

Agro-meteorological Bulletin and Assessment for Farmers and Livestock Producers of Trinidad and Tobago for the Second Dekad (11th - 20th) of June, 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 First Dekad (1st - 10th) of June, 2019.

Tropical waves passed during the 1st, 2nd, 8th and 9th of June, producing wet days over both islands. As of the 9th June, 2019, the preliminary results of rainfall amounts for Trinidad, showed that north-eastern and eastern areas had rainfall totals as follows: North Oropouche (52.2 mm), Navet (55.2 mm) and Sangre Grande (51.6 mm) were generally within the forecasted range of 50.0 mm to 100.0 mm. Similarly, northern areas such as Piarco (25.3 mm), St. Barbara (12.2 mm) and St Anns (12.2 mm) had rainfall amounts mostly below the range 50.0mm to 70.0 mm. Additionally, north-western areas of Trinidad such as Moka (10.6 mm) and Diamond Vale (6.6 mm) were mostly below forecasted amount of 50.0 mm.

Similarly, central areas had rainfall totals as follows: Arena (40.4 mm), Mamoral (29.0 mm), Flanagin Town (34.6 mm), Tamana (54.6 mm), which were mostly below the range forecasted of 50.0 mm to 70.0 mm. Likewise, southern-western areas had

Disclaimer

This information is provided with the understanding that the Trinidad and Tobago Meteorological Service makes no warranties, either expressed or implied, concerning the accuracy, completeness, reliability, or suitability of the forecast or outlook contained in this document. The information may be used freely by the public with appropriate acknowledgement of its source, but shall not be modified in content and then presented as original material.

the following rainfall amounts: Point Fortin (13.2 mm), Granville (16.8 mm) and Barrackpore (46.6 mm) were below the range forecasted amount of 50.0 mm. Similarly, south-eastern areas had the following rainfall amounts: CatsHill (42.2 mm) and Guayaguayare (51.4 mm) and Mayaro (17.5 mm) were mostly below the range forecasted of 50.0 mm to 100.0 mm.

Tobago experienced some rainfall, western areas such as Crown Point had rainfall totals of 17.5 mm, which was below forecasted amount of 30.0 mm for south-western Tobago.

Trinidad's temperature was generally just outside of the expected range, the maximum temperature went up to 33.2 °C, which was just above the expected high range of 31.6 °C to 33.0 °C. At the same time Tobago's maximum got up to 32.0 °C, just above the expected high range of 31.1 °C to 31.9 °C. Conversely, lowest temperatures recorded were 22.5 °C in Trinidad and 24.0 °C in Tobago. In Trinidad's case, the minimum temperature was slightly below the expected minimum range of 24.3 °C to 22.9 °C. On the other hand, the minimum temperature was within the expected minimum range of 24.9 °C to 23.3 °C for Tobago. The average humidity for Trinidad range between 68% to 89% while Tobago range between 73% to 80% throughout the dekad.

Expected Weather for Second Dekad (11th-20th) of June 2019 and Likely Impact on Agriculture.

Relatively wet days: on the 11th, 12th and 17th; and wet days on: 13th and 14th will be due to the passage of a Tropical Wave (TW) followed by a visitation of the Inter Tropical Convergence Zone (ITCZ) on days: 15th and 16th. A slight break in the weather on the 17th where relatively wet conditions may occur. Another bout moderate to heavy rainfall due to the combination of Tropical Wave (TW) and Inter Tropical Convergence Zone (ITCZ) on the 18th, 19th and 20th will occur.

During relatively wet days, expect patchy cloudy to cloudy conditions, with light/moderate rainfall over some areas; while during wet days, expect cloudy to overcast skies with light to moderate rainfall occasionally heavy/Thundershowers over some areas. Trinidad's ten-day period rainfall totals, forecast to range between 65.0 mm and 100.0 mm, while Tobago's ten-day period rainfall totals, forecast to range between 40.0 mm and 60.0 mm.

The average daily temperatures across Trinidad and Tobago are likely to range between 27.0 °C and 27.9 °C. Expect the highest maximum temperature over the dekad to peak near 33.0 °C in **Trinidad**, while the lowest night to early morning minimum temperature could dip below 22.5 °C. Especially along the foothills and valleys during relatively cloud-free nights. Likewise, during the dekad, in **Tobago**, the highest maximum temperature will peak near 32.0 °C, while the lowest minimum temperature will dip below 23.2 °C, mostly during relatively cloud-free nights.

For both Trinidad and Tobago, the daytime relative humidity (RH) is likely to range between 68% and 79%. However, during relatively wet days, RH percentage values will range around 85% to 100%. At the same time, wind speeds are expected to range between 20 km/h and 28 km/h but can gust to 44 km/h especially during heavy downpours. In addition, evaporation rates are expected to range between 4.0 mm/day and 8.0 mm/day.

There is also a moderate (70%) probability of visitation of Saharan dust/haze that will occasionally reduce visibility to less than 10.0 km, particularly during days: 11th, 12th and 17th.

Impacts on Agriculture:

As a result of the rainfall episodes that occurred during the last dekad, the dry soils and vegetation/foliage became more

Disclaimer

This information is provided with the understanding that the Trinidad and Tobago Meteorological Service makes no warranties, either expressed or implied, concerning the accuracy, completeness, reliability, or suitability of the forecast or outlook contained in this document. The information may be used freely by the public with appropriate acknowledgement of its source, but shall not be modified in content and then presented as original material.

moist. During this dekad moistening will continue, with soils becoming more workable and vegetation becoming more full and green. Possible signs of ponding water and water-logged soils mostly in south eastern and eastern parts of Trinidad and Tobago. Rivers will begin to replenish their waters from surface/soil runoff, while scrub and grass growth will continue at a fast pace. A possible decrease in frequency of irrigation during this dekad is expected.

Sun, Moon and bright objects in the sky:

The sun is presently at latitude of 23 degrees' north latitude, and with this position, the day length for this dekad will be 12.6 hours. Less frequent episodes of intense solar radiation will occur during this dekad when the sky is generally cloud free. There is moderate probability (50%) of heat stress on certain variety plant seedlings and young animals from direct exposure to solar radiation and high temperatures. Additionally, the moon's full phase will be on the 17th, there will be sensible moon illumination throughout the dekad with maximum illumination on the 17th. As the sun sets in the west, planets: Mercury, Venus, Jupiter and Saturn will be seen in the evening sky.

Trinidad's Mean Daily Rainfall Forecast for the Second Dekad of June (11th -20th) 2019.

Northern & Northwestern areas:

Moderate chance (60%) of mean daily rainfall up to 6.7 mm.

North-Eastern and Eastern areas:

Moderate chance (68%) of mean daily rainfall up to 9.3 mm.

Central, West-Central and inland areas:

Moderate chance (60%) of mean daily rainfall up to 6.9 mm.

South-Eastern areas:

Moderate chance (68%) of mean daily rainfall up to 9.8 mm.

Southern areas:

Moderate chance (64%) of mean daily rainfall up to 8.3 mm.

South-Western areas:

Moderate chance (60%) of mean daily rainfall up to 7.5 mm.

Disclaimer

This information is provided with the understanding that the Trinidad and Tobago Meteorological Service makes no warranties, either expressed or implied, concerning the accuracy, completeness, reliability, or suitability of the forecast or outlook contained in this document. The information may be used freely by the public with appropriate acknowledgement of its source, but shall not be modified in content and then presented as original material.

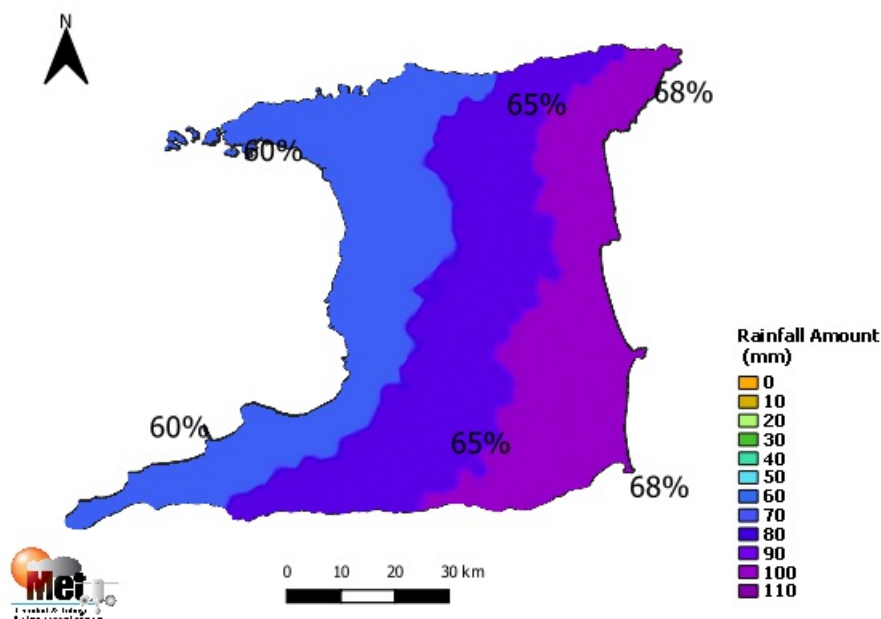


Figure 1. Rainfall Map of Trinidad showing possible rainfall totals for varying districts during second dekad of June 2019 and percentage probability of occurrence.

Tobago's Mean Daily Rainfall Forecast for the Second Dekad of June (11th -20th) 2019.

Northeastern areas:

Moderate chance (68%) of mean daily rainfall up to 5.6 mm.

South-Western areas:

Moderate chance (65%) of mean daily rainfall up to 5.2 mm.

Disclaimer

This information is provided with the understanding that the Trinidad and Tobago Meteorological Service makes no warranties, either expressed or implied, concerning the accuracy, completeness, reliability, or suitability of the forecast or outlook contained in this document. The information may be used freely by the public with appropriate acknowledgement of its source, but shall not be modified in content and then presented as original material.

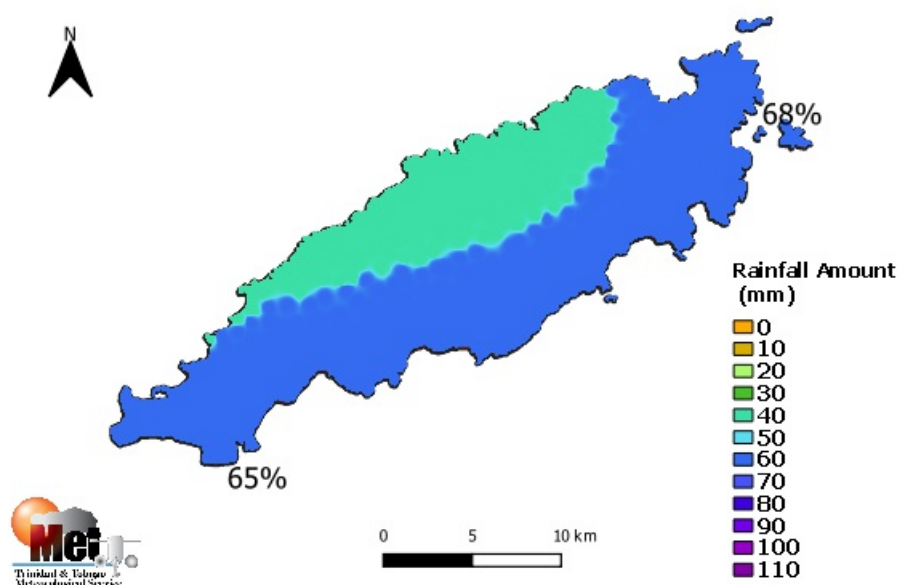


Figure 2. Rainfall Map of Tobago showing possible rainfall totals for varying districts during second dekad of June 2019 and percentage probability of occurrence.

Temperatures:

Trinidad's Temperature Forecast for the Second Dekad of June (11th -20th) 2019.

Moderate chance (70%) of daily maximum temperatures to exceed 31.3 °C, peaking near 33.0 °C.

Moderate chance (70%) of daily minimum temperatures to be below 24.1 °C, dropping as low as 22.5 °C.

Tobago's Temperature Forecast for the Second Dekad of June (11th -20th) 2019.

Moderate chance (70%) of daily maximum temperatures to exceed 30.7 °C, peaking near 32.0 °C.

Moderate chance (70%) of daily minimum temperatures to be below 24.6 °C, dropping as low as 23.2 °C.

Summary

Relatively wet days: on the 11th, 12th and 17th; and wet days on: 13th and 14th will be due to the passage of a Tropical Wave (TW) followed by a visitation of the Inter Tropical Convergence Zone (ITCZ) on days: 15th and 16th. A slight break in the weather on the 17th where relatively wet conditions may occur. Another bout moderate to heavy rainfall due to the combination of Tropical Wave (TW) and Inter Tropical Convergence Zone (ITCZ) on the 18th, 19th and 20th will occur.

Disclaimer

This information is provided with the understanding that the Trinidad and Tobago Meteorological Service makes no warranties, either expressed or implied, concerning the accuracy, completeness, reliability, or suitability of the forecast or outlook contained in this document. The information may be used freely by the public with appropriate acknowledgement of its source, but shall not be modified in content and then presented as original material.

During relatively wet days, expect patchy cloudy to cloudy conditions, with light/moderate rainfall over some areas; while during wet days, expect cloudy to overcast skies with light to moderate rainfall occasionally heavy/Thundershowers over some areas. Trinidad's ten-day period rainfall totals, forecast to range between 65.0 mm and 100.0 mm, while Tobago's ten-day period rainfall totals, forecast to range between 40.0 mm and 60.0 mm. The average daily temperatures across Trinidad and Tobago are likely to range between 27.0 OC and 27.9 OC. Expect the highest maximum temperature over the dekad to peak near 33.0 OC in Trinidad, while the lowest night to early morning minimum temperature could dip below 22.5 OC. Especially along the foothills and valleys during relatively cloud-free nights. Likewise, during the dekad, in Tobago, the highest maximum temperature will peak near 32.0 OC, while the lowest minimum temperature will dip below 23.2 OC, mostly during relatively cloud-free nights.

Disclaimer

This information is provided with the understanding that the Trinidad and Tobago Meteorological Service makes no warranties, either expressed or implied, concerning the accuracy, completeness, reliability, or suitability of the forecast or outlook contained in this document. The information may be used freely by the public with appropriate acknowledgement of its source, but shall not be modified in content and then presented as original material.