

NATIONAL AGROMETEOROLOGICAL ADVISORY BULLETIN



08th November 2022 to 08th December 2022

Issued on 08th November 2022



Department of Meteorology

Department of Agriculture

2022.11.08

NATIONAL AGROMETEOROLOGICAL ADVISORY BULLETIN

Weather and Climate update

Department of Meteorology

Rainfall Analysis-October 2022

According to the available rainfall data in the Department of Meteorology, above normal rainfalls were reported over Western, Central, Sabragamuwa and Northern provinces and in Galle district and in some parts of Matara, Trincomalee, Puttalam and Batticaloa districts. Below normal rainfalls were reported in some parts of Matale, Anuradhpura, Pollonnaruwa, Kurunegala, Nuwara Eliya, Badulla and Hambanthota districts and near normal rainfalls over remaining area of the country during the month of October 2022 (figure 1(a)).

Cumulative rainfalls starting from 1st January 2022 to 31st October, were mostly above or near normal over most parts of the country (figure 1 (b)).

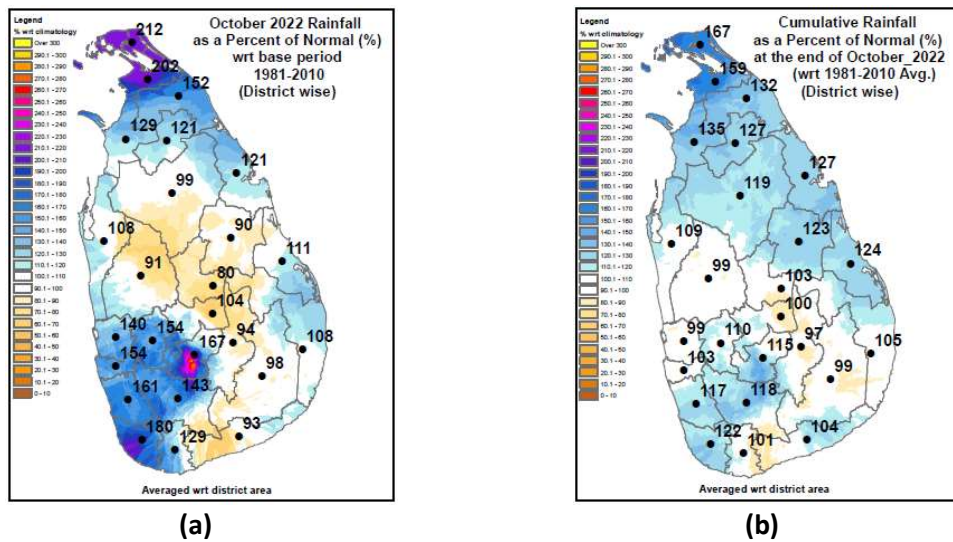


Figure 01 : Observed Monthly rainfall as percentage of long-term average (1981-2010) during October 2022 (a) and cumulative rainfall from 01st January 2022 to 31st October 2022 as percentage of long term average (1981- 2010) (b)

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Temperature analysis (October)

Average maximum temperatures (day time) were near normal over most part of the country except Hambantota District where a little above normal and average minimum temperatures (night-time) were predominantly near normal over the country during the month of October 2022.

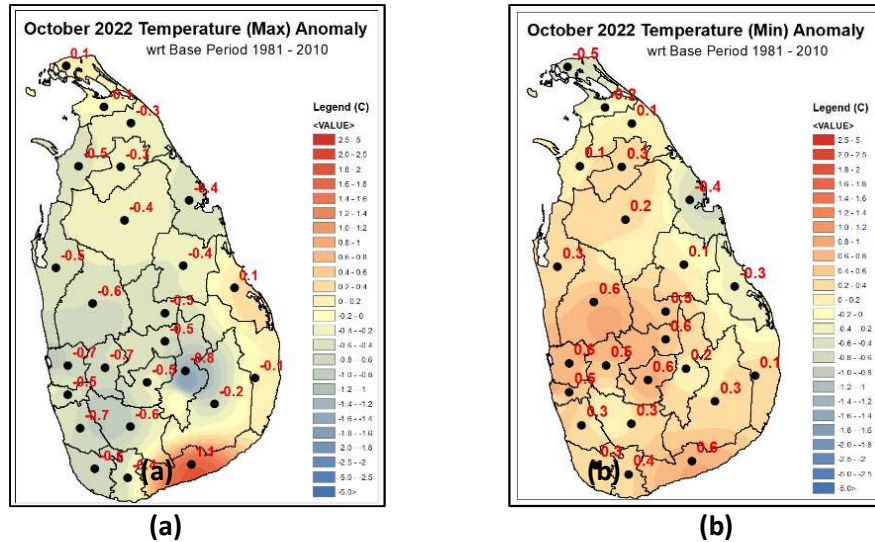


Figure 02 : Average Maximum (a) and Minimum (b) Temperature anomalies during the month of October 2022 compared with the long-term average (1981-2010)

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

(Updated on 3rd November 2022)

Slightly Above normal rainfalls are likely over Northern, North-western, North-central and Eastern provinces and below normal rainfalls are likely over Galle, Matara and Hambantota districts during the week 04th -10th November. During the week 11th -17th November, above normal rainfalls are likely over Eastern province and below normal rainfalls are expected over Jaffna, Killinochchi, Galle and Matara districts. Near normal rainfalls are likely over remaining area of the country. During the weeks 18th -24th November and 25th November-01st December below normal rainfalls are likely over most parts of the country. (Figure 03).

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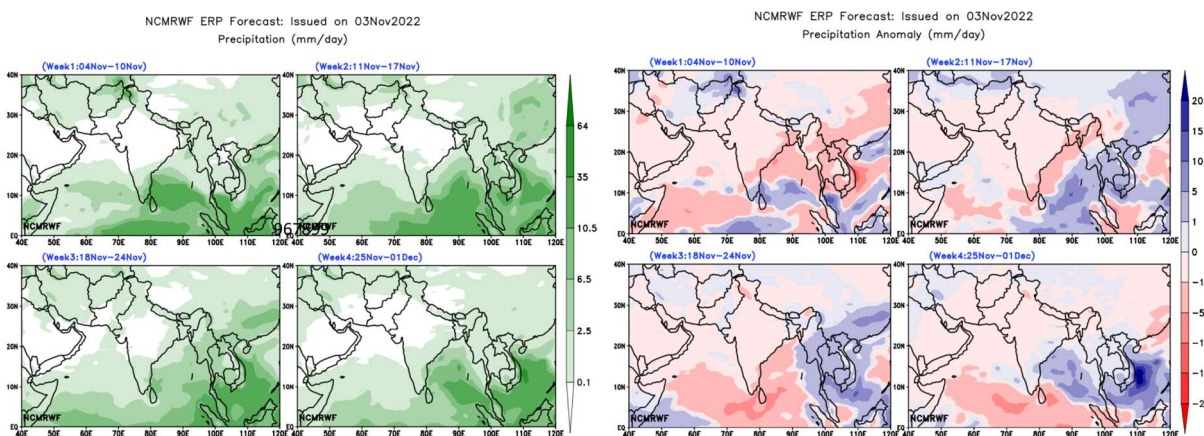


Figure 03 : Weekly rainfall Forecast and the Rainfall anomaly (mm/day)

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)

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 November-December-January (NDJ) 2022/23

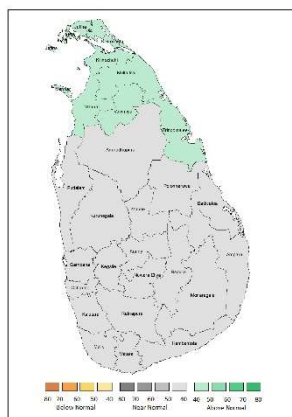


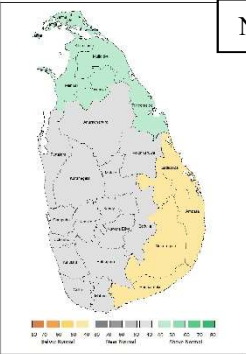
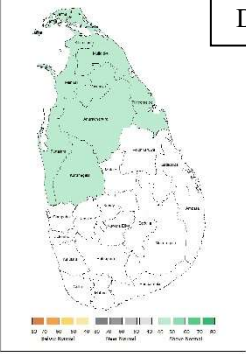
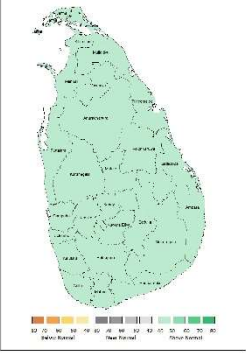
Figure 04 : Seasonal Rainfall Forecast for November-January 2022/23 (NDJ 2022)

Near or slightly above normal rainfalls are likely over Northern province and in Trincomalee district and near or slightly below normal rainfalls over remaining areas during NDJ 2022/23 (Fig.4).

Generally low-level atmospheric disturbances or a wavy type disturbance are possible over and vicinity of Sri Lanka during November to January season. If so rainfall can be enhanced.

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Monthly Rainfall Forecasts for November-December-January 2022/23

Month	Rainfall forecast
 <p style="text-align: right; border: 1px solid black; padding: 2px;">November 2022</p>	<p>Near or Slightly above normal rainfalls over Northern province and in Trincomalee district with the possibility for below normal rainfalls in Batticaloa, Ampara, Hambantota and Monaragala districts. Near or slightly below normal rainfalls are likely elsewhere during the month of November 2022.</p> <p>However, generally low level atmospheric disturbances are possible over and vicinity of Sri Lanka during the month of November. If so rainfall can be enhanced.</p> <p>In addition to that, due to the prevailing low level atmospheric disturbance in the vicinity of Sri Lanka rainy condition is expected to enhance over most parts of the country particularly over Northern, North-central, Eastern, Uva and Central provinces during the first week of November 2022.</p>
 <p style="text-align: right; border: 1px solid black; padding: 2px;">December 2022</p>	<p>There is a possibility for near or slightly above normal rainfall over Northern and Northwestern provinces and in Trincomalee and Anuradhapura districts and there is no signal for other areas, where there are equal probabilities for having below or near or above normal rainfalls during the month of December 2022.</p> <p>However, generally wavy type disturbances and cyclones are possible over and vicinity of Sri Lanka during the month of December. If so the forecast may be varied.</p>
 <p style="text-align: right; border: 1px solid black; padding: 2px;">January 2023</p>	<p>Near or slightly above normal rainfalls are likely over most parts during the month of January 2023.</p> <p>In addition to that, in general, low level atmospheric disturbances or wavy type disturbances are possible over and vicinity of Sri Lanka during the month January. If so rainfall can be enhanced.</p>

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Agro-met Advisory : November 2022

Natural Resource Management Centre, Department of Agriculture

(For the months of November, December and January)

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 of Irrigation Department (ID) is about 46%. Recent update of daily water levels & storage of major reservoirs are attached in Table 4. According to the ID and *Mahaweli* Authority of Sri Lanka (MASL), the water levels in the major reservoirs are satisfactory, especially in *Mahaweli* area. However, present storage of major irrigation schemes in Ampara, Batticaloa, Puttalam and Trincomalee are still not sufficient for continue the season.

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 productivity under existing situation.

Paddy cultivation:

- The farmers who have not started their cultivation activities are highly advisable to start the field establishment of the crop, by the end of November.
- **It is strictly advice to complete land preparation activities within three weeks.**
- Since present water levels of the major reservoirs (except for *Mahaweli* basin) in the Dry and Intermediate zones are not satisfactory and with the predicted weather forecast, low possibility is expected for considerable inflows to tanks and reservoirs during November, farmers are advised to get the maximum benefits from available rain water to continue their land preparation activities.
- To ensure good carry-over storage to continue the season during operation and to enhance water availability for the forthcoming 2023 *Yala* season, water issuing schedules adjustments should be done considering the medium term (Weekly and 10-day) weather forecasts of DoM,

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- Considering the predicted near or slightly above-normal-rainfall and the possibility of developing low level atmospheric disturbances, dry seeding of paddy on suitable soil types can be still carried out under customary practice.
- **3 or 3½ months paddy varieties**, are recommended for major irrigated schemes and **3 or 2½ months paddy varieties**, are recommended for minor irrigation schemes and rain fed farming.
- Farmers aiming at inter-season cultivation in suitable agro-ecological zones, should decide starting the 2023 *Yala* season on time, to synchronize **harvesting date at least before the second week of March 2023**.
- Manual transplanting or machine transplanting is advisable and seedling broadcasting with Parachute method needs to be encouraged, if parachute trays are available. This will be helpful on water conservation and on weed controlling.
- According to the weather predictions, some paddy growing areas may receive satisfactory level of rainwater; standing water or flood weed control may be practiced to minimize weedicide costs.
- To minimize use of pesticides considering environment and financial benefits, it is advisable to pay special attention to identify diseases and pest attack at the initial stage and follow the recommended integrated pest management (IPM) approaches or consult suitable subject specialists and field level officers.

Other Field Crops (OFCs)

- Farmers growing OFCs should have to select areas with well-drained soils with appropriate drainage provisions.
- Farmer who are planning to cultivate Maize during this month (November), should have to strictly consider about the pest attacks specially Fall Army Worm (FAW) infestation.
- Short-aged legumes can be started for *Maha* season, after mid-November.
- Field establishment of long aged upland crops, should have to do before the end of November.

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- Due to the late onset of the season, farmers should have to give a special attention on pest and diseases control (The final recommendation under paddy section is valid for OFCs too).

- ❖ 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.

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

Technical Advisory Team Members

- *Ms. Anusha Warnasooriya (Director – Climate Change and Research) Department of Meteorology*
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- *Ms. D.K.W.R. Senevirathna (Director – Agriculture) Mahaweli Authority of Sri Lanka*
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- *Dr. M.A.P.W.K. Malaviarachchi (Principal Agriculture Scientist – Agronomy – Field Crops) Field Crops Research and Development Institute*
- *Mr. K.M.D.W.P. Nishantha (Additional Director, Plant Protection Service) Horticultural Crops Research and Development Institute*
- *Mr. L.C. Silva (Assistant Director of Agriculture, Research - Physiology) Rice Research and Development Institute*
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- *Ms. Aruni B. Abeysekera (Assistant Director of Agriculture-Agro-climatology and Climate Change) - Natural Resources Management Centre*

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

Dry Zone (mm)			Intermediate Zone (mm)			Wet Zone (mm)	
AER	Nov		AER	Nov		AER	Nov
DL1a	217.9		IL1a	189.4		WL1a	305.1
DL1b	168.3		IL1b	174.9		WL1b	273.7
DL1c	202.0		IL1c	226.6		WL2a	242.7
DL1d	166.4		IL2	224.3		WL2b	233.0
DL1e	187.5		IL3	163.9		WL3	222.3
DL1f	157.2		IM1a	242.3		WM1a	289.5
DL2a	196.2		IM1b	252.3		WM1b	285.7
DL2b	191.3		IM1c	156.0		WM2a	232.8
DL3	191.4		IM2a	248.5		WM 2b	248.0
DL4	185.8		IM2b	264.8		WM3a	226.4
DL5	137.4		IM3a	208.4		WM3b	220.6
			IM3b	218.8		WU1	258.0
			IM3c	195.3		WU2a	209.2
			IU1	272.8		WU2b	229.8
			IU2	251.4		WU3	189.6
			IU3a	290.6			
			IU3b	272.5			
			IU3c	227.2			
			IU3d	140.1			
			IU3e	167.0			

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

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

Dry Zone (mm)			Intermediate Zone (mm)			Wet Zone (mm)	
AER	Dec		AER	Dec		AER	Dec
DL1a	89.0		IL1a	50.9		WL1a	130.6
DL1b	105.7		IL1b	69.5		WL1b	111.2
DL1c	191.9		IL1c	148.5		WL2a	117.5
DL1d	178.1		IL2	246.1		WL2b	63.5
DL1e	167.2		IL3	69.6		WL3	53.0
DL1f	99.7		IM1a	281.0		WM1a	124.2
DL2a	236.0		IM1b	259.5		WM1b	145.2
DL2b	240.1		IM1c	260.9		WM2a	82.7
DL3	99.9		IM2a	132.6		WM 2b	61.2
DL4	96.3		IM2b	156.7		WM3a	70.0
DL5	87.2		IM3a	131.9		WM3b	151.9
			IM3b	172.1		WU1	102.8
			IM3c	167.5		WU2a	95.8
			IU1	276.5		WU2b	118.9
			IU2	267.8		WU3	132.9
			IU3a	159.9			
			IU3b	152.9			
			IU3c	174.3			
			IU3d	84.7			
			IU3e	130.5			

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

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

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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)

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Table 4: Summary of daily water levels & storage of major reservoirs (08.11.2022)

NO	RANGE	NO OF TANKS	STORAGE (Acft)				
			GROSS	DEAD	PRESENT	EFFECTIVE	
						Acft.	%
1	Ampara	9	1,052,327	16,259	354,271	338,012	33
2	Anuradapura	10	555,566	27,583	281,069	253,486	48
3	Badulla	7	78,266	4,138	37,939	33,801	46
4	Batticaloa	4	140,120	1,085	70,072	68,987	50
5	Hambantota	10	378,065	34,172	206,952	172,780	50
6	Galle	2	3,160	-	3,013	3,013	95
7	Kandy	3	28,450	386	23,590	23,204	83
8	Kurunegala	10	142,381	5,670	105,476	99,806	73
9	Monaragala	3	44,900	2,640	27,101	24,461	58
10	Polonnaruwa	4	351,700	24,300	230,502	206,202	63
11	Puttalam	2	74,233	8,400	31,380	22,980	35
12	Trincomalee	5	190,895	2,555	83,219	80,664	43
13	Mannar	4	67,924	675	35,033	34,358	51
	TOTAL	73	3,107,987	127,863	1,489,617	1,361,754	46

(Source: Water Management Division, Department of Irrigation)