

Probabilistic Rainfall Forecast for January 2019

The probabilistic rainfall forecast for January 2019 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 January 2019. Below normal rainfall can be expected in most of districts except Trincomalee, Batticaloa, Ampara, Monaragala, Badulla, Nuwaraeliya, Hambantota, Galle, Matara, Kalutara, Colombo and Ratnapura districts in Sri Lanka. There is no signal for Trincomalee, Batticaloa, Ampara, Monaragala, Badulla, Nuwaraeliya, Hambantota, Galle, Matara, Kalutara, Colombo and Ratnapura districts (Fig.1) indicating equal chances of receiving below normal, near normal and above normal rainfall for those parts during January 2019.

Figure 2 represents the weekly rainfall anomaly forecast for January 2019 from Japanese Meteorological Administration (JMA) model. Below normal rainfall can be expected during the first week and last week of January 2019 (Fig 2). Above normal rainfall can be expected over the island during the second week and third weeks of January 2019 (Fig 2).

Figure 3 represents the monthly rainfall anomaly forecast for January 2019 from Japanese Meteorological Administration (JMA) model. Slightly below normal rainfall can be expected for January 2019.

Figure 4 represents the multi-model ensemble probabilistic rainfall forecast for January 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 dry zone. And no signal indicates for wet zone and intermediate zones for January 2019.

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

District	Average rainfall (mm) –(January)	Probability %		
		Below	Normal	Above
Colombo	77.2	55	25	20
Kalutara	122.7	30	35	35
Galle	127.0	35	35	30
Matara	125.2	40	30	30
Hambantota	70.9	40	30	30
Ampara	210.1	35	35	30
Batticaloa	194.3	30	35	35
Trincomalee	127.4	35	35	30
Mullaithivu	77.2	55	25	20
Jaffna	70.7	60	20	20
Killinochchi	76.7	60	20	20
Mannar	53.8	55	25	20
Puttalam	46.9	55	25	20
Gampaha	53.7	55	25	20
Kegalle	77.4	55	25	20
Ratnapura	117.0	35	35	30
Monaragala	129.7	40	30	30
Badulla	232.3	30	30	40
Pollonnaruwa	164.1	55	25	20
Vavuniya	74.2	45	30	25
Anuradapura	84.6	55	25	20
Kurunegala	63.5	60	20	20
Matale	202.0	60	20	20
Kandy	159.8	60	20	20
Nuwaraeliya	138.3	40	30	30

Table 1

Figure 5 represents the probabilistic rainfall forecast from Climate Predictability tool (CPT) for January 2019. According to the CPT slightly below normal rainfall can be expected in most of the districts in the country for the month of January. No signal for Trincomalee, Matara and Hambantota districts for the month of January. It indicates that below normal, about normal or above normal rainfall can be expected in Trincomalee, Matara and Hambantota districts.

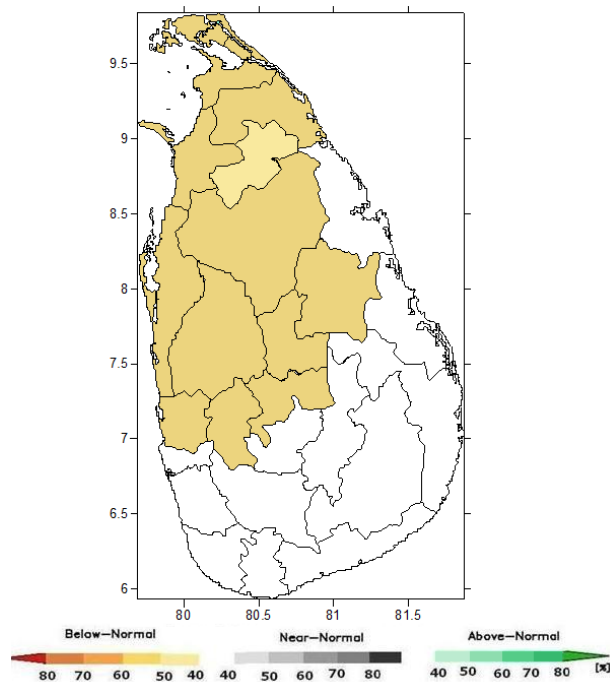


Fig 1.Consensus Probabilistic rainfall forecast for January 2019

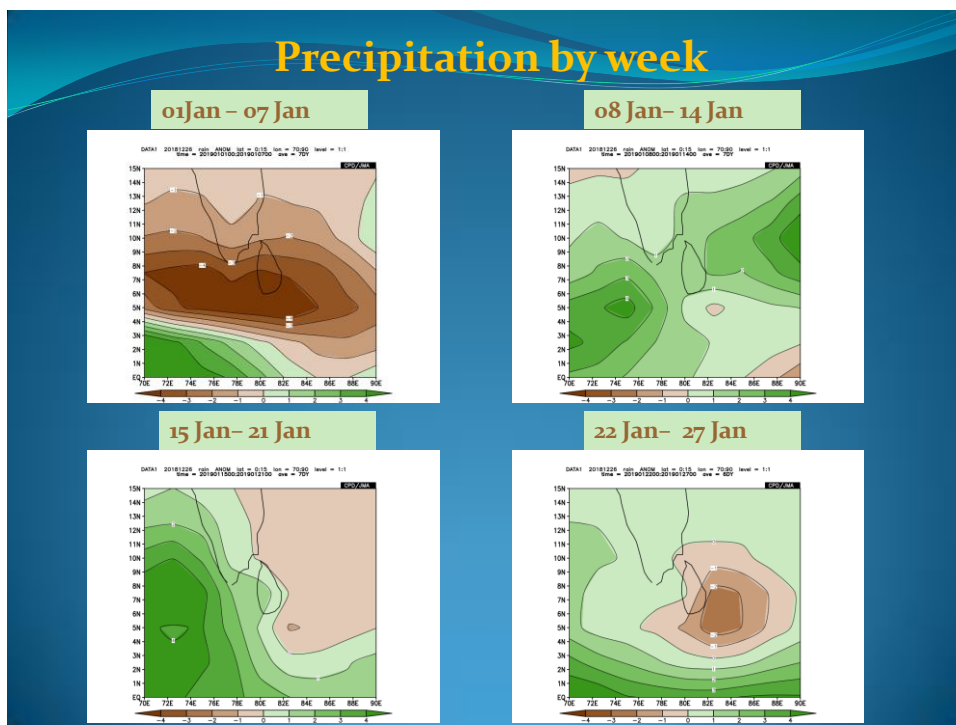


Fig 2.Weekly Rainfall anomaly forecast for January2019 (01January – 07 January, Upper left), (08 January –14 January, Upper right), (15 January – 21 January Lower left) and (22 January–27 January, Lower right)from JMA model.

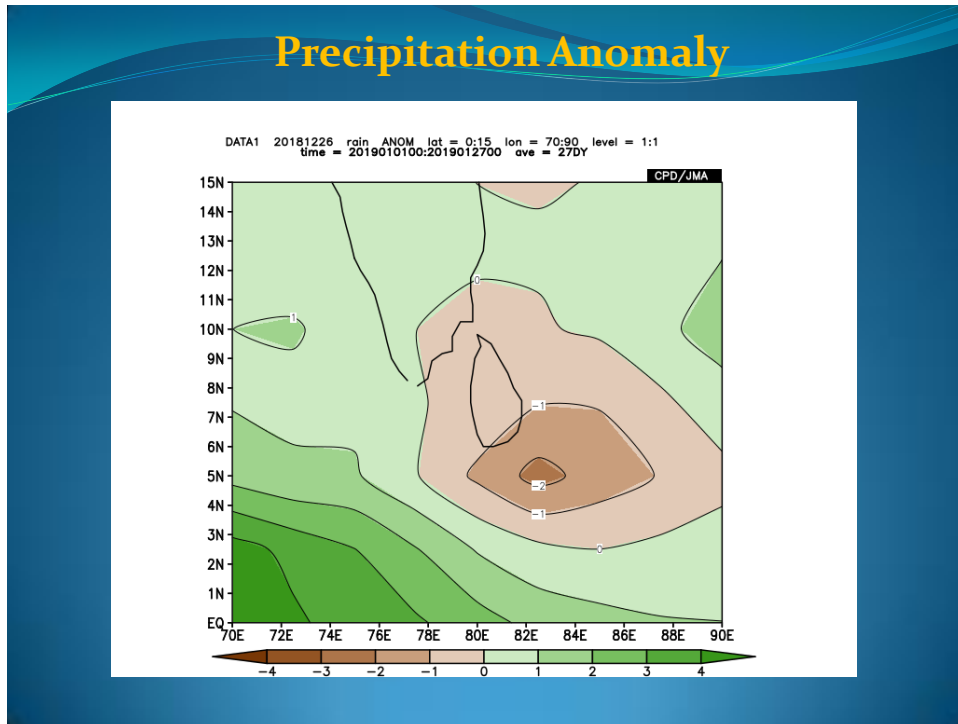


Fig 3. Rainfall anomaly forecast for January 2019 (mm/day) from JMA model

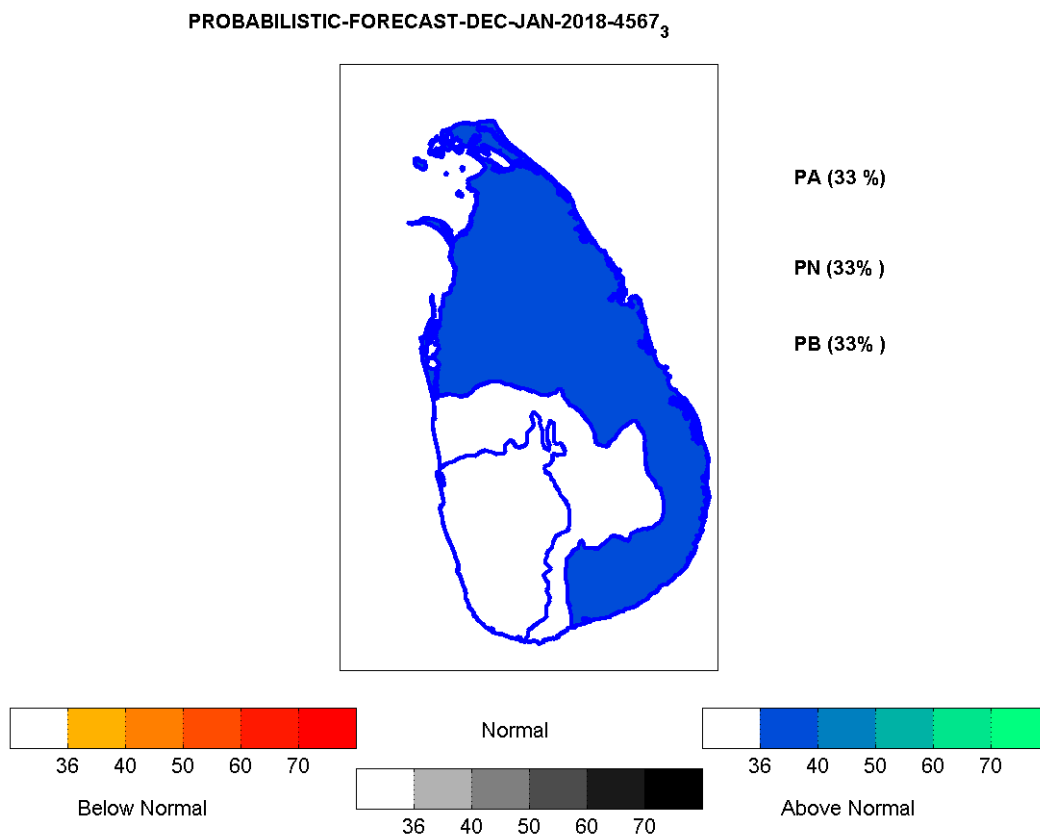


Fig 4. Multi-model ensemble probabilistic forecast for January 2019 from RIMES Forecast Customization System (FOCUS).

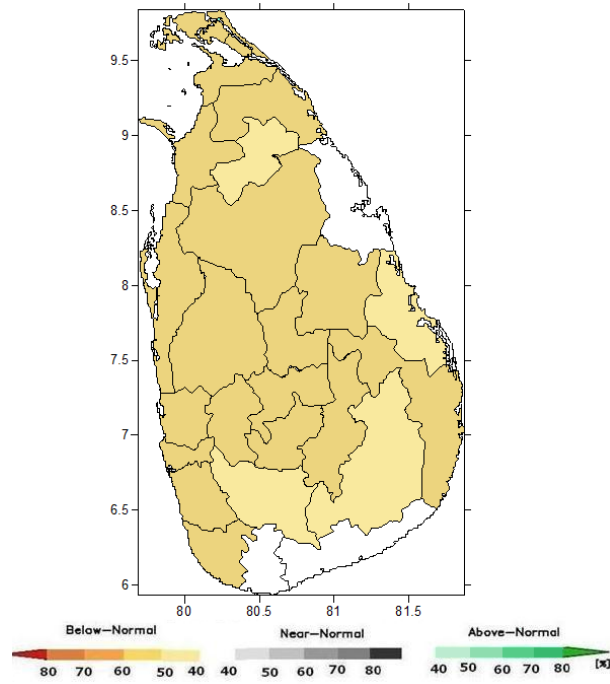


Fig 5. Probabilistic rainfall forecast using Climate predictability tool for January 2019