

NATIONAL AGROMETEOROLOGICAL ADVISORY BULLETIN



08th June 2023 to 08th July 2023

Issued on 08th June 2023



Department of Meteorology

Department of Agriculture

2023.06.08

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Weather and Climate update Department of Meteorology

Rainfall Analysis-May 2023

According to the available rainfall data in the Department of Meteorology above normal rainfalls were received over most parts of the country except Kegalle,Colombo,Kalutara,Gampaha Rathnapura, Kegalle and Kandy districts, where near or little below normal rainfalls were reported during the month of May 2023. Observed rainfall as a percentage of normal during the month of May 2023 is shown in the figure 1(a)

Observed cumulative rainfall as a percentage of normal from 1st January 2023 to 31st May 2023 is shown in the figure 1 (b). It shows near or little above normal cumulative rainfalls were reported over most parts.

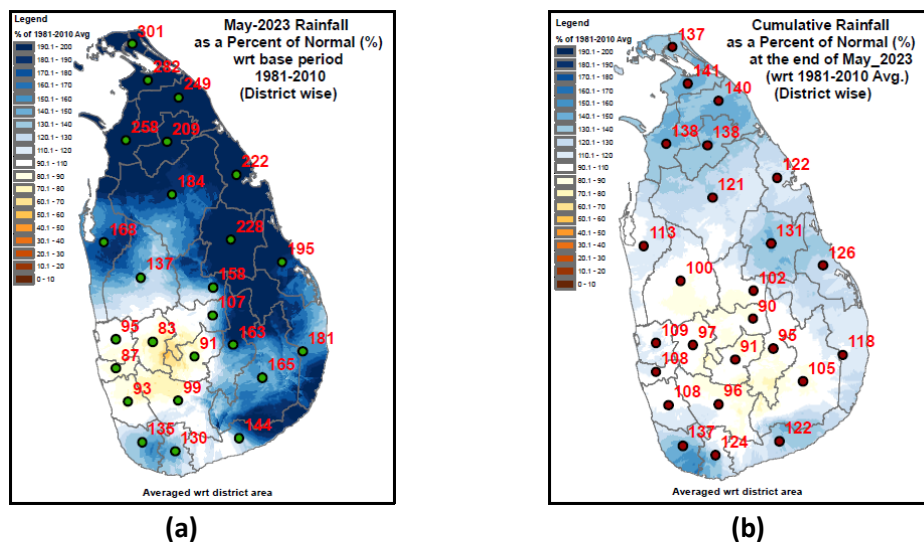


Figure 01 : Observed Monthly rainfall as percentage of long-term average (1981-2010) during May 2023 (a) and cumulative rainfall from 01st January 2023 to 31st May 2023 as percentage of long term average (1981-2010) (b)

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Temperature analysis-April 2023

Average maximum temperatures (daytime) and average minimum temperatures (night-time) were near normal over the country during the month of May 2023.

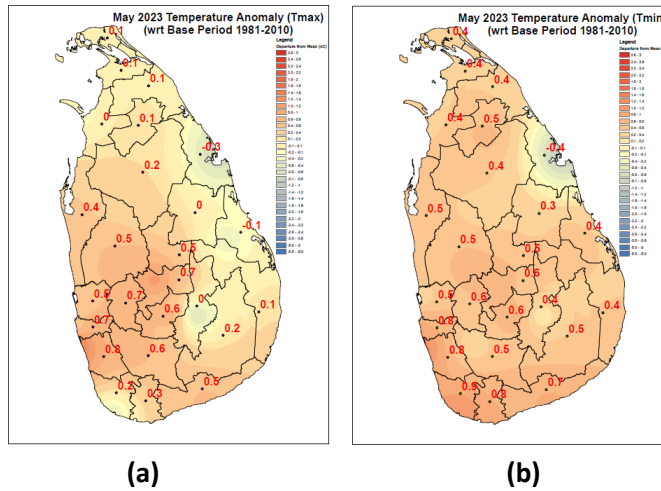


Figure 02 : Average Maximum (a) and Minimum (b) Temperature anomalies during the month of May 2023 compared with the long-term average (1981-2010)

Weather Forecast: Forecast for the month of June 2023(Weekly)

(Updated on 8th June 2023)

A slightly above normal rainfalls are likely over western, Sabaragamuwa and Southern provinces during the week 09-15th June. During the week 16th -22nd of June below normal rainfalls are likely over Western and Southern provinces as well as Northwestern coastal areas. There is no clear signal indicated over the country during the weeks 23rd -29th July and 30th July – 06th August 2023 (Figure 03).

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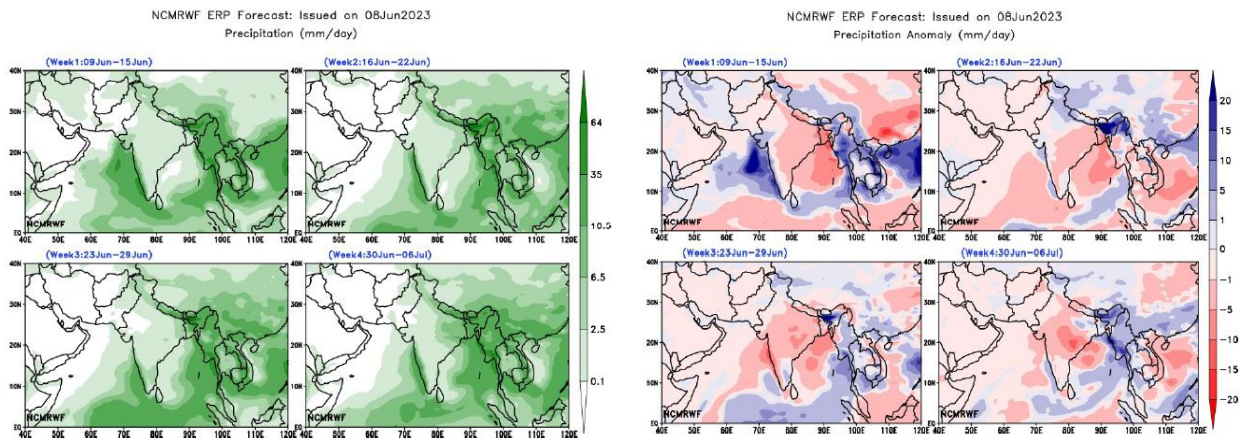


Figure 03 : Weekly rainfall Forecast and the Rainfall anomaly (mm/day)

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/index.php?option=com_content&view=article&id=28&Itemid=301&lang=en#weekly-updates-2022

Weather forecast for the season of June-July-August (JJA) 2023

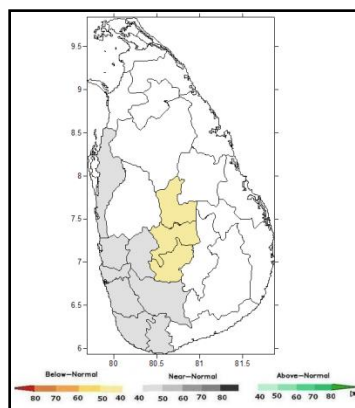
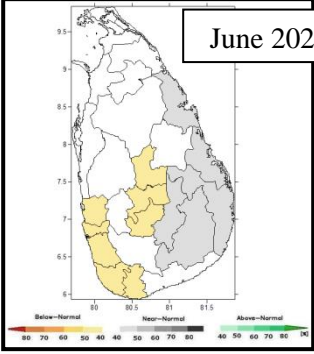
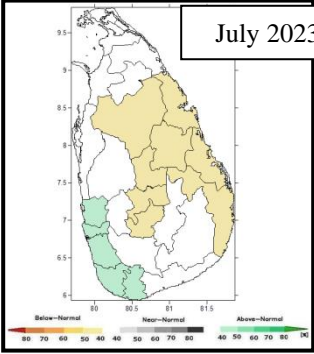
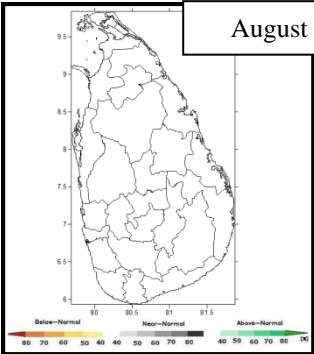


Figure 04 : Seasonal Rainfall Forecast for June-July 2023 (MJJ 2023)

There is a higher chance of having near or slightly above average rainfalls over Puttalam, Colombo, Gampaha, Kalutara, Galle, Matara, Rathnapura and Kegalle districts and below normal rainfall over Central Province, particularly along western slopes of central hills and there is no clear signal indicated for other areas of the country during JJA 2023 season as a whole. (Fig. 04).

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Monthly Rainfall Forecasts for June-July-July 2023

Month	Rainfall forecast
 <p style="text-align: center;">June 2023</p>	<p>Near or slightly below normal rainfalls are likely over Southwestern coastal areas with a higher chance of having below normal rainfalls over Central Province. There is a chance of near normal rainfall over Eastern and Uva provinces and there is no clear signal indicates for remaining areas of the country during the month of June 2023.</p>
 <p style="text-align: center;">July 2023</p>	<p>Near or slightly above normal rainfalls are likely over Southwestern coastal areas and below normal rainfalls over Central, North-central and Eastern Provinces and in Eastern part of Sabaragamuwa Province. There is no clear signal for remaining areas of the country for the month of July.</p>
 <p style="text-align: center;">August</p>	<p>There is no clear signal for the month of August 2023. As such there is equal probability for below or near or above normal rainfalls over the country during the period.</p>

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Agro-met Advisory: June 2023

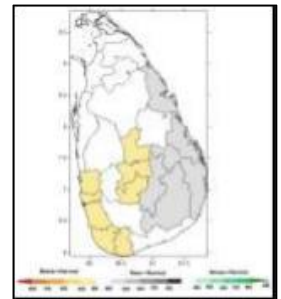
Natural Resource Management Centre, Department of Agriculture

(For the months of June, July and August)

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

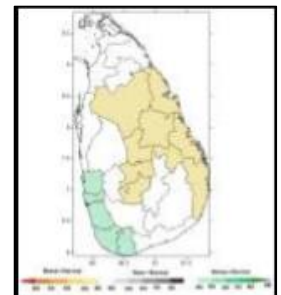
- Rainfall forecast for **June**

Near or slightly below normal rainfalls has been predicted over Southwestern coastal areas with a higher chance of having below normal rainfalls over Central Province. DoM further forecasted a near normal rainfall over Eastern and Uva provinces. No specific weather prediction has been issued for the remaining areas.



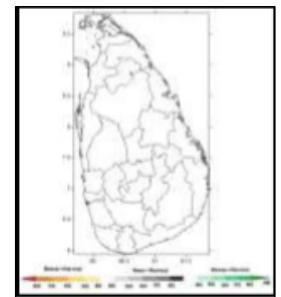
- Rainfall forecast for **July**

Near or slightly above normal rainfalls has been forecasted over Southwestern coastal areas and below normal rainfalls over Central, North-central and Eastern Provinces and in Eastern part of Sabaragamuwa Province. No specific weather prediction has been issued for the remaining areas.



- Rainfall forecast for **August**

No specific weather prediction has been issued for the month of August.



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.

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The average effective storage in major reservoirs under Irrigation Department (ID) is about 56.3 %. Recently updated information on the water levels and water availability of major reservoirs are attached in Table 4. According to the ID, the progress of land preparation activities of paddy under major irrigation schemes is about 91%. The available water storage in the major and medium reservoirs will be sufficient to continue the season with proper water management practices.

According to the recently updated statistics of Corporate Development Division of DAD, national cultivation progress of land preparation activities of paddy is about 437,639 ha. District-wise National cultivation targets and progress of 2023 *Yala* season, is given in Table 5. According to the recently updated information, 50% of minor irrigation tanks under the DAD are still at a satisfactory level, except regions such as Ampara, Moneragala and Hambantota.

According to the Mahaweli Authority of Sri Lanka (MASL), they have successfully achieved the cultivation targets for paddy so far, and most of the Mahaweli systems, excluding system H and Uda Walawe, have a satisfactory level of carry-over storage to continue the season. System H, which covers only about 25% of the cultivation targets, can make up for this shortfall by shifting to other field crops instead of paddy, thereby will be able to achieve about 80% of the targets.

Considering the above information, attention of the farmers is drawn on following weather-related issues by this advisory,

- According to the DoM forecast for next three months, no rains could be observed for the Intermediate and Dry Zones. Furthermore, during June and July, these regions are climatologically dry. With the observed late on set of South-west monsoonal rains, and the weather predictions for the June and July there is an uncertainty associated with the rainfed cultivation in the Wet zone, too.
- Therefore, it is highly advisable for farmers to harness the maximum benefits of the available water in reservoirs and get the maximum benefits of the incipient rains to continue the season successfully.

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- Considering the water availability in the reservoir, farmers specially in the districts of Ampara, Moneragala, and Puttalam should prioritize the conservation of the available irrigation water while practicing their agronomic activities. Furthermore, with the delayed cultivation season, farmers in Hambantota, especially those under minor irrigation schemes, should have to consider about the water saving techniques.

Paddy cultivation:

- Considering the anticipated weather conditions and the potential risks associated with late cultivation, such as harvest damage due to heavy rains in September, the advisory recommends focusing on other field crops (OFCs) rather than paddy. However, the Seed and Plant Material Development Center (SPMDC) of DoA assured the availability of seed stocks of short-aged paddy varieties.
- Caterpillar damage (Common cut worm, Army worm), in paddy cultivations has been reported in several areas across the country. According to the subject specialists, this outbreak is mainly due to late identification of the pest. Therefore, it is important to pay special attention for identifying the attack during the first 3-4 weeks from crop establishment.
- If caterpillar damage is observed, farmers are advised to consult suitable subject specialists at the Rice Research and Development Institute, Batalagoda, either directly or through field-level officers. Field observations revealed that farmers who followed the instructions provided by the DoA were able to effectively mitigate caterpillar damage.
- Moreover, farmers whose fields have reached the stage of chemical control are strongly advised to strictly adhere to the DoA recommended pesticides, (DoA recommends only class 4 pesticides).
- Furthermore, it is recommended that pesticide application should be carried out during the evening hours, as the pest tends to cause crop damage during this time period, extending into the night.
- Pest outbreaks are normally appeared in dry weather condition after heavy rains. The prevailing high temperature is considered as a potential factor contributing to this pest outbreak.

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Furthermore, this dry weather condition may lead to incidences of another pest outbreaks such as Brown Plant Hopper (BPH) and Thrips. Farmers' close attention is needed to prevent such pest outbreaks in future too.

Other Field Crops (OFCs)

- OFC farmers are advised to optimize the utilization of cultivation lands under the prevailing weather situation to ensure national food security of the country.
- They are advised to follow water conservation methods such as mulching, sunken beds, and the application of organic matter, considering the predicted weather information.
- As a solution for the virus outbreaks in the short-aged legumes, newly identified resistance varieties by DoA can be selected (eg. Mosaic virus resistant varieties for Green gram and Black gram).
- The dry weather conditions may also lead to pest attacks affecting OFC cultivations. Therefore, farmers are advised to pay frequent attention and take necessary measures to prevent pest outbreaks.

Table 1: 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			

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		IU3e	17.3
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(Source: Punyawardena *et al.* 2003, Agro-ecological Region Map)

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

Dry Zone (mm)		Intermediate Zone (mm)		Wet Zone (mm)	
AER	Aug	AER	Aug	AER	Aug
DL1a	7.5	IL1a	29.7	WL1a	169.6
DL1b	4.4	IL1b	30.7	WL1b	117.3
DL1c	17.0	IL1c	29.0	WL2a	121.4
DL1d	23.6	IL2	29.5	WL2b	97.1
DL1e	16.2	IL3	8.3	WL3	54.4
DL1f	2.8	IM1a	37.3	WM1a	226.1
DL2a	25.6	IM1b	21.6	WM1b	149.0
DL2b	14.1	IM1c	6.2	WM2a	173.7

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DL3	4.3		IM2a	59.4		WM 2b	108.6
DL4	1.6		IM2b	35.9		WM3a	68.7
DL5	4.9		IM3a	68.5		WM3b	55.3
			IM3b	19.2		WU1	263.5
			IM3c	37.2		WU2a	213.0
			IU1	69.1		WU2b	158.6
			IU2	56.5		WU3	117.3
			IU3a	32.3			
			IU3b	29.6			
			IU3c	41.2			
			IU3d	31.6			
			IU3e	32.5			

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

Table 4: Summary of daily water levels & storage of major reservoirs (08.06.2023)

NO	RANGE	NO OF TANKS	STORAGE (Acft)				
			GROSS	DEAD	PRESENT	EFFECTIVE	
						Acft.	%
1	AMPARA	9	1,052,221	16,259	410,286	394,027	38.0%
2	ANURADAPURA	10	556,390	27,583	366,249	338,666	64.0%
3	BADULLA	7	78,388	4,138	62,546	58,408	78.7%
4	BATTICALOA	4	140,172	1,085	87,603	86,518	62.2%
5	HAMBANTOTA	10	377,738	34,172	258,378	224,206	65.3%
6	GALLE	2	3,081	-	2,943	2,943	95.5%
7	KANDY	3	28,503	386	20,315	19,929	70.9%
8	KURUNEGALA	10	142,413	5,670	93,225	87,555	64.0%
9	MONARAGALA	3	44,873	2,640	26,904	24,264	57.5%
10	POLONNARUWA	4	352,010	24,300	255,695	231,395	70.6%
11	PUTTALAM	2	74,261	8,400	45,613	37,213	56.5%
12	TRINCOMALEE	5	191,328	2,555	132,333	129,778	68.7%
13	MANNAR	4	67,370	675	42,606	41,931	62.9%
	TOTAL	73	3,108,747	127,863	1,804,696	1,676,833	56.3%

(Source: Water Management Division, Department of Irrigation)

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Table 5. National Cultivation progress of Paddy, 2023 *Yala* season (05.06.2023)

Number	District	Cultivation Progress of <i>Yala</i> season 2023		
		A (Hectares)	B (Hectares)	A + B Total (Hectares)
		Extent of land sown or planted	Extent of land under basic land preparation only	
1	Colombo	1,858.73	590.53	2,449.25
2	Gampaha	3,724.91	1,504.16	5,229.07
3	Kalutara	5,448.70	1,926.75	7,304.73
4	Kandy	767.02	2,590.97	3,357.99
5	Matale	3,600.66	1,974.95	5,575.61
6	Nuwara Eliya	49.41	21.66	70.87
7	Galle	2,700.81	1,643.02	4,343.83
8	Matara	2,059.23	1,440.20	3,499.43
9	Hambantota	23,015.53	6,356.80	29,372.33
10	Kurunegala	47,273.02	9,464.96	56,737.98
11	Puttalam	12,512.15	1,384.93	13,897.08
12	Anuradhapura	36,861.20	15,700.90	52,154.30
13	Polonnaruwa	15,612.82	49,432.60	65,045.42
14	Badulla	8,411.68	1,582.11	9,993.79
15	Monaragala	10,944.47	2,995.08	13,939.55
16	Rathnapura	3,922.55	2,252.34	6,103.90
17	Kegalle	2,556.42	3,535.50	6,091.92
18	Ampara	51,406.85	12,226.07	63,632.92
19	Trincomalee	25,727.31	4,696.90	30,424.21
20	Batticaloa	34,752.03	0.00	34,752.03
21	Vavniya	4,416.31	2,070.50	6,486.81
22	Jaffna	0.00	0.00	0.00

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23	Mannar	1,494.87	825.66	2,320.52
24	Mullathivu	6,345.95	1,115.40	7,461.35
25	Kilinochchi	7,394.10	0.00	7,394.10
Total		312,856.72	125,331.99	437,638.99

(Source: Corporate Development Division, Department of Agrarian Development)

(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 July, 2023 in consultation with the members of the technical advisory committee, other relevant resource persons and stakeholders.

Technical Advisory Team Members

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