



No SF-2021-01

Seasonal, Monthly and weekly Rainfall Forecasts for January-March 2021 and Temperature Forecast

Issued on 3rd January 2021 by Seasonal forecasting Division of the Department of Meteorology, Sri Lanka.

This consensus climate outlook for the JFM season over Sri Lanka has been developed through an assessment of the prevailing global climate conditions influencing the Sri Lankan climate and seasonal forecasts from different climate models around the world. Currently, moderate La Niña conditions are prevailing over equatorial Pacific and global model forecast indicates the likelihood for approaching the peak in the Northern Hemisphere winter. Neutral Indian Ocean Dipole (IOD) conditions are prevailing over the Indian Ocean. These parameters, which are known to influence the climate variability over the country during the season.

Seasonal Rainfall Forecast for January –March 2021(JFM 2021)



Fig 1.Consensus Probabilistic Monthly rainfall forecast for JFM

Above-normal rainfalls are likely during the January– March 2021 (JFM) season over most part of the country particularly in Northern, Eastern, Uva and North central provinces.

Monthly Rainfall Forecasts for January, February and March 2021




Month	Rainfall forecast
 <div style="border: 1px solid black; padding: 5px; width: fit-content; margin: 10px auto;">January 2021</div>	<p>During the month of January there is an enhanced probability to receive above normal rainfalls over most parts of the country, particularly in Eastern and Uva provinces.</p>
 <div style="border: 1px solid black; padding: 5px; width: fit-content; margin: 10px auto;">February 2021</div>	<p>During the month of February 2021, there is a higher chance to receive slightly above normal rainfalls over most parts of the country.</p>
 <div style="border: 1px solid black; padding: 5px; width: fit-content; margin: 10px auto;">March 2021</div>	<p>During the month of March 2021, there is a probability for near or slightly above normal rainfalls over most parts of the country.</p>

Fig 2.Monthly rainfall forecasts for January, February and March 2021

District wise normal (mean) rainfall values are indicated in annex -1)

However, the predictability is also limited due to strong day-to-day atmospheric variability caused by the passage of the synoptic scale systems such as lows, depressions and cyclones which are more common in January as well as intraseasonal Oscillations such as Madden Julian Oscillations (MJO).

Weekly Rainfall forecasts for the month of January 2021

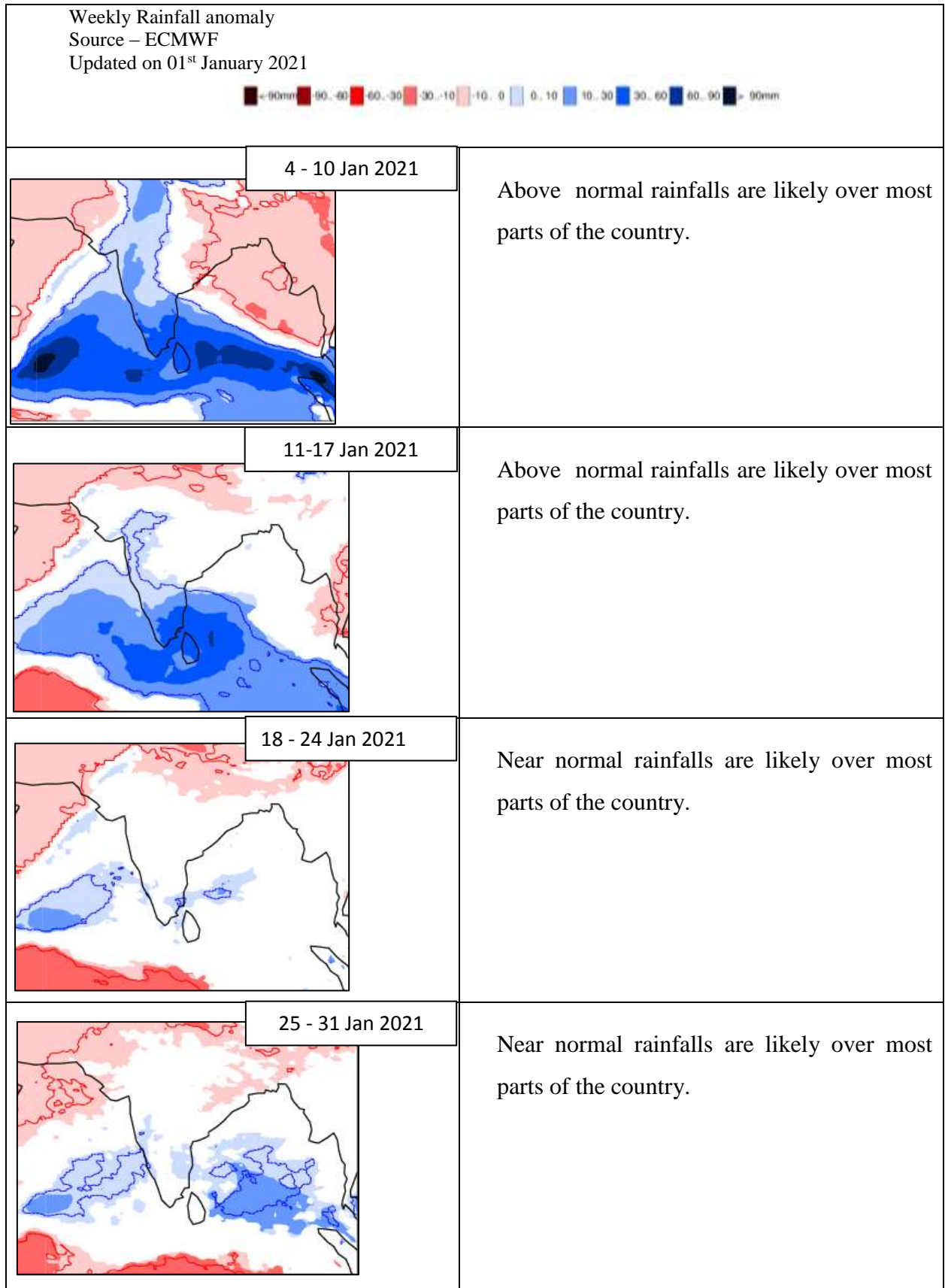


Fig 3. Weekly rainfall forecast for January 2021

Observed rainfall anomaly during the month of December 2020

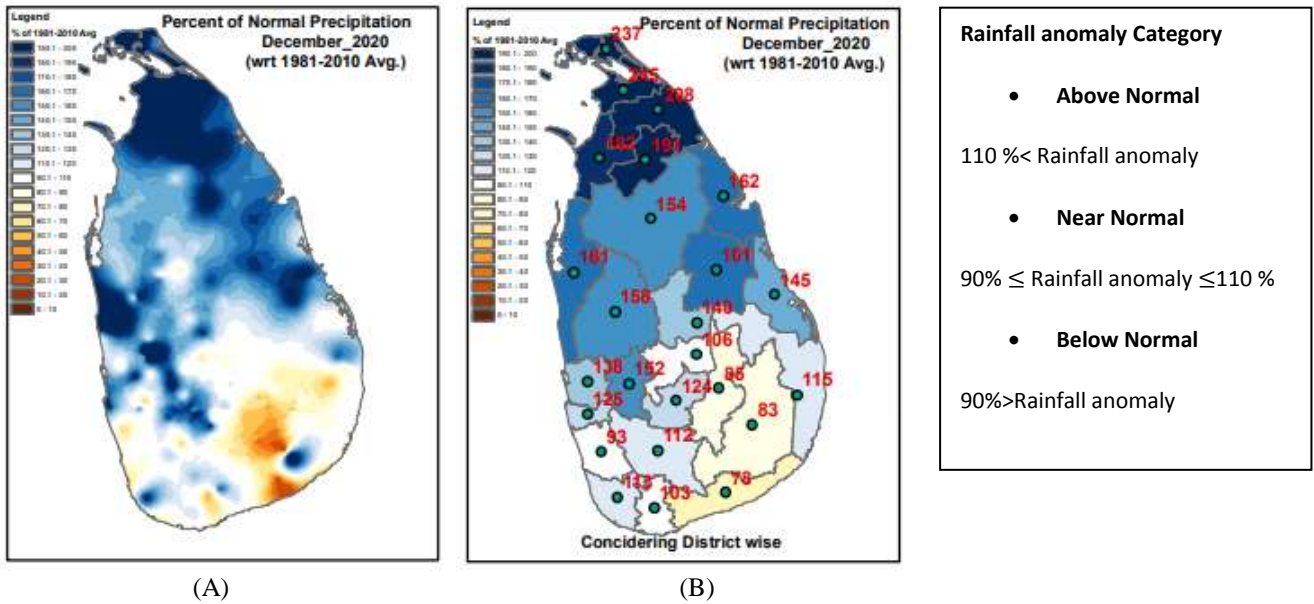


Fig 4: Observed rainfall anomaly during month of December 2020

According to the available rainfall data in Department of Meteorology, normal to above normal rainfalls were reported over most parts of the country except some parts in Badulla, Monaragala, Ampara and Hambantota districts and some isolated small pockets in Kalutara, Galle and Rathnapura districts, where the below normal rainfalls were reported, during the month of December 2020 (Fig. 4(A)). Figure 4(B) shows the district wise observed rainfall as percentages of normal rainfall during the month of December.

Probabilistic Temperature Forecast for January 2021

The probabilistic Temperature forecasts in Sri Lanka for January 2021 as given below.

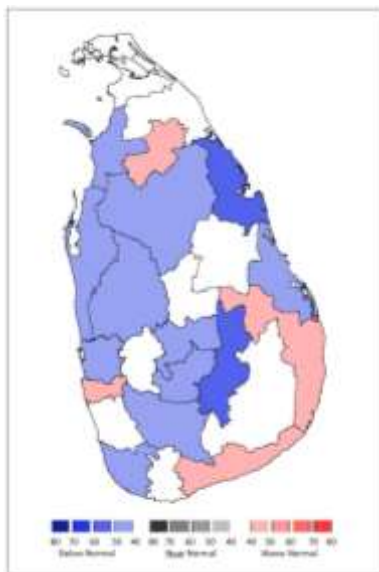


Fig 5:

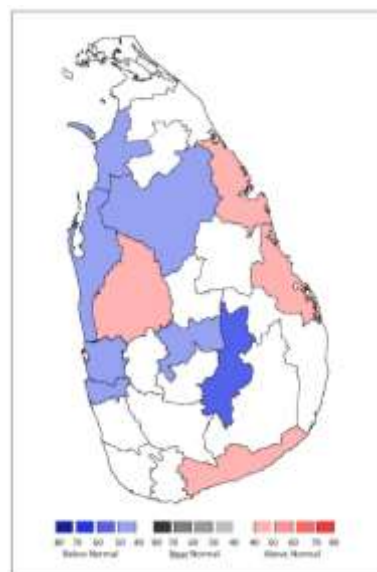


Fig 6:

Figure 5 shows the Probabilistic forecast for Maximum Temperatures in Sri Lanka during January 2021. Accordingly, there is a higher chance of experiencing slightly above the normal Maximum temperatures in Hambantota, Colombo, Ampara and Vavuniya districts and below the normal Maximum(day) temperatures in Trincomalee, Batticaloa, Anuradhapura, Mannar, Puttlam, Kurunegala, Galle, Gampaha, Ratnapura, Kandy, Badulla and Nuwara Eliya districts for the month of January 2021.

Figure 6 shows the Probabilistic forecasts for Minimum (night) temperature forecast for Sri Lanka during January 2021. Accordingly, there is a higher chance of experiencing slightly above the normal minimum temperatures in Batticaloa, Trincomalee, Hambantota and Kurunegla Districts and below the normal Minimum Temperatures in Anuradhapura, Puttalam, Mannar, Gampaha, Colombo, Kandy and Badulla Districts for the month of January 2021.

Note: Temperature forecasts are not available for Kegalle, Matara, Matale, Mulative, Kilinochchi, Polonnaruwa, Monaragala, Jaffana, and Kalutara districts due to unavailability of long-term temperature observation data.

Attention is requested for following areas

- Precautionary measures for Floods and landslides
- General public are kindly requested to pay more attention for the instructions and advisories issued by authorized agencies particularly on agriculture, water sectors and weather related disasters.

Annex-1

District wise mean (30 years (1961-1990) of average) rainfalls during the months of January, February and March season.

District	Average rainfall- January (mm)	Average rainfall- February (mm)	Average rainfall- March(mm)
Colombo	77.2	89.7	169.5
Kalutara	122.7	119.3	219.6
Galle	127.0	118.2	210.1
Matara	125.2	99.7	173.1
Hambantota	70.9	63.7	85.9
Ampara	210.1	144.9	101.8
Batticaloa	194.3	121.9	83.0
Trincomalee	127.4	82.4	54.8
Mullaithivu	77.2	59.9	40.5
Jaffna	70.7	32.5	22.2
Killinochchi	76.7	50.3	30.2
Mannar	53.8	48.4	46.2
Puttalam	46.9	38.5	70.7
Gampaha	53.7	76.8	147.8
Kegalle	77.4	98.3	198.0
Ratnapura	117.0	117.9	219.0
Monaragala	129.7	110.4	115.7
Badulla	232.3	160.6	137.8
Pollonnaruwa	164.1	106.2	85.3
Vavuniya	74.2	53.7	48.9
Anuradapura	84.6	55.7	61.6
Kurunegala	63.5	62.5	95.2
Matale	202.0	121.5	104.3
Kandy	159.8	118.3	119.3
Nuwaraeliya	138.3	104.8	132.1

Table-01. 30 year Average (1961-1990) district wise rainfalls during the month of January, February and March

Table 01 shows the mean (30 year Average (1961-1990)) rainfalls during the month of January, February and March in each districts (it is kindly informed that it is not the expected amount of rainfall for each districts during January-March 2021). This is provided for your references.