

Agro-meteorological Bulletin and Assessment for Farmers and Livestock Producers of Trinidad and Tobago for the First Dekad (1st - 10th) of March, 2019

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 Assessment for the Last Eight Days (Dekad) of February (21st -28th) 2019

For the eight days, February 21-28, 2019, useful rainfall for agriculture was recorded in both Trinidad and Tobago on each of the first five days with 8-day totals reaching just about 15.0mm at Piarco and 24.9mm at Crown Point with higher totals at other locations. During the first five days of the period, plumes of moisture brought rainfall over broad areas in both islands with moderate rainfall recorded in some locations and light rainfall in others. On the 23rd and 25th, increased moisture brought significant cloudiness and produced moderate rainfall over parts of Trinidad where totals near 5.0mm were recorded. Similar cloudiness brought moderate to heavy rainfall on the 21st and 26th over parts of Tobago with rainfall totals close to 10.0mm. With the increase in rainfall during the eight days, daily maximum temperatures were slightly lower than the previous ten days, such that maximum temperature peaked at 31.6°C at Piarco. In Tobago, temperatures were even milder with maximum temperatures peaking at 30.4° C at Crown Point. Pan

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Evaporation rates also slightly decreased during the period.

Weather conditions during the last eight days of February improved for rain-fed farming and livestock management in general, as milder temperatures, higher relative humidity and increased rainfall would have caused an increase in soil moisture available for crops. The improved rainfall totals would have provided much needed relief from the hot conditions and more opportunities for water harvesting. Irrigation needs would have decreased, while heat and water stress in most crops would have also decreased.

Expected Weather for the First Ten Days of March (01st – 10th) 2019 and Likely Impact on Agriculture

Dry and hot weather is expected to dominate the first ten days of March. The forecast indicates an expected return to less than sufficient rainfall for rain-fed agriculture with the best chance for useful rainfall for agriculture on the 02nd, 03rd, 7th and 8th. Farmers should expect ten-day rainfall totals not to exceed 10.0 mm, with rainfall totals on any day, not to exceed 5.0mm. The higher totals are likely to occur within the eastern half of Trinidad and most of Tobago.

In both islands, mean relative humidity percentage values during daylight hours are likely to get as low as the 40s. Wind speeds are expected to continue being moderate to strong (20 to 40 kilometers per hour). Temperatures are expected to remain hotter than average with maximum temperatures in Trinidad likely peak near 32.0°C and near 30.8°C in Tobago. Together, these conditions will result in moderate to high pan evaporation rates, which could mean high evapotranspiration rates in crops.

These conditions will erode some of the soil moisture gained over the last eight days of February and reduce water available for agricultural activities, in general. The days with scanty to moderate rainfall will provide some relief, but this relief is likely to be short lived. The mostly dry and hot conditions will quicken maturity and ripen short season crops that are developed but will also increase irrigation needs, especially for newly planted and transplanted seedlings and crops.

Without adequate irrigation, farmers should expect an increase in water and heat stress in crops, as well as, wilting in newly planted and transplanted seedlings, and younger plants. Farmers should use methods such as covering around the roots of crops with dry grass after watering, to delay the drying out of water and to keep the root areas moist for longer periods. The hot and dry conditions, even though buffered by the windy conditions may still negatively affect some livestock in their sensitive stage of reproduction. Similarly, the high temperatures could have an effect on production in some livestock, if insufficient actions are taken to reduce their exposure to the heat.

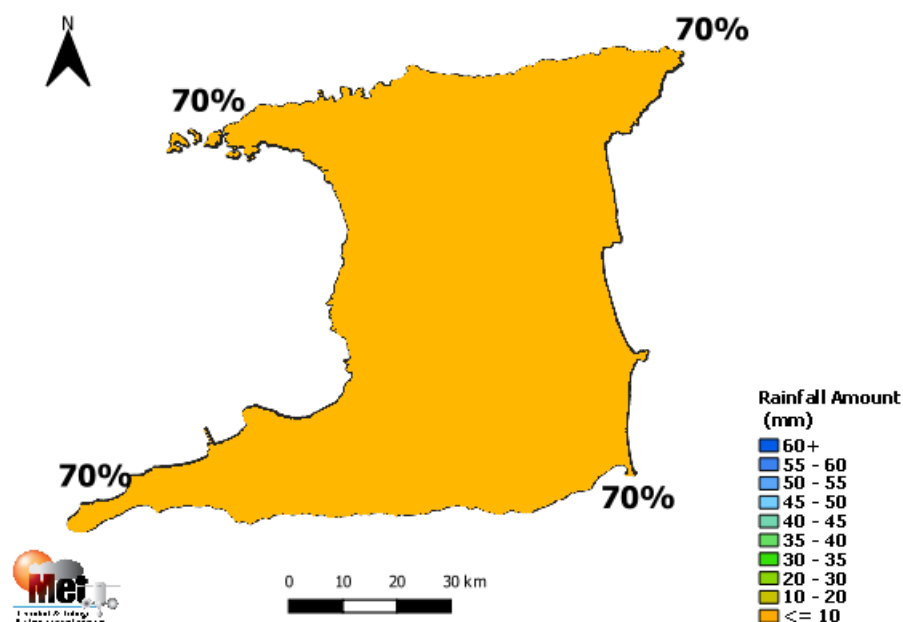
Preliminary Rainfall and Temperature Outlook for Second Ten Days of March

The outlook indicates light rainfall at the start of the period but hot and dry conditions are set to dominate the period.

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Trinidad Rainfall Forecast for the First Ten Days of March (01st – 10th) 2019



Eastern and North-Eastern areas

Moderate chance (70 %) of mean daily rainfall up to 0.8 mm.

South-Eastern areas

Moderate chance (70 %) of mean daily rainfall up to 0.8 mm.

Southern areas

Moderate chance (70%) of mean daily rainfall up to 0.8 mm.

Central, West-Central and inland areas

Moderate to chance (70 %) of mean daily rainfall up to 0.5 mm.

South-Western areas

Moderate chance (70 %) of mean daily rainfall up to 0.6 mm.

Northern, North-Western areas

Moderate chance (70%) of mean daily rainfall up to 0.5 mm.

Figure 1. Rainfall Map of Trinidad showing expected mean rainfall totals for districts across Trinidad during the first ten days of March 2019.

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Tobago Rainfall Forecast for the First Ten Days of March (01st - 10th) 2019

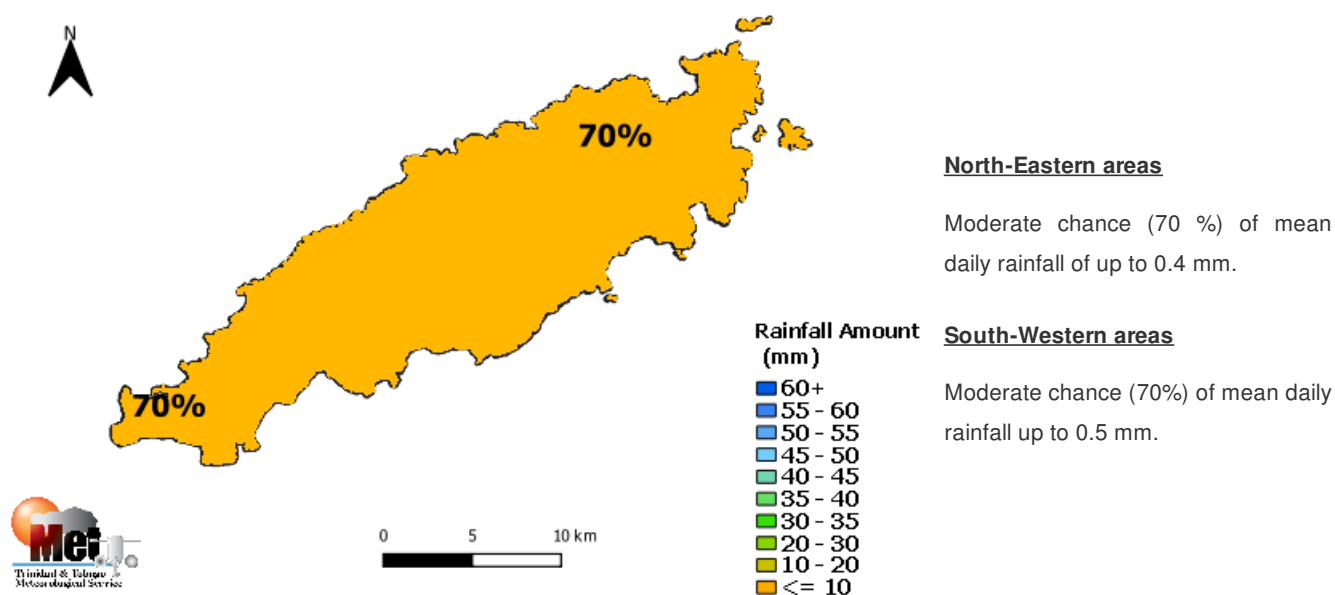


Figure 2. Rainfall Map of Tobago showing expected mean rainfall totals for districts across Tobago during the first ten days of March 2019.

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Temperatures

Trinidad: Temperature Forecasts for the First Ten Days of March (01st – 10th) 2019

High chance (80 % chance) of warmer than average daily mean temperatures (warmer than 26.3 °C).

High chance (80 % chance) for day-time maximum temperatures near 32.0 °C.

High chance (80% chance) for night-time minimum temperature below 23.0 °C.

Tobago: Temperature Forecasts for the First Ten Days of March (01st - 10th) 2019

High chance (75 % chance) of warmer than average daily mean temperatures (warmer than 26.0 °C).

High chance (80 % chance) for day-time maximum temperatures near 30.8 °C.

High chance (80% chance) for night-time minimum temperature below 23.5 °C.

Summary

Hot and dry weather is set to dominate the first ten days of March with the best chance for useful rainfall for rain-fed agriculture on the 2nd, 3rd, 7th and 8th. Rainfall on these days expected to be light to moderate and occur over broad areas. Farmers should not expected 10-day rainfall totals to exceed 10.0 mm. Daily totals are not expected to exceed 5.0 mm but the higher totals are expected within the eastern half of Trinidad and most of Tobago. Maximum temperatures are expected to peak near 32.0° C in Trinidad and near 30.8° C in Tobago. Farmers should expect an increase in heat and water stress in newly planted, germinating and developing plants and should protect crop root areas by covering after wetting, and providing shade for livestock, where necessary.

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