



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

Below Normal Rainfall Favoured for April to June 2018 with Warmer Than Usual Temperatures

Key Messages

- ✓ April to June (AMJ) 2018 rainfall outlook shows enhanced chances for drier than usual conditions, with accumulated rainfall totals likely to be in the below-normal category (rainfall totals less 75% of the long term mean) across Trinidad and Tobago (**medium confidence**);
- ✓ There is 45%-65% chance for accumulated rainfall totals in excess of 300 mm over the period;
- ✓ Moderate (60%-75%) chance for at least two 7-day dry spells (days with less than 1.0 mm) during AMJ;
- ✓ The chance for AMJ to be extremely dry is slightly enhanced in some locations and low to moderate in others. Chances range between 10% to 31% (**medium confidence**);
- ✓ Preliminary analysis indicates March rainfall was above average;
- ✓ July to September rainfall outlook shows the highest chance is for above-normal rainfall (**medium confidence**);
- ✓ Warmer days and nights are likely as both day and night temperatures are forecasted to remain higher than average for all of Trinidad and Tobago. Chances are likely to be highest in cities and built-up areas;
- ✓ Episodes of dust-haze outbreaks are typical during AMJ and are likely to increase in occurrence during the period.

Likely Impacts

- ✓ Possibility of reduced water availability and water levels leading to increased water stress as the season progresses;
- ✓ Increased potential for grass, bush and forest fires during early April;
- ✓ Potential for periods of excessive heat, which can increase heat stress for persons with heat-sensitive ailments and for heat-exposed livestock and other animals, as the season progresses;
- ✓ 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.

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Probability of Most Likely Category of Rainfall April to June 2018

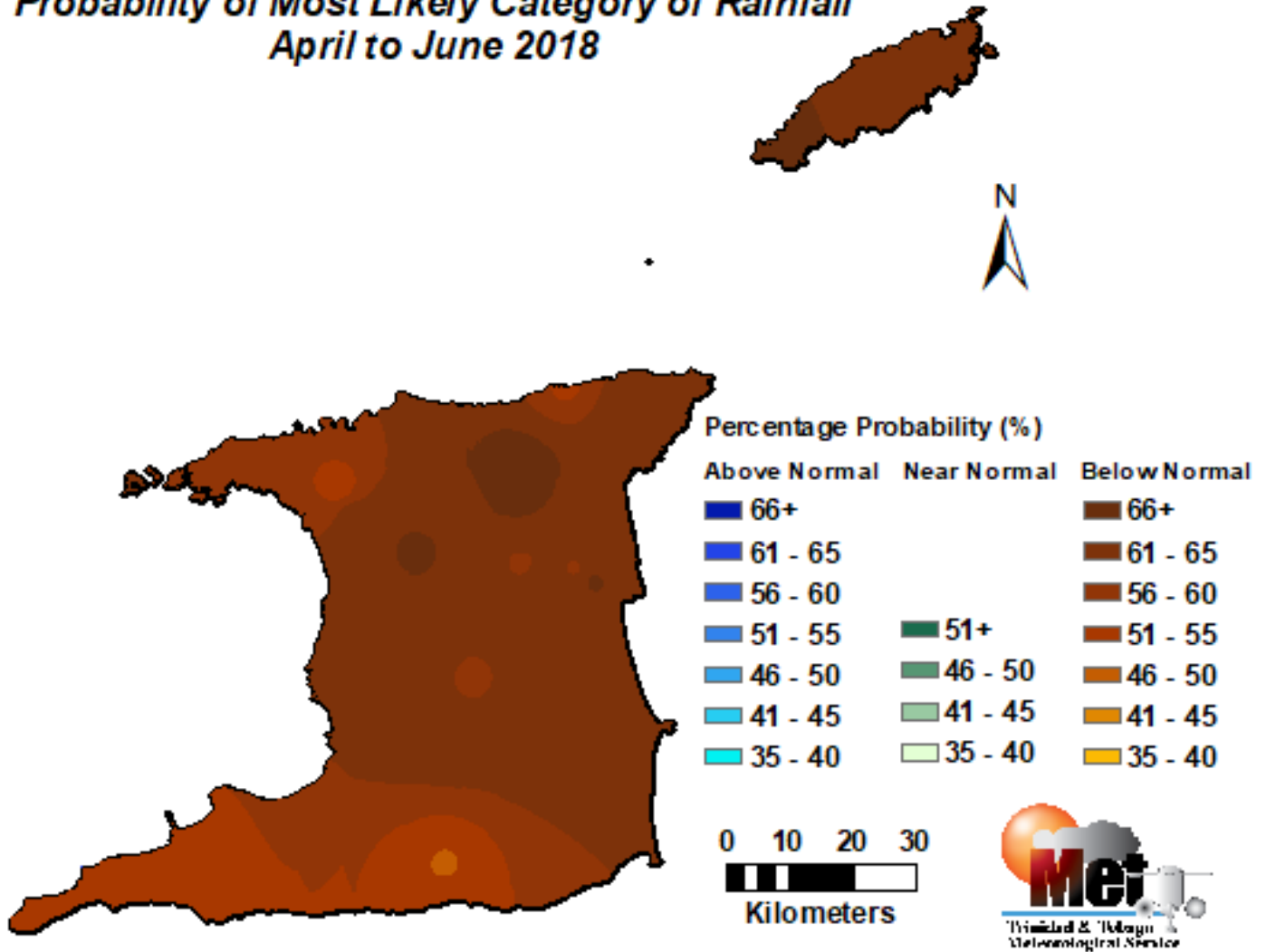


Figure 1: Category of rainfall likely for AMJ 2018 with the highest chance of occurrence expressed as probabilities and colour coded on the map. Blue indicates that it is more likely for above normal rainfall to occur than for below normal or near normal, brown indicates it is more likely for below normal rainfall, while green indicates it is more likely for near normal rainfall. Normal is defined by the rainfall that was observed in middle one-third of the AMJ period rainfall totals during the historical period used to produce the outlook.

- ✓ The rainfall outlook for AMJ 2018 favours drier than usual conditions with below-normal accumulated rainfall totals across Trinidad and Tobago having the highest chance of occurrence compared to the chances for near- and above-normal (**medium confidence**).
- ✓ This means most regions of the country are likely to receive total rainfall amounts that are less than 75% of the long term mean. For instance, at Piarco this means accumulated AMJ rainfall total less than 435.2 mm and at Crown Point less than 294.7 mm.

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Probability of AMJ 2018 rainfall totals being in the Lowest 10% of the Historical Record

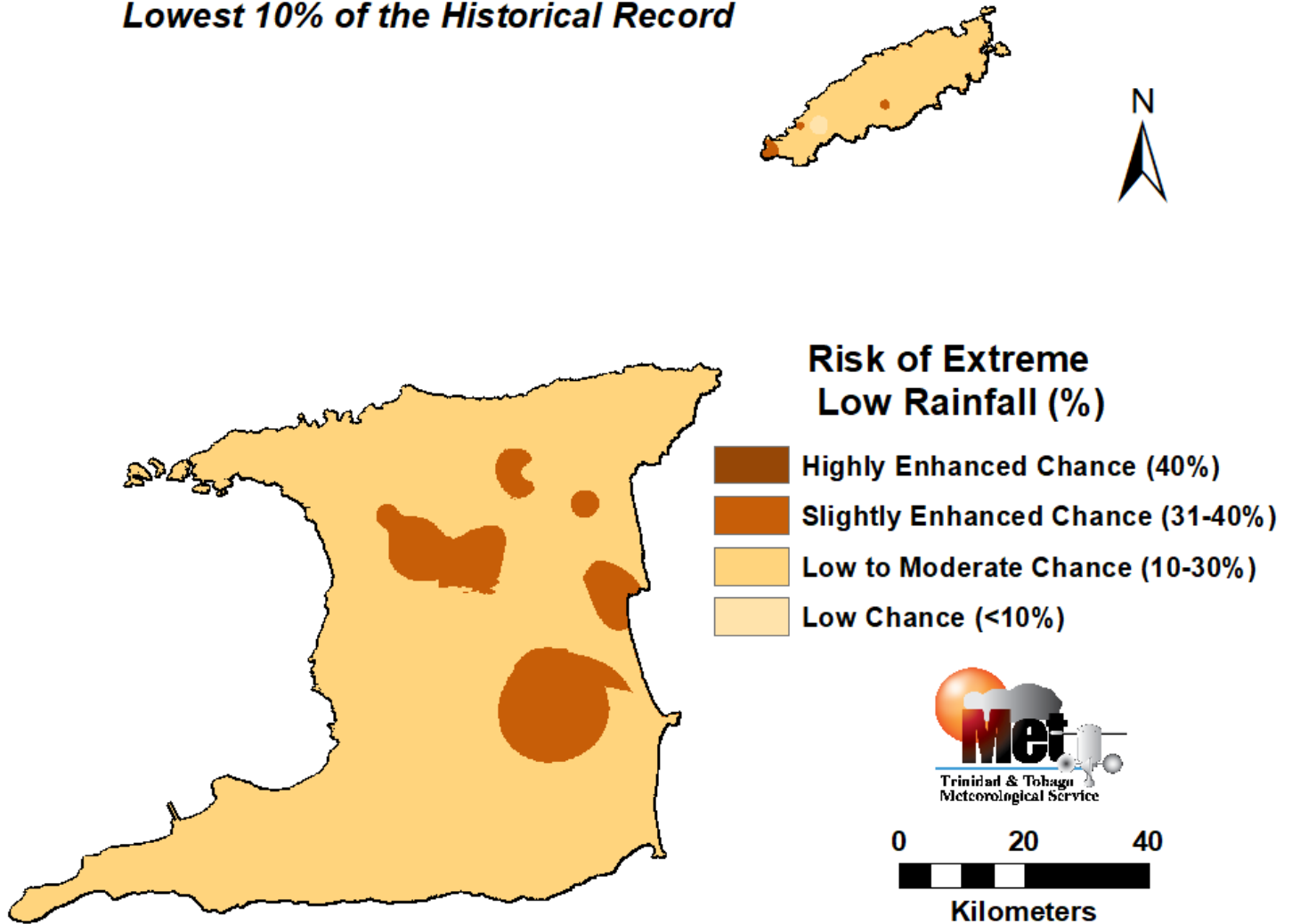


Figure 2: The map shows the chances for extremely dry conditions over the next three months. Extreme refers to the lowest 10% of April to June accumulated rainfall in the historical record.

- ✓ The chance for the AMJ period to be extremely dry is slightly enhanced in a few areas but low to moderate in most areas (**medium confidence**).
- ✓ This means there is a 10% to 31% chance for extremely drier than usual conditions. If this occurs, it can have negative impacts on all sectors.
- ✓ There is a moderate to high chance (60% -75%) for at least two 7-day dry spells (days with less than 1.0 mm) during AMJ;

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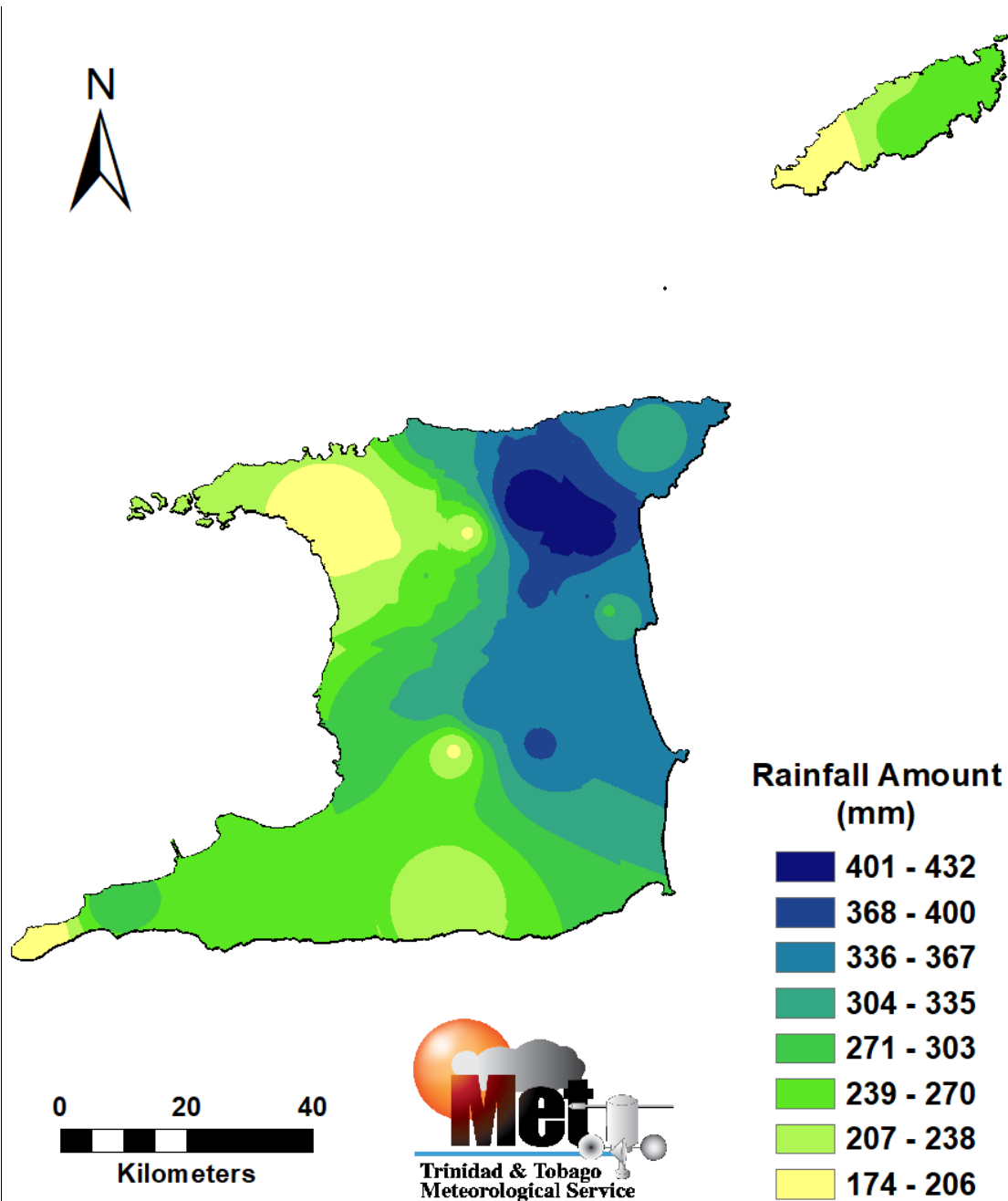


Figure 3: Possible accumulated rainfall totals with the highest chance of occurring during April to June 2018.

AMJ largest rainfall accumulated totals are likely to be near 430.0mm in areas such as Valencia, Sangre Grande and environs in east Trinidad; and near 270.0mm in Mt Saint George and Goodwood areas of Tobago. Smallest totals are likely to be in the north-western areas of Trinidad and south-western areas of Tobago (**medium confidence**).

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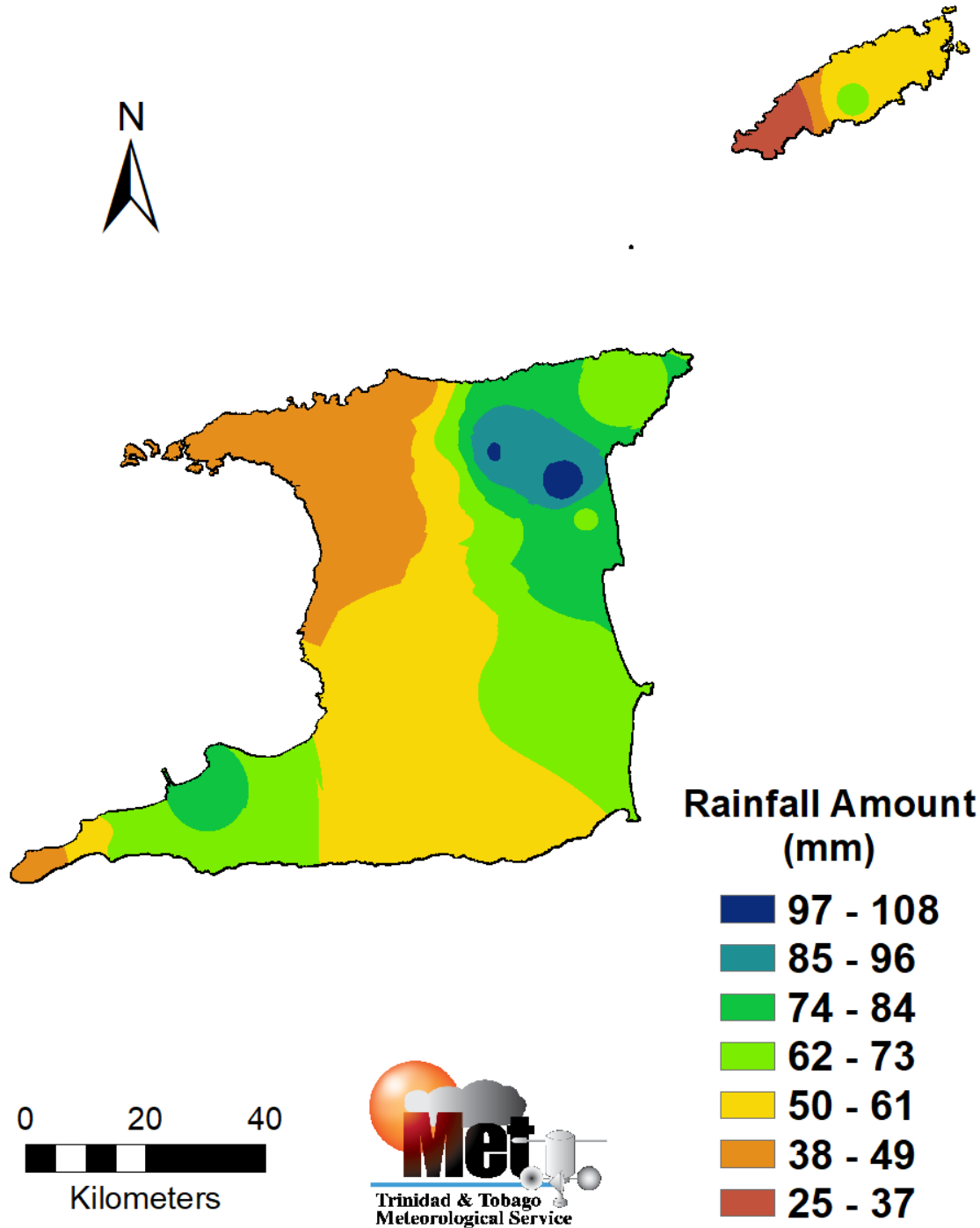


Figure 4: Possible rainfall totals with the highest chance of occurring during April 2018.

April rainfall totals with highest chance of occurring range between 39.0mm and 110.0mm in Trinidad and between 25.0mm and 64.0mm in Tobago (**medium confidence**).

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Probability of Most Likely Category of Rainfall July to September 2018

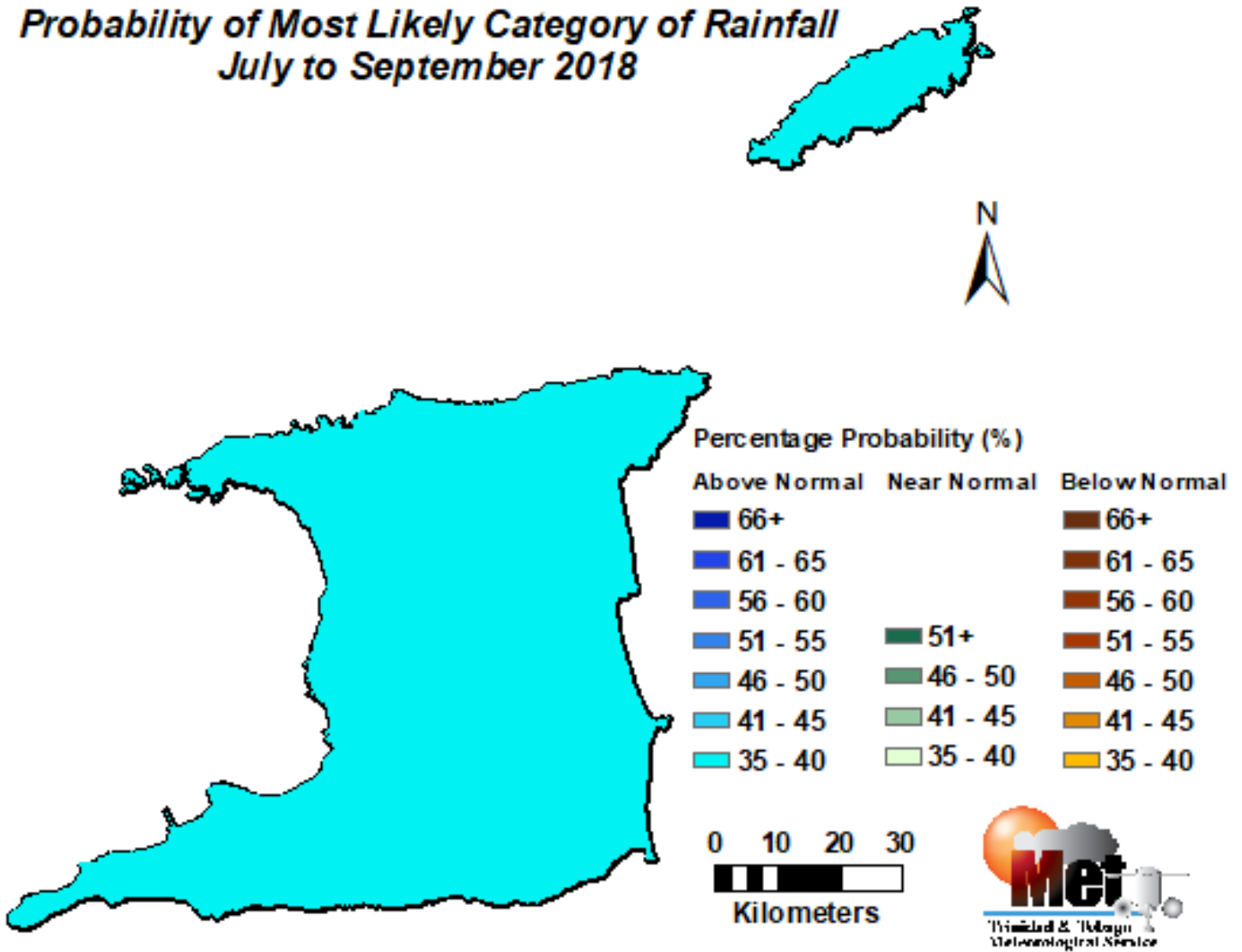


Figure 5: Category of rainfall likely for June to September (JAS) 2018 with the highest chance of occurrence expressed as probabilities represented on the map. Blue indicates that it is more likely for above normal rainfall to occur than for below normal or near normal; brown indicates it is more likely for below normal rainfall; while green indicates it is more likely for near normal rainfall. Normal is defined by the rainfall that was observed in middle one-third of the JAS period rainfall totals during the historical period used to produce the outlook.

- ✓ July to September (JAS) 2018 is likely to be as wet as usual with accumulated rainfall totals favoured to be in the above normal category, across both islands (**medium confidence**).

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The Temperature Outlook Favours Higher than Usual Temperatures during AMJ 2018

Trinidad and Tobago is likely to get warmer than usual conditions during AMJ, with both day and night temperatures favoured to be above average;

There is a high chance for maximum temperatures to exceed 33.0°C in Trinidad and 31.5°C in Tobago on occasions during April and May. Chances for this to occur are higher in cities and built-up areas;

There is an enhanced possibility for at least one short duration hot spell (at least 3 consecutive days of temperature greater than 34.0°C in Trinidad and 32.0°C in Tobago) during April and May.

Likely Implications

- ✓ Reduced water availability and water levels during the early part of the period could lead to increased water stress;
- ✓ Increased potential for short periods of excessive heat. These can increase heat-stress for persons with heat-sensitive ailments and for heat-exposed livestock and other animals;
- ✓ Excessive heat can also cause health and safety issues for persons working outdoors in exposed heat conditions;
- ✓ Likelihood of severe dust-haze outbreaks remains high especially during April to June. Significant amounts of dust concentrations could increase air pollution and this can impact persons whose health and well-being are sensitive to dust (such as persons with asthma and other respiratory ailments);
- ✓ Possibility of increased incidences of pests and diseases, such as the sweet potato weevil, which are associated with drier conditions.



How Should You Respond?

Take Early Action!

Health Sector:

- ✓ Conduct sensitization and awareness campaigns on sanitation and hygienic issues to reduce outbreak of climate sensitive diseases;
- ✓ Ensure adequate availability of pharmaceuticals for respiratory ailments;
- ✓ Increase awareness among staff on the possibility of spikes in cases with excess-heat related ailment, 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;
- ✓ Revisit early warning information dissemination channels.

Agriculture & Food Security Sector

- ✓ Harvest water during the wetter days 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

- ✓ De-silt water channels, canals and reservoirs now;
- ✓ Persons working outdoors should take necessary protections to safeguard against harmful heat and UV radiation exposure;
- ✓ Implement awareness campaigns on the efficient use of water.

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 daily at www.metoffice.gov.tt, follow us on Facebook, Instagram and Twitter or download our mobile app on Google Play Store or Apple iStore.



Climatic Influencers and Context of the Outlook

- ✓ Sea Surface temperatures (SSTs) in waters surrounding Trinidad and Tobago have cooled during the last four weeks and are near to below-average for this time of the year. Slightly below-average SSTs are forecasted for AMJ. Below average SSTs tend to tilt the odds in favour of inhibiting local rainfall.
- ✓ Weak to borderline La Niña conditions currently exist but this is expected to transition neutral conditions during AMJ as supporting atmospheric features are already in neutral phase. Most model forecasts show an end to La Niña by May but there is great uncertainty because during this time of the year it is very hard to predict what is likely to happen. Typically, neutral conditions do not favour any particular rainfall pattern for Trinidad and Tobago.
- ✓ Since early March 2018 the North Atlantic Oscillation (NAO) has been in its negative phase but this trend is forecasted to end and transition to its positive phase during April. A positive NAO tends to aid in cooling SSTs in waters around Trinidad and Tobago. Cooler SSTs usually have a negative influence on local rainfall.
- ✓ The current and forecast phase of the Madden Julian Oscillation (MJO) suggests it may positively influence local rainfall during the next two weeks.

The precipitation and temperature outlook is based on statistical and dynamical seasonal climate models output and known seasonal climate influencers. Multiple competing climatic influencers currently exist. The outlook is in good agreement with some of global climate models, some of which are favour either below average or near average rainfall in the Caribbean region for the same period, however there are a few which favour above average rainfall. This reduces confidence in the outlook, somewhat. As a result, confidence in the AMJ output is medium.