

# NATIONAL AGROMETEOROLOGICAL ADVISORY BULLETIN



08<sup>th</sup> May 2023 to 08<sup>th</sup> June 2023

Issued on 08<sup>th</sup> May 2023



**Department of Meteorology**

**Department of Agriculture**

**2023.05.08**

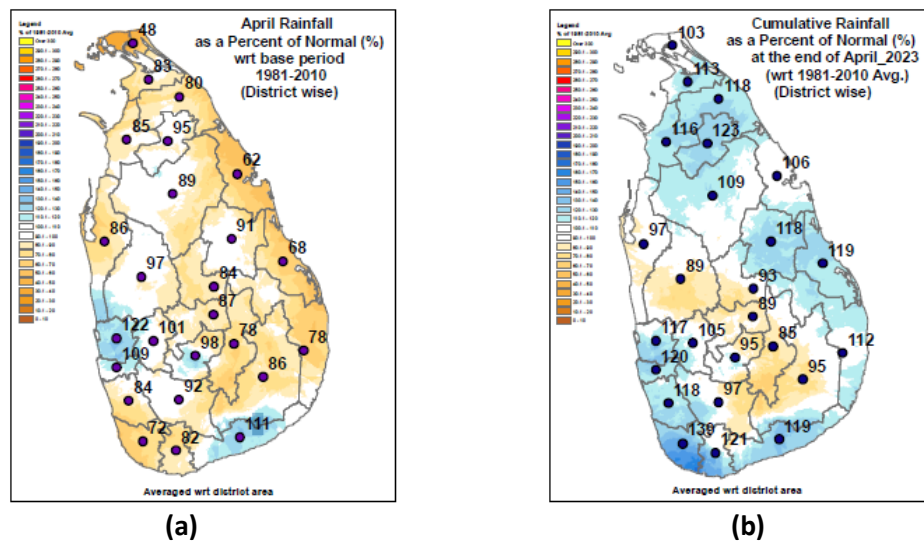
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## Weather and Climate update Department of Meteorology

### Rainfall Analysis-April 2023

According to the available rainfall data in the Department of Meteorology, below normal rainfall were reported from most parts except Sabaragamuwa province and in Kurunegala, Colombo, Gampaha, Hambanthota Kandy, Nuwara Eliya, Vavuniya and Polonnaruwa districts where near or above normal rainfalls were reported during the month of April 2023.

Observed rainfall as a percentage of normal during the month of April 2023 is shown in the figure 1(a) and observed cumulative rainfall as a percentage of normal from 1<sup>st</sup> January 2023 to 30<sup>th</sup> April 2023 is shown in the figure 1 (b).

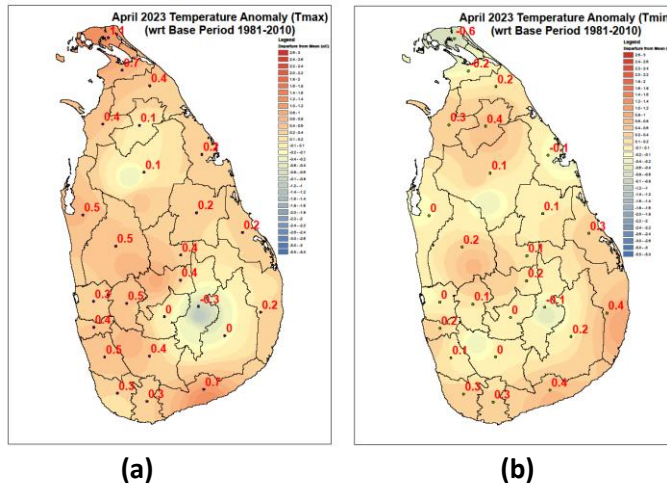


**Figure 01** : Observed Monthly rainfall as percentage of long-term average (1981-2010) during April 2023 (a) and cumulative rainfall from 01<sup>st</sup> January 2023 to 30<sup>th</sup> April 2023 as percentage of long term average (1981- 2010) (b)

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## Temperature analysis-April 2023

Average maximum temperatures (daytime) were near normal over the country except Jaffna district, where below normal maximum temperatures were observed during the month of April 2023. Average minimum temperatures (night-time) were near normal over the country during the month of April 2023.



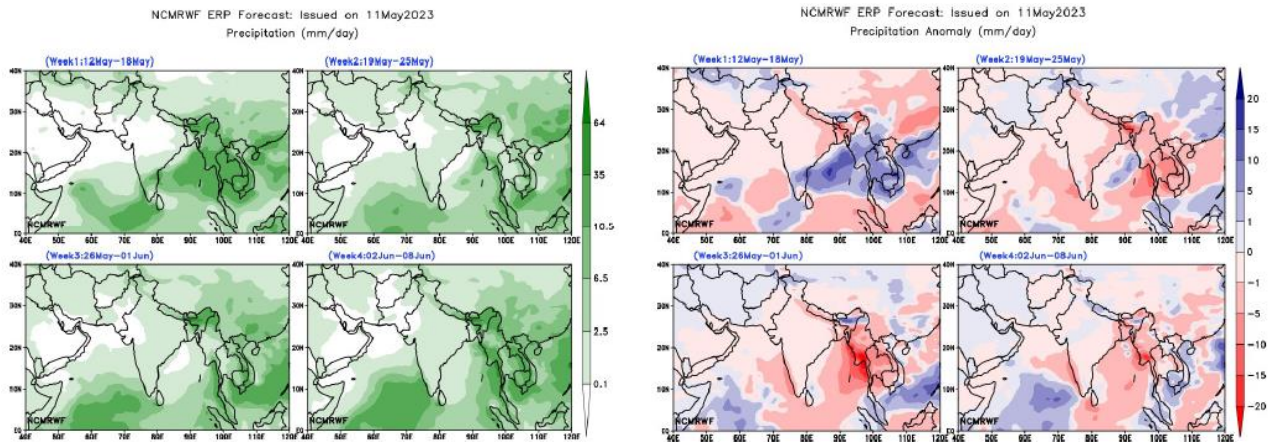
**Figure 02 :** Average Maximum (a) and Minimum (b) Temperature anomalies during the month of April 2023 compared with the long-term average (1981-2010)

## Weather Forecast: Forecast for the month of May 2023(Weekly)

(Updated on 11<sup>th</sup> April 2023)

A slightly above normal rainfalls are likely over South-western coastal areas of the country and below or near normal rainfalls are likely over remaining areas during the week 12<sup>th</sup> -18<sup>th</sup> April. During the weeks 19<sup>th</sup> -25<sup>th</sup> of April, 26<sup>th</sup> – 01<sup>st</sup> June and 2<sup>nd</sup> June -08<sup>th</sup> June below normal rainfalls are likely over south-western and north-western parts and near normal rainfalls are likely over the remaining areas of the country (Figure 03).

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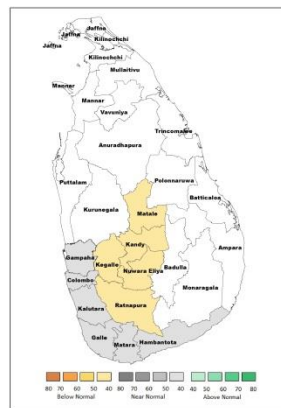


**Figure 03** : Weekly rainfall Forecast and the Rainfall anomaly (mm/day)

Note: Department of Meteorology issues **Weekly Agromet Bulletin** to update climatological situation. It can be downloaded from the web page link- Agromet Bulletin ([meteo.gov.lk](http://meteo.gov.lk))

[http://meteo.gov.lk/index.php?option=com\\_content&view=article&id=28&Itemid=301&lang=en#weekly-updates-2022](http://meteo.gov.lk/index.php?option=com_content&view=article&id=28&Itemid=301&lang=en#weekly-updates-2022)

## Weather forecast for the season of May-June-July (MJJ) 2023



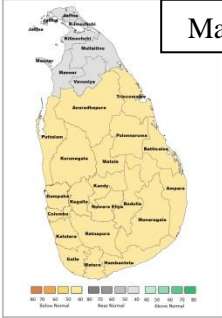
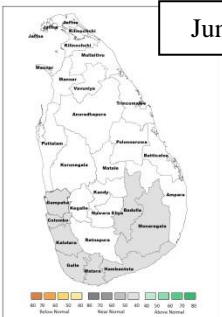

**Figure 04** : Seasonal Rainfall Forecast for May-July 2023 (MJJ 2023)

**There is a higher chance of having near normal rainfalls over Southern province and in Western coastal areas, slightly below over Central and Sabaragamuwa provinces and no signal for other areas of the country during MJJ 2023 season as a whole.**

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 the ERP month of May (Fig. 04).

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## Monthly Rainfall Forecasts for May-June-July 2023

Month	Rainfall forecast
<div style="border: 1px solid black; padding: 5px; display: inline-block;">May 2023</div> 	<p>Below normal rainfalls are likely over most parts except Northern province where near normal rainfalls are likely during the month of May 2023. Rainy condition is expected during the first half of the month.</p> <p>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 the month of May.</p>
<div style="border: 1px solid black; padding: 5px; display: inline-block;">June 2023</div> 	<p>There is a possibility for Near normal rainfalls over Southern and Western coastal areas and in Uva provinces and no signal for other areas where having equal probability for below or near or above normal rainfalls for remaining areas during 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 South-west part of the country during first part of the month of June. If so rainfall could be enhanced.</p>
<div style="border: 1px solid black; padding: 5px; display: inline-block;">July 2023</div> 	<p>Near normal rainfalls are likely over Southern and western coastal areas and below normal over some parts of Eastern, Northcentral and northern provinces and no signal for other areas during the month of July 2023.</p>

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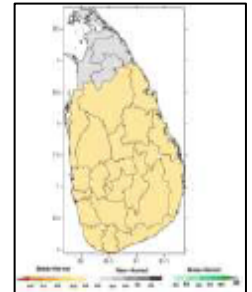
Agro-met Advisory: May 2023

Natural Resource Management Centre, Department of Agriculture  
(For the months of May, June and July)

Department of Meteorology (DoM) has issued the seasonal weather forecast for the coming three-months period, as follows.

- Rainfall forecast for **May**

**Below normal rainfall has been forecasted over most parts** of the country except Northern province, during the month of May. **Near normal rainfall has been predicted** to the Northern province. Rainy condition is expected during the first half of the month. **DoM further forecasted the 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.**



- Rainfall forecast for **June**

For June, **near normal rainfall** has been predicted over Southern and Western coastal areas and in Uva provinces. No specific weather prediction has been issued for the remaining areas. **DoM further forecasted the 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, during first part of June.**



- Rainfall forecast for **July**

Near normal rainfall has been predicted over Southern and Western coastal areas and below normal over some parts of Eastern, North-central and Northern provinces. No specific weather prediction has been issued for the remaining areas.



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With the available weather predictions, it is advisable to consider general climatological rainfall values as **near normal** rainfall values for each month for agriculture planning. Agro-ecological region-wise expected average rainfall values are attached in Table 1 - 3.

The average effective storage in major reservoirs under Irrigation Department (ID) is about 68.4%. Recent updated information on the water levels and water availability of major reservoirs are attached in Table 4. According to the ID, the cultivation progress of paddy under major irrigation schemes shows that the land preparation activities have been completed up to the level of 74%, while sowing has reached about 60%. Compared to the 2022 *Yala* season, this can be considered as a successful achievement. (According to the Agro-met advisory on 05.05.2022, the cultivation progress under major reservoirs was around 20-25%).

Department of Agrarian Development (DAD) informed that, according to the recent update, fifty percent of minor irrigation tanks under the DAD are still at the satisfactory level. Despite this being a *Yala* season, a notable trend can be observed for cultivating paddy over other field crops (OFCs).

Mahaweli Authority of Sri Lanka (MASL), stated that the land preparation activities have been completed in 50% of Mahaweli areas. Again, a 20% progress can be observed in the field establishment of the crop.

Considering the above information, following agronomic interventions are recommended to ensure optimum production under existing situation.

## **Paddy cultivation:**

- Paddy farmers who are not started their cultivation activities yet, are highly advisable to establish the crop, strictly following the decisions taken during *Kanna* meetings in order to harness the maximum benefits of the available water in reservoirs and available soil

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moisture levels, especially considering the predicted below-normal rainfall conditions. According to the given weather information, higher rainfalls will not be observed during the upcoming three months, especially to the major paddy growing areas.

- The Intermediate and Dry Zones are climatologically dry, particularly in the months of June and July (Ref. Table 2 and 3). Therefore, in order to prevent a shortage of irrigation water while continuing the season, it is imperative to take every possible action to conserve and save available water resources and maximize the benefits through proper water management planning.
- Paddy farmers under irrigation schemes, who are still not started their cultivation activities, recommend cultivating three-month aged paddy varieties, as late cultivation increases the risk of yield damage caused by heavy rains during the latter part of the season.
- Caterpillar damage (Common cut worm, Army worm) has been recorded in the Eastern and Northern provinces, and now it appears to be spreading to the other areas in the country too (North-western and North-central Provinces). Therefore, it is crucial to pay special attention to identifying the attack at the initial stage, as it will help to prevent the situation from escalating into a pest outbreak.
- Farmers whose fields are under attack, are advised to consult suitable subject specialists at the Rice Research and Development Institute, Batalagoda, either directly or through field-level officers.
- Thrips attack has also been observed in certain areas, in the Eastern and Northern provinces (specially paddy fields under rainfed and minor irrigated systems). Therefore, farmers are advised to pay special attention to follow the DoA remedial recommendations.

## **Other Field Crops (OFCs)**

- From their medium-term forecast, DoM predicted a below normal rainfall for the later part of May. Therefore, OFC farmers who have not yet started their cultivation activities, can begin their cultivation activities by escaping the heavy rains that are currently occurring.



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- OFC farmers who have already started their cultivation activities are advisable to improve drainage systems in order to prevent water-logging situations caused by short intense, heavy rains in order to prevent fungal infestations.
- The following table shows the seed availability of important subsidiary field crops at the Seed and Planting Material Development Centre (SPMDC) to continue the season.

Table 1: Agro-ecological region wise expected rainfall values for **May**

Dry Zone (mm)			Intermediate Zone (mm)			Wet Zone (mm)	
AER	May		AER	May		AER	May
DL1a	44.5		IL1a	104.0		WL1a	358.3
DL1b	31.8		IL1b	88.5		WL1b	345.7
DL1c	27.1		IL1c	62.9		WL2a	205.3
DL1d	17.5		IL2	40.0		WL2b	142.4
DL1e	24.3		IL3	60.7		WL3	198.8
DL1f	27.5		IM1a	67.3		WM1a	293.3
DL2a	29.5		IM1b	42.0		WM1b	252.8
DL2b	14.5		IM1c	34.5		WM2a	158.7
DL3	18.5		IM2a	121.4		WM 2b	143.4
DL4	13.7		IM2b	78.4		WM3a	107.3
DL5	21.0		IM3a	82.9		WM3b	85.6
			IM3b	46.7		WU1	244.5
			IM3c	55.0		WU2a	170.5
			IU1	81.4		WU2b	156.4
			IU2	84.1		WU3	123.0
			IU3a	94.2			
			IU3b	84.6			
			IU3c	78.0			
			IU3d	95.8			
			IU3e	70.6			

(Source: Punyawardena *et al.* 2003, Agro-ecological Region Map)

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Table 2: Agro-ecological region wise expected rainfall values for **June**

Dry Zone (mm)		Intermediate Zone (mm)		Wet Zone (mm)	
AER	Jun	AER	Jun	AER	Jun
DL1a	4.9	IL1a	65.8	WL1a	280.5
DL1b	3.1	IL1b	52.4	WL1b	227.2
DL1c	1.1	IL1c	12.9	WL2a	181.7
DL1d	0.1	IL2	5.7	WL2b	164.3
DL1e	0.0	IL3	18.5	WL3	121.2
DL1f	0.4	IM1a	19.4	WM1a	312.5
DL2a	3.5	IM1b	27.7	WM1b	227.4
DL2b	30.2	IM1c	5.6	WM2a	226.4
DL3	0.7	IM2a	77.8	WM 2b	160.0
DL4	0.0	IM2b	16.2	WM3a	121.3
DL5	28.6	IM3a	92.9	WM3b	79.4
		IM3b	39.0	WU1	344.8
		IM3c	50.1	WU2a	274.3
		IU1	83.1	WU2b	217.6
		IU2	51.1	WU3	137.9
		IU3a	16.5		
		IU3b	22.8		
		IU3c	11.7		
		IU3d	12.6		
		IU3e	17.3		

(Source: Punyawardena *et al.* 2003, Agro-ecological Region Map)

Table 3: Agro-ecological region wise expected rainfall values for **July**

Dry Zone (mm)		Intermediate Zone (mm)		Wet Zone (mm)	
AER	Jul	AER	Jul	AER	Jul
DL1a	6.4	IL1a	36.1	WL1a	187.7
DL1b	3.4	IL1b	32.3	WL1b	124.3
DL1c	5.8	IL1c	18.7	WL2a	120.3
DL1d	5.0	IL2	16.7	WL2b	121.9
DL1e	6.7	IL3	10.3	WL3	71.6
DL1f	0.3	IM1a	27.3	WM1a	233.3
DL2a	15.4	IM1b	19.4	WM1b	160.5
DL2b	9.2	IM1c	5.7	WM2a	201.0
DL3	1.9	IM2a	55.3	WM 2b	134.9
DL4	0.4	IM2b	23.0	WM3a	84.8
DL5	3.5	IM3a	87.8	WM3b	64.5
		IM3b	27.1	WU1	287.1
		IM3c	42.7	WU2a	247.6
		IU1	73.3	WU2b	178.8
		IU2	54.1	WU3	127.9

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			IU3a	26.0			
			IU3b	20.0			
			IU3c	30.0			
			IU3d	31.6			
			IU3e	22.0			

(Source: Punyawardena *et al.* 2003, Agro-ecological Region Map)

Table 4: Summary of daily water levels & storage of major reservoirs (11.05.2023)

NO	RANGE	NO OF TANKS	STORAGE (Acft)				
			GROSS	DEAD	PRESENT	EFFECTIVE	
						Acft.	%
1	AMPARA	9	1,052,221	16,259	501,564	485,305	46.8%
2	ANURADAPURA	10	556,390	27,583	438,574	410,991	77.7%
3	BADULLA	7	78,388	4,138	68,185	64,047	86.3%
4	BATTICALOA	4	140,172	1,085	120,069	118,984	85.5%
5	HAMBANTOTA	10	377,738	34,172	282,757	248,585	72.4%
6	GALLE	2	3,081	-	2,533	2,533	82.2%
7	KANDY	3	28,503	386	23,649	23,263	82.7%
8	KURUNEGALA	10	142,413	5,670	123,935	118,265	86.5%
9	MONARAGALA	3	44,873	2,640	29,913	27,273	64.6%
10	POLONNARUWA	4	352,010	24,300	301,079	276,779	84.5%
11	PUTTALAM	2	74,261	8,400	57,509	49,109	74.6%
12	TRINCOMALEE	5	191,328	2,555	164,726	162,171	85.9%
13	MANNAR	4	67,370	675	51,508	50,833	76.2%
	<b>TOTAL</b>	<b>73</b>	<b>3,108,747</b>	<b>127,863</b>	<b>2,166,002</b>	<b>2,038,139</b>	<b>68.4%</b>

(Source: Water Management Division, Department of Irrigation)

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Table 5. Available seed stocks in SPMDC for the present season (08.05.2023).

Crop	Available seed stocks (kg)
Green gram	20,000
Black gram	60,000
Cowpea	4,000
Maize Local	19,000
Maize hybrid	7,000
Soya Bean	120,000
Finger millet	10,000
Chilli (Opv)	6,400
Chilli (Hybrid)	135
Sesame (Black)	2,000

(Source: SPMDC, DoA)

- ❖ Please consider that this advisory was prepared based the on the national level information and therefore, if available, it is advisable to consider localized detailed information, as a supplementary to this advisory.

An updated Agro-met Advisory will be issued in early June, 2023 in consultation with the members of the technical advisory committee, other relevant resource persons and stakeholders.

#### Technical Advisory Team Members

- Ms. Anusha Warnasooriya (Director – Climate Change and Research) Department of Meteorology
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- Ms. Aruni B. Abeysekera (Assistant Director of Agriculture-Agro-climatology and Climate Change)  
- Natural Resources Management Centre

## **Special Thanks:**

- Mr. S.R. Sarathchandra (Assistant Director of Agriculture – Entomology) Rice Research and Development Institute
- Ms. E.M.G.K. Edirisooriya (Deputy Director of Agriculture– OFC) Seed and Plant Material Development Center