

## Agro-meteorological Bulletin and Assessment for Farmers and Livestock Producers of Trinidad and Tobago for the Second Dekad (11th - 20th) of February, 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 11<sup>th</sup> February – 25<sup>th</sup> February 2023.

Date	Weather	Temperature	Heat Real	Day Moisture	Wind
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					Feel	(Relative) (Humidity)	
11 <sup>th</sup>		Less than 10.0 mm 60% chance of showers of rainfall is possible	Partly cloudy with few showers	Warm  Max/Min Temperatures °C 30.0/22.0	Feels like 32- 34°C	55-95%	☄ Moderate easterly 15 km/h Gust 30 km/h
12 <sup>th</sup>		Less than 15.0 mm 60% chance of showers of rainfall is possible	Partly to cloudy with few showers	Warm  Max/Min Temperatures °C 29.0/22.0	Feels like 32- 34°C	60-95%	☄ Moderate easterly 15 km/h Gust 30 km/h
13 <sup>th</sup>		Less than 10.0 mm 40% chance of showers of rainfall is possible	Partly cloudy with few showers	Warm  Max/Min Temperatures °C 30.0/22.0	Feels like 32- 34°C	65-90%	☄ Moderate easterly 20 km/h Gust 35 km/h
14 <sup>th</sup>		Less than 10.0 mm 40% chance of showers of rainfall is possible	Patchy cloudiness with one or two showers	Warm  Max/Min Temperatures °C 30.0/22.0	Feels like 32- 34°C	65-90%	☄ Moderate easterly 15 km/h Gust 30 km/h









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15 <sup>th</sup>		Less than 10.0 mm of rainfall is possible	Patchy cloudiness with one or two showers	Warm  Max/Min Temperatures °C 31.0/23.0	Feels like 32-35°C	65-90%	 Moderate easterly 15 km/h Gust 25 km/h
16 <sup>th</sup>		Less than 10.0 mm of rainfall is possible	Patchy cloudiness with one or two showers	Warm  Max/Min Temperatures °C 31.0/21.0	Feels like 32-35°C	65-90%	 Moderate north-easterly 15 km/h Gust 25km/hr
17 <sup>th</sup>		Less than 10.0 mm of rainfall is possible	Patchy cloudiness with one or two showers	Warm  Max/Min Temperatures °C 31.0/22.0	Feels like 32-35°C	55-90%	 Moderate north-easterly 15 km/h Gust 30 km/h
18 <sup>th</sup>		Less than 5.0 mm of rainfall is possible	Patchy cloudiness with isolated showers	Warm  Max/Min Temperatures °C 31.0/21.0	Feels like 32-35°C	55-85%	 Moderate north-easterly 10 km/h Gust 25 km/h
				Warm			







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19 <sup>th</sup>	 30% chance of showers	Less than 5.0 mm of rainfall possible	Patchy cloudiness with isolated showers	 Max/Min Temperatures °C 31.0/21.0	Feels like 32-35°C	60-85%	Moderate north-easterly 10 km/h Gust 25 km/h
20 <sup>th</sup>	 30% chance of showers	Less than 5.0 mm of rainfall possible	Patchy cloudiness with isolated showers	Warm  Max/Min Temperatures °C 31.0/21.0	Feels like 32-35°C	50-85%	☄ Moderate north-easterly 15 km/h Gust 30 km/h
21 <sup>st</sup>	 20% chance of showers	Less than 1.0 mm of rainfall possible	Mostly sunny	Warm  Max/Min Temperatures °C 32.0/22.0	Feels like 33-35°C	50-80%	☄ Moderate north-easterly 15 km/h Gust 25 km/h
22 <sup>nd</sup>	 20% chance of showers	Less than 1.0 mm of rainfall possible	Mostly sunny	Warm  Max/Min Temperatures °C 32.0/22.0	Feels like 33-35°C	50-80%	☄ Moderate easterly 10 km/h Gust 20 km/h
				Warm			☄ Moderate

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23 <sup>rd</sup>	 20% chance of showers	Less than 1.0 mm of rainfall is possible	Mostly sunny	 Max/Min Temperatures °C 32.0/22.0	Feels like 33-35°C	45-80%	easterly 15 km/h Gust 25 km/h
24 <sup>th</sup>	 20% chance of showers	Less than 1.0 mm of rainfall is possible	Mostly sunny	Warm  Max/Min Temperatures °C 32.0/21.0	Feels like 33-35°C	45-80%	☄ Moderate easterly 15 km/h Gust 25 km/h
25 <sup>th</sup>	 20% chance of showers	Less than 1.0 mm of rainfall is possible	Mostly sunny	Warm  Max/Min Temperatures °C 32.0/21.0	Feels like 33-35°C	45-80%	☄ Moderate easterly 15 km/h Gust 25 km/h

Trinidad Rainfall Forecast for the 15-Day period of February 11<sup>th</sup> to February 25<sup>th</sup> 2023.

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Issue date: 2023-02-14

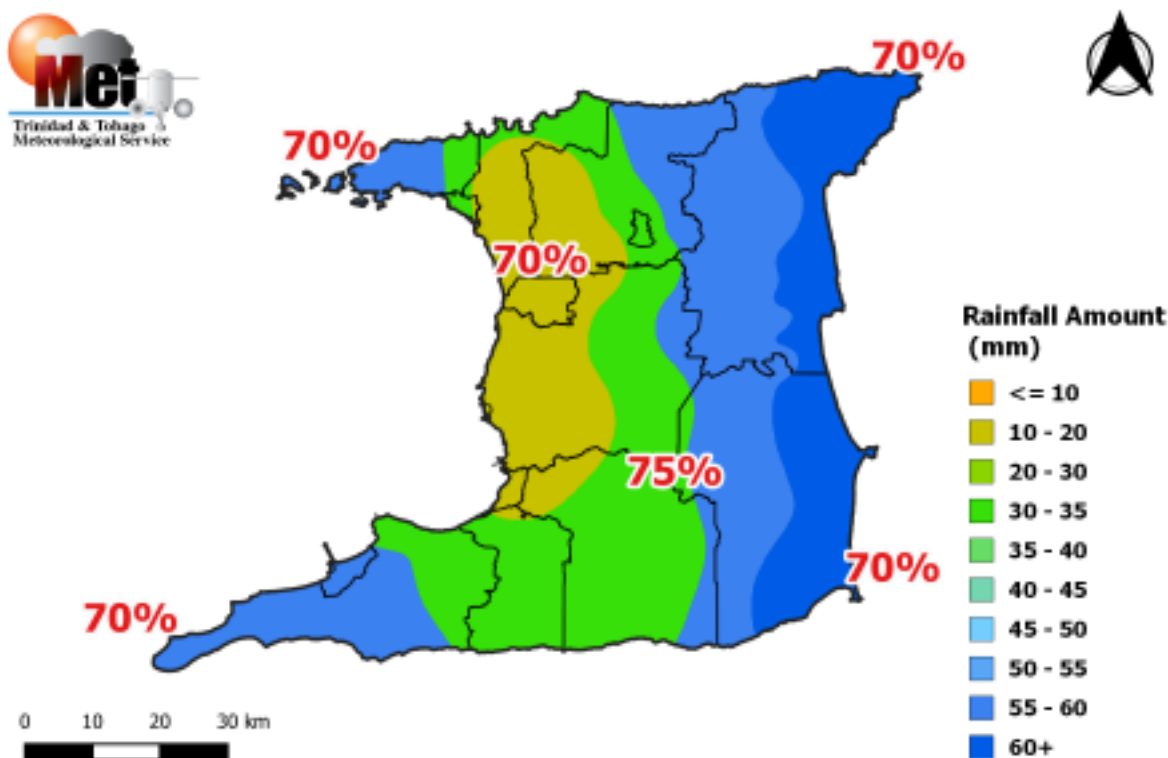


Figure 1. Rainfall map of Trinidad showing expected mean rainfall totals for districts across Trinidad during the 15-day period February 11<sup>th</sup> to February 25<sup>th</sup> 2023 and percentage probability of occurrence.

### Eastern, and North-Eastern areas

Moderate chance (70%) of mean daily rainfall up to 6.5 mm.

### South-Eastern areas

Moderate chance (70%) of mean daily rainfall up to 7.5 mm.

### Southern areas

High chance (70%) of mean daily rainfall up to 5.3 mm.

### South-Western areas

Moderate chance (70%) of mean daily rainfall up to 4.9 mm.

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## Central, West-Central, and inland areas

High chance (70%) of mean daily rainfall up to 2.0 mm.

## Northern, North-Western areas

High chance (70%) of mean daily rainfall up to 3.6 mm.

Tobago Rainfall Forecast for the 15-Day period of February 11<sup>th</sup> to February 25<sup>th</sup> 2023.

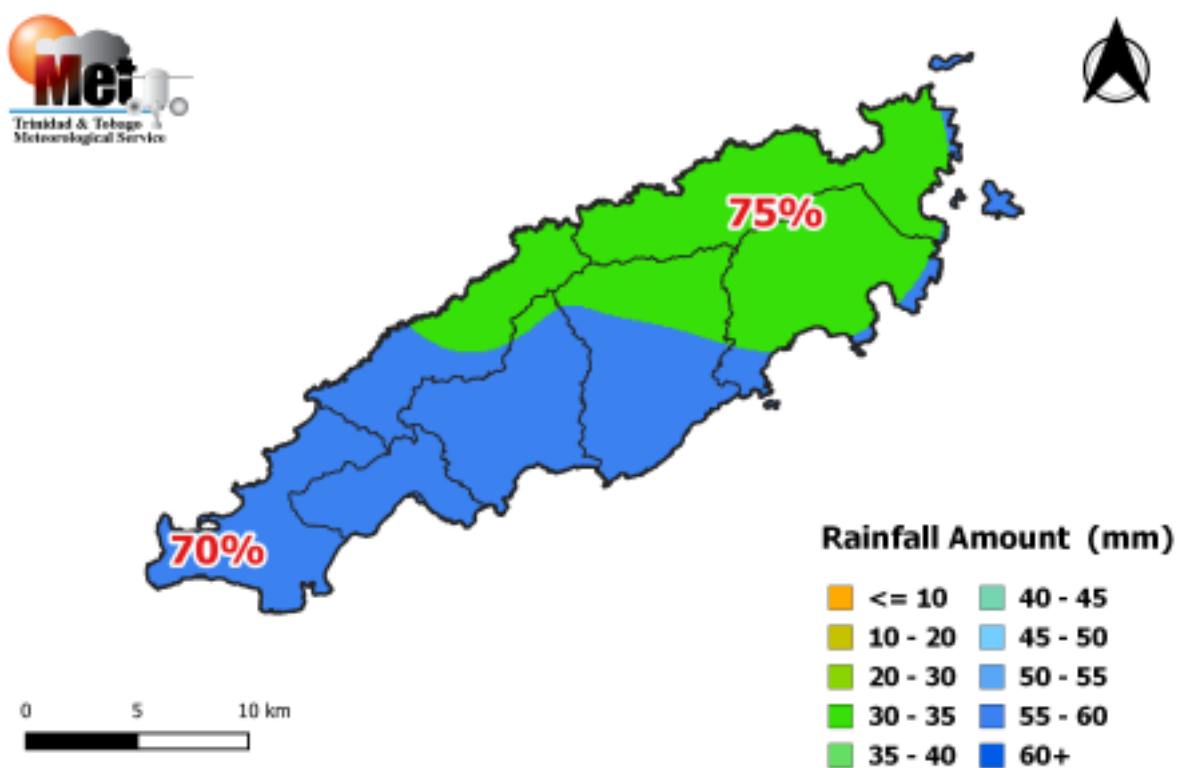


Figure 2. Rainfall map of Tobago showing expected mean rainfall totals for districts across Tobago during the 15-day period February 11<sup>th</sup> to February 25<sup>th</sup> 2023 and percentage probability of occurrence.

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### North-Eastern areas

Moderate chance (75%) of mean daily rainfall up to 3.0 mm.

### South-Western areas

Moderate chance (70%) of mean daily rainfall up to 5.1 mm.

### **Sun and Moon Positions in the Sky February 11<sup>th</sup> to February 25<sup>th</sup> 2023.**

The sun is presently at 13.3 degrees South latitude and with this position, the day-length or number of sunlight hours in Trinidad and Tobago from February 11<sup>th</sup> will be 11 hours and 46 minutes, rising slightly to 11 hours and 53 minutes by 25<sup>th</sup> February 2023. According to the moon's phases, the last quarter is on 13<sup>th</sup> February 2023 at 12:00 hrs (12:00 p.m.), new moon on 20<sup>th</sup> February 2023 at 03:05 hrs (3:05 a.m.), first quarter 27<sup>th</sup> February 2023 at 04:05 hrs (04:05 a.m.), full moon was on 05<sup>th</sup> February at 14:28 hrs (2:28 p.m.)

### **Summary of Expected Weather:**

**Moderate rainfall amounts are expected during the 11<sup>th</sup> to the 20<sup>th</sup> becoming relatively dry by the 21<sup>st</sup>.**

Two wet days on the 11<sup>th</sup> and 12<sup>th</sup> with rainfall amounts 15mm or less. Five relatively wet days from 13<sup>th</sup> to 17<sup>th</sup> with rainfall amounts 10mm or less. Three relatively wet days from 18<sup>th</sup> to 20<sup>th</sup> with rainfall amounts 5 mm or less. Five relatively dry days with rainfall amounts 1.0mm or less are expected on the 21<sup>st</sup> to the 25<sup>th</sup>.

### **Trinidad and Tobago:**

The daily rainfall totals are forecast generally less than 10.0 mm across different farmlands, ranging from 7.5mm in south-eastern areas of Trinidad to 3.0mm in north-eastern areas of Tobago. with fifteen-day rainfall totals ranging between 10.0 mm and 45.0 mm. Any impactful rainfall events are most likely to occur across the eastern and southeastern parts of Trinidad.

### **Temperatures & Winds:**

The maximum temperatures are expected to remain warm, with 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 32.0°C to 35.0°C on

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most days. The minimum temperatures will range between 21.0°C to 23.0°C during most nights/early mornings, dropping lower in rural areas and valleys.

Mostly moderate easterly to north-easterly winds of an average speed of 15-25 km/h are expected, with gusts of 25-30 km/h at times. Low rainfall totals, mostly moderate wind speeds, warm days and warm feels-like temperatures will sustain average evapotranspiration rates in crops ranging between 6.0 to 12.0 millimeters per day.

#### **Moisture levels:**

Over the fifteen-day period across Trinidad and Tobago, moisture levels are expected to be moderate to high, with average daytime relative humidity values between 45% to 90%.

#### **Highlighted Possible Impacts on Agriculture:**

During this 15-day forecast period of (21<sup>st</sup> to 25<sup>th</sup>) February 2023, expect conditions to be mixed with periods of cloudiness interrupting the sunshine at times during the day. There is a moderate probability (50%) chance for crop irrigation measures to take place due to some moisture in the soils during the forecast period. There is a low probability (20%) chance of heat stress in young livestock, newly germinated and transplanted seedlings onto fields. There is also a low probability (20%) chance for fungi spread, root and/or fruit rot, insect pests and warm weather diseases to develop in crop beds. River levels will remain at low levels during this forecast period.

#### **Weather Assessment for the period February 01<sup>st</sup> to February 10<sup>th</sup> 2023.**

Two relatively wet days on the 4<sup>th</sup> and 8<sup>th</sup> of 3.3mm and 1.5mm respectively, of rainfall was recorded at Piarco station, Trinidad. The other eight days were relatively dry days with records of less than 1mm of rainfall. At Crown Point Station, Tobago, one wet day of 11.6mm on the 4<sup>th</sup> and three relatively wet days on the 1<sup>st</sup>, 5<sup>th</sup> and 7<sup>th</sup> of 3.8mm, 8.6mm and 1.2mm respectively. The other six days were relatively dry with records of less than 1mm of rainfall.

#### **Temperatures:**

Temperatures were cool to warm during the period 01<sup>st</sup> – 10<sup>th</sup> of February, with the minimum nighttime temperature falling to 18.8°C and the maximum daytime temperature rising to 31.0°C, in Trinidad.

Similarly, temperatures in Tobago were cool to warm during the period 01<sup>st</sup> – 10<sup>th</sup> of February, with the minimum nighttime temperature falling to 20.6°C and the maximum daytime temperature rising to 29.6°C.

#### **Summary**

##### **Summary of Expected Weather:**

Moderate rainfall amounts are expected during the 11<sup>th</sup> to the 20<sup>th</sup> becoming relatively dry by the 21<sup>st</sup>.

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Two wet days on the 11<sup>th</sup> and 12<sup>th</sup> with rainfall amounts 15mm or less. Five relatively wet days from 13<sup>th</sup> to 17<sup>th</sup> with rainfall amounts 10mm or less. Three relatively wet days from 18<sup>th</sup> to 20<sup>th</sup> with rainfall amounts 5 mm or less. Five relatively dry days with rainfall amounts 1.0mm or less are expected on the 21<sup>st</sup> to the 25<sup>th</sup>.

#### **Trinidad and Tobago:**

The daily rainfall totals are forecast generally less than 10.0 mm across different farmlands, ranging from 7.5mm in south-eastern areas of Trinidad to 3.0mm in north-eastern areas of Tobago. with fifteen-day rainfall totals ranging between 10.0 mm and 45.0 mm. Any impactful rainfall events are most likely to occur across the eastern and southeastern parts of Trinidad.

#### **Temperatures & Winds:**

The maximum temperatures are expected to remain warm, with 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 32.0°C to 35.0°C on most days. The minimum temperatures will range between 21.0°C to 23.0°C during most nights/early mornings, dropping lower in rural areas and valleys.

Mostly moderate easterly to north-easterly winds of an average speed of 15-25 km/h are expected, with gusts of 25-30 km/h at times. Low rainfall totals, mostly moderate wind speeds, warm days and warm feels-like temperatures will sustain average evapotranspiration rates in crops ranging between 6.0 to 12.0 millimeters per day.

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