

NATIONAL AGROMETEOROLOGICAL ADVISORY BULLETIN



08th June 2022 to 08th July 2022

Issued on 10th June 2022



Department of Meteorology

Department of Agriculture

2022.06.10



NATIONAL AGROMETEOROLOGICAL ADVISORY BULLETIN

Weather and Climate update

Department of Meteorology

Rainfall Analysis-May 2022

According to the available rainfall data in the Department of Meteorology, near or above normal rainfalls were reported over most parts of Western, Sabaragamuwa Northwestern, Central and Southern provinces during the month of May 2022. Most of these provinces received more than 150% of the normal rainfall during the month. Observed rainfall as a percentage of normal during the month of May 2022 shown in figure 1(a) and observed cumulative rainfall from 1st January 2022 to 31st May 2022 as a percent of normal from is shown in the figure 1 (b) and it indicates below normal rainfalls in Matale, Nuwara Eliya, Badulla and Monaragala districts and near or above normal rainfalls elsewhere.

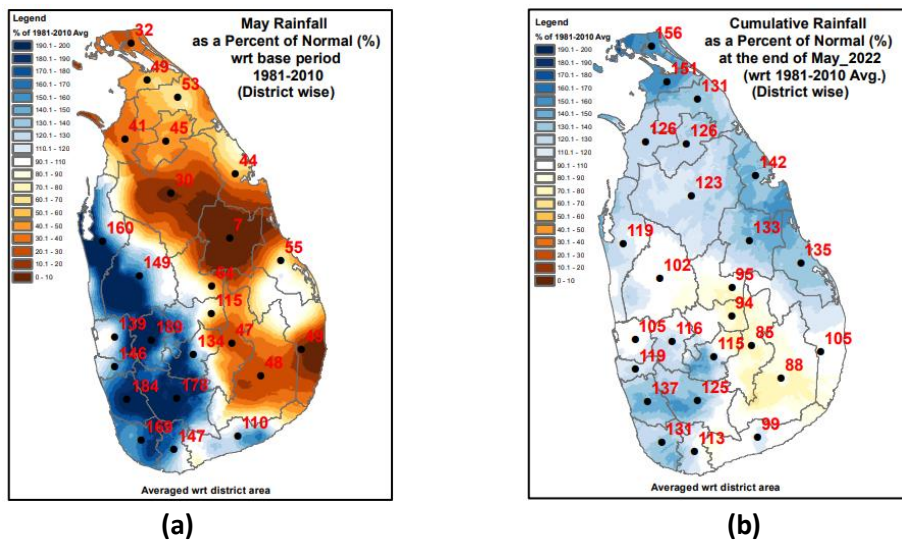


Figure 01 : Observed Monthly rainfall as percentage of long-term average (1981-2010) during May 2022 (a) and cumulative rainfall from 01st January 2022 to 31st May 2022 as percentage of long term average (1981-2010) (b)

Temperature analysis (April)



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Average maximum temperatures were near normal over the country except Nuwara Eliya district, where below normal maximum temperatures were observed during the month of May 2022. Average minimum temperatures were near normal over the country during the month of May 2022.

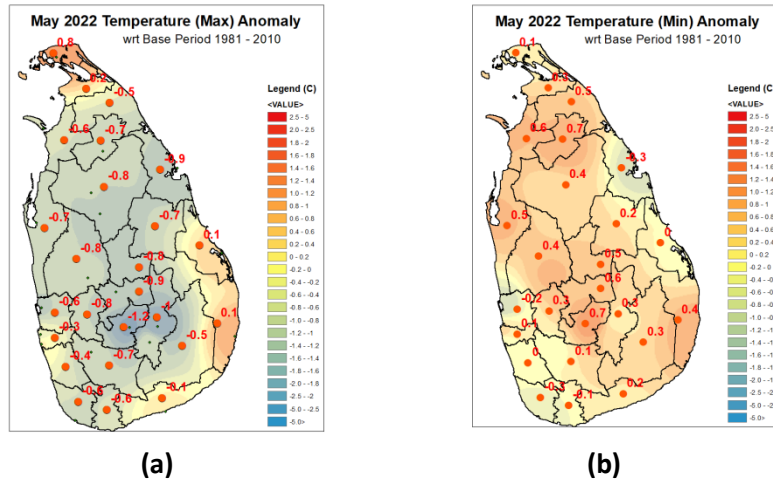
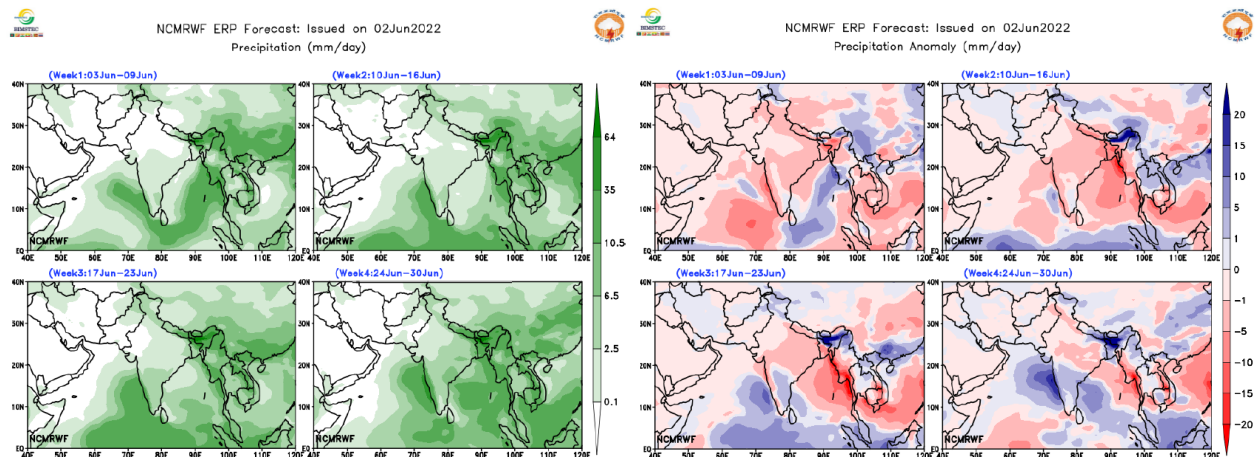


Figure 02 : Average Maximum (a) and Minimum (b) Temperature anomalies during the month of May 2022 compared with the long-term average (1981-2010)

Weather Forecast: Forecast for the month of June 2022(Weekly)

(Updated on 2nd June 2022)

Slightly below normal rainfalls are likely over Colombo, Gampaha, Puttalam and Kurunegala districts and near normal rainfalls are likely over other areas of the country during the weeks of 03-09 June and 10-16 June 2022. During the weeks 17-23 June and 24-30 June near normal rainfalls are likely over 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://www.meteo.gov.lk))
http://www.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) 2022

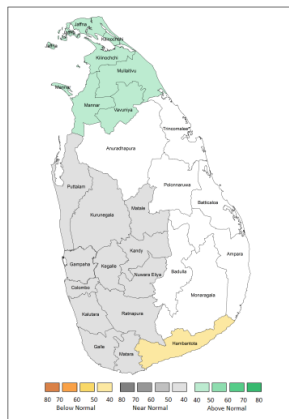




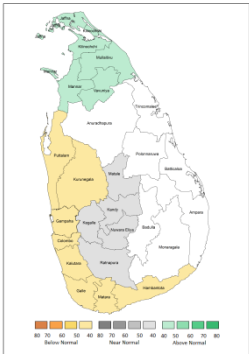
Figure 04 : Seasonal Rainfall Forecast for June- August 2022 (JJA 2022)

Near normal rainfalls are expected in Western, Sabaragamuwa, Northwestern and central provinces and in Galle and Mathara districts and slightly above normal rainfalls in Northern province with a possibility for below normal rainfalls over Hambantota district. There is no clear signal for remaining areas where there are equal probabilities of having above or near or below normal rainfalls during the season of JJA 2022. (Fig. 4).



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Monthly Rainfall Forecasts for June-July-August 2022

Month		Rainfall forecast
	<div style="border: 1px solid black; padding: 5px; width: fit-content; margin: auto;">June 2022</div>	<p>There is a possibility for near normal rainfalls over Western, Sabaragamuwa, Northwestern , Central and Northern provinces and in Galle and Matara districts. There is no clear signal for other areas where there is a equal probability of having above or near or below normal rainfalls during the month of June 2022.</p>
	<div style="border: 1px solid black; padding: 5px; width: fit-content; margin: auto;">July 2022</div>	<p>There is a probability for near normal rainfall over Western, Sabaragamuwa, Northwestern, Central and Northern provinces and in Galle and Matara districts and no clear signal for remaining areas of the country for the month of July 2022.</p>
	<div style="border: 1px solid black; padding: 5px; width: fit-content; margin: auto;">August 2022</div>	<p>There is a possibility for near normal rainfalls over Central and Sabaragamuwa provinces, slightly below normal rainfalls over Western, Northwestern and Southern provinces with a chance of above normal in Northern province. No clear signal for other areas of the country where exist equal probabilities for below or near or above normal rainfalls over the country during the month of August 2022.</p>



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Agro-met Advisory: June 2022

(For months of June, July and August)

According to the Irrigation Department (ID), the average **effective storage of major reservoirs is about 58%**. Recently updated summary of daily water levels and storage of major reservoirs is given in Table 4. ID further stated that, although storage water of the major and medium reservoirs is used for the land preparation activities, the carry over storage of major reservoirs is still at a satisfactory level to continue the season. When compared with the last month figures, **cultivation performance** has increased from 20 - 25% to **79 %**. The Major Irrigation range-wise cultivation performance of *Yala*, 2022 is illustrated in Table 5. Targeted extents in Polonnaruwa, Hambantota and Galle districts are still to be achieved.

Department of Agrarian Development (DAD), also agreed with ID and further stated that, according to the recently updated statistics of Corporate Development Division of DAD, **national cultivation progress of paddy is about 424,746 ha**. District-wise National cultivation targets and progress of *Yala* season, is given in Table 6. *Mahaweli* Authority of Sri Lanka stated that the land preparation has been **completed in 55% of Mahaweli areas** for paddy and the rest of 45% will be used for Other Field Crops (OFC's).

Considering the weather forecast of DoM, irrigation water availability information of ID and field level information of Sri Lanka *Mahaweli* Authority and DAD, the following agronomic interventions are recommended to ensure optimum productivity under existing situation,

- Paddy farmers, who are still at their land preparation stage, are highly advisable to consider, the late cultivation related weather issues, such as heavy rains that can be received during the harvesting period, before starting their land preparation activities.
- However, farmers need to be highly encouraged to cultivate any food crop during the remaining 3-4 months of the season, despite of the weather-related risk, to ensure national food security of the country. Precautionary methods should be taken to reduce the risk of adverse weather impacts by following timely weather information.
- While ensuring the production of the present season, Seed and Plant Material Development Center (SPMDC) of the Department of Agriculture emphasis the importance of producing of the seed paddy for the forthcoming *Maha* season. The SPMDC already started the seed paddy production program for the 2022/23 *Maha* season and they request from farmer community to draw their attention on producing 'farm save seeds' for the coming *Maha* season. *Mahaweli* Authority also collaboratively work with this program.
- Subsidiary field crops need to be highly promoted under the present situation of the country, including short-aged Legumes, as solutions for the late cultivation of the season and to overcome the shortage of agricultural inputs.
- The following table shows the seed availability of important Subsidiary field crops at the SPMDC to continue the season.



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Table 7. Available seed stocks (kg) in SPMDC for the present season (06.06.2022)

Crop	Available seed stocks (Kg)
Green gram	100,000
Black gram	130,000
Cowpea	2,000
Maize Local	120,000
Maize hybrid	1,000
Soya Bean	2000
Finger millet	11,000
Chilli (Opv)	6,000
Chilli (Hybrid)	125

(Source: SPMDC, DoA)

- With the fuel issue, if farmers practice ‘zero tillage’ for establishment the crops, a considerable attention should be paid for the weed control. (eg. Planting in rows to facilitate mechanical weed control)
 - Vegetable cultivation, especially home gardening, is also need to be promoted and DoA started issuing vegetable seeds for home gardening to get the maximum benefits from the cultivable lands.
 - However, a special attention is needed during the field establishment of crops, specially paying attention to the short-term weather predictions issued by DoM to minimize the adverse weather impacts.
 - Vegetable farmers in the Wet Zone, should pay their attention to drainage provisions, preparing raise beds and improving drainage systems to avoid the water logging situations due to unexpected intense rains. Wet weather condition also leads to infectious disease such as bacterial and fungal diseases and also to the post-harvest losses.
 - According to the general climatology of the country, Intermediate and Dry Zones do not receive sufficient amount of rains during considered period. Furthermore, available water in the reservoirs evaporate due to high wind and high temperature conditions. Therefore, it is advisable to pay more attention on water conservation, in these regions.
 - Root and tuber crops are also need to be promoted as supplementary food for paddy.
- Please consider that this advisory was prepared based the on the national level information and therefore, it is advisable to consider localized detailed information, as a supplementary to this advisory.



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An updated Agro-met Advisory will be issued in early July for the rest of 2022 Yala season in consultation with the Department of Meteorology and other relevant resource persons and stakeholders.

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		
		IU3e	17.3		

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

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



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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**



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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			
			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 (06.06.2022)



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NO	RANGE	NO OF TANKS	STORAGE (Acft)				
			GROSS	DEAD	PRESENT	EFFECTIVE	
						Acft.	%
1	Ampara	9	1,052,327	16,259	392,534	376,275	36
2	Anuradapura	10	555,566	27,583	418,174	390,591	74
3	Badulla	7	78,266	4,138	39,969	35,831	48
4	Batticaloa	4	140,120	1,085	94,628	93,543	67
5	Hambantota	10	378,065	34,172	240,285	206,113	60
6	Galle	2	3,160	-	3,025	3,025	96
7	Kandy	3	28,450	386	23,082	22,696	81
8	Kurunegala	10	142,381	5,670	119,368	113,698	83
9	Monaragala	3	44,900	2,640	23,977	21,337	50
10	Polonnaruwa	4	351,700	24,300	273,201	248,901	76
11	Puttalam	2	74,233	8,400	51,315	42,915	65
12	Trincomalee	5	190,895	2,555	127,852	125,297	67
13	Mannar	4	67,924	675	47,003	46,328	69
	TOTAL	73	3,107,987	127,863	1,854,412	1,726,549	58

(Source: Water Management Division, Irrigation Department)

Table 5: Major irrigation range-wise cultivation performance of *Yala*, 2022 (03.06.2022)



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Range	Available Extent (Acs)	Planned Extent (Acs)		Cultivation Performance %	
		Paddy	OFC	Ploughing	Sowing
Ampara	156,437	123,677	14,487	100%	100%
Anuradhapura	97,075	72,300	13,679	88%	82%
Badulla	22,965	11,415	5,490	80%	76%
Batticaloa	58,537	52,777		93%	91%
Colombo	18,271	12,338	386	81%	73%
Galle	37,379	26,599		55%	44%
Hambantota	71,799	61,272	6,750	54%	39%
Kandy	36,534	30,285	4,737	77%	73%
Kurunegala	44,733	32,836	4,168	87%	85%
Monaragala	19,440	16,127	415	100%	95%
Polonnaruwa	87,953	79,547	8,250	53%	36%
Puttalam	16,868	10,000	3,563	82%	68%
Trincomalee	60,465	59,986		71%	47%
Mannar	46,057	9,002	2,470	78%	68%
Total	774,513	598,161	64,395	79%	70%

(Source: Irrigation Department)

Table 6: National Cultivation progress of Paddy, *Yala* season, 2022 (03.06.2022)



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No	District	Cultivation target given by the head office (Hectares)	Cultivation Progress of <i>Yala</i> season 2022			A+B Cultivation Target (%)
			A (Hectares)	B (Hectares)	A + B Total (Hectares)	
			Extent of land sown or planted	Extent of land under basic land preparation only		
1	Colombo	2,809.20	1,767.28	665.18	2,432.46	87%
2	Gampaha	11,640.19	7,647.18	1,991.73	9,638.91	83%
3	Kalutara	11,601.36	8,111.97	3,572.19	11,684.16	101%
4	Kandy	11,997.98	3,211.99	4,345.46	7,560.64	63%
5	Matale	17,458.77	8,413.38	3,517.03	11,930.41	68%
6	Nuwara Eliya	5,020.02	67.87	189.50	257.37	5%
7	Galle	12,171.90	5,334.39	3,540.63	8,875.02	73%
8	Matara	15,500.00	9,403.84	3,208.95	12,612.79	81%
9	Hambantota	37,982.13	3,051.00	5,946.98	8,997.98	24%
10	Kurunegala	76,070.24	52,398.70	5,541.69	57,940.39	76%
11	Puttalam	19,380.44	11,745.09	1,945.20	13,690.29	71%
12	Anuradhapura	91,571.96	56,985.99	10,526.46	67,512.45	74%
13	Polonnaruwa	68,972.51	8,790.34	15,473.70	24,264.04	35%
14	Badulla	18,830.21	4,924.73	5,808.76	10,733.49	57%
15	Moneragala	20,340.14	11,067.71	6,853.99	17,921.70	88%
16	Rathnapura	13,502.22	6,667.92	3,748.70	10,416.62	77%
17	Kegalle	7,226.53	386.00	3,515.00	3,901.00	54%
18	Ampara	68,467.75	58,077.17	4,441.60	62,518.77	91%
19	Trincomalee	28,605.00	18,130.23	6,808.22	24,938.45	87%
20	Batticaloa	32,700.50	32,260.60	158.43	32,419.03	99%
21	vavuniya	5,886.30	5,886.30	0.00	5,886.30	100%
22	Jaffna	0.00	0.00	0.00	0.00	
23	Mannar	3,606.88	533.70	212.60	746.30	21%
24	Mulathi	8,984.70	7,053.00	301.20	7,354.20	82%
25	Kilinochchi	10,935.00	10,304.00	209.20	10,513.20	96%
Total		601,261.93	332,220.37	92,522.40	424,745.98	71%

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



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