

Agro-meteorological Bulletin and Assessment for Farmers and Livestock Producers of Trinidad and Tobago for the First 15-Day Period (1st-15th) of December, 2023

Definitions used in the forecast and bulletin:














Term	Meaning	
Dekad	10 day rainfall measuring period	
Rain Day	A day with 1.0 mm or more of rainfall amount	
Wet Day	A day with 10.0 mm or more rainfall amount	
Extremely Wet Day	A day with 25.0 mm or more of rainfall amount	
Normal Rainfall	Between 75% and 125% of the average	
Below Normal Rainfall	Rainfall below 75% of the average	
Above Normal Rainfall	Rainfall in excess of 125% of the average	
Much Below Normal Rainfall	Rainfall below 50% of the average	
Much Above Normal Rainfall	Rainfall above 150% of the average	
Scanty Rainfall	Less than 1 mm	
Moderate Rainfall	1-10 mm	
Heavy Rainfall	10-50 mm	
Very Heavy Rainfall	Greater than 50 mm	
Probability of 1-30 %	Low Chance	
Probability of 30-70 %	Moderate Chance	
Probability greater than 70 %	High Chance	
Term	Amount of Rain	Type of day
Scanty Rainfall	Less than 1 mm	Relatively dry day
Moderate Rainfall	1-10 mm	Relatively wet day
Heavy Rainfall	10-50 mm	Wet day
Very Heavy Rainfall	Greater than 50 mm	Excessively wet day

Weather Bulletin for Farmers and Livestock Producers of Trinidad and Tobago for the 15-day period (1st-15th) of December 2023.

Date	Weather	Temperature	Heat Real	Day Moisture (Relative)	Wind
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					Feel	(Humidity)	
1 st	 45% chance of showers	Less than 3.0 mm of rainfall is possible	Partly cloudy with a shower or two	Warm  Max/Min Temperatures °C 31.0/23.5	Feels like 31-36°C	58-68%	Weak easterly 10 km/h Gust 20 km/h
2 nd	 45% chance of showers	Less than 3.0 mm of rainfall is possible	Partly cloudy with a shower or two	Warm  Max/Min Temperatures °C 31.0/23.5	Feels like 31-36°C	66-72%	 Weak easterly 10 km/h Gust 20 km/h
3 rd	 45% chance of showers	Less than 3.0 mm of rainfall is possible	Partly cloudy with a shower or two	Warm  Max/Min Temperatures °C 32.0/24.0	Feels like 32-39°C	55-69%	 Weak easterly 10 km/h Gust 20 km/h
4 th	 65% chance of showers	Less than 6.0 mm of rainfall is possible	Partly cloudy to cloudy with showers	Warm  Max/Min Temperatures °C 31.0/24.0	Feels like 31-37°C	56-77%	 Weak easterly 10 km/h Gust 20 km/h
5 th		Less than 6.0 mm of	Partly cloudy to cloudy with	Warm	Feels		 Weak easterly 10 km/h















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	65% chance of showers	rainfall is possible	showers	 Max/Min Temperatures °C	like 31- 37°C	56-80%	Gust 20 km/h
6 th	 65% chance of showers	Less than 6.0 mm of rainfall is possible	Partly cloudy to cloudy with showers	31.0/24.0 Warm  Max/Min Temperatures °C 31.0/24.0	Feels like 31- 38°C	68-74%	 Weak easterly 10 km/h Gust 20 km/h
7 th	 65% chance of showers	11.0- 18.0 mm of rainfall is possible	Partly cloudy to cloudy with showers	Warm  Max/Min Temperatures °C 31.0/23.5	Feels like 31- 36°C	66-84%	 Weak north-easterly 10 km/h Gust 20 km/h
8 th	 65% chance of showers	11.0- 18.0 mm of rainfall is possible	Partly cloudy to cloudy with showers	Warm  Max/Min Temperatures °C 31.0/23.5	Feels like 31- 36°C	66-84%	 Weak north-easterly 10 km/h Gust 20 km/h
9 th	 65% chance of showers	Less than 9.0 mm of rainfall is possible	Partly cloudy to cloudy with showers	Warm  Max/Min Temperatures °C 31.5/24.0	Feels like 31.5- 36°C	67-73%	 Weak north-easterly 10 km/h Gust 20 km/h





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10 th	 65% chance of showers	Less than 7.0 mm of rainfall is possible	Partly cloudy to cloudy with showers	Warm  Max/Min Temperatures °C 31.5/24.0	Feels like 31.5-36°C	67-73%	 Weak easterly 10 km/h Gust 20 km/h
11 th	 45% chance of showers	Less than 3.0 mm of rainfall is possible	Partly cloudy to cloudy with showers	Warm  Max/Min Temperatures °C 31.0/24.0	Feels like 31-36°C	60-74%	 Weak easterly 10 km/h Gust 20 km/h
12 th	 45% chance of showers	Less than 5.0 mm of rainfall is possible	Partly cloudy to cloudy with showers	Warm  Max/Min Temperatures °C 32.0/23.5	Feels like 32-39°C	61-68%	 Weak easterly 10 km/h Gust 20 km/h
13 th	 55% chance of showers	Less than 5.0 mm of rainfall is possible	Partly cloudy with showers	Warm  Max/Min Temperatures °C 32.0/23.5	Feels like 32-39°C	60-71%	 Weak north-easterly 10 km/h Gust 20 km/h
	 45% chance of	Less than 3.0 mm of	Partly cloudy	Warm			 Weak north-easterly

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14 th	showers	rainfall is possible	to cloudy with showers	 Max/Min Temperatures °C 31.0/24.0	Feels like 60-74%	10 km/h Gust 20 km/h
15 th	 65% chance of showers	11.0- 18.0 mm of rainfall is possible	Partly cloudy to cloudy with showers	Warm  Max/Min Temperatures °C 31.0/23.5	Feels like 66-82%	 Weak north-easterly 10 km/h Gust 20 km/h

Trinidad Rainfall Forecast for the 15-Day period of December (1st- 15th) 2023.

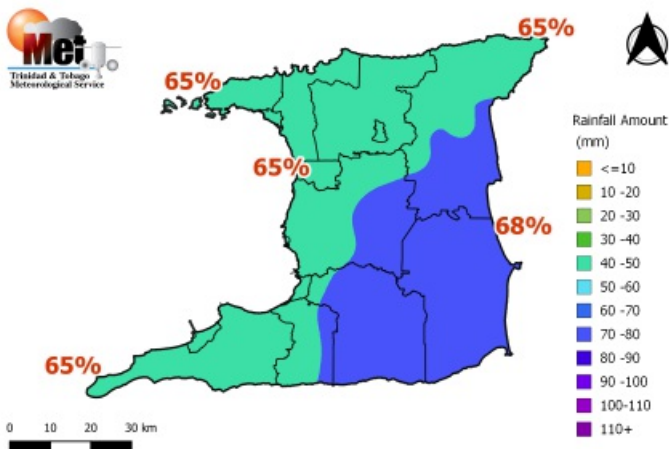


Figure 1. Rainfall map of Trinidad showing expected mean rainfall totals for districts across Trinidad during the 15-day period (1st-15th) December 2023 and percentage probability of occurrence.

Eastern, and North-Eastern areas

Moderate chance (65%) of mean daily rainfall up to 4.0 mm.

South-Eastern areas

Moderate chance (68%) of mean daily rainfall up to 7.5 mm.

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Southern areas

Moderate chance (65%) of mean daily rainfall up to 4.0 mm.

South-Western areas

Moderate chance (65%) of mean daily rainfall up to 4.0 mm.

Central, West-Central, and inland areas

Moderate chance (65%) of mean daily rainfall up to 4.0 mm.

Northern, North-Western areas

Moderate chance (65%) of mean daily rainfall up to 4.0 mm.

Tobago Rainfall Forecast for the 15-Day period of December (1st-15th) 2023.

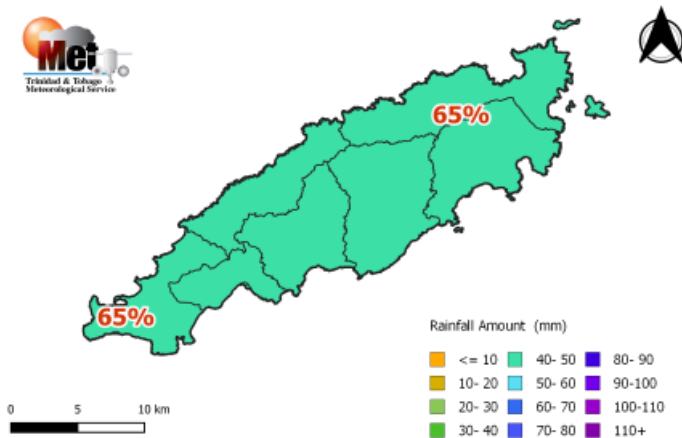


Figure 2. Rainfall map of Tobago showing expected mean rainfall totals for districts across Tobago during the 15-day period (1st-15th) December 2023 and percentage probability of occurrence.

North-Eastern areas

Moderate chance (65%) of mean daily rainfall up to 4.0 mm.

South-Western areas

Moderate chance (65%) of mean daily rainfall up to 4.0 mm.

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Sun and Moon Positions in the Sky November (1st-15th) 2023.

The sun is presently at 22.25 degrees South latitude and with this position, the day-length or number of sunlight hours in Trinidad and Tobago from December 1st will be 11 hours and 32 minutes, decreasing slightly to 11 hours and 31 minutes by the 15th of December 2023. According to the moon's phases, the 13th-14th of December are good days for planting aboveground crops, while the 6th-10th are good days for planting below-ground crops. However, the 1st-5th (Third Quarter Phase), 11th-12th (New Moon Phase) and 15th of December are poor planting days. These days should be used for removing weeds, clearing land and ploughing fields.

Highlighted Possible Impacts on Agriculture:

During this first 15-day (1st-15th) forecast period of December 2023, expect similarly partly cloudy to cloudy periods with showery episodes as compared to the last 15-day forecast period of November. Mostly light to moderate/heavy showery events will produce some wet days during the forecast period. Therefore, rescheduling irrigation days on fields to maintain optimal soil moisture would be necessary on days that will have low rainfall amounts. There is a low (30%) chance of heat stress in young livestock, newly germinated and transplanted seedlings onto fields. There is a moderate (60%) probability for flash and riverine flooding episodes. River levels will be low to moderate at times during the forecast period. There is also a moderate probability (60%) chance for fungi spread, insect pests and warm/moist weather diseases to develop in crop beds.

Weather Assessment for the period November (16th-30th) 2023.

Moderate amounts of rainfall occurred during the 17th, 27th and 28th of November across Trinidad and Tobago. The rainfall totals maps for the period, 16th to 30th of November for Trinidad and Tobago are located below as figure 1 and figure 2.

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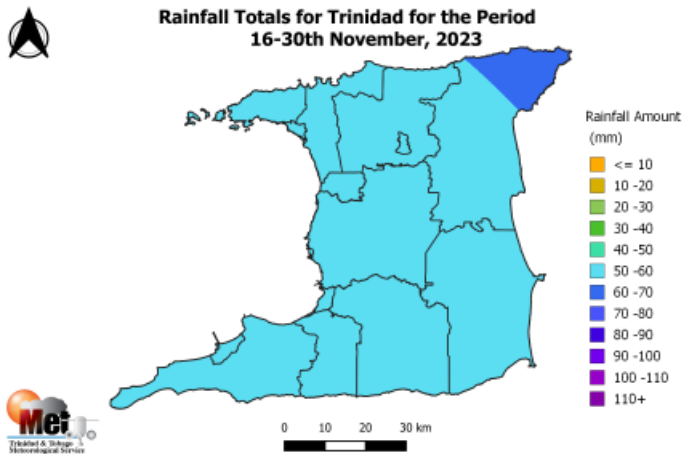


Figure 1. Rainfall map of Trinidad showing measured rainfall totals for varying districts during the period 16th to 30th of November 2023.

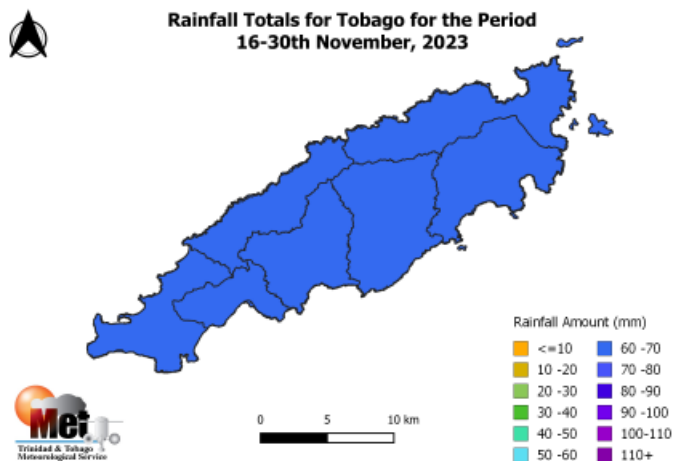


Figure 2. Rainfall map of Tobago showing measured rainfall totals for varying districts during the period 16th to 30th of November 2023.

Temperatures:

Temperatures were cool to warm during the period 16th to 30th of November, with the minimum nighttime temperature falling to 23.3 °C and the maximum daytime temperature rising to 33.2 °C, in Trinidad.

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Similarly, Tobago temperatures were cool to warm during the period 16th to 30th of November, with the minimum nighttime temperature falling to 24.0 °C and the maximum daytime temperature rising to 32.5 °C.

Summary

Summary of Expected Weather:

Moderate rainfall amounts are expected during the fifteen days.

Wet days with rainfall amounts ranging between 11.0-18.0 mm are expected on the 7th, 8th and 15th of December while days with 9.0 mm or less of rainfall are expected on all other days.

Trinidad and Tobago:

Wet days with rainfall amounts ranging between 11.0-18.0 mm are expected on the 7th, 8th and 15th of December while days with 9.0 mm or less of rainfall are expected on all other days. The daily rainfall totals are forecast to range between 1.0 mm to 18.0 mm across different farmlands across the islands, especially along the southeastern coastal areas of Trinidad. The fifteen-day rainfall totals range between 40.0 mm and 75.0 mm in Trinidad, and around 40.0 mm in Tobago.

Temperatures & Winds:

The maximum temperatures are expected to become warm, with daily temperatures ranging between 30.0°C to 32.0°C throughout the period. However, temperatures are expected to have a real-feel or feels-like between 31.0°C to 39.0°C on most days. The minimum temperatures will range between 23.5°C to 24.0°C during most nights/early mornings, dropping lower in rural areas and valleys.

In general, mostly weak easterly to northeasterly winds with an average speed of 10-20 km/h are expected. Low to moderate rainfall totals, mostly light speeds, warm days, and warm feels-like temperatures will sustain average evapotranspiration rates in crops ranging between 2.0 to 7.0 mm per day.

Moisture levels:

Over the fifteen-day period across Trinidad and Tobago, moisture levels are expected to be low to moderate, with average daytime relative humidity values in the mid-50s to low-80s, in terms of percentage.

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