

NATIONAL AGROMETEOROLOGICAL ADVISORY BULLETIN



08th July 2023 to 08th August 2023

Issued on 08th July 2023



Department of Meteorology

Department of Agriculture

2023.07.08

NATIONAL AGROMETEOROLOGICAL ADVISORY BULLETIN

Weather and Climate update Department of Meteorology

Rainfall Analysis-June 2023

According to the available rainfall data in the Department of Meteorology above normal rainfalls were received over Western, Sabaragamuwa and Southern provinces and Monaragala, Batticaloa and Ampara districts. Near normal rainfalls were reported over Mulativu and Killinochchi districts. It has reported below normal rainfall over remaining areas of the country with only 19% of normal rainfalls were reported in Puttalam district during the month of June.

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

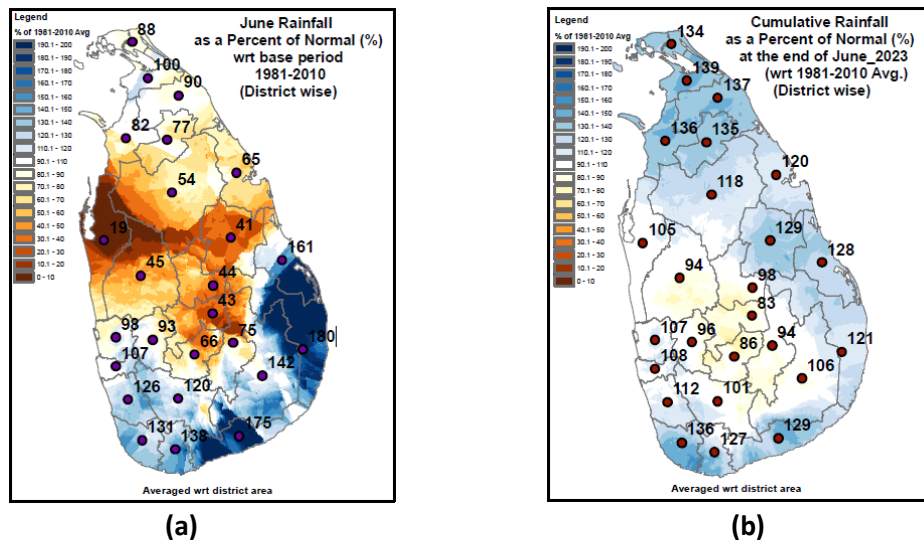


Figure 01 : Observed Monthly rainfall as percentage of long-term average (1981-2010) during June 2023 (a) and cumulative rainfall from 01st January 2023 to 30th June 2023 as percentage of long term average (1981-2010) (b)

NATIONAL AGROMETEOROLOGICAL ADVISORY BULLETIN

Temperature analysis-June 2023

Average maximum temperatures (daytime) were a little above normal over Vavuniya, Kurunegala, Kandy, NuwaraEliya and Hambantota districts and near normal over other areas. Average minimum temperatures (night-time) were a little above normal over Northern, North-western, Western, Central and Southern provinces as well as in Anuradhapura and Kegalle districts during the month of June 2023.

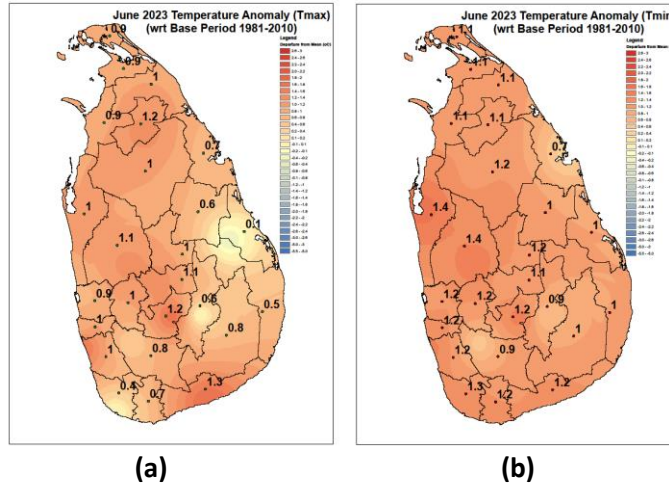


Figure 02 : Average Maximum (a) and Minimum (b) Temperature anomalies during the month of June 2023 compared with the long-term average (1981-2010)

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

(Updated on 6th July 2023)

A slightly above normal rainfalls are likely over the country during the week 07th -13th July. During the week 14th -20th of July above normal rainfalls are likely over South-western parts. During the weeks 21st -27th July and 28th July – 03rd August 2023 there is a possibility of having below normal rainfalls in western coastal areas and there is no clear signal indicated over remaining areas of the country (Figure 03).

NATIONAL AGROMETEOROLOGICAL ADVISORY BULLETIN

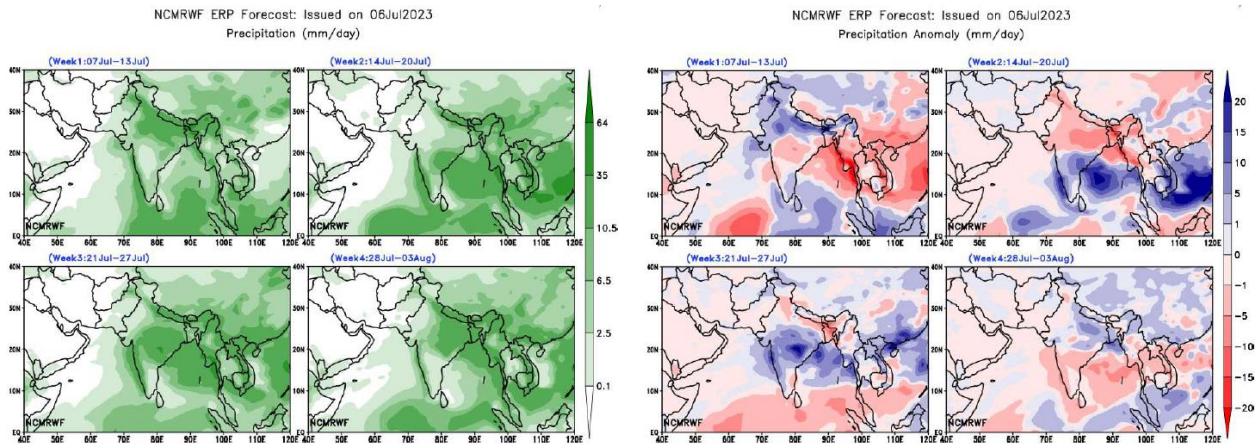


Figure 03 : Weekly rainfall Forecast and the Rainfall anomaly (mm/day)

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 July-August-September (JAS) 2023

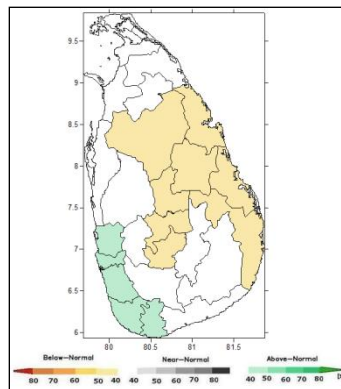
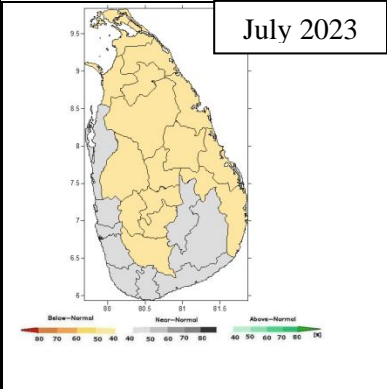
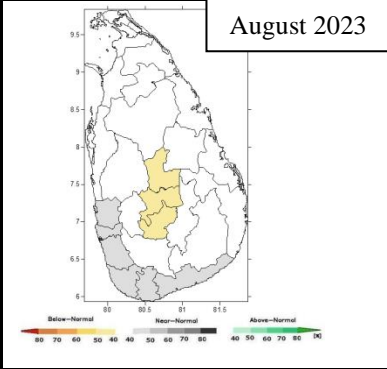
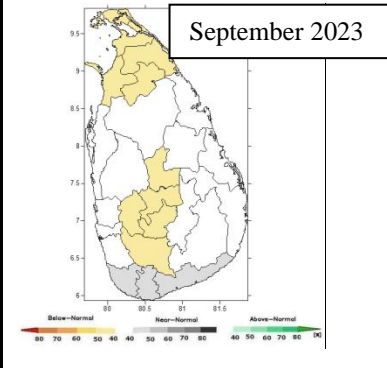


Figure 04 : Seasonal Rainfall Forecast for July-September 2023 (JAS 2023)

There is a higher chance of having near or slightly above average rainfalls over Colombo, Gampaha, Kalutara, Galle and Matara, districts and below normal rainfall over Central, Eastern and North-central Provinces and there is no clear signal indicated for other areas of the country during JAS 2023 season as a whole. (Fig. 04).

NATIONAL AGROMETEOROLOGICAL ADVISORY BULLETIN

Monthly Rainfall Forecasts for July-August-September 2023

Month	Rainfall forecast
 <p style="text-align: center;">July 2023</p>	<p>Below normal rainfalls are expected over Central, Sabaragamuwa, North-central, Eastern and Northern provinces and in Kurunegala district, near normal rainfalls are likely over Southern and western coastal areas. There is a chance of having near or slightly below normal rainfalls over other areas of the country during the month of July 2023.</p>
 <p style="text-align: center;">August 2023</p>	<p>Below normal rainfalls are likely over Central province and near normal over Southern and western coastal areas. There is no signal for other areas of the country for the month of August 2023</p>
 <p style="text-align: center;">September 2023</p>	<p>Below normal rainfalls are likely over Central, Sabaragamuwa and northern provinces with a chance of near normal rainfalls over southern coastal areas and no signal for other areas during the month of September 2023</p>

NATIONAL AGROMETEOROLOGICAL ADVISORY BULLETIN

Agro-met Advisory: July 2023

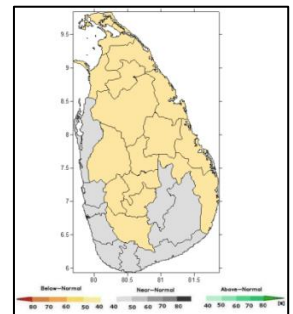
Natural Resource Management Centre, Department of Agriculture

(For the months of July, August and September)

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

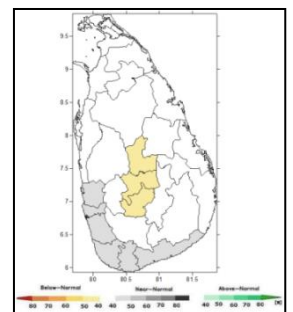
- Rainfall forecast for **July**

Below normal rainfalls are likely over Central, Sabaragamuwa, Northcentral, Eastern and Northern provinces and in Kurunegala district. Near normal rainfalls are expected over Southern and Western coastal areas. There is a chance of having near or slightly below normal rainfalls over other areas of the country during the month of July 2023.



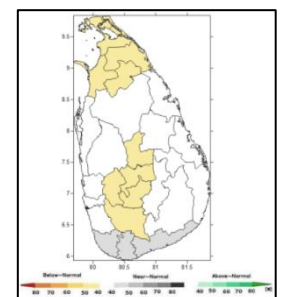
- Rainfall forecast for **August**

Below normal rainfalls are likely over Central province and near normal rains over Southern and Western coastal areas. There is no signal for other areas of the country for the month of August 2023.



- Rainfall forecast for **September**

Below normal rainfalls are likely over Central, Sabaragamuwa and northern provinces with a chance of near normal rainfalls over southern coastal areas. There is no clear signal for the other remaining areas during the month of September 2023



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.

NATIONAL AGROMETEOROLOGICAL ADVISORY BULLETIN

The average effective storage in major reservoirs under Irrigation Department (ID) is about 43.4%. Recent updated information on the water levels and water availability of major reservoirs are attached in Table 4. While the average water level of major irrigation schemes is about 43.4%, localized distribution has some irregularities. The ID further states that, considering the weather forecast, it is imperative to implement strict water management practices to sustain the ongoing season with the limited water resources.

The Mahaweli Authority of Sri Lanka (MASL) has stated that, considering the limited rainfall during the Yala season, they have set a target of approximately 69,870 hectares for paddy cultivation at the beginning of the season, while reserving a significant extent for other field crops (OFCs). However, with the available water situation at the begin of the season, farmers tend to go for paddy other than OFCs. As a result, the Mahaweli areas have already surpassed the paddy cultivation targets. The less water availability situation in Uda Walawe and System H, that mentioned in the previous Agro-met advisory, has reached an extremely unsatisfactory level, posing challenges for the continuation of the season. Therefore, crop cultivations, particularly in the Uda Walawe area, are at risk if that area does not receive a satisfactory amount of rainfall during the next two months.

According to the recently updated statistics of Corporate Development Division of DAD, national cultivation progress of paddy is about 489,392 ha. District-wise National cultivation targets and progress of 2023 Yala season, is given in Table 5. Based on the current reported data, approximately 45 % of the cultivation area is being utilized under minor irrigation tanks for this season. Therefore, the available water storage in the minor reservoirs will be adequate to sustain the season with the implementation of proper water management practices.

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

NATIONAL AGROMETEOROLOGICAL ADVISORY BULLETIN

- According to the DoM forecast for next three months, satisfactory amount of rainfall could not be observed for the Intermediate and Dry Zones. Furthermore, considering the irrigation water availability, 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.

Paddy cultivation:

- For paddy cultivations that have reached the stage of first flowering, it is crucial to maintain the water level in the fields at least saturation for a duration of approximately two weeks. This practice is essential to prevent any potential water scarcity issues during this critical period.
- Based on the currently available weather information, paddy cultivations that will reach the harvesting stage by the end of this month or during August are not at risk of heavy downpours.
- Pest outbreaks are normally appeared in dry weather condition after heavy rains. Therefore, under predicted dry weather condition, farmers should have to give a special attention on pest outbreaks.

Other Field Crops (OFCs)

- Paddy farmers, who are going to complete the harvesting before the end of July, have the potential for 3rd season cultivation. They are advised to start short age legumes such as mung bean, soon after harvesting.
- Irrigation Department mentioned that, while planning OFCs in Irrigation schemes, it is very important to have discussions with respective Divisional Irrigation Engineers as there is no satisfactory level of water storage in many reservoirs.
- OFC farmers are advised to optimize the available water under the prevailing weather situation. They are advised to follow water conservation methods, to complete a successful season.

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

Dry Zone (mm)		Intermediate Zone (mm)		Wet Zone (mm)	
AER	Jul	AER	Jul	AER	Jul

NATIONAL AGROMETEOROLOGICAL ADVISORY BULLETIN

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 2: 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
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		

NATIONAL AGROMETEOROLOGICAL ADVISORY BULLETIN

			IU3c	41.2			
			IU3d	31.6			
			IU3e	32.5			

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

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

Dry Zone (mm)		Intermediate Zone (mm)		Wet Zone (mm)	
AER	Sep	AER	Sep	AER	Sep
DL1a	27.4	IL1a	73.8	WL1a	267.4
DL1b	25.9	IL1b	60.1	WL1b	244.3
DL1c	43.6	IL1c	59.6	WL2a	176.2
DL1d	45.1	IL2	50.1	WL2b	148.5
DL1e	51.9	IL3	38.1	WL3	125.2
DL1f	17.8	IM1a	75.8	WM1a	264.2
DL2a	38.7	IM1b	38.8	WM1b	187.4
DL2b	22.0	IM1c	18.3	WM2a	176.2
DL3	13.3	IM2a	83.4	WM 2b	141.9
DL4	6.2	IM2b	79.0	WM3a	100.7
DL5	14.0	IM3a	98.9	WM3b	82.7
		IM3b	46.6	WU1	222.5
		IM3c	64.3	WU2a	169.1
		IU1	93.8	WU2b	148.4
		IU2	92.6	WU3	116.4
		IU3a	79.8		
		IU3b	66.5		
		IU3c	79.9		
		IU3d	60.2		
		IU3e	68.2		

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

Table 4: Summary of daily water levels & storage of major reservoirs (07.07.2023)

NATIONAL AGROMETEOROLOGICAL ADVISORY BULLETIN

NO	RANGE	NO OF TANKS	STORAGE (Acft)				
			GROSS	DEAD	PRESENT	EFFECTIVE	
						Acft.	%
1	AMPARA	9	1,052,221	16,259	321,615	305,356	29.5%
2	ANURADAPURA	10	556,390	27,583	283,768	256,185	48.4%
3	BADULLA	7	78,388	4,138	50,221	46,083	62.1%
4	BATTICALOA	4	140,172	1,085	63,812	62,727	45.1%
5	HAMBANTOTA	10	377,738	34,172	213,591	179,419	52.2%
6	GALLE	2	3,081	-	3,139	3,139	100.0%
7	KANDY	3	28,503	386	16,580	16,194	57.6%
8	KURUNEGALA	10	142,413	5,670	73,180	67,510	49.4%
9	MONARAGALA	3	44,873	2,640	21,355	18,715	44.3%
10	POLONNARUWA	4	352,010	24,300	215,893	191,593	58.5%
11	PUTTALAM	2	74,261	8,400	32,218	23,818	36.2%
12	TRINCOMALEE	5	191,328	2,555	95,801	93,246	49.4%
13	MANNAR	4	67,370	675	29,660	28,985	43.5%
	TOTAL	73	3,108,747	127,863	1,420,832	1,292,969	43.4%

(Source: Water Management Division, Department of Irrigation)

Table 5. National Cultivation progress of Paddy, 2023 *Yala* season (04.07.2023)
(Source: Corporate Development Division, Department of Agrarian Development)

NATIONAL AGROMETEOROLOGICAL ADVISORY BULLETIN

Number	District	Cultivation Progress of Yala 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	2,428.46	57.47	2,485.93
2	Gampaha	6,616.81	649.06	7,265.87
3	Kalutara	8,786.16	28.05	8,814.21
4	Kandy	3,757.13	5,376.27	9,133.40
5	Matale	6,270.02	2,017.87	8,287.89
6	Nuwaraeliya	63.95	45.36	109.31
7	Galle	5,222.93	604.61	5,827.54
8	Matara	9,781.92	2,146.69	11,928.61
9	Hambantota	32,148.23	2,432.91	34,581.14
10	Kurunegala	63,354.69	0.80	63,355.49
11	Puttalama	16,076.23	29.00	16,105.23
12	Anuradhapura	47,033.67	11,767.80	58,801.47
13	Pollonnaruwa	56,876.30	6,960.90	63,837.20
14	Badulla	10,416.34	1,756.16	12,172.50
15	Monaragala	17,677.02	561.50	18,238.52
16	Rathnapura	8,825.93	1,339.93	10,165.86
17	Kegalle	4,589.70	1,698.75	6,288.45
18	Ampara	62,678.86	1,156.79	63,835.65
19	Trincomalee	25,808.37	4,063.90	29,872.27
20	Batticaloa	34,752.03	-	34,752.03
21	Vavuniya	5,029.31	672.70	5,702.01
22	Jaffna	-	-	-
23	Mannar	2,830.65	47.40	2,878.05
24	Mullathivu	6,444.25	1,115.40	7,559.65
25	Kilinochchi	7,394.10	-	7,394.10
Total		444,863.07	44,529.32	489,392.38

NATIONAL AGROMETEOROLOGICAL ADVISORY BULLETIN

- ❖ 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 August, 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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- Ms. D.K.W.R. Senevirathna (Director – Agriculture) Mahaweli Authority of Sri Lanka
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- Mr. K.M.D.W.P. Nishantha (Additional Director, Plant Protection Service) Horticultural Crops Research and Development Institute
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Special Thanks:

- Mr. D.M.P.T. Dissanayake (Deputy Director and Crop coordinator - Mung Bean)