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

Best chance is for drier than usual May to July 2018; but flooding is possible during heavy rainfall events

Key Messages

- ✓ May to July (MJJ) 2018 rainfall outlook shows the best chance is for drier than usual conditions. Accumulated rainfall totals are 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 a 40% -55% chance for accumulated rainfall totals in excess of 500 mm. Typically significant rainfall is needed to exceed the average during this period;
- ✓ The forecast indicates fewer wet days and wet spells than usual **(medium confidence**);
- ✓ The chance for MJJ to be extremely dry is moderate in most areas. Chances range between 15% to 31% **(medium confidence)**;
- ✓ Rainfall during transition from the dry season to the wet season is likely to be low. May rainfall is likely to be less than usual **(High confidence)**;
- ✓ Preliminary analysis indicates April rainfall was below average;
- ✓ August to October accumulated rainfall outlook shows the best chance is for above-normal rainfall (**low to medium confidence**);
- ✓ Both day and night temperatures are forecasted to remain higher than average for all of Trinidad and Tobago.
- ✓ Episodes of dust-haze outbreaks are common during the MJJ and this is likely during MJJ 2018.

Likely Impacts

- ✓ Possible slow transition and onset to the wet season in both islands.
- ✓ Possibility of reduced water availability and water levels leading to increased water stress as the season progresses;
- ✓ Possible slower than usual increase in surface wetness during the early wet season;
- ✓ Possible slower than usual recharge rates of water reservoirs/dams;
- ✓ Flooding potential associated with heavy rainfall and short duration wet spells is enhanced for flood prone areas;
- ✓ Possibility of increased incidences of pests and diseases that thrive in increased moist conditions.

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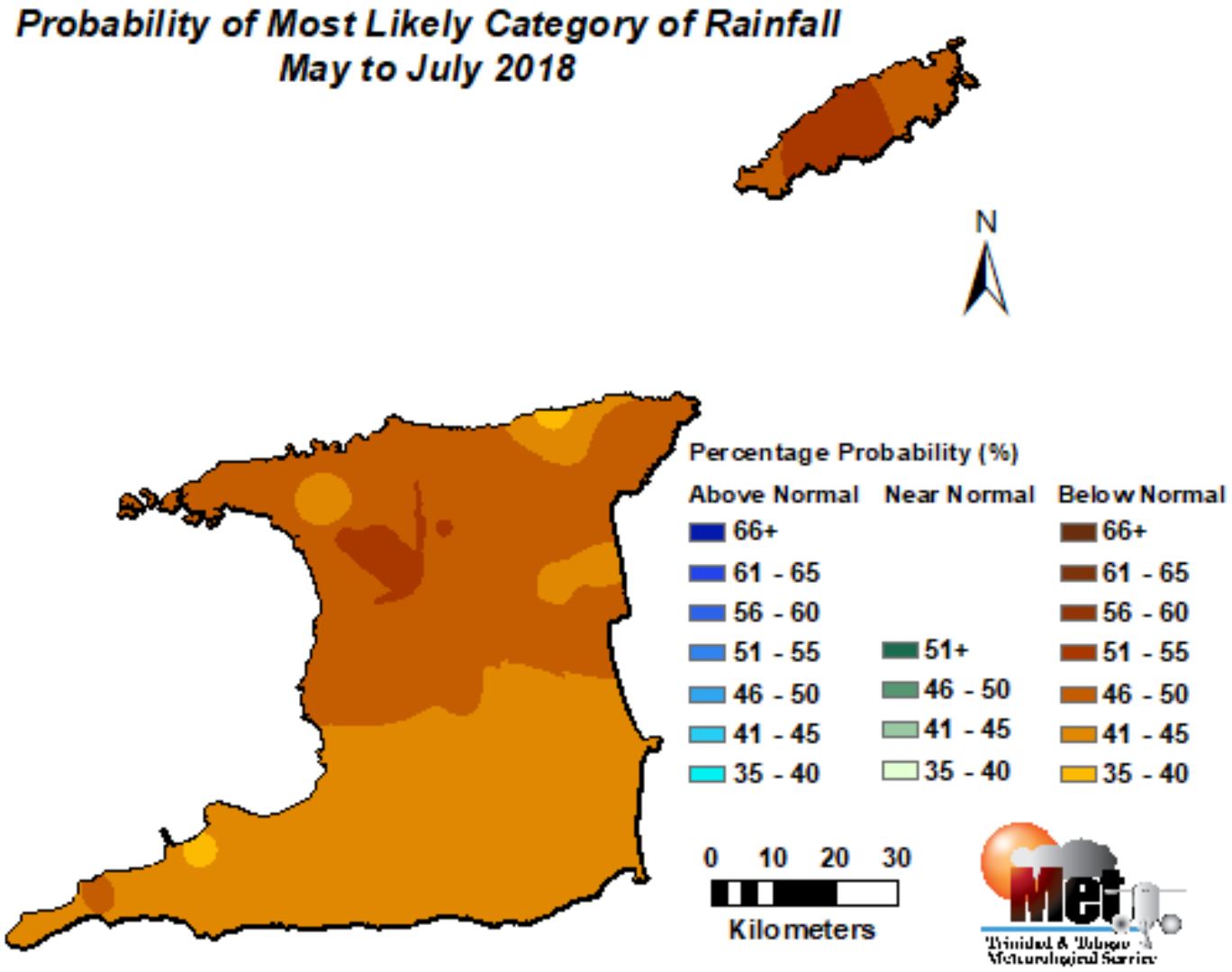

Figure 1: Category of rainfall likely for MJJ 2018 with the highest chance of occurrence expressed as probabilities and colour coded on the map. Blue indicates that it is more likely for above normal rainfall to occur than for below normal or near normal, brown indicates it is more likely for below normal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

- ✓ The rainfall outlook for MJJ 2018 has increased chances for less than usual rainfall amounts with accumulated rainfall totals favoured to be in the below normal category, when compared with the chance for near- or 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 possible accumulated MJJ rainfall totals less than 626.0 mm and at Crown Point less than 444.0 mm.

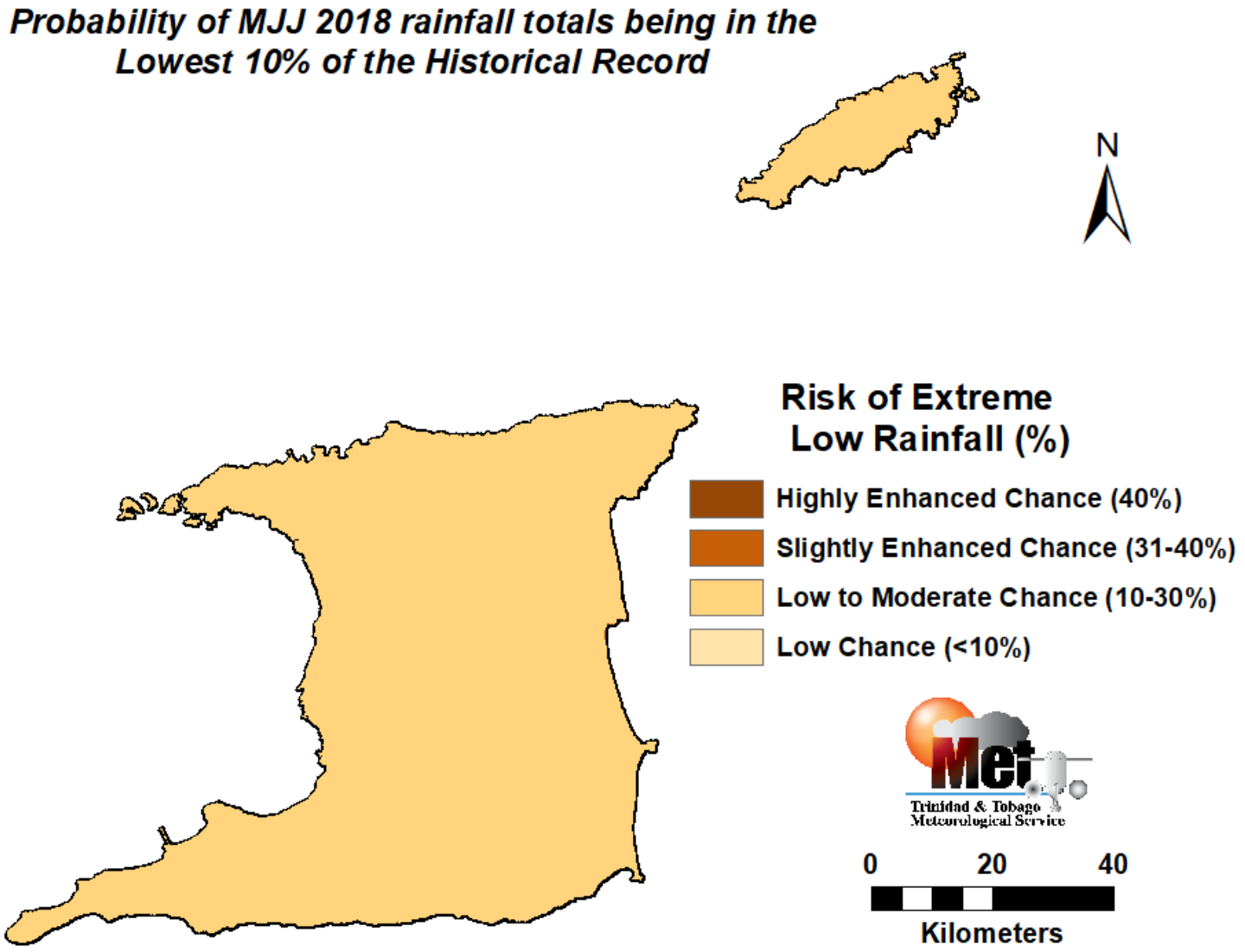

Figure 2: The map shows the chances for extremely dry conditions over the next three months. Extreme refers to the lowest 10% of May to July accumulated rainfall in the historical record.

- ✓ The chance for the MJJ period to be extremely dry is moderate **(medium confidence);**
- ✓ Even though chances for this to occur range between 15 % to 25 %, should it occur, it can have far reaching negative impacts on water, agriculture and other climate sensitive sectors;
- ✓ The forecast indicates possible fewer wet days, wet spells and extreme wet spells than usual.

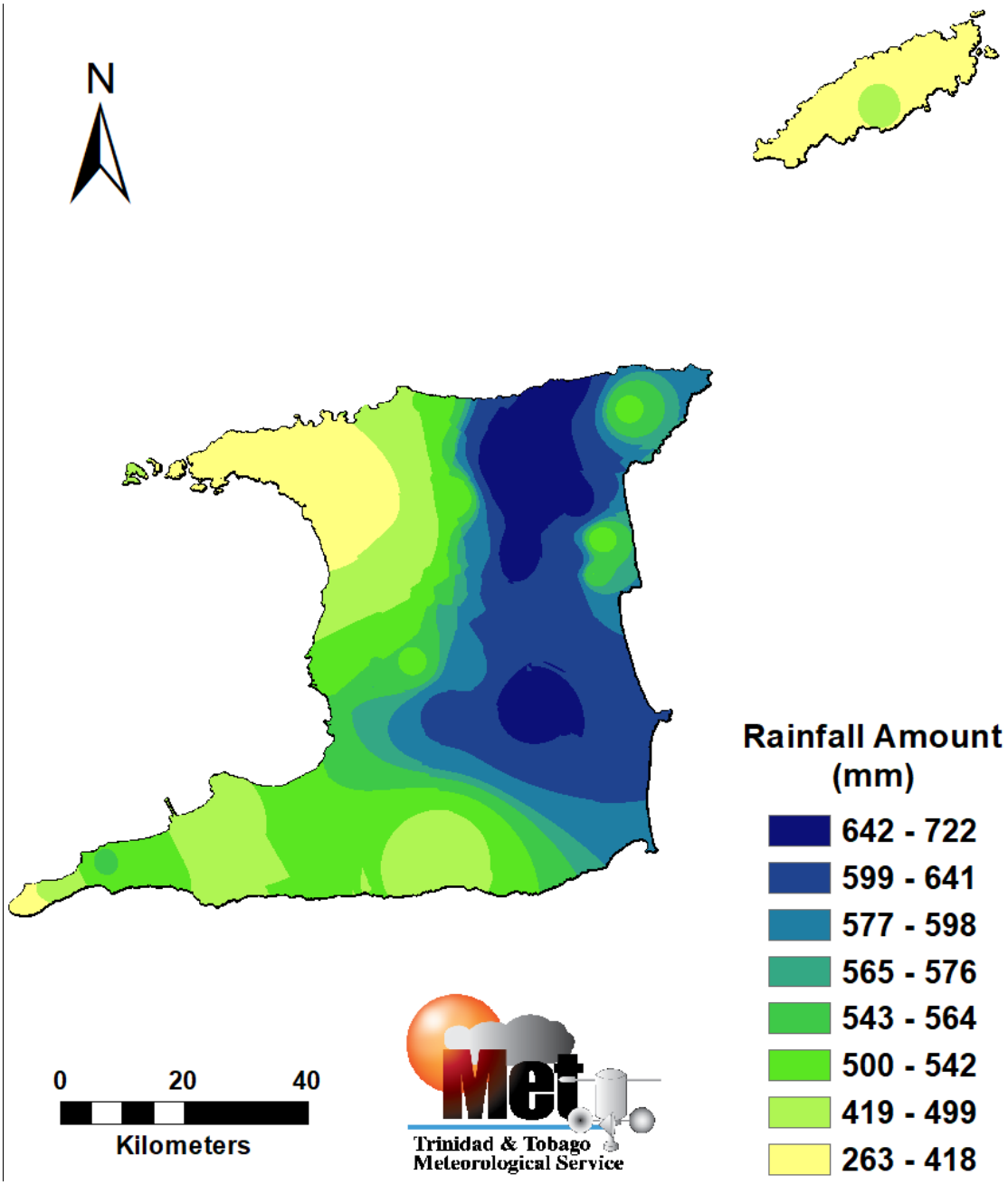

Figure 3: Possible accumulated rainfall totals with the highest chance of occurring during May to July 2018.

Largest rainfall accumulated totals are likely to be near 720.0mm in Valencia and surrounding environs in east Trinidad with smallest totals likely near the west coast of the island;

Tobago's largest totals are likely to be near 440.0 mm in the Mt. Saint George and Goodwood areas while smallest totals are likely in the southwest, near Mt Irvine and environs.

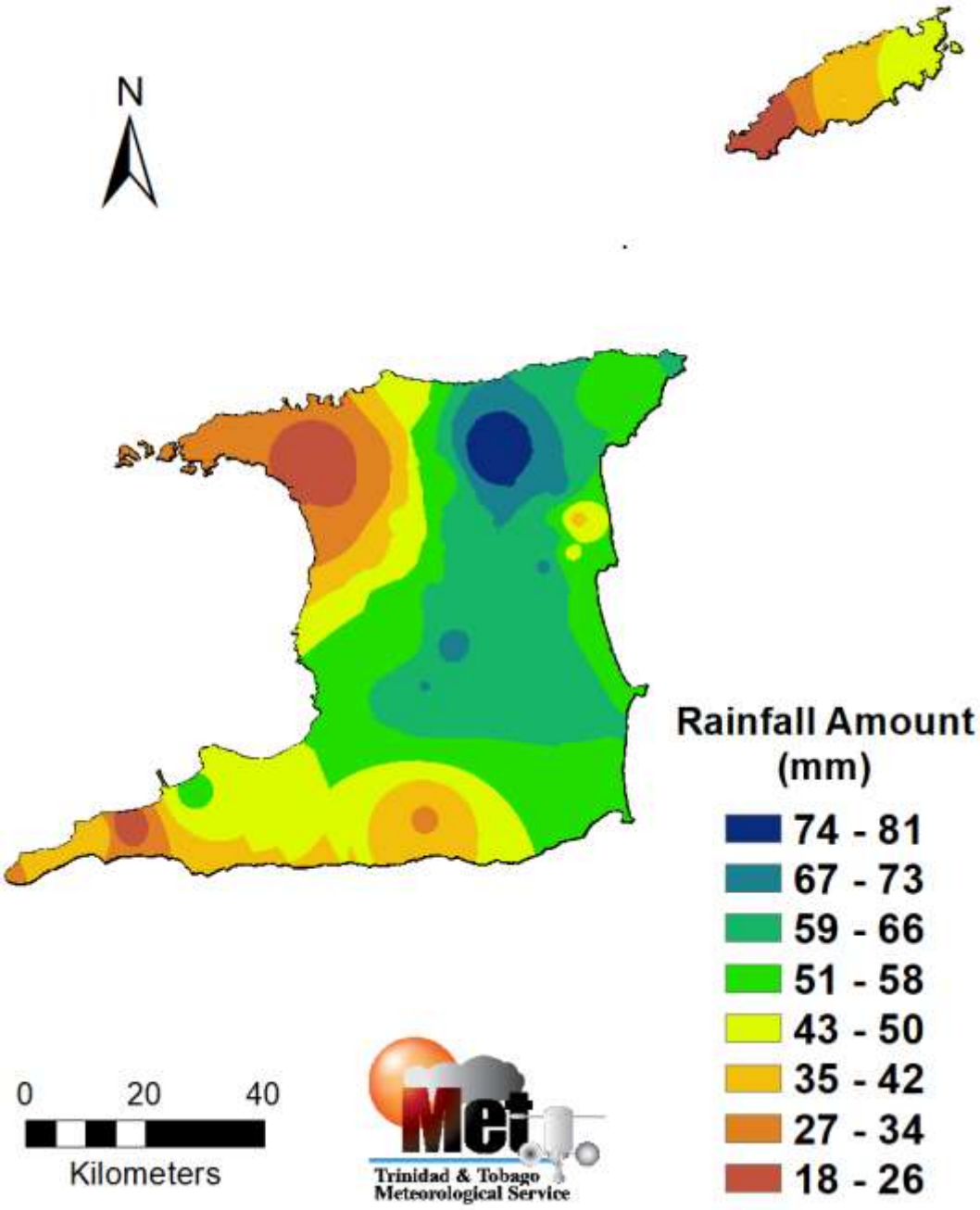

Figure 4: Possible rainfall totals with the highest chance of occurring during May 2018.

Rainfall during transition from the dry season to the wet season is likely to be low. May rainfall totals are likely to be below average **(High confidence)**.

Possible rainfall totals range between 18.0mm and 81.0mm in Trinidad and between 21.0mm and 47.0mm in Tobago**.**

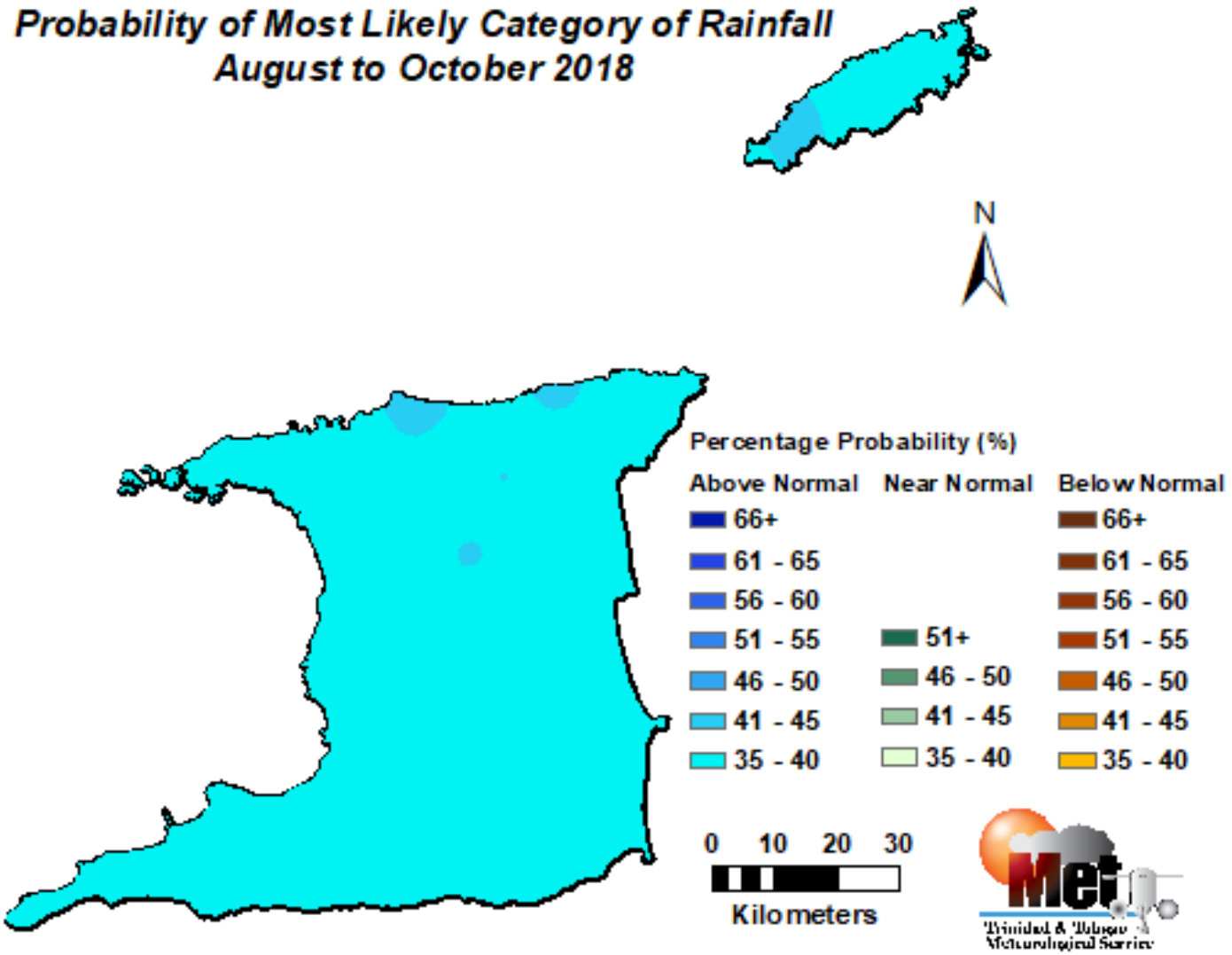

Figure 5: Category of rainfall likely for August to October (ASO) 2018 with the highest chance of occurrence expressed as probabilities and colour coded on the map. Blue indicates that it is more likely for above normal rainfall to occur than for below normal or near normal; brown indicates it is more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

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

The Temperature Outlook Favours Higher than Usual Temperatures during MJJ 2018

- ✓ Trinidad and Tobago is likely to get warmer than usual conditions during MJJ. Both May days and nights are likely to be warmer than usual;
- ✓ There is an 80% chance for maximum daytime temperatures to be higher than average during May and a 60-70% chance during June to July;
- ✓ Chances are high (greater than 70%) for night temperatures to be warmer above average;
- ✓ There is a high chance for maximum temperatures to exceed 32.0^{o}C in Trinidad and 31.0^{o}C in Tobago on occasions. Chances for this to occur are higher in Port of Spain and built-up areas.

Likely Implications

- ✓ Possible slow transition and onset to the wet season in both islands;
- ✓ Possibility of reduced water availability and water levels leading to increased water stress as the season progresses;
- ✓ Possible slower than usual increase in surface wetness during the early wet season;
- ✓ Possible slower than usual recharge rates of water reservoirs/dams;
- ✓ Flooding potential, associated with heavy rainfall and short duration wet spells is enhanced for flood prone areas;
- ✓ Possibility of increased incidences of pests and diseases that thrive in moist conditions.

How Should You Respond? ***Take Early Action All the Way to the Last Mile!***

Drainage

- ✓ De-silt drainage systems, canals, drains and river mouths. Perform maintenance on slush gates;
- ✓ Clean and clear choked surface drains to allow fast drainage and to reduce flash flood;
- ✓ Clean under drains to keep their outlets open.

Waste Management Sector

- ✓ Ramp up efforts to prevent waste from entering drains and water courses in order to reduce flooding and water pollution;
- ✓ Implement anti-litter activities to raise awareness on the impacts of poor solid waste management.

Health Sector

- ✓ Clear bushes, open drainage systems, fumigate in and around residences;
- ✓ Revisit contingency plans to manage spike in vector borne incidences.

Disaster Risk Management Sector

- ✓ Sensitize communities on the forecast and its negative impacts.
- ✓ Revisit early warning information dissemination channels;
- ✓ Alert communities and citizens in flood and landslide prone areas to act early.

Agriculture & Food Security Sector

- ✓ Put in place disease control measures;
- ✓ Ready pumps for clearing waterlogged drainage;
- ✓ Clear or clean poorly maintained and choked surface drains to prevent waterlogging.

Water and Energy sector

- ✓ Conduct routine de-silting of reservoirs and riverine flooding channels. Harvest excess rainfall now;
- ✓ Remove dry branches, trees and overhang near electrical wires, especially in landslip prone areas.

General Public

- ✓ Proper preparation especially for persons in at risk areas. Stock up on water etc to last three days;
- ✓ Clean drains and surrounding areas of debris, be sand-bag ready;
- ✓ Clear dry branches and tree-overhang in close proximity to residence;
- ✓ Conserve, store and manage water in a safe and adequate manner;
- ✓ Take measures to lessen the potential impacts from flooding.

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

Climatic Influencers and Context of the Outlook

- ✓ Cooler than average sea surface temperatures (SST) in and around Trinidad and Tobago are forecasted to persist into June. This pattern typically dampens local rainfall occurrence in Trinidad and Tobago. However, most of the tropical North Atlantic SSTs are predicted to be above average during the 2018 wet season.

- ✓ The El Niño–Southern Oscillation (ENSO) in the tropical Pacific Ocean is close to being neutral and is expected to remain neutral throughout the early wet season, before transitioning to progressively warmer conditions with possibilities to reach borderline or weak El Nino level by August-October.

- ✓ With ENSO-neutral conditions during MJJ, there is no strong control on local rainfall. This means reduced chances for long-lasting very wet or dry conditions. Typically, neutral conditions during MJJ do not favour any particular rainfall pattern for Trinidad and Tobago.

- ✓ Since the beginning of the year, the North Atlantic Oscillation (NAO) has mostly been in its positive phase, except for a period in March when it was in its negative phase. 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 Madden Julian Oscillation (MJO) is likely to favour rainfall during the first week of the forecast period but is not likely to influence rainfall during the remainder of the period.

The precipitation and temperature outlook is based on statistical and dynamical seasonal climate models output and known seasonal climate influencers. The outlook is in good agreement with most of the global climate models, which favour either below average or near average rainfall in the Caribbean region for the same period. This increases confidence in the MJJ.