

## Agro-meteorological Bulletin and Assessment for Farmers and Livestock Producers of Trinidad and Tobago for the Third Dekad (21st - 31st) of December, 2020

### 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 period (11<sup>th</sup> - 19<sup>th</sup>) of December 2020.

During the period 11<sup>th</sup> to 19<sup>th</sup> of December, mostly relatively wet and relatively dry days occurred over Trinidad and Tobago, with the exception of the 13<sup>th</sup> and 19<sup>th</sup>; where few areas in central and southern Trinidad had experience wet days. The wet days were due to cloudiness and rainfall associated with a low-level trough and localize effects. Rainfall totals' maps for the period 11<sup>th</sup> to 19<sup>th</sup> of December are located below as figure 1 and figure 2.

### 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.

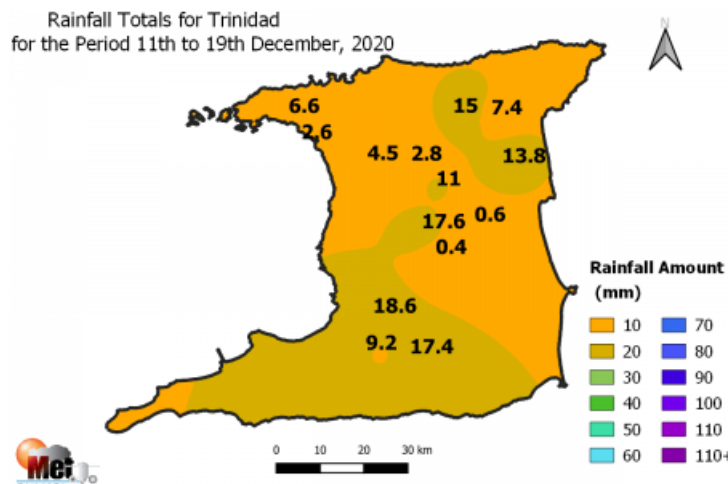


Figure 1. Rainfall map of Trinidad showing measured rainfall totals for varying districts during period 11<sup>th</sup> to 19<sup>th</sup> of December 2020.

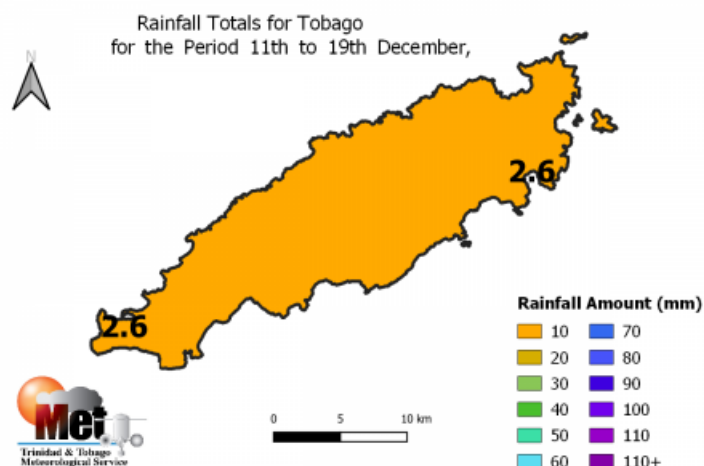


Figure 2. Rainfall map of Tobago showing measured rainfall totals for varying districts during period 11<sup>th</sup> to 19<sup>th</sup> of December 2020.

The observed temperatures (maximum/minimum), average relative humidity (maximum/minimum) and long-term

### 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.

**10-day (10dys) averages for Piarco International Airport and ANR Robinson International Airport during second dekad of December 2020.**

Location	Maximum Temperature °C/ Long term 10 dys average °C	Minimum Temperature °C /Long term 10 dys average °C	Average maximum Relative humidity (%)/ Long term 10 dys average (%)	Average minimum Relative humidity (%)/Long term 10 dys average (%)
Trinidad (Piarco International airport)	33.0/31.0 (1981-2010)	21.9/22.3 (1981-2010)	89/94 (1990-2010)	74/63 (1990-2010)
Tobago (ANR Robinson International airport)	32.5/30.1 (1981-2010)	23.1/23.2 (1981-2010)	83/94 (1990-2010)	74/68 (1990-2010)

Table 1 shows the expected weather conditions during the third Dekad (21<sup>st</sup> -31<sup>st</sup>) of December 2020, for Trinidad and Tobago.

**Table 1.**

Days:	Expected weather:
21 <sup>st</sup>	Intermittent cloudy patches with a moderate probability (55%) of showers.
22 <sup>nd</sup>	Intermittent cloudy patches with a moderate probability (55%) of showers.
23 <sup>rd</sup>	Intermittent cloudy patches with a moderate probability (45%) of showers.
24 <sup>th</sup>	Intermittent cloudy patches with a moderate probability (30%) of showers.
25 <sup>th</sup>	Intermittent cloudy patches with a moderate probability (30%) of showers.
26 <sup>th</sup>	Intermittent cloudy patches with a moderate probability (30%) of showers

**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.

27 <sup>th</sup>	Intermittent cloudy patches with a moderate probability (40%) of showers.
28 <sup>th</sup>	Intermittent cloudy patches with a moderate probability (40%) of showers.
29 <sup>th</sup>	Cloudy periods with a moderate probability (70%) of light to moderate showers.
30 <sup>th</sup>	Cloudy periods with a moderate probability (70%) of light to moderate showers.
31 <sup>st</sup>	Cloudy periods with a moderate probability (70%) of light to moderate showers.

Table 2 shows the expected temperatures, humidity and dust haze days during the third Dekad of December 2020 for Piarco, Trinidad.

Table 2.

Day	Maximum Temperature °C	Minimum Temperature °C	Average Relative humidity (%)	Dust Haze Yes/No
21 <sup>st</sup>	32.5	22.5	75	Yes
22 <sup>nd</sup>	32.5	22.5	75	Yes
23 <sup>rd</sup>	32.5	22.5	75	Yes
24 <sup>th</sup>	32.5	22.5	75	Yes
25 <sup>th</sup>	33.0	21.0	75	Yes
26 <sup>th</sup>	32.5	21.0	75	Yes
27 <sup>th</sup>	31.5	21.0	75	Yes
28 <sup>th</sup>	32.0	21.0	75	Yes
29 <sup>th</sup>	31.5	22.0	88	No
30 <sup>th</sup>	31.5	22.0	88	No
31 <sup>st</sup>	31.5	22.0	88	No

**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.

Table 3 shows the expected temperatures, humidity and dust haze days during the third Dekad of December 2020 for the ANR Robinson, Tobago.

**Table 3**

Day	Maximum Temperature °C	Minimum Temperature °C	Average Relative humidity (%)	Dust Haze Yes/No
21 <sup>st</sup>	32.5	23.0	75	Yes
22 <sup>nd</sup>	32.5	23.0	75	Yes
23 <sup>rd</sup>	32.5	23.0	75	Yes
24 <sup>th</sup>	32.5	23.0	75	Yes
25 <sup>th</sup>	32.5	22.5	75	Yes
26 <sup>th</sup>	32.0	22.0	75	Yes
27 <sup>th</sup>	32.0	22.0	75	Yes
28 <sup>th</sup>	32.0	22.0	75	Yes
29 <sup>th</sup>	32.0	23.0	88	No
30 <sup>th</sup>	32.0	23.0	88	No
31 <sup>st</sup>	32.0	23.0	88	No

**Trinidad's Mean Daily Rainfall Forecast for the third Dekad of December (21<sup>st</sup> -31<sup>st</sup>) 2020.**

**Northern & Northwestern areas:**

Moderate chance (60%) of mean daily rainfall up to 2.6 mm.

**North-Eastern and Eastern areas:**

Moderate chance (65%) of mean daily rainfall up to 4.1 mm.

**Central, West-Central and inland areas:**

Moderate chance (65%) of mean daily rainfall up to 3.4 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.

## South-Eastern areas:

Moderate chance (68%) of mean daily rainfall up to 5.0 mm.

## Southern areas:

Moderate chance (65%) of mean daily rainfall up to 4.1 mm.

## South-Western areas:

Moderate chance (65%) of mean daily rainfall up to 3.7 mm.

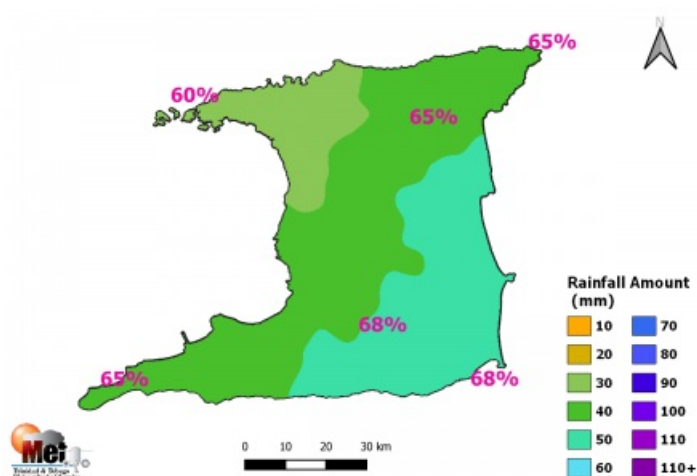


Figure 3. Rainfall map of Trinidad showing possible rainfall totals for varying districts during the third dekad of December 2020 and percentage probability of occurrence.

## Tobago's Mean Daily Rainfall Forecast for the third Dekad of December (21<sup>st</sup> -31<sup>st</sup>) 2020.

### Northeastern areas:

Moderate chance (60%) of mean daily rainfall up to 1.9 mm.

### South-Western areas:

Moderate chance (65%) of mean daily rainfall up to 2.8 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.

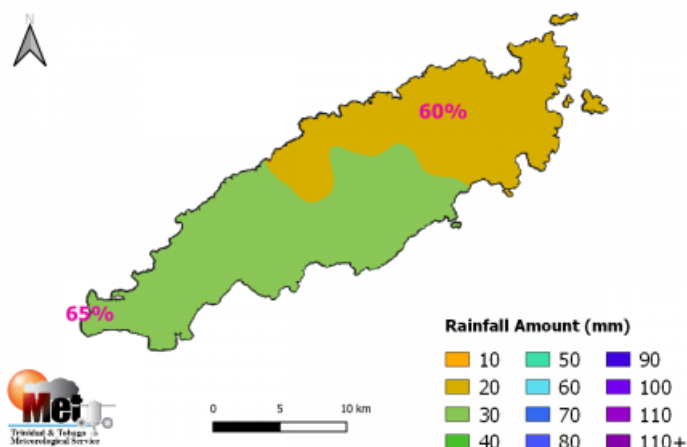


Figure 4. Rainfall map of Tobago showing possible rainfall totals for varying districts during the third dekad of December 2020 and percentage probability of occurrence.

## Impacts on Agriculture:

During the third dekad of December 2020, relatively wet days are expected on the 21<sup>st</sup>, 22<sup>nd</sup>, 23<sup>rd</sup>, 24<sup>th</sup>, 25<sup>th</sup>, 26<sup>th</sup>, 27<sup>th</sup>, and 28<sup>th</sup>; while wet days are expected on the 29<sup>th</sup>, 30<sup>th</sup> and 31<sup>st</sup>. There is a moderate (55%) probability that the anticipated rainfall will return sufficient soil moisture across Trinidad and Tobago. The expected rainfall events may maintain rivers level at moderate levels. There is a moderate (50%) probability that some areas will become water-logged especially in low-lying areas during the dekad. Shrubs and grass-growth will continue at a fast pace. Additionally, with lowering average temperatures at this time and seldom-moist vegetation, there is a moderate (40%) probability for fungi spread, insect pests and warm weather diseases to develop.

## Sun and Moon positions in the sky:

The sun is presently at a latitude of approximately 23 degrees South, and with this position, the day-length will be 11.4 hours. There is moderate probability (40%) of intense solar radiation during this third dekad of December, when the sky is generally cloud free. There is also moderate probability (40%) of heat stress on a variety of plant seedlings and young/sick/elderly animals from direct exposure to solar radiation, high temperatures with occasional calm winds. Additionally, the moon's first quarter moon phase will be on the 21<sup>st</sup> followed by full moon phase on the 29<sup>th</sup> of December. As a result, there will be medium to high moon illumination over crop fields and livestock at night during the dekad.

## Summary

During the last dekad of December 2020, relatively wet days are expected on the 21<sup>st</sup>, 22<sup>nd</sup>, 23<sup>rd</sup>, 24<sup>th</sup>, 25<sup>th</sup>, 26<sup>th</sup>, 27<sup>th</sup>,

## 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.

---

and 28th; while wet days are expected on the 29th, 30th and 31st. On relatively wet days expect intermittent cloudy patches with a moderate probability range (30% to 55%) of showers and on wet days expect cloudy periods with a moderate probability of 70% of light to moderate showers.

**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.