

# NATIONAL AGROMETEOROLOGICAL ADVISORY BULLETIN



08<sup>th</sup> February 2023 to 08<sup>th</sup> March 2023

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



**Department of Meteorology**

**Department of Agriculture**

**2023.02.08**

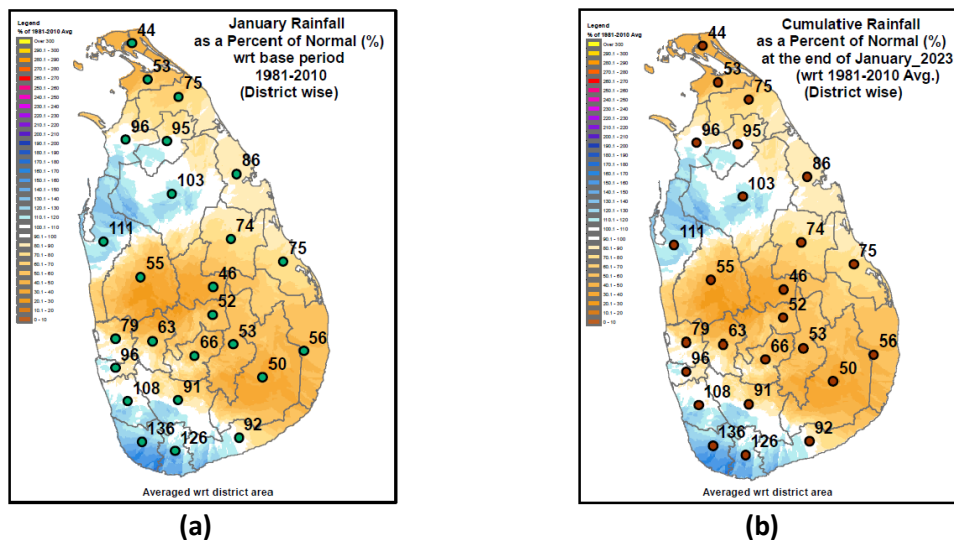
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## Weather and Climate update Department of Meteorology

### Rainfall Analysis-January 2023

According to the available rainfall data in the Department of Meteorology, above normal rainfalls were reported over Puttalam, Galle and Matara and near normal rainfalls were reported over some parts of Mannar, Vavuniya, Anuradhapura, Colombo, Kalutara, Rathnapura and Hambantota districts. It has been reported below normal rainfalls in all other remaining areas of the country during the month of January 2023.

Observed rainfall as a percentage of normal during the month of January 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 31<sup>st</sup> January 2023 is shown in the figure 1 (b).

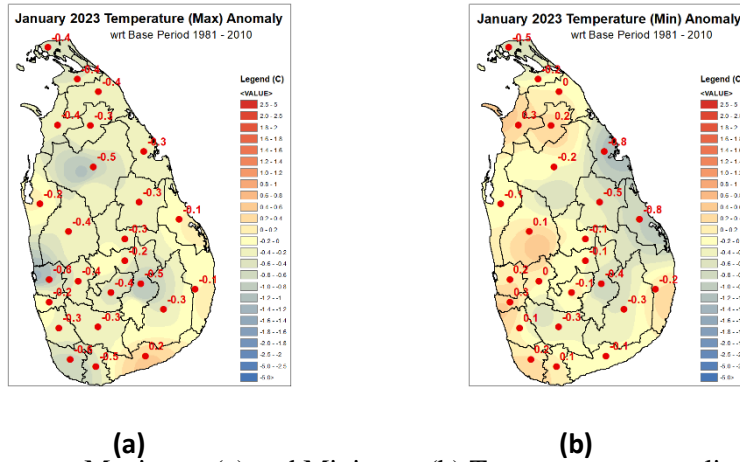


**Figure 01 :** Observed Monthly rainfall as percentage of long-term average (1981-2010) during January 2023 (a) and cumulative rainfall from 01<sup>st</sup> January 2023 to 31<sup>st</sup> January 2023 as percentage of long term average (1981- 2010) (b)

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## Temperature analysis-January 2023

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



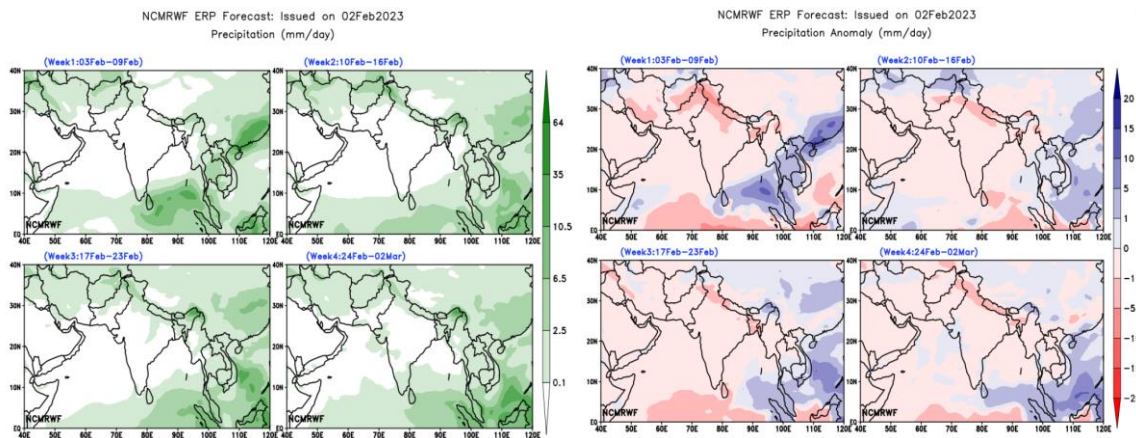
**Figure 02 :** Average Maximum (a) and Minimum (b) Temperature anomalies during the month of January 2023 compared with the long-term average (1981-2010)

## Weekly rainfall Forecast for the month of February 2023

(Updated on 2<sup>nd</sup> February 2023)

A slightly above or near normal rainfalls are likely over most parts of the country during the week of 03<sup>rd</sup> - 09<sup>th</sup> February 2023. During the week 10<sup>th</sup> -16<sup>th</sup> of February and 17<sup>th</sup> -23<sup>rd</sup> February near normal rainfalls are likely in south-western parts and below normal rainfalls are likely over most of the remaining areas of the country. Near or above normal rainfalls are likely over most of the parts of the country during the week 24<sup>th</sup> February - 02<sup>nd</sup> March. (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 February-March-April (FMA) 2023

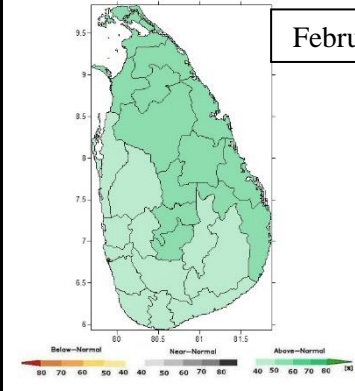
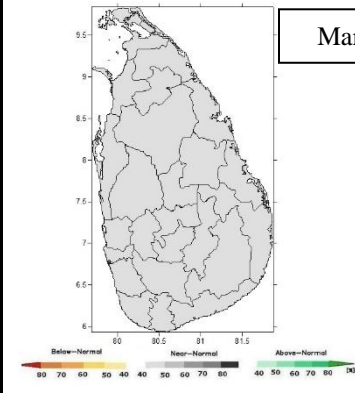
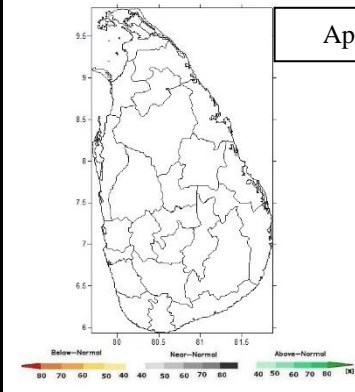


**Figure 04** : Seasonal Rainfall Forecast for February-April 2023 (FMA 2023)

**Near normal rainfalls are likely over most parts of the country during FMA 2023 season as a whole (Fig. 04).**

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## Monthly Rainfall Forecasts for February-March-April 2023

Month	Rainfall forecast
 <p style="text-align: center;">February 2023</p>	<p>Above average rainfalls are likely over most parts of the country. Specially there is a higher probability for getting above normal rainfall in Eastern, Northcentral, Central and Northern provinces during the month of February 2023. However normal (climatological) values are less during the month.</p>
 <p style="text-align: center;">March 2023</p>	<p>Near normal rainfalls are likely over most parts of the country during the month of March 2023.</p>
 <p style="text-align: center;">April 2023</p>	<p>There is a climatological probability as there is no clear signal for the prediction of the month of April 2023. Therefore, there is an equal possibility for below or near or above normal rainfall during the month.</p>

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**Agro-met Advisory: February 2023**

**Natural Resource Management Centre, Department of Agriculture**

**(For the months of February, March and April)**

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 65.5%. Recent update of daily water levels & storage of major reservoirs are attached in Table 4. ID further stated that, the carry over storage of major reservoirs is at a satisfactory level to continue the season with well-planned water management practices. Mahaweli Authority of Sri Lanka (MASL), also agreed with ID and further stated that, to continue the present season successfully, water issuing schedules will extend till mid-March in the Mahaweli areas.

Sixty percent of minor irrigation tanks under the Department of Agrarian Development (DAD) also reached up to the satisfactory level, with the rains received during the past few days. Harvesting activities for present *Maha* season have been started in some major paddy growing areas including Ampara, Kurunegala, Puttalam, Moneragala and Northern province.

Recent updated statistics of Corporate Development Division of DAD shows that, the national cultivation progress of paddy is about 790,295 ha. District-wise national cultivation progress of 2022/23 *Maha* season, is given in the Table 5.

Considering the weather forecast of DoM, irrigation water availability information of ID and field level information of MASL and DAD, the following agronomic interventions are recommended to ensure optimum production under existing situation.

- According to the medium-term weather prediction of DoM, a dry weather condition will be experienced in mid-February. Again, some rains will be expected in last week of February too. Therefore, paddy famers are advised to plan their harvesting activities

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during the expected dry period in this month. It is important to follow short-term weather predictions to decide the harvesting dates, as regional changes will be expected.

- Since the long-term forecast of DoM predicts a near normal rainfall during March, higher rainfall events will not be expected, especially during first two weeks of March. Therefore, it is advisable to plan harvesting of paddy during early March, those who will not be able to do their harvesting during this month.
  - The prevailing cloudy condition over the country, leads to reduce temperature and enhance relative humidity. The paddy cultivations at the flowering stage, can be affected by this overcasting condition leading to yield reductions.
  - Although present status of major and minor reservoirs is at a satisfactory level to continue the season, according to the general climatology of the country, satisfactory amount of rainfall may not receive during the *Yala* season to increase the effective storage of tanks. Therefore, attention need to be paid to save the available water resource as much as possible to start the 2023 *Yala* season on time.
  - Seed paddy farmers are advised to advance the coming 2023 *Yala* season, and start the land preparation activities during the last week of March.
  - Farmers who are planning to do 4<sup>th</sup> season cultivation (ie. after completion of the *Maha* season and before the cultivation activities of *Yala* season), can cultivate, short age legume crops such as Mung bean, with improved drainage systems.
  - Paddy farmers in the potential areas for 4<sup>th</sup> season cultivation, should have to start Mung Bean cultivations during the 3<sup>rd</sup> week of February. They should have to complete mid-season Mung Bean cultivations on time, taking at least one pick, without affecting the subsequent *Yala* season.
  - Farmers who are willing to cultivate short age legumes such as Mung bean, instead of paddy for 2023 *Yala* season, are advisable to start cultivation activities during mid-March for a successful harvest with less mosaic virus incidences during the season.
- ❖ 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.

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

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

Dry Zone (mm)		Intermediate Zone (mm)		Wet Zone (mm)	
AER	Feb	AER	Feb	AER	DEC
DL1a	26.9	IL1a	6.1	WL1a	57.5
DL1b	12.6	IL1b	20.5	WL1b	34.5
DL1c	47.0	IL1c	54.1	WL2a	53.8
DL1d	11.1	IL2	71.1	WL2b	10.4
DL1e	10.9	IL3	5.3	WL3	9.4
DL1f	2.0	IM1a	66.2	WM1a	66.9
DL2a	58.1	IM1b	81.0	WM1b	70.4
DL2b	46.8	IM1c	58.9	WM2a	23.5
DL3	1.1	IM2a	64.3	WM 2b	12.9
DL4	0.5	IM2b	50.6	WM3a	13.7
DL5	11.4	IM3a	24.4	WM3b	35.5
		IM3b	31.4	WU1	47.7
		IM3c	41.0	WU2a	25.9
		IU1	76.4	WU2b	37.5
		IU2	61.8	WU3	29.2
		IU3a	47.3		
		IU3b	48.1		
		IU3c	46.6		
		IU3d	33.6		
		IU3e	25.9		

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



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

Dry Zone (mm)			Intermediate Zone (mm)			Wet Zone (mm)	
AER	Mar		AER	Mar		AER	Mar
DL1a	77.7		IL1a	29.4		WL1a	110.8
DL1b	26.0		IL1b	34.2		WL1b	65.6
DL1c	21.3		IL1c	77.0		WL2a	86.2
DL1d	3.4		IL2	47.9		WL2b	58.0
DL1e	4.6		IL3	19.3		WL3	47.3
DL1f	12.3		IM1a	58.9		WM1a	119.2
DL2a	26.6		IM1b	55.4		WM1b	141.9
DL2b	30.2		IM1c	46.6		WM2a	46.3
DL3	10.3		IM2a	95.0		WM 2b	57.2
DL4	8.5		IM2b	83.0		WM3a	53.4
DL5	28.6		IM3a	36.9		WM3b	33.3
			IM3b	30.0		WU1	88.7
			IM3c	43.8		WU2a	54.6
			IU1	64.9		WU2b	76.2
			IU2	56.6		WU3	54.5
			IU3a	123.0			
			IU3b	100.3			
			IU3c	66.1			
			IU3d	44.6			
			IU3e	55.0			

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

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

Dry Zone (mm)		Intermediate Zone (mm)		Wet Zone (mm)	
AER	Apr	AER	Apr	AER	Apr
DL1a	150.9	IL1a	123.4	WL1a	250.2
DL1b	87.7	IL1b	98.1	WL1b	184.5
DL1c	57.0	IL1c	113.2	WL2a	161.3
DL1d	15.6	IL2	84.0	WL2b	195.4
DL1e	38.0	IL3	113.5	WL3	146.9
DL1f	72.3	IM1a	119.8	WM1a	236.4
DL2a	45.6	IM1b	108.1	WM1b	229.7
DL2b	26.1	IM1c	91.1	WM2a	179.7
DL3	43.3	IM2a	175.4	WM 2b	167.3
DL4	41.8	IM2b	158.7	WM3a	162.6
DL5	51.7	IM3a	98.4	WM3b	118.8
		IM3b	106.5	WU1	189.8
		IM3c	92.9	WU2a	161.3
		IU1	125.6	WU2b	184.5
		IU2	123.4	WU3	123.0
		IU3a	250.4		
		IU3b	197.5		
		IU3c	144.4		
		IU3d	100.3		
		IU3e	99.9		

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

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Table 4: Summary of daily water levels & storage of major reservoirs (06.02.2023)

NO	RANGE	NO OF TANKS	STORAGE (Acft)				
			GROSS	DEAD	PRESENT	EFFECTIVE	
						Acft.	%
1	Ampara	9	1,052,221	16,259	429,890	413,631	39.9
2	Anuradapura	10	556,390	27,583	464,794	437,211	82.7
3	Badulla	7	78,315	4,138	66,191	62,053	83.7
4	Batticaloa	4	140,172	1,085	134,542	133,457	96.0
5	Hambantota	10	377,738	34,172	267,330	233,158	67.9
6	Galle	2	3,081	-	2,895	2,895	94.0
7	Kandy	3	28,503	386	25,393	25,007	88.9
8	Kurunegala	10	142,413	5,670	114,999	109,329	80.0
9	Monaragala	3	44,873	2,640	27,492	24,852	58.8
10	Polonnaruwa	4	352,010	24,300	285,750	261,450	79.8
11	Puttalam	2	74,261	8,400	41,768	33,368	50.7
12	Trincomalee	5	191,328	2,555	159,922	157,367	83.4
13	Mannar	4	67,370	675	58,467	57,792	86.7
	TOTAL	73	3,108,674	127,863	2,079,433	1,951,570	65.5

(Source: Water Management Division, Department of Irrigation)

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Table 5: National Cultivation progress of Paddy, *Maha* season, 2022/23 (03.02.2023)

No	District	Cultivation Progress of <i>Maha</i> season 2022/23		
		A (Hectares)	B (Hectares)	A + B Total (Hectares)
		Extent of land sown or planted	Extent of land under basic land preparation only	
1	Colombo	4,342.15	14.2	4,356.35
2	Gampaha	12,561.98	55.81	12,617.79
3	Kalutara	13,889.02	0	13,889.02
4	Kandy	12,310.97	1,074.69	13,394.46
5	Matale	20,011.86	142.7	20,154.56
6	Nuwara Eliya	3,119.97	1,241.40	4,361.37
7	Galle	13,073.51	0	13,073.51
8	Matara	13,354.03	862.75	14,216.78
9	Hambantota	37,030.56	239.6	37,270.16
10	Kurunegala	76,690.42	0	76,690.42
11	Puttalam	19,158.49	0.8	19,159.29
12	Anuradhapura	125,786.28	0	125,786.28
13	Polonnaruwa	69,622.03	331.6	69,953.63
14	Badulla	18,452.99	3,197.65	21,650.64
15	Moneragala	36,600.58	73.31	36,673.89
16	Rathnapura	14,553.32	281.88	14,835.20
17	Kegalle	6,925.48	131.17	7,056.65
18	Ampara	81,064.35	928	81,992.35
19	Trincomalee	40,225.64	2,869.19	43,094.83
20	Batticaloa	71,189.41	0	71,189.41
21	vavuniya	14,949.25	4,582.74	19,531.99
22	Jaffna	12,294.06	329.57	12,623.63

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23	Mannar	22,809.43	379.4	23,188.83
24	Mulathi	21,773.25	137.4	21,910.65
25	Kilinochchi	Kilinochchi	28,505.80	273.1
<b>Total</b>		<b>718,866.09</b>	<b>49,629.67</b>	<b>768,556.03</b>

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

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