

Probabilistic Rainfall Forecast for December 2018

The probabilistic rainfall forecast for December 2018 for Sri Lanka as given below.

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.

Figure 1 represents the consensus forecast for month of December 2018. Above normal rainfall can be expected in most of districts in Sri Lanka except northern part.

Figure 2 represents the weekly rainfall anomaly forecast for December 2018 from Japanese Meteorological Administration (JMA) model. Above normal rainfall can be expected over the island except northern parts during the first week. During the second week of December 2018 below normal rainfall can be expected (Fig 2). Above normal rainfall can be expected over the most parts of the Island during last two weeks. According to the monthly rainfall anomaly forecast for December 2018 from Japanese Meteorological Administration (JMA) model (Fig. 3), slightly above normal rainfall can be expected except northern parts of the island for December 2018.

Figure 4 represents the multi-model ensemble probabilistic rainfall forecast for December 2018 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 intermediate zone. There is no signal for wet zone and dry zone in Sri Lanka for December 2018.

The probabilistic rainfall forecast for December 2018 for Sri Lanka as given below.

District	Average rainfall (mm) –(December)	Probability %		
		Below	Normal	Above
Colombo	191.7	20	30	50
Kalutara	258.0	30	30	40
Galle	239.6	30	30	40
Matara	219.9	25	25	50
Hambantota	159.2	20	30	50
Ampara	350.5	30	30	40
Batticaloa	388.0	30	30	40
Trincomalee	335.6	25	30	45
Mullaithivu	291.0	20	30	50
Jaffna	257.4	30	30	40
Killinochchi	274.0	25	30	45
Mannar	206.4	25	25	50
Puttalam	126.2	25	30	45
Gampaha	141.1	20	30	50
Kegalle	188.5	20	30	50
Ratnapura	231.5	20	30	50
Monaragala	253.5	30	30	40
Badulla	356.1	35	30	35
Pollonnaruwa	369.5	30	30	40
Vavuniya	256.7	20	30	50
Anuradapura	232.8	20	30	50
Kurunegala	150.2	20	30	50
Matale	357.7	35	30	35
Kandy	308.8	30	30	40
Nuwaraeliya	250.1	30	30	40

Table 1

Figure 5 represents the probabilistic rainfall forecast from Climate Predictability tool (CPT) for December 2018. According to the CPT slightly above normal rainfall can be expected in Colombo, Gampaha, Kurunegala, Puttalam, Mannar, Anuradhapura, Vavuniya, Mulativu, Killinochchi, Trincomalee, Kegalle, Rathnapura, Mathara and Hambanthota districts in the country for the month of December. No signal for remaining districts in the country for the month of December indicating that there is equal chances of receiving below normal, about normal or above normal rainfall.

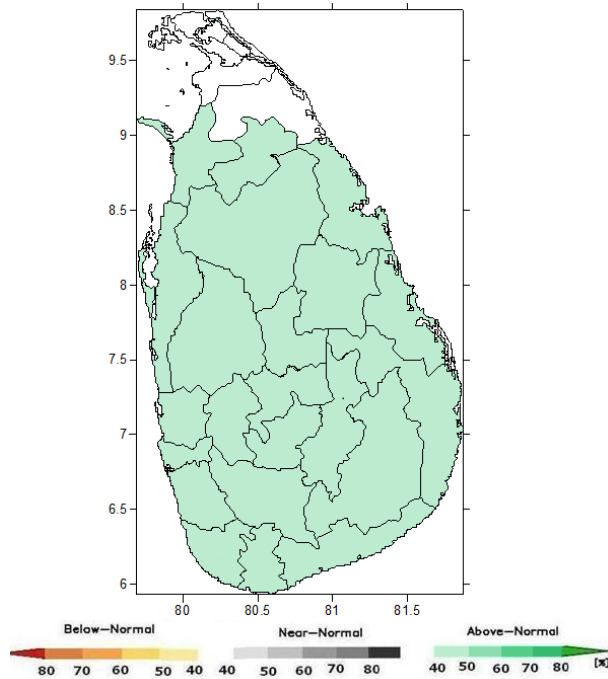


Fig 1.Consensus Probabilistic rainfall forecast for December2018

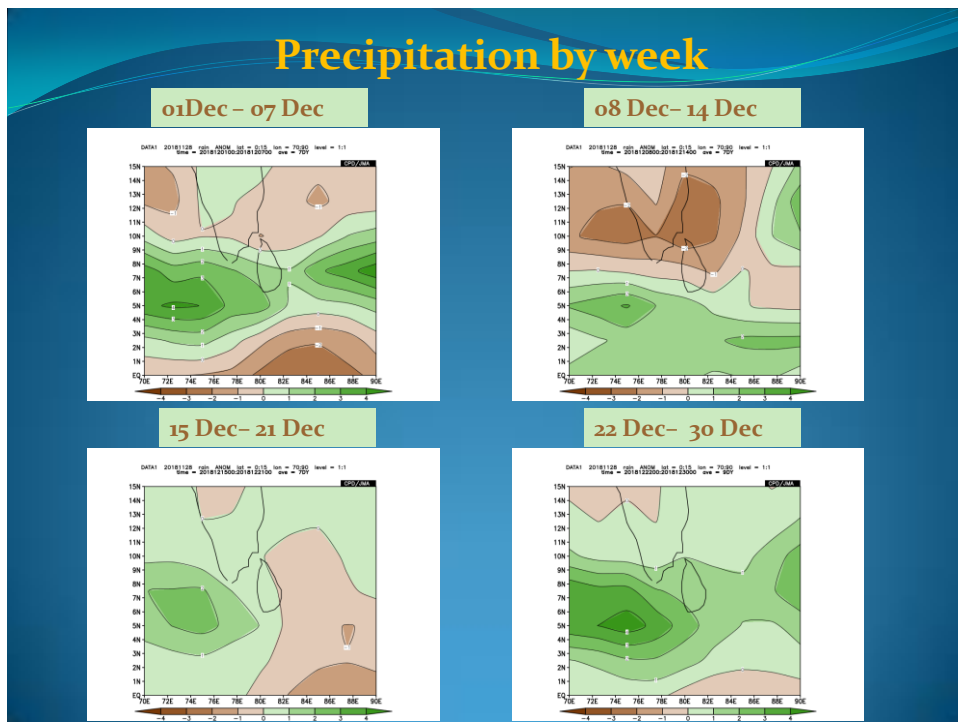


Fig 2.Weekly Rainfall anomaly forecast for December2018 (01December – 07December, Upper left), (08December – 14December, Upper right), (15December – 21December Lower left) and (22December– 30December, Lower right)from JMA model.

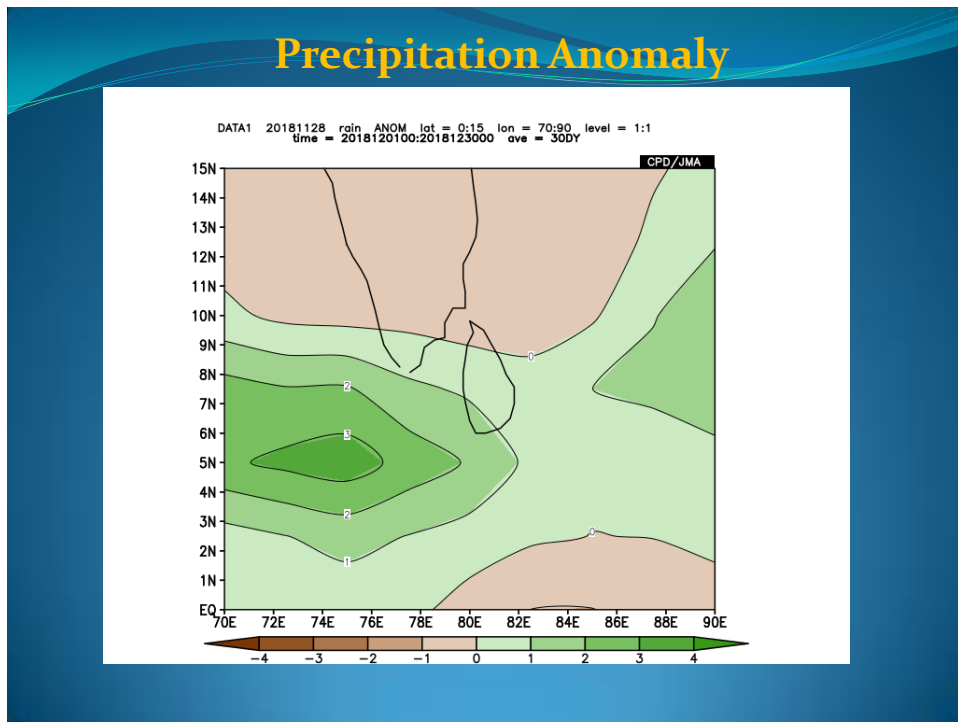


Fig 3. Rainfall anomaly forecast for December 2018 (mm/day) from JMA model

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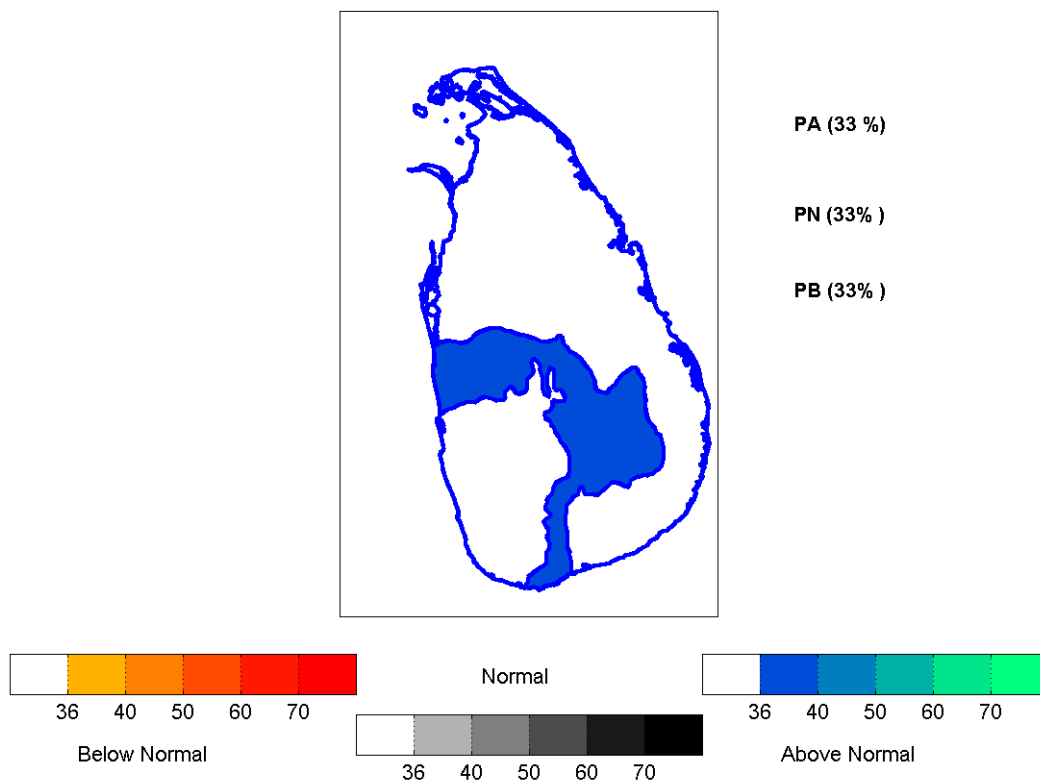


Fig 4. Multi-model ensemble probabilistic forecast for December 2018 from RIMES Forecast Customization System (FOCUS).

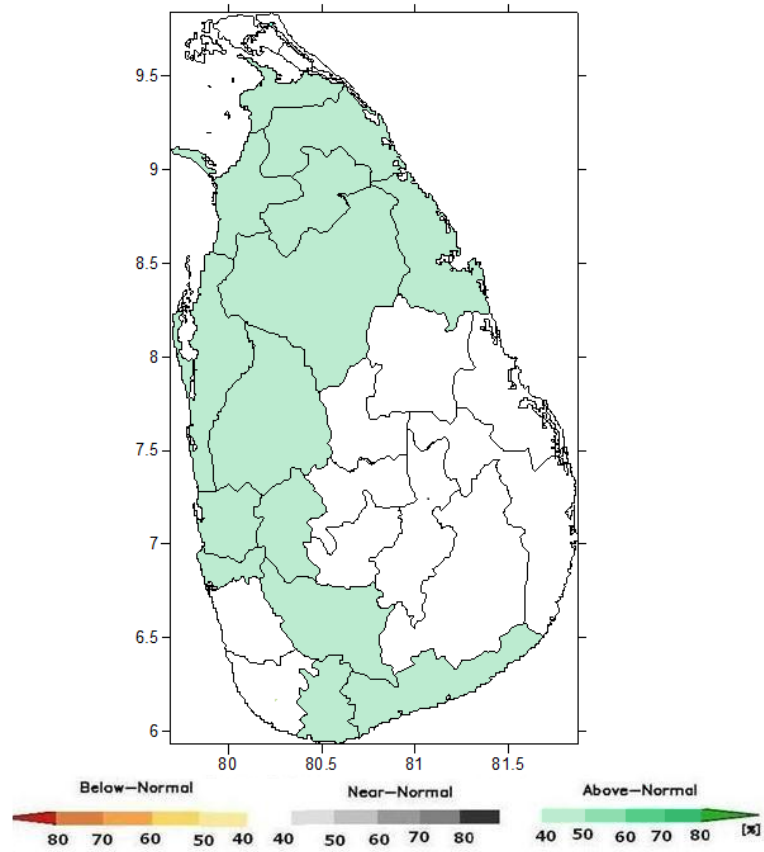


Fig 5. Probabilistic rainfall forecast using Climate predictability tool for December 2018