NATIONAL AGROMETEOROLOGICAL ADVISORY BULLETIN

08th January 2025 to 08th February 2025

Issued on 08th January 2025

Department of Meteorology

Department of Agriculture

2025.01.08

NATIONAL AGROMETEOROLOGICAL ADVISORY BULLETIN

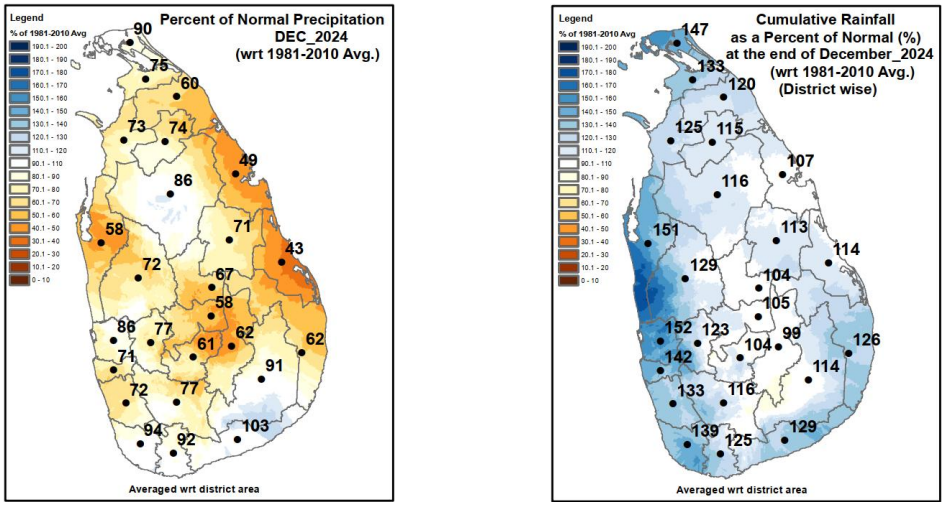
Weather and Climate update

Department of Meteorology

Rainfall Analysis-December 2024

According to the available rainfall data in the Department of Meteorology, near normal rainfalls were reported over southern province and Jaffna and Monaragala districts and below normal rainfalls were reported over remaining parts of the country during the month of December 2024 (Fig 1(a)).

Observed rainfall as a percentage of normal during the month of December 2024 is shown in the figure 1(a) and observed cumulative rainfall as a percentage of normal from 1st January 2024 to 31st December 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 Central province and Badulla and Trincomalee districts, where near normal rainfalls were reported.

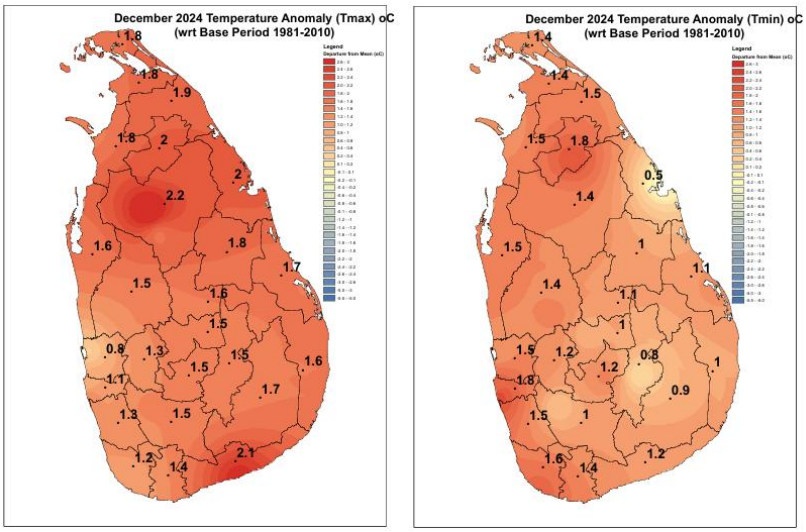


(a) (b)

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

Temperature Analysis-December 2024

During the month of December average maximum temperatures (daytime) were a little aboveaverage over most parts of the country except Gampaha district, where about normal average maximum temperatures were observed. Average minimum temperatures (night-time) were a little above average over most parts of the country except Trincomalee, Polonnaruwa, Ampara, Kandy and Rathnapura districts where about average minimum temperatures were observed during the month of December 2024.



(a) (b)

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

Weather Forecast: Forecast for the month of January 2025(Weekly)

(Updated on 16th January 2025)

Above normal rainfalls are likely over most parts of the country except some parts in Western, Southern and Sabaragamuwa provinces where near normal rainfalls are likely during 17th-23rd January. During 24th -30th January, 31st January- 6th February and 7th-13th February near normal rainfalls are likely over most parts of the country. (Figure 03).

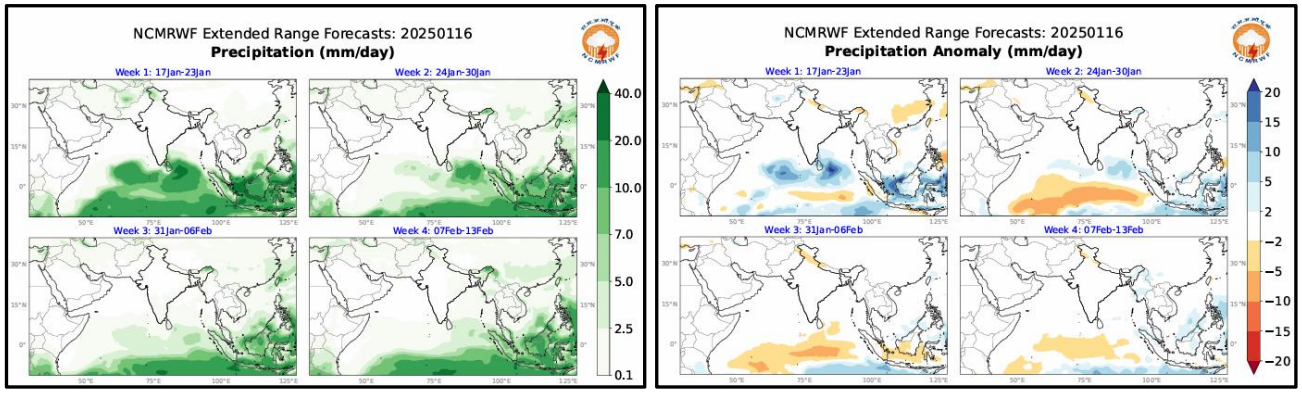


Figure 03 : Weekly rainfall Forecast and the Rainfall anomaly (mm/day)

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 January-February-March (JFM) 2025

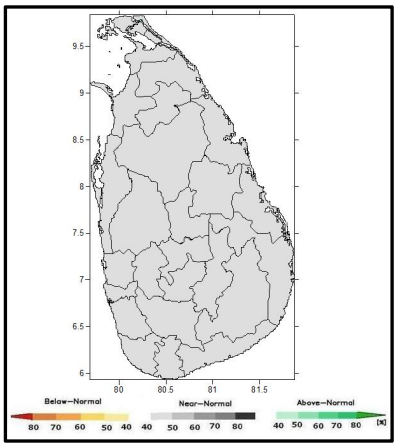


Figure 04: Seasonal Rainfall Forecast for January-March 2025 (JFM 2025)

There is a possibility for near normal rainfall over most parts of the country during JFM 2025 as a whole (Fig. 04).

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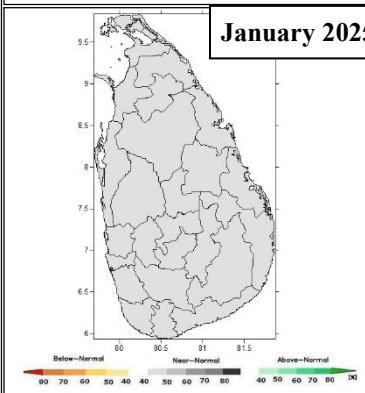
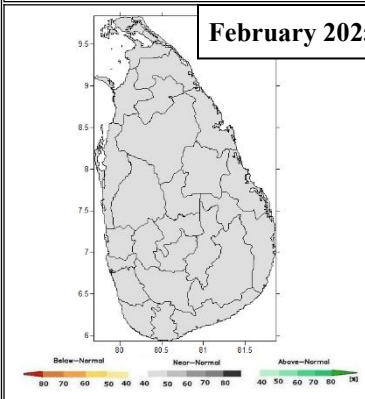
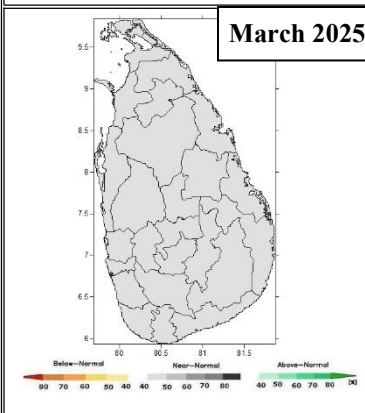
Monthly Rainfall Forecasts for January-February-March 2025

Month	Rainfall forecast
January 2025 	There is a higher chance of having near normal rainfalls over most parts of the country. In addition to that, there is a possibility for developing atmospheric disturbances, such as low-pressure areas, depressions and wavy type disturbances during the month. If so, rainfall can be increased. Ground frost is also possible during the month in Nuwara Eliya district.
February 2025 	There is a possibility for near normal rainfall over most parts of the country during the month of February 2025. In addition to that ground frost is also possible during the month in Nuwara Eliya district
March 2025 	There is a possibility for near normal rainfall over most parts during the month of March 2025.

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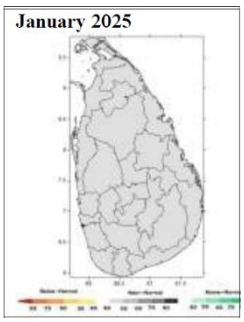
Agro-met Advisory: January 2025

Natural Resource Management Centre, Department of Agriculture

(For the months of January, February and March)

The **Department of Meteorology (DoM)** has issued the seasonal weather forecast for the upcoming three-month period, outlining the anticipated weather conditions;

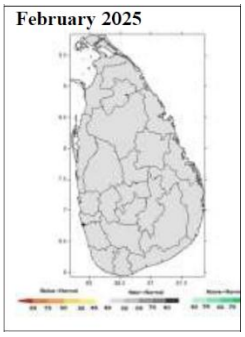
- **Rainfall forecast for January**



There is a higher chance of having near normal rainfalls over most parts of the country during January. However, due to the possibility of developing atmospheric disturbances, such as low-pressure areas, depressions and wavy type disturbances during the month, rainfall can be increased.

Ground frost is also possible during the month in Nuwara Eliya district

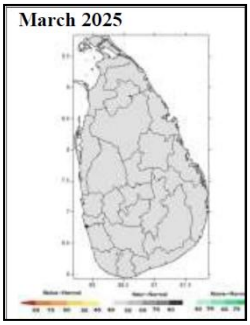
- **Rainfall forecast for February**



There is a possibility for near normal rainfall over most parts of the country during the month of February 2025.

Ground frost is also possible during the month in Nuwara Eliya District.

- **Rainfall forecast for March**



According to the available global model forecasts, there is a possibility for near normal rainfall over most parts during the month of March 2025.

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.

The **Irrigation Department (ID)** stated that, decisions made at the beginning of the season, led to the initiation of cultivation on about 45% of the total area, while delaying the remainder due to uncertainty about rainfall. This decision appears to have been prudent, as a satisfactory amount of rainfall was received by the end of October, enabling the continuation of the remaining cultivations. The average effective storage in major reservoirs currently (06.01.2025) stands at approximately 87.0% (Table 4). This represents a relatively good storage level to sustain the season without difficulties.

According to the **Mahaweli Authority of Sri Lanka (MASL)**, they have already achieved their targets for paddy cultivation in the ongoing 2024/25 Maha season. They further emphasized the need to focus on other field crops (OFCs), particularly the field establishment of big onion and soybean cultivations, under the prevailing weather conditions.

The **Water Management Secretariat (WMS)** of MASL reported that 92% of irrigation water storage is currently available in reservoirs controlled by WMS of MASL (Table 5). Furthermore, 86% of rainfall expected during a Maha season has already been received up to now and this occurred mainly due to the highest rainfall received during the month of November 2024. Even with average rainfall over the next three months, it is anticipated that water requirements will be met. Currently, all Mahaweli systems maintain satisfactory water levels to sustain the season. Additionally, the WMS emphasized the importance of implementing proper water issuance plans to ensure the timely commencement of the upcoming 2025 Yala season.

According to the **Department of Agrarian Development (DAD**), more than 80% of the minor tanks under their management have satisfactory water levels. With proper water management practices, it is possible to conserve enough water to ensure the timely commencement of the 2025 Yala season, even with the anticipated lower rainfall during the upcoming dry months.

Based on available weather information, the Agro-Met Advisory Committee recommends the following agronomic interventions to ensure optimum production during the 2024/25 Maha season.

Paddy cultivation

- The weather forecast by the DoM indicates average rainfall over the next three months, while reservoir status is also at satisfactory levels. As a result, the remainder of the cultivation season can proceed with regular agronomic management practices.
- However, according to the weekly forecast by the DoM, synoptic-scale systems may bring sudden, unexpected rains in January. Therefore, it is essential to stay updated with regular weather forecasts issued by the DoM while planning agricultural activities.
- It is essential to maintain the water level in paddy fields at least at the saturation level (or up to 5 cm of standing water), from the first flowering stage for a duration of at least two weeks. If the plants do not receive an adequate water supply during this stage, the grain-filling process will be adversely affected. Given the current situation with available water in both irrigated and rainfed systems, farmers are well-positioned to adhere to this critical condition for optimal crop production.
- Although irrigation tanks are currently in a satisfactory state, according to the general climatology of the country, a reduction in rainfall is anticipated in the coming months. Consequently, it is vital for irrigation farming systems to optimize the use of available water in reservoirs to ensure adequate carryover storage for the upcoming 2025 *Yala* season.
- Due to re-sowing caused by the prevailing flood conditions and delayed cultivation, staggered cultivation is rather common this season. Additionally, the combination of rainy periods with intermittent dry spells and cold mornings have created favorable conditions for increased pest attacks:
    - Brown planthopper (BPH) and white-backed planthopper infestations have been identified in certain areas, including the Northern and North-Western provinces.
    - Rice leaffolder and case worm infestations have been observed in the Northern, North-Central, Eastern, and North-Western provinces due to cloudy and dark skies and high relative humidity.
    - Under prevailed weather conditions, pesticides have proven ineffective. Farmers are advised to frequently monitor their fields and identify pest attacks early to prevent outbreaks.
    - The rainy period, followed by dry spells, has led to an increase in thrips infestations.
    - Nematode attacks have also been reported in the fields. Therefore, it is important for farmers to seek guidance from the Rice Research and Development Institute (RRDI),

DoA through field-level officers, under such circumstance. This will help avoid unnecessary expenditures on ineffective pesticides.

Other Field Crops (OFCs)

- Under prevailing rainy conditions and misty mornings, crops are more susceptible to pests and diseases. Fungal infections and caterpillar attacks have been observed in the field. When applying chemicals to control these issues, it is essential to first remove dew from the crops or preferably, avoid spraying during rainy conditions to maintain the efficacy.
- Specifically, during big onion true seed production, the current weather conditions may lead to anthracnose disease. It is crucial to identify this disease at its initial stage, as it becomes challenging to control once it spreads. Controlling anthracnose disease requires more than one fungicide. To address this, the DoA has recommended a specific fungicide schedule. The DoA extension service is actively conducting awareness programs to promote this schedule.
- Given the expected rains, it is highly recommended to promote big onion cultivation activities under rain shelters to minimize the risk of infections and damages.
- Due to the prevailing rains, some drainage systems have become disrupted. Therefore, it is necessary to improve drainage to prevent waterlogging during the anticipated rainy period in January.

Vegetables

- Misty conditions at night and high temperatures during the day can accelerate the spread of fungal diseases such as powdery mildew and downy mildew in vegetables belonging to the Solanaceae, Cucurbitaceae, and Leguminosae (common bean) families. These diseases can be controlled by pruning lower (mature) leaves to improve ventilation, followed by the application of recommended fungicides.
- The anticipated high temperatures may also increase the occurrence of collar rot/ basal rot (fungal diseases) in vegetables of the Solanaceae, Cucurbitaceae, and Leguminosae families,

particularly in poorly drainage lands. Drainage improvement, removing infected plants followed by application of recommended fungicide could be used to control the disease.

- Comparatively low rainfall combined with high temperatures will increase the incidence of sucking pest attacks and viral diseases in vegetables of the Solanaceae, Cucurbitaceae, and Leguminosae (common bean) families. Farmers are advised to implement integrated pest management (IPM) practices to control vectors effectively.
- Farmers in the Nuwara Eliya area are advised to be vigilant as frost is possible during the months of January and February. Only in such circumstances, night irrigation is recommended to prevent crop damage.

Plantation Crops

Tea

Near normal monthly rainfall is predicted for the tea growing districts. As the average monthly rainfall is closer to plant water requirement and with above normal maximum temperature for some tea growing areas, soil moisture conservations and minimizing plant water loss are important.

- Light plucking should be practiced.
- If fertilizer applications are to be carried out, it should ensure that adequate soil moisture is available.
- Based on weather predictions and soil moisture conditions, start applying anti-transpirant based on TRI Advisory Circular PA-02
- Keep the grounds free from weeds, allowing soft weeds only
- Green manure crops should be trimmed and loppings should be thatched between tea rows
- If possible, irrigation should be applied for young vulnerable fields
- If it is planned to apply irrigation for vulnerable tea fields, assessment of water sources and preparation of required equipment, should be done prior to the onset of drought.

Coconuts

Coconut growers are advised to avoid;

- from field planting of coconut seedlings from January to March 2025, if irrigation facilities are unattainable
- from application of inorganic fertilizer during January to March, 2025
- from harrowing, ploughing, cutting husk pits and any other practices that expose soils
- In addition, it is recommended to minimize weed control, growing intercrops and grazing.

Coconut growers are advised to practice;

For seedling: During dry period (to minimize the anticipated impacts of dry period during Jan and March 2025)

- Irrigation, if possible, for seedlings planted in October to December, 2024
- Pitcher irrigation – Burring of two clay pots filled with water at both sides of the seedlings and refill the pots once in several days. The opposite side of the pot from the plant is painted. The unpainted side provides water to coconut seedling.
- To tie the coconut leaves of the seedlings together specially for seedlings planted in October to December, 2024
- Provide shade
- Pay attention on red weevil damage
- Remove broken fronds

For mature coconut plantations: During the dry period of January to March, 2025 (to minimize the anticipated impacts of dry period)

- 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

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

Dry Zone (mm)			**Intermediate Zone (mm)**			**Wet Zone (mm)**	
AER	**Jan**		**AER**	**Jan**		**AER**	**Jan**
DL1a	36.5		IL1a	10.7		WL1a	64.5
DL1b	30.3		IL1b	21.8		WL1b	44.0
DL1c	114.2		IL1c	85.0		WL2a	54.6

DL1d	44.2		IL2	183.1		WL2b	12.0
DL1e	33.7		IL3	12.9		WL3	12.3
DL1f	9.4		IM1a	186.0		WM1a	56.8
DL2a	138.4		IM1b	208.8		WM1b	73.6
DL2b	127.5		IM1c	115.8		WM2a	30.1
DL3	11.9		IM2a	53.8		WM 2b	15.8
DL4	9.8		IM2b	78.6		WM3a	21.2
DL5	35.1		IM3a	58.1		WM3b	73.6
			IM3b	79.2		WU1	43.4
			IM3c	112.6		WU2a	52.6
			IU1	213.8		WU2b	60.3
			IU2	182.2		WU3	74.9
			IU3a	52.0			
			IU3b	83.3			
			IU3c	80.8			
			IU3d	55.2			
			IU3e	62.5			

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

Table 2: 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)

Table 3: 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)

Table 4: Summary of daily water levels and storage of major reservoirs (06.01.2025)

NO	RANGE	NO OF TANKS	STORAGE (Acft)				
			GROSS	DEAD	PRESENT	EFFECTIVE	
						Acft.	%
1	AMPARA	9	1,052,221	14,909	835,321	820,412	**79.1%**
2	ANURADAPURA	10	558,572	42,735	540,293	497,558	**96.5%**
3	BADULLA	7	78,492	6,149	58,822	52,673	**72.8%**
4	BATTICALOA	4	140,133	1,085	111,401	110,316	**79.3%**
5	HAMBANTOTA	10	377,738	33,172	349,452	316,280	**91.8%**
6	GALLE	2	3,081	-	3,067	3,067	**99.5%**
7	KANDY	3	28,450	386	28,713	28,327	**100.0%**
8	KURUNEGALA	10	140,920	5,561	133,144	127,583	**94.3%**
9	MONARAGALA	3	44,872	2,815	37,927	35,112	**83.5%**
10	POLONNARUWA	4	352,010	24,300	336,751	312,451	**95.3%**
11	PUTTALAM	2	74,261	8,400	73,097	64,697	**98.2%**
12	TRINCOMALEE	5	191,288	2,555	161,198	158,643	**84.1%**
13	MANNAR	4	67,383	551	55,506	54,955	**82.2%**
	TOTAL	**73**	**3,109,420**	**142,618**	**2,724,690**	**2,582,072**	**87.0%**

(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 February 2025 in consultation with members of the technical advisory committee, other relevant resource persons and stakeholders.

Technical Advisory Team Members

- Ms. Anusha Warnasooriya (Director – Climate Change and Research) Department of Meteorology
- Eng. (Mr.) L.M.W.Rathnasiri (Director of Irrigation (Water Management) Irrigation Department
- Eng. (Mr.) H.M.P.S.D.Herath (Director of Irrigation-Water Management), Irrigation Department (ID)
- Eng. (Mr.) Nilantha Dhanapala (Deputy Director General – MASL and Secretary, Water Management Secretariat) Mahaweli Authority of Sri Lanka
- Ms. D.K.W.R. Senevirathna (Director – Agriculture) Mahaweli Authority of Sri Lanka
- Mr. D.D. Perera (Technical Officer - Water Management Division) Department of Agrarian Development
- Dr. M.A.P.W.K. Malaviarachchi (Director) Field Crops Research and Development Institute
- Ms. T.M.P.G.S.P. Thennakoon (Additional Director- IC) National Agriculture Information and Communication Centre
- Dr. S.R. Sarathchandra (Principal Agriculture Scientist - Entomology) Rice Research and Development Institute (RRDI)
- Mr. L.C. Silva (Assistant Director of Agriculture, Research - Physiology) Rice Research and Development Institute (RRDI)
- Ms. M.G.S.P. Pathirana (Principal Agriculture Scientist- Plant Breeding), Hoticultural Crops Research and Development Institute, Gannoruwa (HORDI)
- Ms. Aruni B. Abeysekera (Principal Agriculture Scientist - Agro-climatology and Climate Change) (Covering up) - Natural Resources Management Centre

For Plantation Crops:

- Dr. Shayamantha Bandara (Principal Research Officer) Tea Research Institute of Sri Lanka
- Ms. K.V.N.N. Jayalath (Senior Research Officer) Coconut Research Institute
- Mr. A.M.R.W.S. Dilhan Ratnayake (Research Officer) Rubber Research Institute of Sri Lanka

Special Thanks:

- Dr. (Ms.) W.M.U.K. Rathnayake (Additional Director General of Agriculture - Research), Department of Agriculture
- Ms. Roshni Hafeel (Director – Agriculture) Ministry of Plantation and Community Infrastructure
- Mr. D. R. Kanchana (Assistant Director of Agriculture and Crop coordinator – Big Onion)