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Seasonal, Monthly and weekly Rainfall Forecasts for April-June 2023

Issued on 4th April 2023 by Seasonal forecasting Division of the Department of Meteorology, Sri Lanka.

This consensus climate outlook for April to June 2023 season over Sri Lanka has been developed through an expert assessment of the prevailing global climate conditions influencing the South Asian climate and seasonal forecasts from different climate models around the world. Forecasts predict that there is a 90% chance for a transition to ENSO-neutral during March-May 2023, while there is a small chance of about 10% for La Niña to continue further. ENSO-neutral conditions are likely to persist thereafter. The chances of El Niño developing gradually increase from 15% in April-June, to 35% in May-July. The IOD is neutral. Most models indicate the IOD will tend towards a positive IOD phase during the southern autumn. These parameters are known to influence the climate variability over Sri Lanka. Careful consideration is also given to other regional and global factors as well as the intraseasonal variability of the region that can affect the rainfall and temperature patterns over the country.

Seasonal Rainfall Forecast for April–June 2023(AMJ)

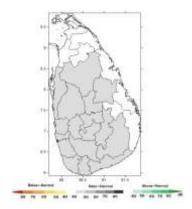


Fig 1. Consensus Probabilistic Monthly rainfall forecast for AMJ 2023

Near or slightly below normal rainfalls are likely over most parts except Northern and Eastern provinces where no signal exists. As such there is equal probability for below or near or above normal rainfalls over Northern and Eastern parts of the country during AMJ 2023 season as a whole (Fig.01).

However there is a possibility for developing low pressure area, depression or cyclone in the Bay of Bengal which could enhance the rainfall over the country, particularly over southwest part of the country during latter part of the month of May and early June.

Monthly Rainfall Forecasts for April, May and June 2023

Month	Rainfall forecast
April 2023	Below normal rainfalls are likely over most parts of the country during the month of April 2023. However, there is a possibility for near or slightly below normal rainfalls in Northern province.
May 2023	There is a possibility for slightly below normal rainfalls in Western and Northwestern part and No signal for other areas, where having equal probability for below or near or above normal rainfalls for remaining areas during May 2023. However there is a possibility for developing low pressure area, depression or cyclone in the bay of Bengal which could enhance the rainfall over the country, particularly over South-west part of the country during latter part of the month of May. If so rainfall could be enhanced.
June 2023	Near normal rainfalls are likely over Eastern and Uva provinces and there is no clear signal for remaining areas. As such there is equal probability for below or near or above normal rainfalls over remaining areas of the country during the month of June 2023. However there is a possibility for developing low pressure area, depression or cyclone in the bay of Bengal which could enhance the rainfall over the country, particularly over Sw part of the country during early June.
E: 2 Ma	country during early June.

Fig 2.Monthly rainfall forecasts for April, May and June 2023

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

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 and depressions as well as intraseasonal Oscillations such as Madden Julian Oscillations (MJO).

Weekly Rainfall forecasts for the month of April 2023

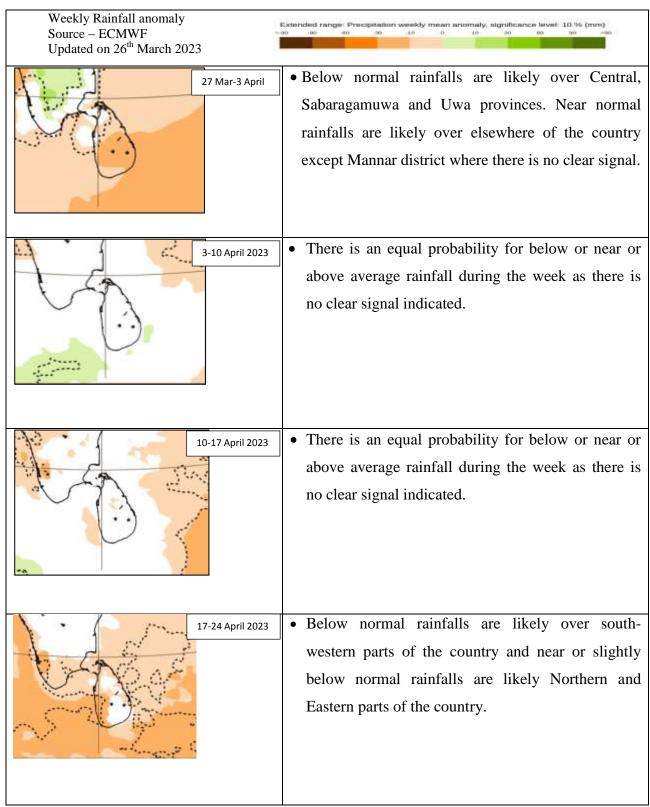


Fig 3. Weekly rainfall forecast for April 2023

Attention is requested for following areas

- More attention for the instructions and advisories issued by authorized agencies particularly related to extreme weather.
- There is a possibility for short duration strong gusty winds, heavy rainfall and lightning associated with thundershowers.
- Low level atmospheric disturbances, depressions and tropical cyclones are possible over and vicinity of Sri Lanka during the latter part of the month of May and early June.
- Attention for instructions and advisories issued by authorized agencies related to warm and hot condition.

<u>Annex-1</u>

<u>District wise mean (30 years (1961-1990) of average) rainfalls during the months of April, May and June season.</u>

	Average rainfall-	Average rainfall-	Average rainfall-
District	April (mm)	May (mm)	June(mm)
Colombo	281.6	413.3	247.6
Kalutara	356.2	526.9	350.8
Galle	305.6	423.5	290.5
Matara	221.5	301.3	241.1
Hambantota	105.6	88.2	52.0
Ampara	83.8	59.6	24.4
Batticaloa	61.2	57.3	25.5
Trincomalee	62.0	60.2	22.6
Mullaithivu	78.5	59.7	12.5
Jaffna	38.5	46.3	13.7
Killinochchi	61.4	50.9	9.4
Mannar	100.8	58.3	7.2
Puttalam	155.0	112.5	46.6
Gampaha	249.7	342.2	212.8
Kegalle	350.9	419.1	372.7
Ratnapura	307.1	354.8	277.3
Monaragala	163.4	93.6	24.8
Badulla	211.4	113.9	35.4
Pollonnaruwa	109.0	70.8	18.0
Vavuniya	110.2	67.1	10.6
Anuradapura	127.6	74.8	11.4
Kurunegala	204.4	143.5	86.3
Matale	168.8	101.2	44.0
Kandy	211.3	177.1	172.6
Nuwaraeliya	238.7	267.3	270.1

Table 01: 30 year Average (1961-1990) district wise rainfalls during the month of April, May and June

Table 01 shows the mean (30 year Average (1961-1990)) rainfalls during the month of April, May and June in each district.