecast Customization System (FOCUS).

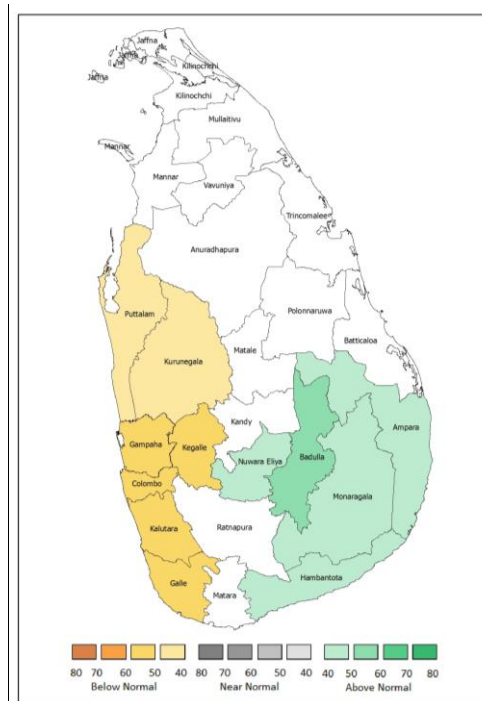


Fig 6. Probabilistic rainfall forecast using Climate predictability tool for August 2019