

NATIONAL AGROMETEOROLOGICAL ADVISORY BULLETIN



08th June 2024 to 08th July 2024

Issued on 08th June 2024



Department of Meteorology

Department of Agriculture

2024.06.08

NATIONAL AGROMETEOROLOGICAL ADVISORY BULLETIN

Weather and Climate update

Department of Meteorology

Rainfall Analysis-May 2024

According to the available rainfall data in the Department of Meteorology above normal rainfalls were reported over most parts of the country during the month of May 2024 (Fig 1(a)).

Observed rainfall as a percentage of normal during the month of May 2024 is shown in the figure 1(a) and observed cumulative rainfall as a percentage of normal from 1st January 2024 to 31st May 2024 is shown in the figure 1 (b). Cumulative rainfall in the figure 1(b) shows above normal rainfall over most parts of the country except Killinochchi, Mulativu, Mannar, Vavuniya, Trincomalee and Badulla districts, where near normal rainfalls were reported over these districts.

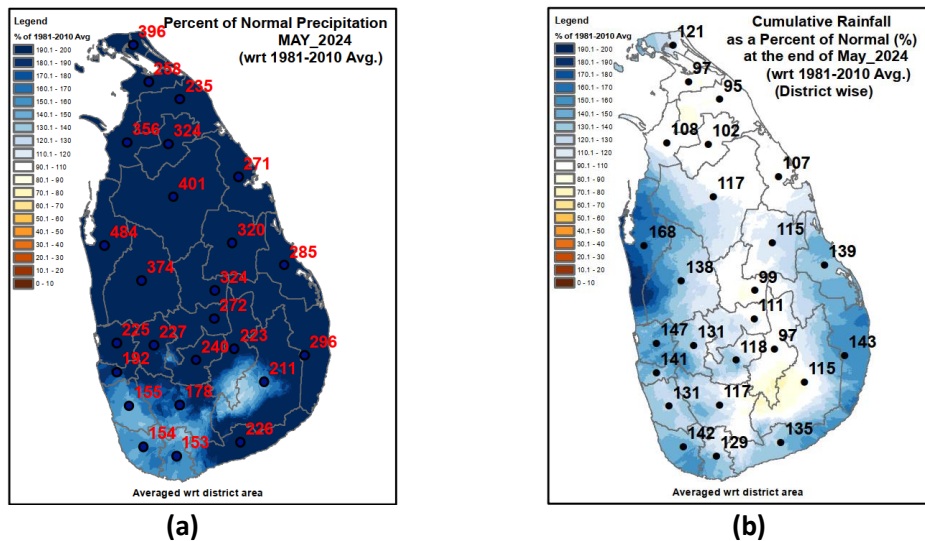


Figure 01 : Observed Monthly rainfall as percentage of long-term average (1981-2010) during May 2024 (a) and cumulative rainfall from 01st January 2024 to 31st May 2024 as percentage of long term average (1981-2010) (b)

Temperature Analysis-May 2024

During the month of May average maximum temperatures (daytime) were about normal over most parts of the country except Jaffna district, where little above normal temperatures were observed. Average minimum temperatures (night-time) were about normal over most parts of the country during the month of May 2024.

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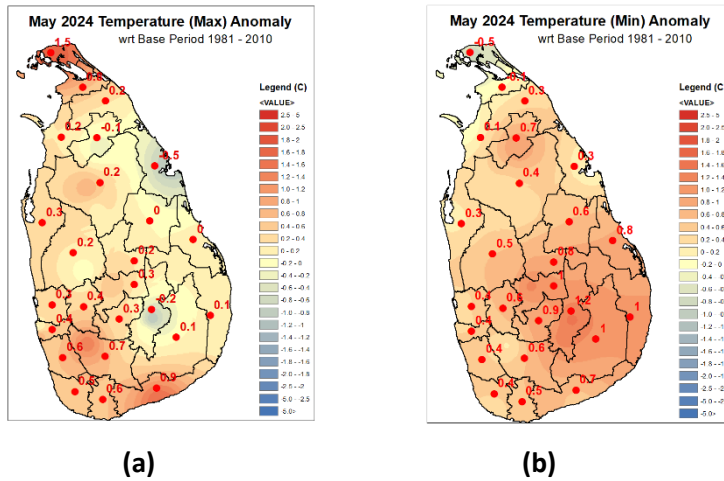
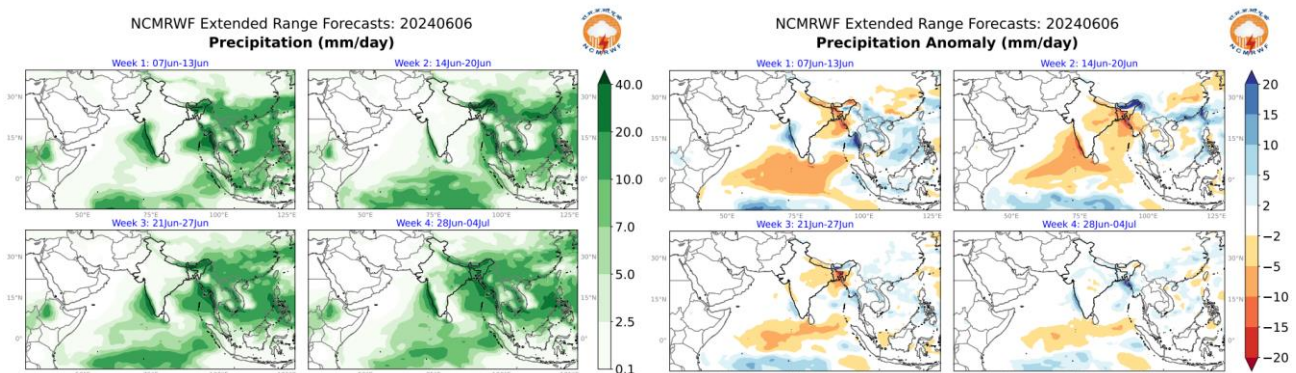


Figure 02 : Average Maximum (a) and Minimum (b) Temperature anomalies during the month of May 2024 compared with the long-term average (1981-2010)

Weather Forecast: Forecast for the month of June 2024(Weekly)

(Updated on 06th June 2024)

Below normal rainfalls are likely over some areas in Western, Northwestern, Southern and Sabaragamuwa provinces and some areas in Uva province and Nuwaraeliya district and near normal rainfalls are likely over remaining parts of the country during 07th -13th June. During 14th -20th June below normal rainfalls are likely over Western, Northwestern, Southern and Sabaragamuwa provinces and some areas in Central and Uva provinces and in Anuradhapura district. Near normal rainfalls are likely over remaining areas of the country. During the week 21st -27th below normal rainfalls are likely over Western, Northwestern, Southern and Sabaragamuwa provinces and some areas in Central and Uva provinces. Near normal rainfalls are likely over remaining areas of the country. During 28th June-04th July below normal rainfalls are likely over Western and Southern provinces and some areas in Northwestern and Sabaragamuwa provinces. Near normal rainfalls are likely over 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/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) 2024

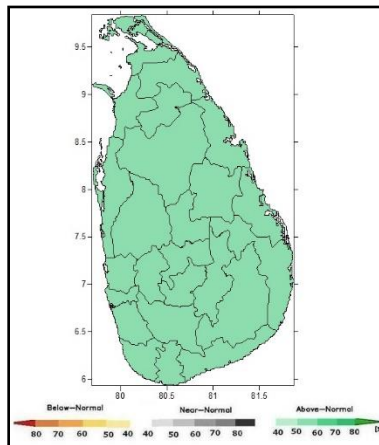


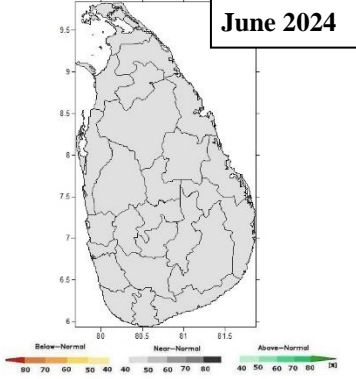
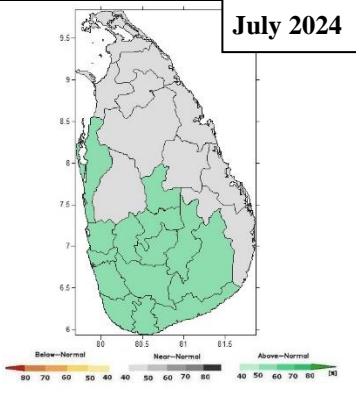
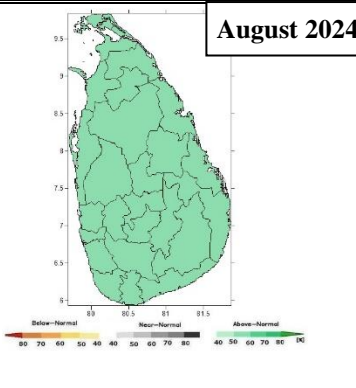
Figure 04 : Seasonal Rainfall Forecast for June-August 2024 (JJA 2024)

Above normal rainfalls are likely over most parts during June- August 2024 season (Fig. 04).

Monthly Rainfall Forecasts for May-June-July 2024

Month	Rainfall forecast
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 <p>June 2024</p> <p>The map shows the island of Sri Lanka with a legend at the bottom. The legend is divided into three sections: 'Below-Normal' (red to yellow, 80 to 40), 'Near-Normal' (grey, 50 to 80), and 'Above-Normal' (green to blue, 40 to 10). The map is mostly grey, indicating near-normal rainfall probabilities.</p>	<p>There is a higher chance of having near normal rainfalls over most parts of the country during the month of June 2024.</p>
 <p>July 2024</p> <p>The map shows the island of Sri Lanka with a legend at the bottom. The legend is divided into three sections: 'Below-Normal' (red to yellow, 80 to 40), 'Near-Normal' (grey, 50 to 80), and 'Above-Normal' (green to blue, 40 to 10). The western, southern, and central regions are shaded green, indicating above-normal rainfall probabilities, while other areas are grey.</p>	<p>There is a probability of having above normal rainfalls over Western, Southern, Sabaragamuwa, Central and Uva provinces and in Puttalam district and near normal rainfalls over elsewhere during the month of July 2024.</p>
 <p>August 2024</p> <p>The map shows the island of Sri Lanka with a legend at the bottom. The legend is divided into three sections: 'Below-Normal' (red to yellow, 80 to 40), 'Near-Normal' (grey, 50 to 80), and 'Above-Normal' (green to blue, 40 to 10). The entire island is shaded green, indicating above-normal rainfall probabilities.</p>	<p>There is a chance of having above normal rainfalls over most parts of the country during the month of August 2024.</p>

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Agro-met Advisory: June 2024

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, outlining the anticipated weather conditions;

- **Rainfall forecast for June**

There is a higher chance of having near normal rainfalls over most parts of the country during the month of June 2024.

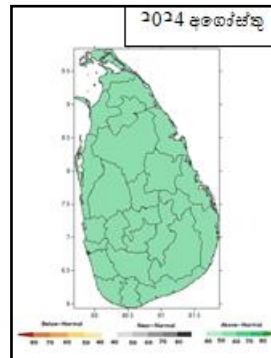
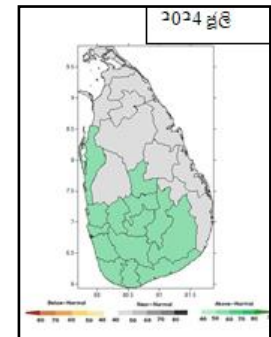
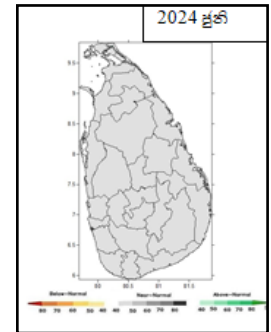
- **Rainfall forecast for July**

There is a probability of having above normal rainfalls over Western, Southern, Sabaragamuwa, Central and Uva provinces and in Puttalam district and near normal rainfalls over elsewhere during the month of July 2024.

- **Rainfall forecast for August**

There is a chance of having above normal rainfalls over most parts of the country during the month of August 2024.

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



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The **Irrigation Department (ID)** planned to issue water for the cultivation of 90% of the command area, for this *Yala* season. Water distribution began on March 15th and continued until April 25th, completing the water issuing for land preparation activities. The depletion of water levels due to this issuance could be compensated by the rainfall received over the past few weeks. The ID reports that the average effective storage in major reservoirs currently stands at about 74.2%. The current average effective storage for May surpasses the long-term average of 60%. The information in Table 5 and Table 6 provides updated details on water levels and availability in major and medium reservoirs, respectively.

The **ID** mentioned that due to the expected water scarcity condition at the beginning of the season, they strictly followed proper water management practices thus are able to secure somewhat satisfactory level of storage to successfully complete this *Yala* season at the same time to secure good carry over storage for the coming 2024/25 *Maha* season. ID further stated that due to the heavy rains received during past few weeks, crop damages also reported mainly in Galle, Colombo, Puttalam, Kurunegala, Matara, Kaluthara and Ratnapura districts.

According to the **Mahaweli Authority of Sri Lanka (MASL)**, the cultivation progress of paddy in Mahaweli areas has reached approximately 81,872 hectares, surpassing the initial target for the season, while the cultivation progress of other field crops (OFCs) in these areas exceeds 12,000 hectares.

The **Water Management Secretariat (WMS) of the Mahaweli Authority of Sri Lanka (MASL)**, overseeing a command area of 203,069 hectares, reported that the current available storage in WMS-controlled reservoirs is at 82%. The WMS further stated that all irrigation systems under its control have sufficient water capacity to continue the season without issues. However, it emphasized the importance of considering the upcoming *Maha* season and urged all relevant stakeholders to collaborate and plan cultivation activities with proper water management to ensure a successful 2024/25 *Maha* season because the rainfall of upcoming 2024/25 *Maha* season will be lower than average value.

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The **Department of Agrarian Development (DAD)** has declared that approximately 65% of its total command area is currently engaged in cultivation activities for the 2024 *Yala* season. Approximately 70% of Agrarian Service Centres (ASCs) under DAD have begun their cultivation activities, and water distribution has started for over 50% of the ASCs.

The DAD needs to draw attention to the damages recorded to minor tanks, especially in Anuradhapura, Kurunegala, Puttalam, and Badulla, due to the heavy rains experienced in the past few weeks. It is necessary to take every possible action to minimize the damages to the minor irrigation tanks to ensure a successful season under predicted above-normal rainfall conditions. DAD further noted that in addition to paddy, OFCs such as maize, green gram, and vegetables are being cultivated to ensure the country's food security.

Considering the available weather information, the agro-met advisory committee recommends the following agronomic interventions to ensure optimum production, during 2024 *Yala* season.

Paddy cultivation

- The heavy rainfall observed in the past few weeks has shown spatial variation, with higher rainfall in the Wet Zone and some parts of the Intermediate Zone, while the remaining areas of the Intermediate Zone and the Dry Zone received limited rainfall. Certain areas, such as Moneragala, reported crop damages due to high winds. According to available weather predictions, extreme rainfall and windy weather conditions are expected in July and August as well.
- According to the weekly forecast of DoM, the prevailing rainy condition gradually reduced and somewhat near normal weather conditions will prevail during June. Therefore, paddy farmers in the Dry and Intermediate zones are advised to continue regular agronomic practices paying attention to the short- and medium-term weather forecasts issued by the DoM.

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- Paddy farmers (specially under rainfed cultivations) in the Wet zone and certain areas in the Intermediate zone, who have not yet begun their cultivation activities, as well as those whose crops were damaged by high rainfall in recent weeks, can opt for short-aged paddy varieties (2½ to 3 months), ensuring that the commencement of the upcoming 2024/25 cultivation activities will not be affected.
- Field observation further noted that the paddy field in this season are at different stages. Spreading of pest and diseases is a common incident under such conditions.
- Furthermore, the prevailing weather conditions, which increase cloudiness and humidity, especially in the Wet Zone and certain areas of the Intermediate Zone, are favorable for the spread of pests such as Rice leaffolder and caterpillar complex (*'Goda wella'* and other specie). Besides, flood situations lead to an increase in diseases such as Bacterial leaf blight.
- In the Dry Zone and certain areas of the Intermediate Zone, the anticipated windy and dry conditions are likely to cause damage from paddy bugs, black bugs, and rice mites.
- Therefore, farmers need to pay special attention to identify these pests and diseases in their initial stages and consistently follow Department of Agriculture (DoA) recommended remedies.

Other Field Crops (OFCs)

- With the available weather predictions, farmers planning to start OFCs need to commence cultivation activities immediately, with extra attention for enhancing drainage systems.
- The Table 4 shows the seed availability of important subsidiary field crops at the Seed and Planting Material Development Centre (SPMDC) of Department of Agriculture to continue the season.
- Farmers planning for a third season, potentially with short-aged legumes such as green gram, must consider the predicted above-normal rainfall in August and at the same time ensure the timely commencement of the upcoming 2024/25 cultivation season.

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Vegetables

- Considering the predicted above normal rains in July and August, vegetables should be grown with proper drainage systems, utilizing raised beds, and providing proper rain shelters if possible.

Plantation Crops

Tea

All tea growing districts received above average rainfall for the month of May 2024. High temperature conditions prevailed in May have been diminished. According to the probabilistic rainfall forecasts for June – August 2024, there is a higher chance of receiving above normal rainfall for the month of June 2024. Continuation of South West monsoonal rains can be expected for Western slope of the country. However, unexpected flash drought conditions could cause moisture stress for young plants and pruned fields. Care should be taken latter part of the June, if rainfall ceases.

- Continuation of agronomic operations, like pruning and planting can be practiced.
- Planting should not be carried out in heavy rainy days and in soaked fields.
- Normal or hard (up to fish leaf) plucking can be practiced, with the rains
- Fertilizer application can be practiced. However, heavy rainy days should be avoided.
- Slashing the weeds and thatching the lands would reduce weed growth and control runoff and soil erosion, especially in new clearings.
- Land preparation can be continued but heavy rainy days should be avoided.
- Care should be given when workers are working in the fields about tree/tree branch falls, due to heavy rains
- If continuous rain occurs within a day, care should be given about possible landslide or such water related disasters.
- Drains should be kept without blocking

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Rubber

- The DoM predictions states that from June to August, more rainy weather is anticipated in the Wet zone areas. As a result, planting practices can be implemented in Wet zone areas with the current moisture conditions.
- However, significant rainfall might exacerbate leaf disease conditions because of the high humidity conditions. Therefore, kindly take the appropriate precautions to safeguard your nurseries and newly planted fields.
- To prevent rainfall interference with tapping operations and to safeguard the tapping panel, fix or repair your rain guards properly.

Coconuts

Coconut growers are advised to;

- Start fertilizer application during June
- Continue of field planting of coconut seedlings during in June
- Establish/renovate contour drains and drainage drains. Drainage drains are established to remove excess water and they should be cut with low slope and with barriers to reduce the runoff and facilitate infiltration.
- Mulching around the manure circle using coconut fronds, husks, weed thrash, straw or any plant materials.
- Adopt moisture conservation practices as husk pits, coir dust pith
- Addition of organic matter
- Rain water harvesting - To collect rain water within the land using ponds (*Pathaha*) to store water and use during drought

Cinnamon

- In the areas that have received heavy rainfall, it is necessary to remove the accumulated soil in the drainage systems and further repair the drainage systems.

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- With further expected rainfall in cinnamon growing areas; harvesting, weeding and stem training can be continued in June. After harvesting, gap filling (planting new plants for the empty spaces) can be done.
- Apply fertilizer, about one and a half months after harvesting (when the red colour of new shoots turns into green colour)
- Pay extra attention to the field as diseases and pests can spread with the rains.
- The production of nursery plants from cinnamon seeds can also be started during this period. There is a risk of cinnamon fruit falling due to heavy rains.

Minor Export Agricultural Crops (Pepper, Coffee, Nutmeg, Clove, etc.)

- Minor export crop growers are advised to take proactive measures to manage potential waterlogging and disease outbreaks.
- Prioritize good drainage in fields by clearing ditches and drains. Implement hilling practices around crops where appropriate.
- Monitor crops closely for signs of fungal diseases and be prepared to apply preventative fungicide sprays if necessary.
- Also, new planting should be completed before the end of rainy season.

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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)

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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
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)

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Table 4: Available seed stocks in SPMDC, DoA for the present season (03.06.2024)

CROP	Available seed stocks (kg)
Black gram	40,000
Green gram	8,000
Cowpea	22,000
Soya	85,000
Maize	3,500
Ground nut	5000
Seasame	642
Finger millet	7,900
Chilli opv	7,030
Big onion	17.67
Kollu	193
Red onion	12.54
Total	179,295.21

(Source: SPMDC, DoA)

Table 5: Summary of daily water levels & storage of major reservoirs (10.06.2024)

NO	RANGE	NO OF TANKS	STORAGE (Acft)					
			GROSS	DEAD	PRESENT	EFFECTIVE	Acft.	%
1	AMPARA	9	1,052,221	14,909	756,751	741,842	71.5%	
2	ANURADAPURA	10	558,572	42,735	406,645	363,910	70.5%	
3	BADULLA	7	78,492	6,149	66,574	60,425	83.5%	
4	BATTICALOA	4	140,133	1,085	93,183	92,098	66.2%	
5	HAMBANTOTA	10	377,738	33,172	321,721	288,549	83.7%	
6	GALLE	2	3,081	-	3,034	3,034	98.5%	
7	KANDY	3	28,450	386	27,506	27,120	96.6%	
8	KURUNEGALA	10	140,920	5,561	134,680	129,120	95.4%	
9	MONARAGALA	3	44,872	2,815	39,223	36,408	86.6%	
10	POLONNARUWA	4	352,010	24,300	268,997	244,697	74.7%	
11	PUTTALAM	2	74,261	8,400	61,951	53,551	81.3%	
12	TRINCOMALEE	5	191,288	2,555	119,797	117,242	62.1%	
13	MANNAR	4	67,383	551	45,239	44,688	66.9%	
	TOTAL	73	3,109,420	142,618	2,345,302	2,202,684	74.2%	

(Source: Water Management Division, Department of Irrigation)

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Table 6: Summary of effective storage of medium reservoirs (04.06.2024)

NO	Range	Effective Storage (%)
1	AMPARA	83.6%
2	ANURADAPURA	90.0%
3	BADULLA	83.6%
4	BATTICALOA	66.6%
5	COLOMBO	99.9%
6	HAMBANTOTA	82.0%
7	GALLE	89.1%
8	KANDY	90.0%
9	KURUNEGALA	98.0%
10	MONARAGALA	91.1%
11	POLONNARUWA	89.7%
12	PUTTALAM	100.0%
13	TRINCOMALEE	58.5%
14	MANNAR	55.0%
TOTAL		87.3%

(Source: Water Management Division, Department of Irrigation)

Note: Please consider that this advisory was prepared based on national-level information. 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 2024 in consultation with members of the technical advisory committee, other relevant resource persons and stakeholders.

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