

NATIONAL AGROMETEOROLOGICAL ADVISORY BULLETIN



08th December 2021 to 08th January 2022

Issued on 08th January 2022



**Department of Meteorology
Department of Agriculture
World Food Programme
2022.01.08**



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Farmers and all other farm managements are advised to follow the guidelines of Government of Sri Lanka to avoid infection and social transmission of CORONA virus (COVID-19). Precautions and safety measures should be taken up to prevent the Corona virus spread. Simple measures include social distancing, maintaining personal hygiene by washing hands with soap, wearing of face mask, drink hot water, stay at home and cleaning of implements and machinery. Farmers should not work in a group; consult with a doctor in case of any symptom.

Weather and Climate update

Department of Meteorology

Rainfall Analysis-December 2021

According to the observed rainfall data, below normal rainfalls were reported over most parts of the island except Southern Province, Kalutara and Rathnapura Districts and some parts of Monaragala, Kegalle and Nuwara-Eliya Districts during the month of December 2021. Above normal rainfalls were reported over Southern Province and normal rainfalls were reported over Kalutara, Rathnapura districts and some parts of Monaragala, Kegalle and Nuwara-Eliya districts during the month of December 2021.

Observed rainfall as a percentage of normal during the months of December 2021 is shown in the figure 1(a) and observed cumulative rainfall as a percentage of normal from first January 2021 to 31 December 2021 is shown in the figure 1 (b).

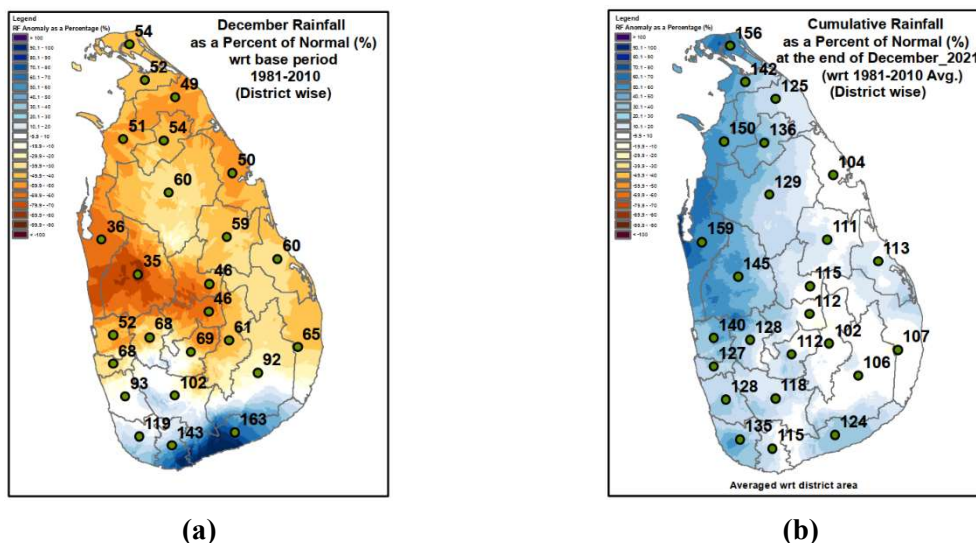


Figure 01 : Observed Monthly rainfall as percentage of long-term average (1981-2010) during December 2021 (a) and cumulative rainfall from 01st January 2021 to 31st December 2021 as percentage of long term average (1981- 2010) (b)



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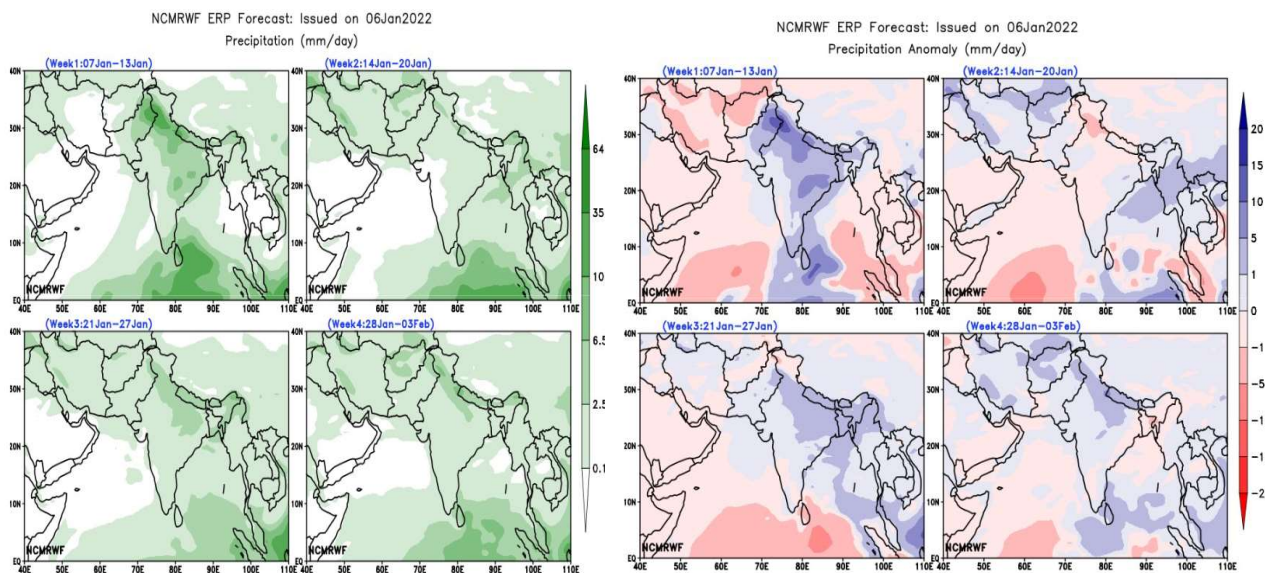


Figure 03 : Weekly rainfall Forecast and the Rainfall anomaly (mm/day)

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-2021

Weather forecast for the season of January-February-March (JFM) 2022






Figure 04 : Seasonal Rainfall Forecast for January – March 2022 (JFM 2022)

According to the Department of Meteorology, there is no clear signal to issue a forecast for the season of JFM 2022. As such there are equal probabilities of having above, near or below normal rainfalls, during JFM 2022 season (Fig. 4)



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Monthly Rainfall Forecasts for December-January-February 2021/22

Month	Rainfall forecast
 <div style="border: 1px solid black; padding: 5px; width: fit-content; margin: 10px auto;">January 2022</div>	<p>Near normal rainfalls are likely over Uva and Eastern provinces and no signal for other areas, where there are equal probabilities of having above, near or below normal rainfall, during the month of January 2022.</p> <p>However, there is a chance to develop wavy type disturbances over and vicinity of Sri Lanka, which could have enhanced the rainfall over the country, during the month of January.</p>
 <div style="border: 1px solid black; padding: 5px; width: fit-content; margin: 10px auto;">February 2022</div>	<p>There is a possibility for near normal rainfalls over most parts during the month of February 2022.</p>
 <div style="border: 1px solid black; padding: 5px; width: fit-content; margin: 10px auto;">March 2022</div>	<p>There is no clear signal to issue a forecast for the month of March 2022. As such there are equal probabilities of having above, near or below normal rainfalls, during March 2022</p>



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Agro-met Advisory Update

Natural Resource Management Center, Department of Agriculture

January- March 2021/22 Maha Season

Near normal rainfall forecasted for January, over **Uva** and **Eastern provinces** by the Department of Meteorology (DoM) based on the global climate models and global climate conditions. No rainfall forecasts have been issued for the other area. The Seasonal weather outlook of DoM further stated that, there would be a chance to develop **wavy type disturbances** over and vicinity of Sri Lanka, which may result **enhanced rainfall** over the country. During **February, near normal rainfalls** have been predicted over most parts of the country. No weather prediction has been issued for March. Since a clear forecast has not been issued for January to March, it is advisable to consider general climatological rainfall values for agriculture planning. Agro-ecological region-wise expected average rainfall values are attached in table 1 - 3.

According to the Irrigation Department (ID), the average effective storage of major reservoirs is about 70%. Recently updated summary of daily water levels & storage of major reservoirs are attached in table 4. ID further assured that the available water in major and medium reservoirs is sufficient to continue the rest of 2021/22 *Maha* Season.

Considering the weather forecast of DoM and irrigation water availability information of ID, the following agronomic interventions are recommended to ensure optimum productivity under existing situation,

- According to the general climatology of the country January to March are the months of a year which brings the least quantum rainfall to the entire island and no significant inflow to tanks and reservoirs will be expected during this period. Hence, tight irrigation scheduling is advisable to ensure water storage for the rest of 2021/2022 *Maha* season and considerable carry-over for 2022 *Yala* season.
- It is observed that the staggered cultivation is rather common in this season. Furthermore, nutrient deficiencies among crops also frequently observed. Therefore, to minimize the pest attacks such as Brown Planthopper (BPH), Stem Borer and Rice Gall Midge frequent observation on pest population dynamics are important in paddy fields.



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- Standing water should have to maintain (up to the level of 0-5 cm) for two weeks from first appearance of flowering, during the reproductive stage of paddy, to avoid the grain sterility.
- Vegetable and Potato farmers in the Up-country areas where the altitude is above 1,500 m are requested to be aware of the daily weather forecast of DoM for possible occurrence of ground-frost after mid-January with a significant drop of temperature (below 6 °C), under the predicted dry weather condition.
- Since DoM predicted about the possibility of sudden heavy rains over most parts of the island during January, it is advisable to plan harvesting and late planting of other field crops (OFC's) avoiding such situations, considering short-term weather forecasts issued by DoM.
- Please consider that this advisory was prepared based the on 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 February for the rest of 2021/22 *Maha* season, in consultation with the Department of Meteorology and other relevant resource persons and stakeholders.



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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)



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

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	WM2b	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 **March**

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 4: Summary of daily water levels & storage of major reservoirs (06.01.2022)

NO	RANGE	NO OF TANKS	STORAGE (Acft)				
			GROSS	DEAD	PRESENT	EFFECTIVE	
						Acft.	%
1	Ampara	9	1,052,277	16,259	498,514	482,255	47%
2	Anuradapura	10	555,567	27,583	521,995	494,412	94%
3	Badulla	7	78,368	4,138	63,211	59,073	80%
4	Batticaloa	4	140,120	1,085	130,825	129,740	93%
5	Hambantota	10	378,069	34,172	253,675	219,503	64%
6	Galle	2	3,160	-	2,935	2,935	93%
7	Kandy	3	28,450	386	28,297	27,911	99%
8	Kurunegala	10	142,381	5,670	120,326	114,656	84%
9	Monaragala	3	44,900	2,640	37,500	34,860	82%
10	Polonnaruwa	4	351,802	24,300	311,806	287,506	88%
11	Puttalam	2	74,233	8,400	63,444	55,044	84%
12	Trincomalee	5	189,571	2,555	155,331	152,776	82%
13	Mannar	4	67,924	675	63,783	63,108	94%
	Total	73	3,106,822	127,863	2,251,642	2,123,779	71%

(Source: Water Management Division, Department of

Irrigation)

