



Date of Issue: 30/11/2017

Key Words: below-normal (“less than usual”), near-normal (“usual”) or above-normal (“More than usual”)

Special Issue: Dry As Usual 2018 Dry Season Forecasted

Key Messages

- ✓ 2018 Dry Season (December to May) climate outlook shows the highest chance for the usual dry season rainfall amounts across much of Trinidad and Tobago; as such, near normal accumulated rainfall totals (between 75%-125%) are likely (medium to high confidence);
- ✓ There is high chance for at least two 7-day dry spell (days with less than 1.0 mm of rainfall) periods to occur during the dry season;
- ✓ Recent conditions show that November rainfall was below average in most areas, and is the fifth driest November on record at Piarco;
- ✓ The chance for the dry season being extremely dry is low or just below 12%, over most areas of Trinidad and Tobago (high confidence);
- ✓ The first half of the dry season (December to February) is favoured to be wetter than usual; while the second half (March to May) has increased chances for near usual rainfall;
- ✓ Warmer days and nights are expected as both day and night temperatures are likely to remain higher than average for all of Trinidad and Tobago. Chances are likely higher, in cities and built-up areas;
- ✓ Episodes of rough seas are typical during the dry season;
- ✓ Episodes of severe dust-haze outbreaks are typical during the dry season.

Likely Impacts

- ✓ Possibility of reduced water availability, water levels and water stress later in the season;
- ✓ Increased potential for grass, bush and forest fires, which can reduce grazing areas and pastures by mid-season;
- ✓ Potential for periods of excessive heat, which can increase stress for persons with heat-sensitive ailments and for heat-exposed livestock and other animals;
- ✓ Possibility of increased disruption in marine transportation due to episodes of rough seas;
- ✓ Significant amounts of dust concentrations could increase air pollution. Persons who are sensitive to dust (asthma cases and other respiratory ailments) should prepare early;
- ✓ Possibility of increased incidences of pests and diseases that thrive in drier conditions.

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 assessment or outlook contained in this document. This Outlook provides possible temperature and rainfall conditions over the next 3-6 months and is part of a suite of early warning climate forecasts designed for contingency planners which should not be used in isolation but used along with daily weather and shorter-range forecasts and warnings available from the TTMS. 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.



**Probability of Most Likely Category of Rainfall
Dry Season 2018**

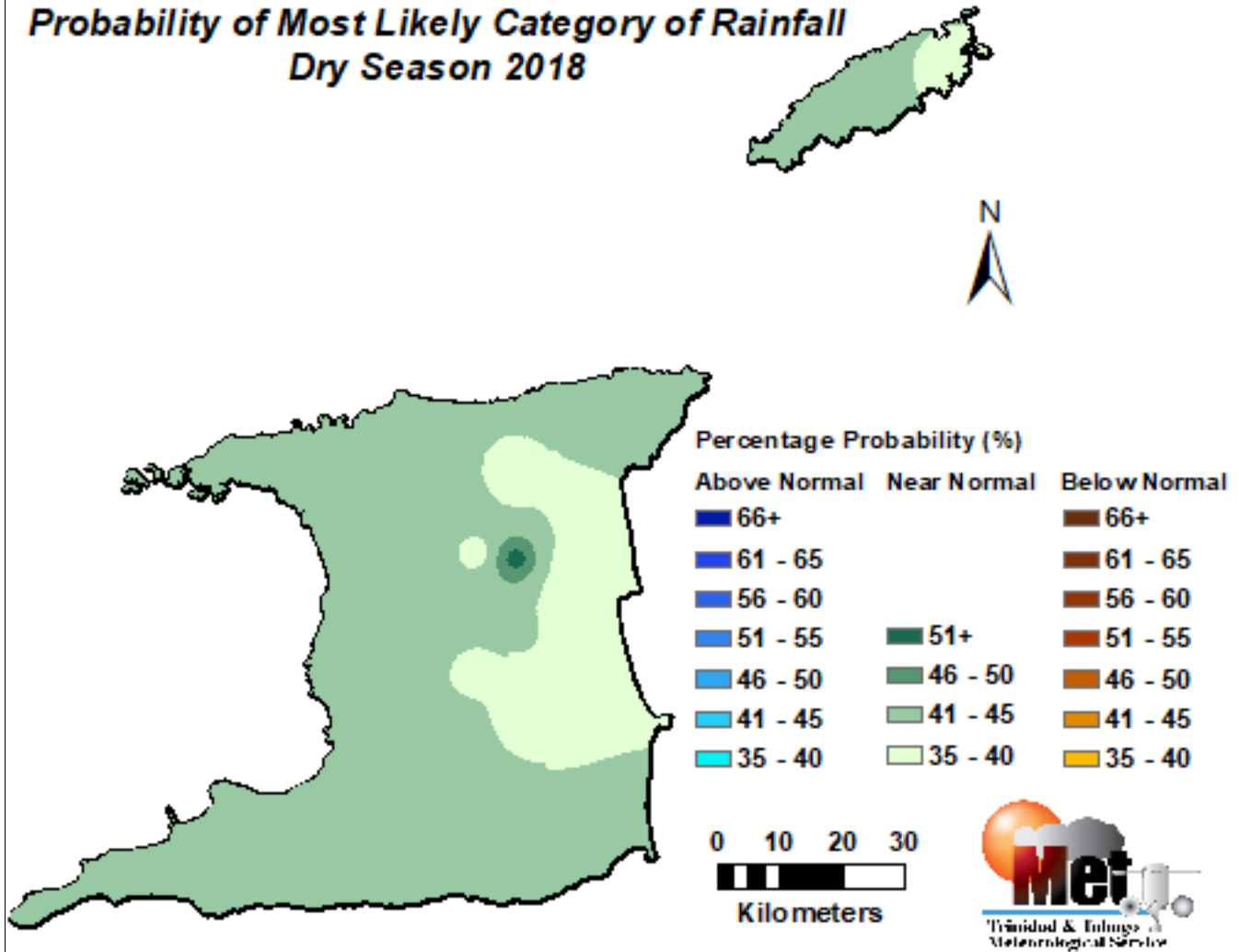


Figure 1: Category of rainfall likely for DJFMAM 2017-2018 with the highest chance of occurrence expressed as probabilities and colour coded on the map. Blue areas indicate places with an increased chance for above normal rainfall, brown areas show an increased chance for below normal rainfall, while green areas show an increased chance for near normal rainfall. Normal is defined by the rainfall that was observed in middle one-third of the DJFMAM period rainfall totals during the historical period used to produce the outlook.

- ✓ The seasonal climate forecast for 2018 Dry Season indicates that there is an increased likelihood that the season will be as dry as usual, that is, near normal accumulated rainfall totals are favoured across Trinidad and Tobago over the period December 2017 to May 2018. (medium to high confidence)
- ✓ That is, most regions of the country are likely to receive total rainfall that is between 75% and 125% of the long term mean.
- ✓ There is an 89% chance for at least two 7-day dry spell periods to occur during the season.

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 assessment or outlook contained in this document. This Outlook provides possible temperature and rainfall conditions over the next 3-6 months and is part of a suite of early warning climate forecasts designed for contingency planners which should not be used in isolation but used along with daily weather and shorter-range forecasts and warnings available from the TTMS. 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.

Probability of Dry Season Rainfall Totals In the Lowest 10% of the Historical Record

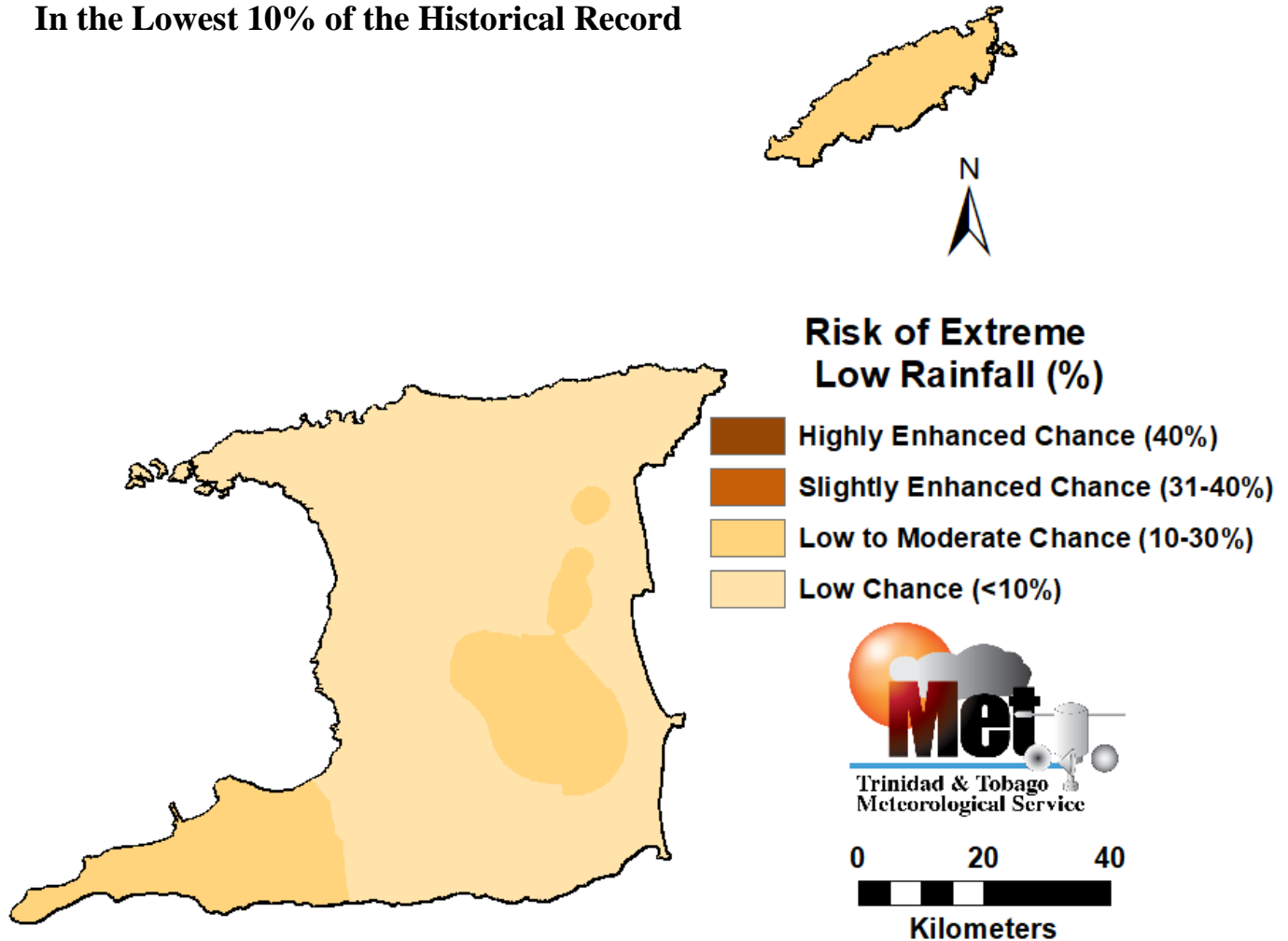


Figure 2: Risk of the Dry Season 2018 being extremely drier than normal (accumulated rainfall totals in the lowest 10% on record).

- ✓ The chance for the dry season being extremely dry is low or just below 12%, over most areas of Trinidad and Tobago. (high confidence)
- ✓ Even though the chance is particularly small (less than 12%), this is still one of the likely scenarios that can occur and which can have high impact on all sectors.

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 assessment or outlook contained in this document. This Outlook provides possible temperature and rainfall conditions over the next 3-6 months and is part of a suite of early warning climate forecasts designed for contingency planners which should not be used in isolation but used along with daily weather and shorter-range forecasts and warnings available from the TTMS. 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.

Probability of Most Likely Category of Rainfall December 2017 to February 2018

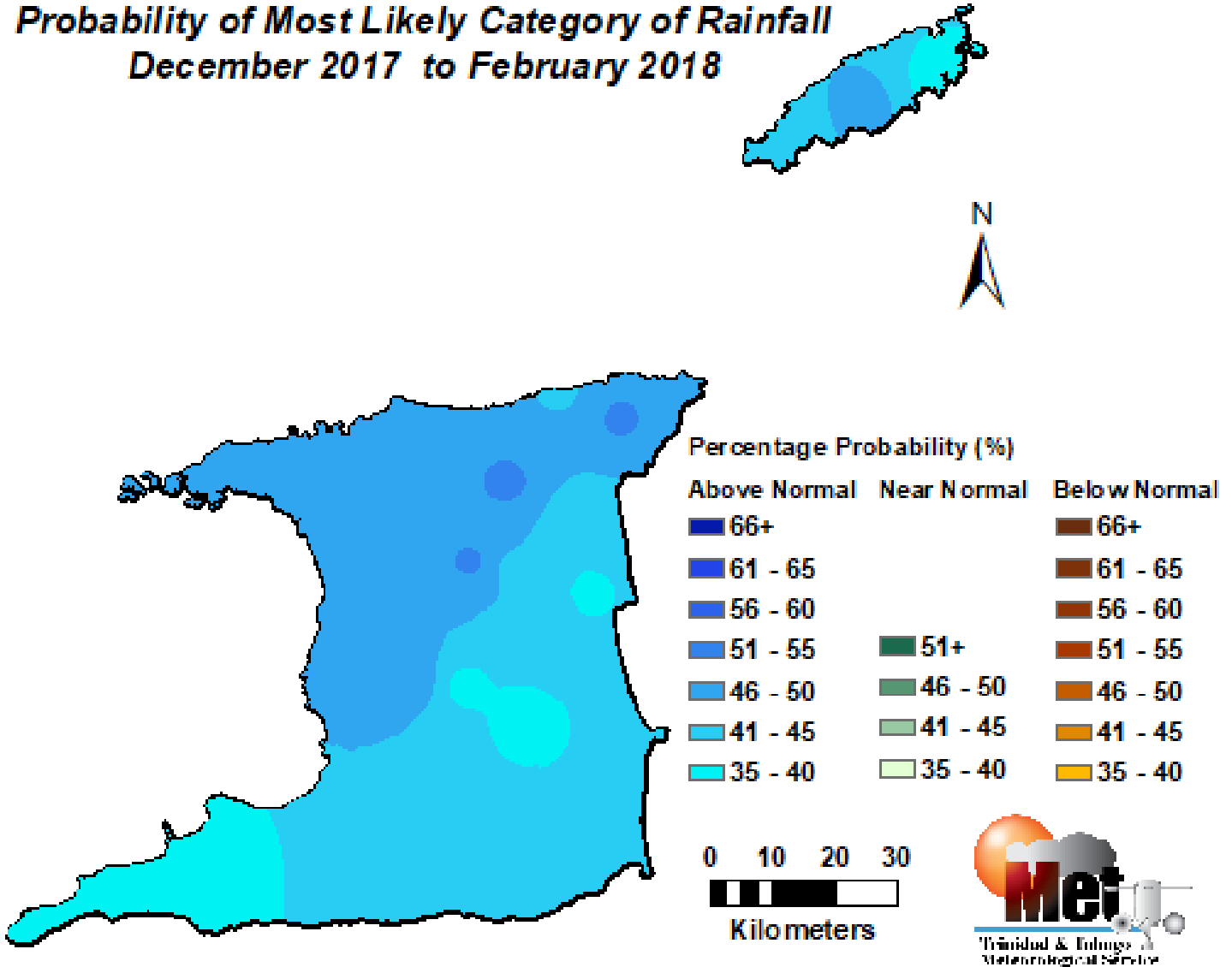


Figure 3: Category of rainfall likely for DJF 2017-2018 with the highest chance of occurrence expressed as probabilities and colour coded on the map. Blue areas indicate places with an increased chance for above normal rainfall, brown areas show an increased chance for below normal rainfall, while green areas show an increased chance for near normal rainfall. Normal is defined by the rainfall that was observed in middle one-third of the DJF period rainfall totals during the historical period used to produce the outlook.

- ✓ The first half of the dry season (December to February) is favoured to be wetter than usual with increased chances for above normal accumulated rainfall totals across Trinidad and Tobago. (medium confidence)
- ✓ That is, most areas are likely to receive total rainfall above 125% of the long term mean. Wetter than usual December to February tends to have one or two moderate to heavy rainfall days, especially during December and early January.

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 assessment or outlook contained in this document. This Outlook provides possible temperature and rainfall conditions over the next 3-6 months and is part of a suite of early warning climate forecasts designed for contingency planners which should not be used in isolation but used along with daily weather and shorter-range forecasts and warnings available from the TTMS. 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.

Probability of Most Likely Category of Rainfall March 2018 to April 2018

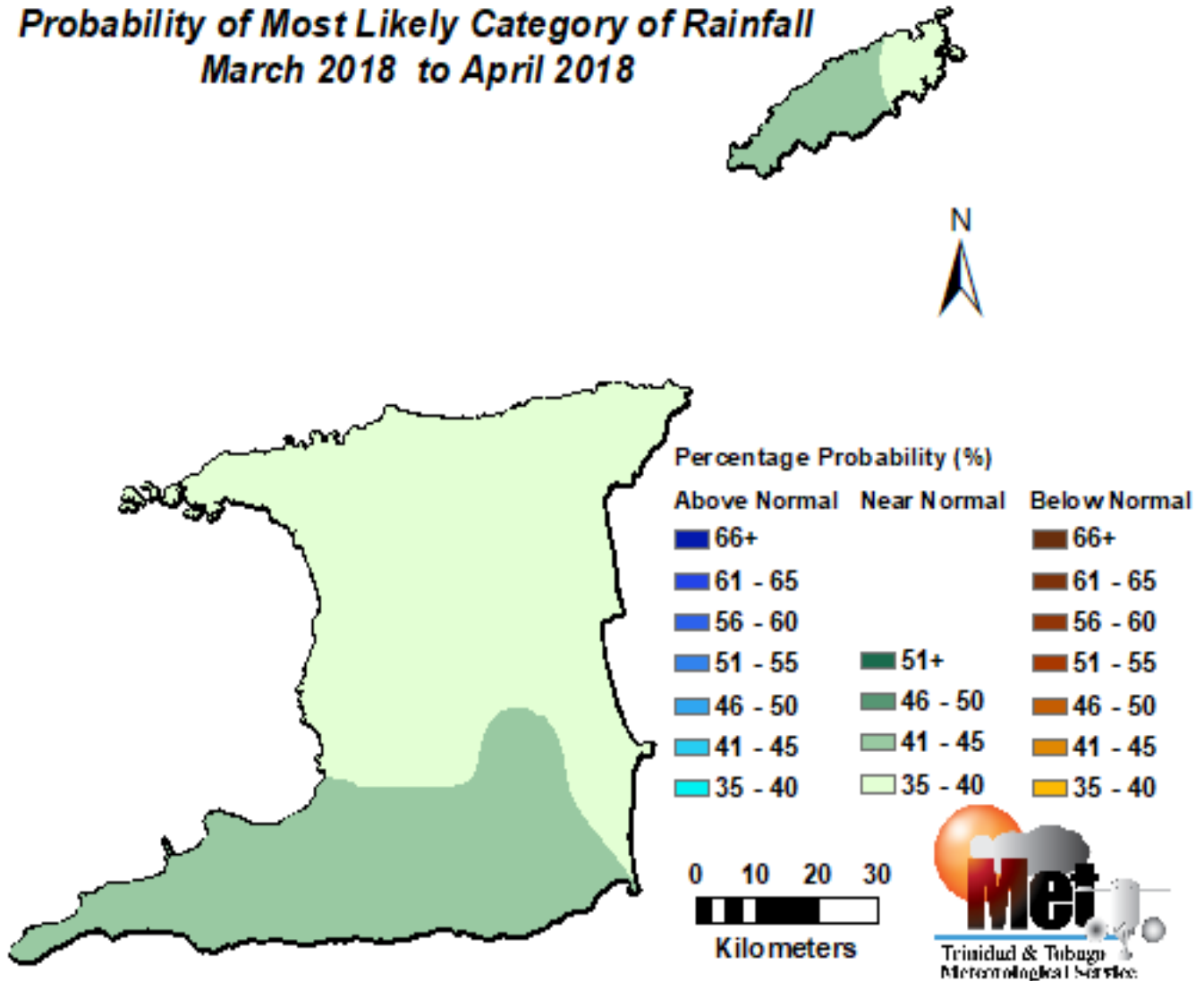


Figure 4: Category of rainfall likely for MAM 2017-2018 with the highest chance of occurrence expressed as probabilities and colour coded on the map. Blue areas indicate places with an increased chance for above normal rainfall, brown areas show an increased chance for below normal rainfall, while green areas show an increased chance for near normal rainfall. Normal is defined by the rainfall that was observed in middle one-third of the MAM period rainfall totals during the historical period used to produce the outlook.

- ✓ The second half of the season (March to May) shows a possible shift towards drier conditions and is favoured to have near normal accumulated rainfall totals. (low to medium confidence)
- ✓ The usual dry season rainfall can still have one or two moderate to heavy rainfall days during April and May.

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 assessment or outlook contained in this document. This Outlook provides possible temperature and rainfall conditions over the next 3-6 months and is part of a suite of early warning climate forecasts designed for contingency planners which should not be used in isolation but used along with daily weather and shorter-range forecasts and warnings available from the TTMS. 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 Temperature Outlook Favours Higher than Usual Temperatures during 2018 Dry Season

Trinidad and Tobago is likely to get warmer than usual conditions during the 2018 Dry Season.

March to May is favoured to get to the usual number of hot days. These are days when maximum temperatures exceed 34.0°C in Trinidad and 32.0°C in Tobago.

Likewise, night temperatures are likely to be warmer than average, with temperatures in Tobago favoured to be warmer than in Trinidad.

A few January and February nights are likely cool to minimum temperatures below 22.0°C.

Likely Implications for Near Normal Rainfall and Warmer than Normal Temperatures

- ✓ Reduced water availability, water levels and water stress later in the season;
- ✓ Increased potential for grass, bush and forest fires, which can reduce grazing areas and pastures by mid-season;
- ✓ Potential for periods of excessive heat, which can increase stress for persons with heat-sensitive ailments and for heat-exposed livestock and other animals;
- ✓ Disruption in marine transportation like the ferry service along with other marine activities due episodes of rough seas;
- ✓ Possibility of severe dust-haze outbreaks. Significant amounts of dust concentrations could increase air pollution and this can impact persons who are sensitive to dust (such as persons with asthma and other respiratory ailments);
- ✓ Possibility of increased incidences of climate-sensitive diseases such as dengue;
- ✓ Possibility of increased incidences of pests and diseases related to dry conditions, such as the sweet potato weevil.

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 assessment or outlook contained in this document. This Outlook provides possible temperature and rainfall conditions over the next 3-6 months and is part of a suite of early warning climate forecasts designed for contingency planners which should not be used in isolation but used along with daily weather and shorter-range forecasts and warnings available from the TTMS. 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.



How Should You Respond?

Take Early Action!

Health Sector:

- ✓ Conduct sensitization and awareness campaigns on sanitation and hygienic issues to prevent disease outbreaks like meningitis and other climate-sensitive diseases;
- ✓ Ensure adequate availability of pharmaceuticals for respiratory ailments;
- ✓ Increase awareness among staff on the possibility of an increased intake of patients with heat related ailments, vector and air borne illnesses.

Disaster Risk Management Sector:

- ✓ Continue to sensitize communities on the forecast and its negative impacts, including information about the impacts of bushfires, hot spells, and possibility of reduced water availability;
- ✓ Alert communities in bush-fire prone areas so that they can take early action;
- ✓ Revisit early warning information dissemination channels.

Agriculture & Food Security Sector

- ✓ Plant early to catch the likely wetter than usual conditions early in the period;
- ✓ Harvest water during the wetter periods of the season;
- ✓ Use available water sparingly to ensure longer water availability for crop growing;
- ✓ Use mulching and trenching to prolong moisture at the crop root zone.

Water, Drainage and Energy Sector

- ✓ Continue routine de-silting of water channels, canals and reservoirs;
- ✓ Implement awareness campaigns on the efficient use of water among communities.

General Public

- ✓ Conserve, store and manage water in a safe and adequate manner;
- ✓ Be watchful for extremely hot days;
- ✓ Be watchful when burning debris.

Be vigilant and visit the Met. Service website regularly to keep up to date on local weather changes at www.metoffice.gov.tt. Follow us on Facebook and Twitter or download our mobile app on Google Play Store or Apple App Store.



Climatic Influencers and Context of the Outlook

- ✓ Sea Surface Temperatures (SSTs) in waters surrounding Trinidad and Tobago have cooled and remain close to near average for this time of the year. Near average SSTs tend to either dampen or enhance local rainfall.
- ✓ La Niña conditions are present as equatorial sea surface temperatures (SSTs) are below average across the central and eastern Pacific Ocean. These conditions are predicted to continue (~65%-75% chance) at least through the first half of the dry season. Historically, strong La Niña conditions have been associated with enhancement of local rainfall, while weak La Niña conditions have some influence on local rainfall, but not always.
- ✓ Since the beginning of October, the North Atlantic Oscillation (NAO) for the most part has been in its positive phase but is predicted to be in its negative phase during the first two weeks of December. The positive phase may have assisted with cooling of SSTs in waters around Trinidad and Tobago, and this is likely to have a negative influence on local rainfall during DJF.
- ✓ Following Madden Julian Oscillation (MJO) events that peaked in October, there is no clear signal of how the MJO is likely to evolve over the short term, except that there is slight indication that it is likely to suppress rainfall in the region during week two of December.

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 assessment or outlook contained in this document. This Outlook provides possible temperature and rainfall conditions over the next 3-6 months and is part of a suite of early warning climate forecasts designed for contingency planners which should not be used in isolation but used along with daily weather and shorter-range forecasts and warnings available from the TTMS. 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.