



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

Near Normal Rainfall for March to May 2018 with Warmer Than Usual Temperatures

Key Messages

- ✓ MAM 2018 rainfall outlook shows highly increased chance for dry as usual conditions, with accumulated rainfall totals likely to be in the near-normal category (rainfall totals between 75% and 125% of the long term mean) across Trinidad and Tobago (**medium confidence**);
- ✓ There is 45%-65% chance for accumulated rainfall totals in excess of 200 mm over the period;
- ✓ Moderate (70%-80%) chance for at least two 7-day dry spells (days with less than 1.0 mm) during MAM;
- ✓ The chance for MAM to be extremely dry is low or below 10% (**high confidence**);
- ✓ Preliminary analysis indicates February rainfall was below average;
- ✓ June to August rainfall outlook shows the highest chance is for below-normal rainfall (**low 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 rough seas and swell events are typical during the MAM season;
- ✓ Episodes of severe dust-haze outbreaks are typical during the MAM and are likely to increase in occurrence during the period.

Likely Impacts

- ✓ Possibility of reduced water availability, water levels and water stress as the season progresses;
- ✓ Increased potential for grass, bush and forest fires as the season progresses;
- ✓ 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;
- ✓ Possibility of increased disruption in marine activities due to episodes of rough seas/swell events;
- ✓ Significant amounts of dust concentrations could increase air pollution. Persons whose health 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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Date of Issue: 27/02/2018

Probability of Most Likely Category of Rainfall March to May 2018

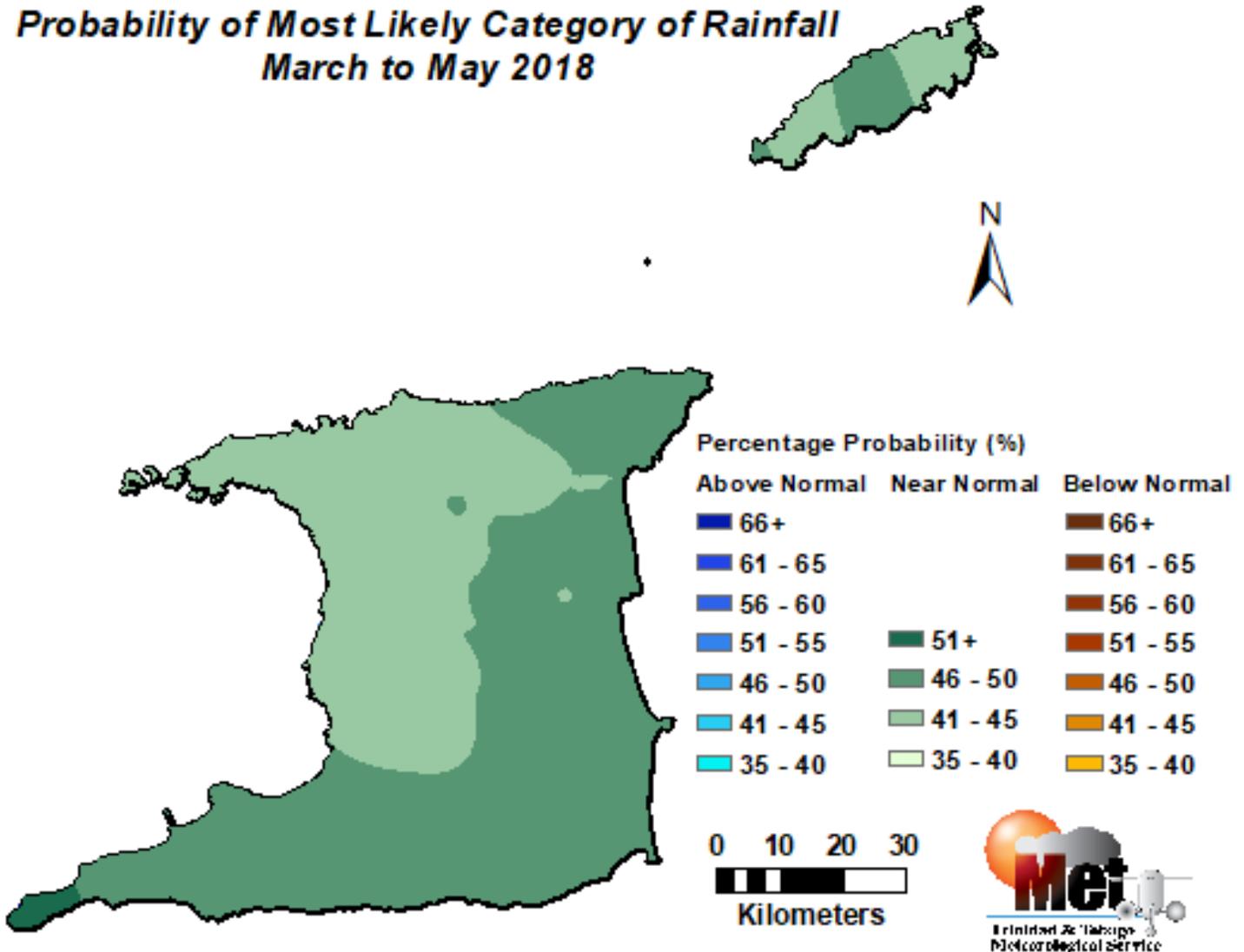


Figure 1: Category of rainfall likely for MAM 2018 with the highest chance of occurrence expressed as probabilities and colour coded on the map. Blue indicates that it is more likely for above normal rainfall to occur than for below normal or near normal, brown indicates it is more likely for below normal 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 MAM period rainfall totals during the historical period used to produce the outlook.

- ✓ The rainfall outlook for MAM 2018 favour the usual dry conditions with near-normal accumulated rainfall totals across Trinidad and Tobago having the highest chance of occurrence compared to the chance for below- or above-normal (**Medium confidence**).
- ✓ This means most regions of the country are likely to receive total rainfall amounts that are between 75% and 125% of the long term mean. For instance at Piarco this means accumulated MAM rainfall total greater than 214.3mm and greater than 162.7mm at Crown Point.

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

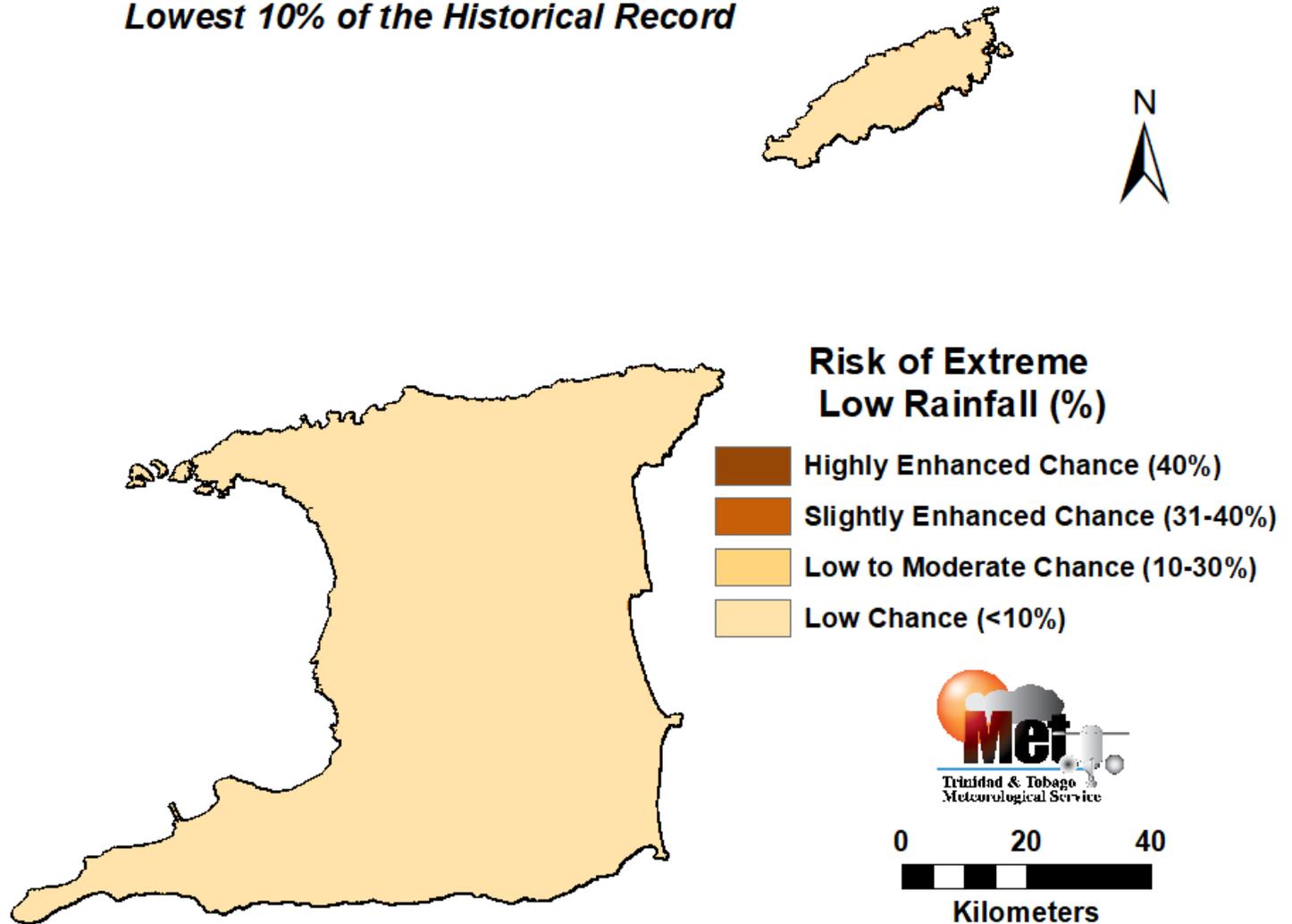


Figure 2: The map shows the chances for extremely dry conditions over the next three months. Extreme refers to the lowest 10% of March to May accumulated rainfall in the historical record.

- ✓ The chance for the MAM period to be extremely dry is low (**High confidence**).
- ✓ While the chance is relatively small, if this should occur, it can have negative impacts on all sectors.
- ✓ There is a high chance (70% -80%) for at least two 7-day dry spells (days with less than 1.0 mm) during MAM;

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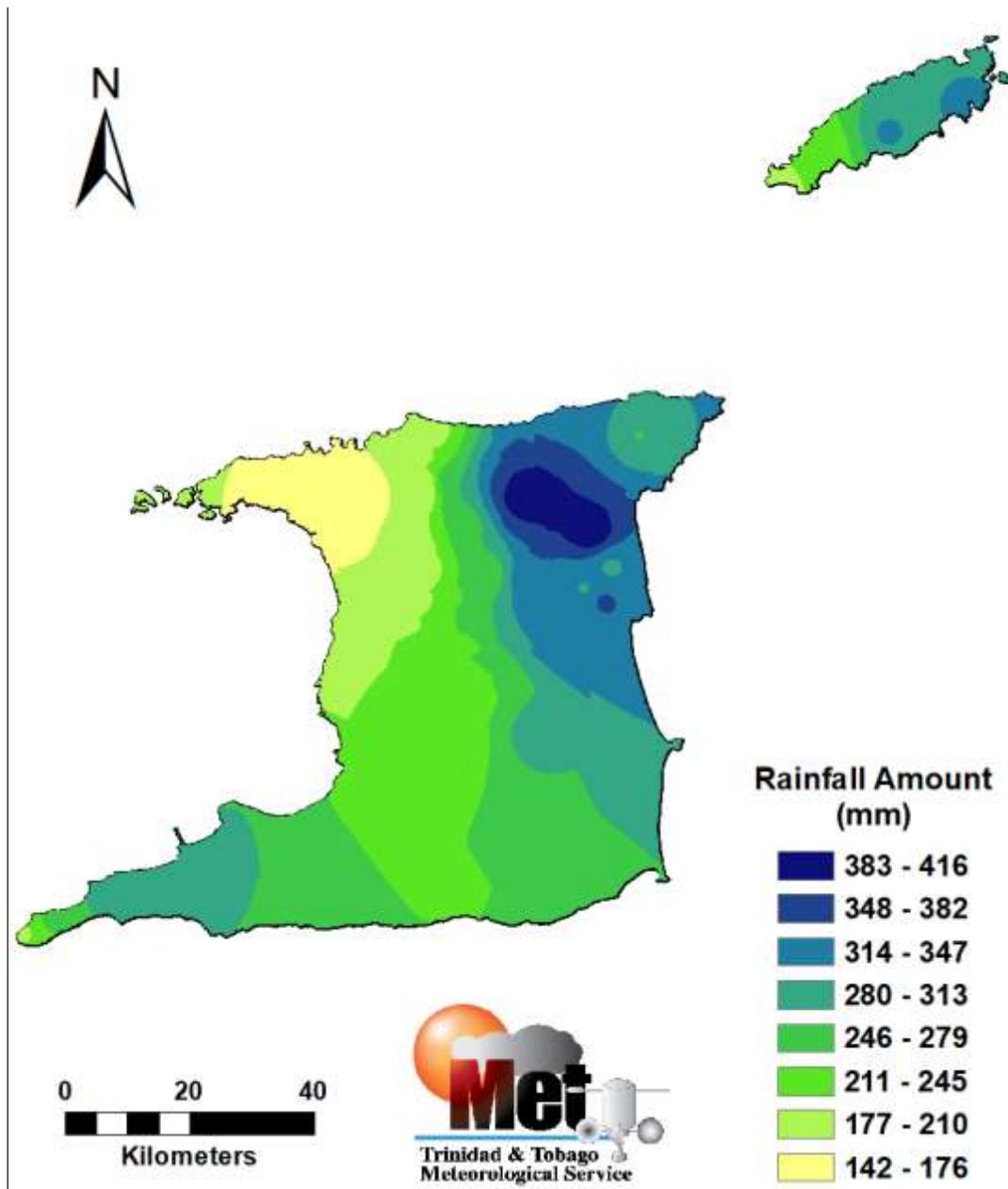


Figure 3: Possible accumulated rainfall totals with the highest chance of occurring during March to May 2018.

MAM largest rainfall accumulated totals are likely to be near 410.0mm in areas such as Valencia, Sangre Grande and environs in east Trinidad; and near 320.0mm in Mt Saint George and Goodwood areas of Tobago. Smallest totals are likely to be in the northwestern areas of Trinidad and southwestern areas of Tobago (**moderate confidence**).

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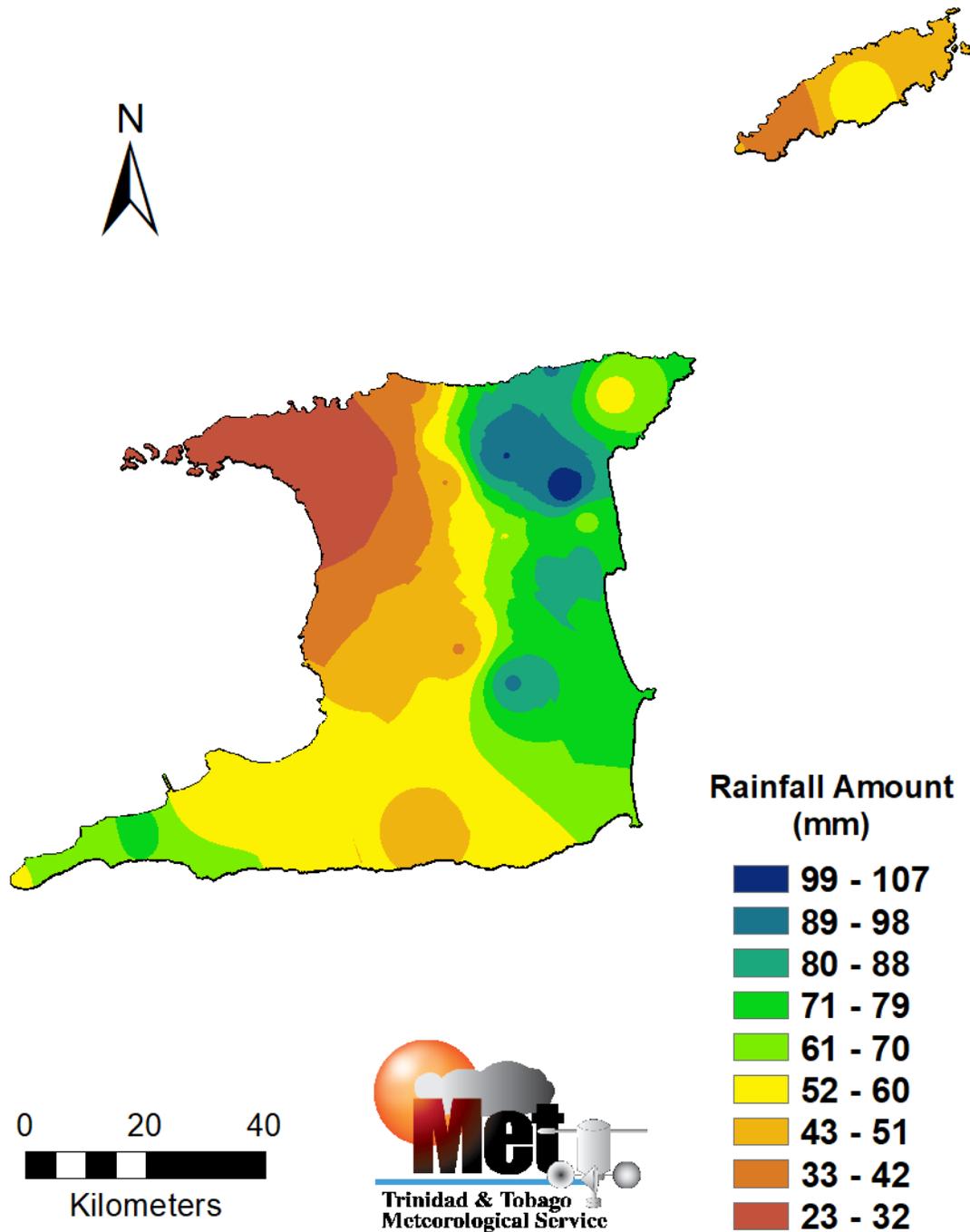


Figure 4: Possible rainfall totals with the highest chance of occurring during March 2018.

March rainfall totals with highest chance of occurring range between 23.0mm and 107.0mm in Trinidad and between 34.0mm and 58.0mm in Tobago (**moderate confidence**).

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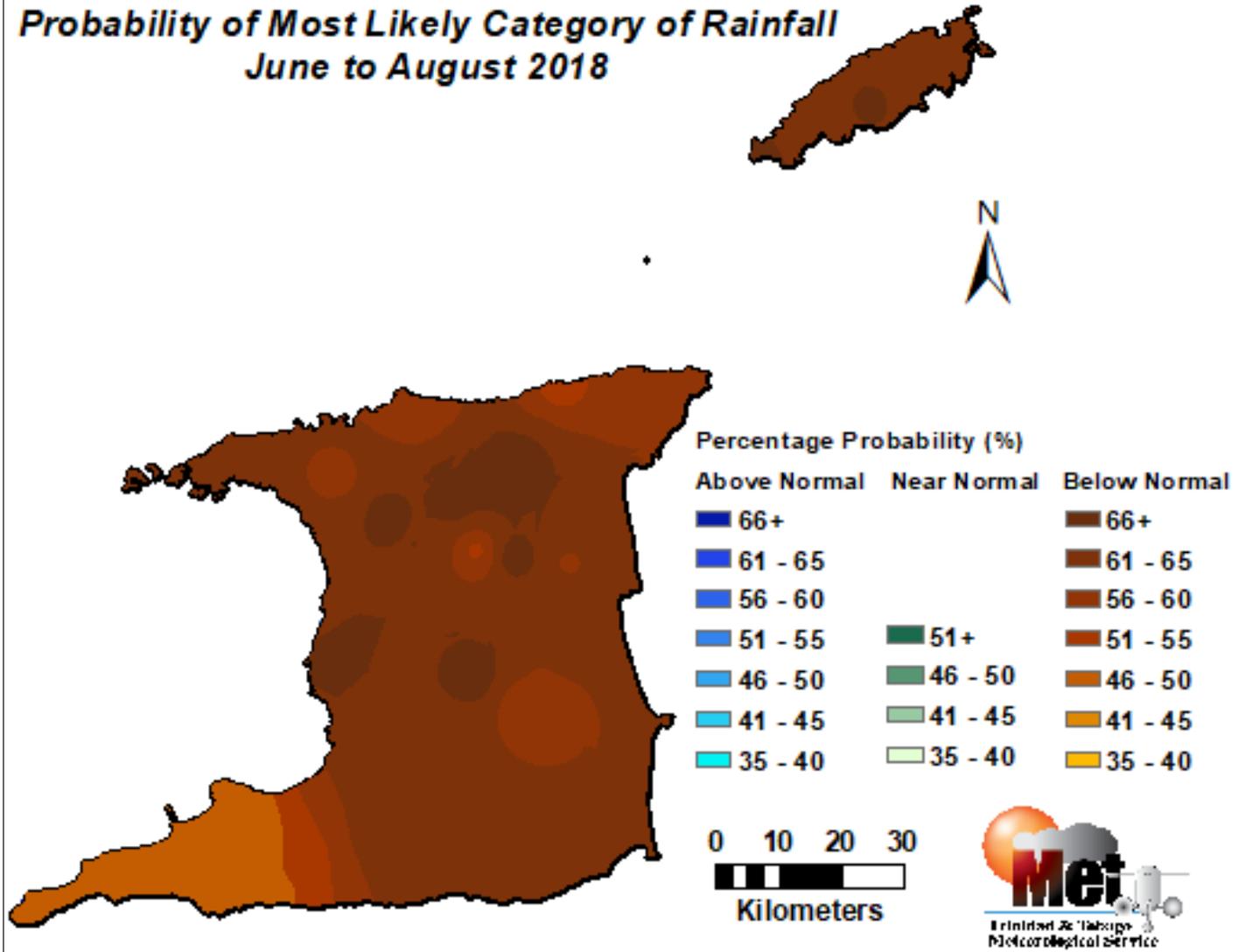


Figure 5: Category of rainfall likely for June to August (JJA) 2018 with the highest chance of occurrence expressed as probabilities represented on the map. Blue indicates that it is more likely for above normal rainfall to occur than for below normal or near normal; brown indicates it is more likely 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 JJA period rainfall totals during the historical period used to produce the outlook.

- ✓ June to August (JJA) 2018 is likely to be as wet as usual with accumulated rainfall totals favoured to be in the near normal category, across both islands (**Low Confidence**).

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The Temperature Outlook Favours Higher than Usual Temperatures during MAM 2018

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

There is a high chance for maximum temperatures to exceed 34.0°C in Trinidad and 32.0°C in Tobago on occasions during March and April. Chances for this to occur are higher in cities and built-up areas;

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

Likely Implications

- ✓ Reduced water availability, water levels and water stress later on in the season;
- ✓ Increased potential for grass, bush and forest fires as the season progresses;
- ✓ 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;
- ✓ Rough seas/swell events are likely to continue disrupting marine activities and transportation and making sea-faring trips less comfortable;
- ✓ Likelihood of severe dust-haze outbreaks remains high especially during March and April. 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, rough seas, 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

- ✓ 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;
- ✓ 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 and Twitter or download our mobile app on Google Play Store or Apple iStore.

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Climatic Influencers and Context of the Outlook

- ✓ Sea Surface temperatures (SSTs) in waters surrounding Trinidad and Tobago have cooled during the last four weeks but remain near to above-normal for this time of the year. Warmer than normal SSTs tend to enhance local rainfall.
- ✓ Weak to borderline moderate La Niña conditions exist but continue to decline and is expected to weaken quickly during March to April. Supporting features are already showing signs of waning with most model forecasts showing an end to La Niña by April but there is great uncertainty because during this time of the year it is very hard to predict what is likely to happen. Usually, weak La Niña events do not have significant impact on Trinidad and Tobago's climate pattern.
- ✓ Since early January 2018 the North Atlantic Oscillation (NAO) has been in its positive phase but this trend is forecast to end and transition to negative phase during March. 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 negatively influence local rainfall during the next two to three 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 at variance with some of global climate models, some of which are favouring either below average or above average rainfall in Caribbean region for the same period. This reduces confidence in the outlook. As a result confidence in the output is moderate.

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