

Agro-meteorological Bulletin and Assessment for Farmers and Livestock Producers of Trinidad and Tobago for the Third Dekad (21st - 31st) of January, 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 Second Ten Days (Dekad) of January (11th -20th) 2019

Hot weather accompanied by mostly dry conditions continued across Trinidad and Tobago during the second ten days of January as a high-pressure system dominated the weather. After a very dry start to the 10-day period with 6 consecutive dry days occurring in Trinidad, useful rainfall for agriculture occurred on the 17th when cloudy conditions brought early morning to mid-day showers in some areas in Trinidad. At the same time, wind speeds strengthened and temperatures were warmer than usual. Tobago was not as lucky, as the island received spotty to no rainfall during the period. The dry and hot conditions led to moderate to high pan evaporation rates at Piarco and Crown Points, which suggest crop evapotranspiration rates were similar during this period, given the high temperatures, strong winds and reduced rainfall.

The hot and consecutive dry days would not have been favourable for rain-fed farming and livestock managing in general,

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as unusually high temperatures, low humidity and little to no rainfall would have caused loss of soil moisture throughout the country. The rainfall on the 17th would have provided much needed relief from the hot conditions and opportunities for water harvesting. However, irrigation needs would have increased during the dry conditions would have increased heat and water stress in most crops, as well as, leaf and flower drops, especially in mature and developed crops.

Without adequate irrigation, the high temperatures along with the dry weather could have a negative impact on crop yields for crops that were in the sensitive stage of their growing seasons. The hot and dry conditions could affect some livestock in their sensitive stage of reproduction while the high temperatures could have an effect on production in some animals, if no actions were taken to reduce their exposure to the heat. At the same time, these conditions were good for ripening of mature crops and fruits and also good for fieldwork including harvesting.

Expected Weather for the Third Ten days (Dekad) of January (21st–31st) 2019 and Likely Impact on Agriculture

The dry season is now well established and farmers should expect mostly dry weather over the next 10 days (ending January 31) as chances for useful or utilizable rainfall remain low for Trinidad and Tobago over the period. Hot and sunny days and clear cool nights are likely to dominate with scanty, to at times moderate, but brief rainfall on a few days. There is 70% chance for the 10-day rainfall totals to range between 3.0 and 12.0 mm. Scanty early morning showers are likely on the 24th with a higher chance for a few moderate showers on the 25th. From the 26th to 28th, there is a slight chance (20%) for short-lived afternoon showers on most days in the eastern half of Trinidad and some parts of Tobago.

During the forecast period, day-time temperatures are expected to remain warmer than normal with temperatures peaking near 32.0°C in Trinidad and near 30.5°C in Tobago. Night-time temperatures are expected to cool quickly but the valleys and foothills of the northern range and other hilly areas can expect slightly cooler night temperatures (between 20.0°C and 23.0°C).

These conditions are expected to be start of a slow and steady decline in weather conditions for agriculture as the dry season strengthens across the country. Farmers should expect an increase in heat and water stress especially among newly planted, germinating and developing plants and crops as the drying strengthens and should also expect an increase in leaf- and flower-drops, as well as, plants and pastures becoming less green. Farmers are encouraged to prolong soil moisture by mulching crop fields after irrigation or rainfall. With a mixture of hot and dry conditions farmers should watch-out for increased incidence of some insect pests, such as sweet potato weevil, which favour these conditions.

Preliminary Rainfall and Temperature Outlook for First Ten Days of February

The outlook indicates a continuation of scanty to no rainfall during the first ten days with days one to five likely produce the most useful rainfall episodes. Temperatures are forecasted to increase slightly.

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Tobago Rainfall Forecast for the Third Ten Days of January (21st – 31st) 2019

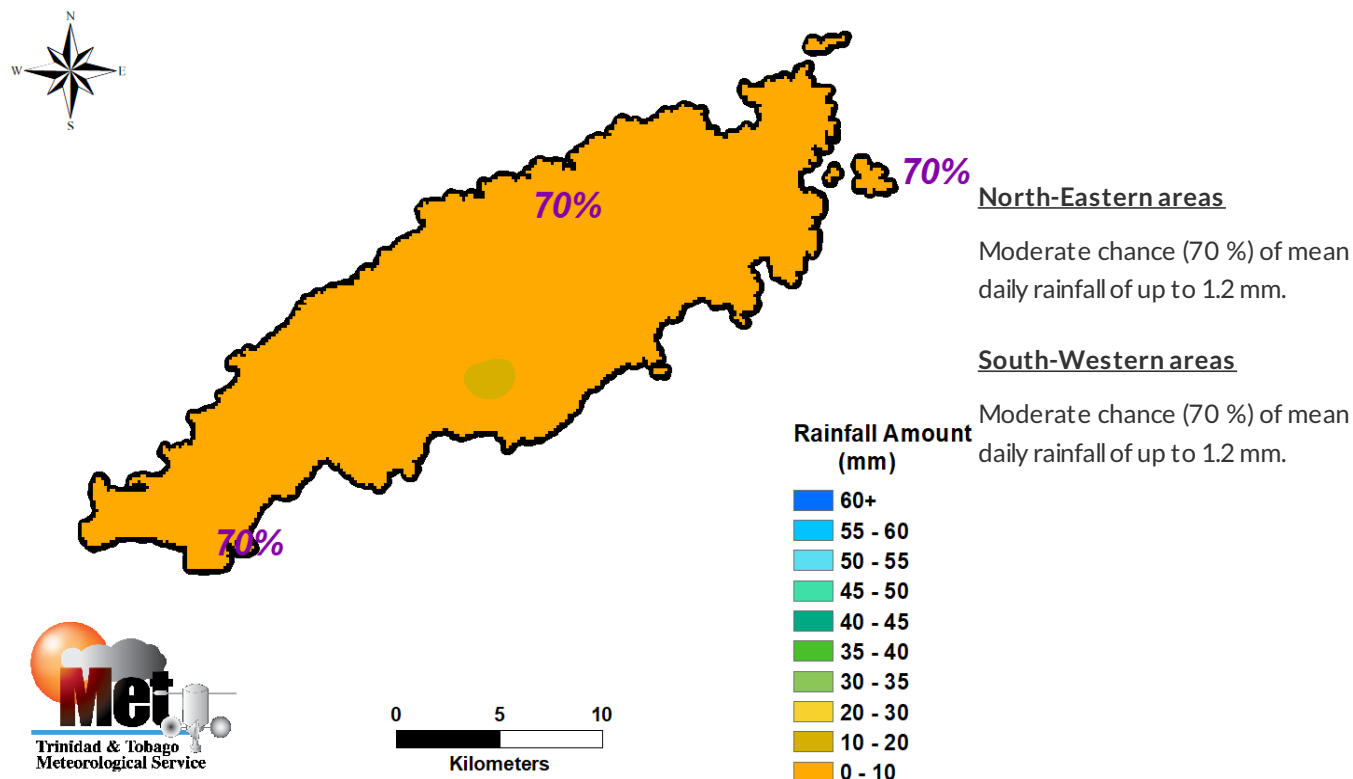


Figure 2. Rainfall Map of Tobago showing expected mean rainfall totals for districts across Tobago during the third 10-days of January 2019.

Temperatures

Trinidad: Temperature Forecasts for the Third Ten Days of January (21st – 31st) 2019

High chance (70 % chance) of warmer than average daily mean temperatures (warmer than 26.3 °C).

High chance (70 % chance) for day-time maximum temperatures near 32.0 °C.

High chance (75% chance) for night-time minimum temperature remaining above 20.0°C.

Tobago: Temperature Forecasts for the Third Ten Days of January (21st – 31st) 2019

High chance (70 % chance) of warmer than average daily mean temperatures (warmer than 26.0 °C).

High chance (70 % chance) for day-time maximum temperatures near 30.5 °C.

High chance (75% chance) for night-time minimum temperature remaining above 21.0°C.

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Summary

The forecast for the third ten days of January indicates low rainfall occurrence is likely with dry and hot weather set to dominate, even though brief periods of scanty to moderate showers are expected. Ten-day rainfall totals are not expected to exceed 12.0 mm. Temperatures are expected to remain warmer than average with maximum temperatures likely to peak near 32.0° C in Trinidad and near 30.5° C in Tobago. These conditions will continue a trend of slow and steady decline in weather conditions for agriculture, as the dry season progresses. Farmers should expect an increase in heat and water stress in newly planted, germinating and developing plants. Given the anticipated hot and dry conditions, farmers should protect crop root areas by mulching after wetting, and seeking shade for livestock.

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