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

Near to Below Normal Rainfall Accumulated Totals for August to October Flooding Risk Remains High

Key Messages

- ✓ August to October 2017 is likely to be less wet than usual to as wet as usual across Trinidad and Tobago with the potential for flooding remaining high during heavy and extreme downpours;
- ✓ Chances are highest (75%) for less than usual to near the usual number of extremely wet days (> 25.0 mm) during ASO; i.e. expect between 4 - 10 extremely wet days in Trinidad and 3-7 in Tobago;
- ✓ August rainfall totals are favoured to be near to above normal;
- ✓ September has the most enhanced chances for below normal rainfall;
- ✓ ASO rainfall totals with highest chance of occurring range between 410 and 925mm across both islands;
- ✓ Both day and night temperatures are likely to be warmer than average for all of Trinidad and Tobago during ASO;
- ✓ ASO is usually the second heat season in Trinidad and Tobago. Expect an increase in short hot spells and hot days (maximum temperatures greater than 34.0°C in Trinidad and greater than 32°C in Tobago).

Likely Impacts

- ✓ Already soaked grounds and increased water flows, along with wet as usual ASO conditions, in some areas maintain the risk for flash and riverine flooding, landslips and landslides;
- ✓ Recent increases in surface water ponding can promote mosquito breeding. This will increase the risk for higher incidences of vector borne diseases during ASO;
- ✓ Warm, wet and humid conditions tend to promote rapid multiplication of some agricultural pests, diseases and fungal growth;
- ✓ Increased occurrence of rainfall is associated with more flies and flies are known to carry and spread diseases such as Gastroenteritis and Salmonella infections;
- ✓ Heat related health risks are enhanced for individuals most vulnerable to extremely hot conditions.

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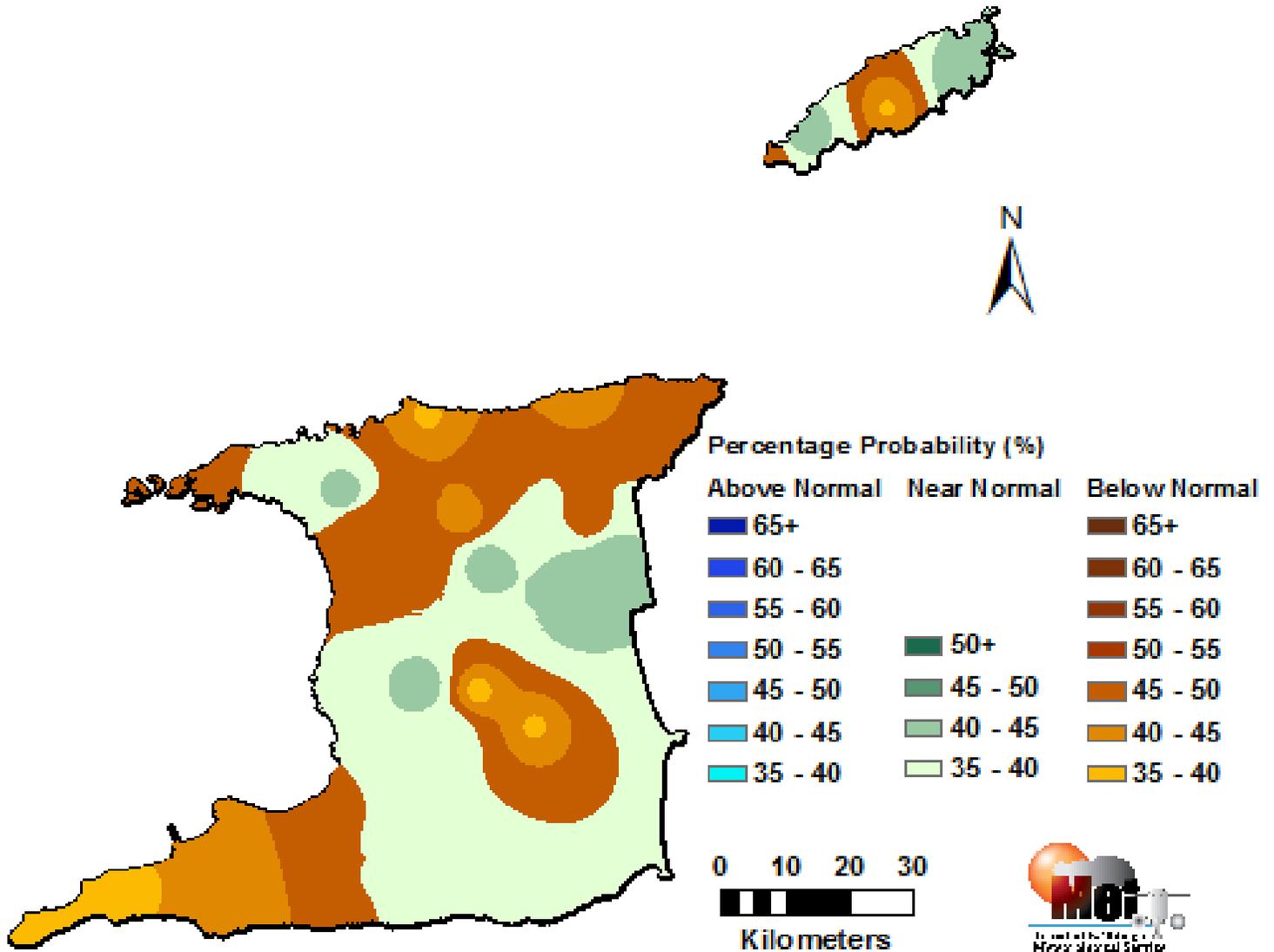


Figure 1: Category of rainfall likely for ASO (August to October) 2017 with the highest chance of occurrence expressed as probabilities represented on the map. Blue areas indicate places with an increased chance for above normal rainfall, brown areas show an increased chance for below normal rainfall, 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 ASO period rainfall totals during the historical period used to produce the outlook.

- ✓ Enhanced chances exist for near to below normal rainfall totals over both Trinidad and Tobago during ASO but chances are most enhanced for near normal rainfall in the vicinity of Sangre Grande, Manzanilla and Plum Mitan areas and in southwest and northeast Tobago;
- ✓ Below normal rainfall totals are most likely in northern and southwestern Trinidad and within the central areas of Tobago.
- ✓ Chances are highest (75%) for the near to below normal number of extremely wet days (> 25.0 mm) for ASO; i.e. expect between 4-10 extremely wet days in Trinidad and 3-7 in Tobago.

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Chance of Extremely Low Rainfall August to October 2017

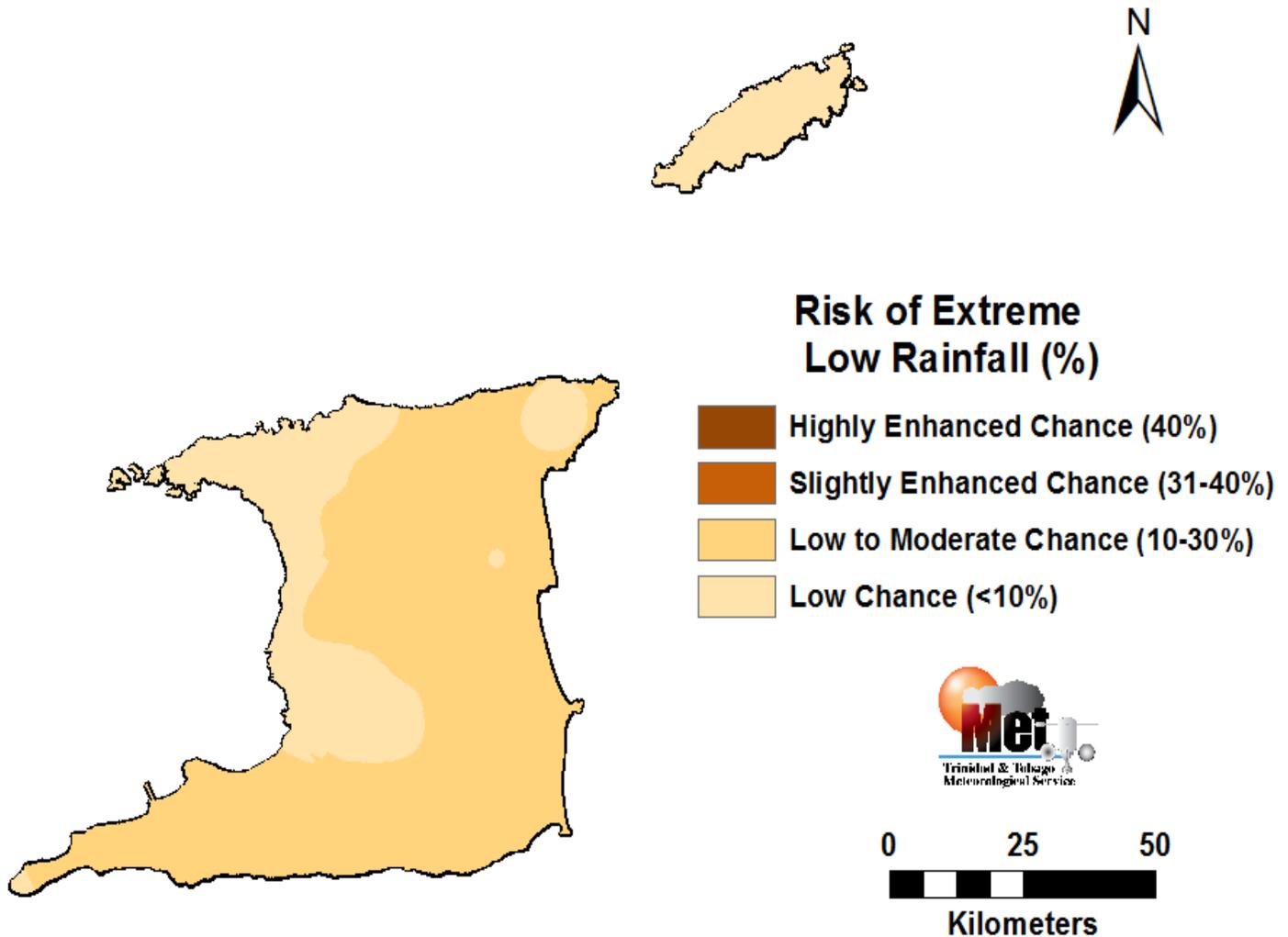


Figure 2: Risk of the ASO being extremely drier than normal (within the lowest 10% on record).

- ✓ The risk of extremely drier than usual conditions is low to moderate (8 - 13%) over Trinidad and low (5-9%) over Tobago;
- ✓ Most significant drying is likely to occur in September.

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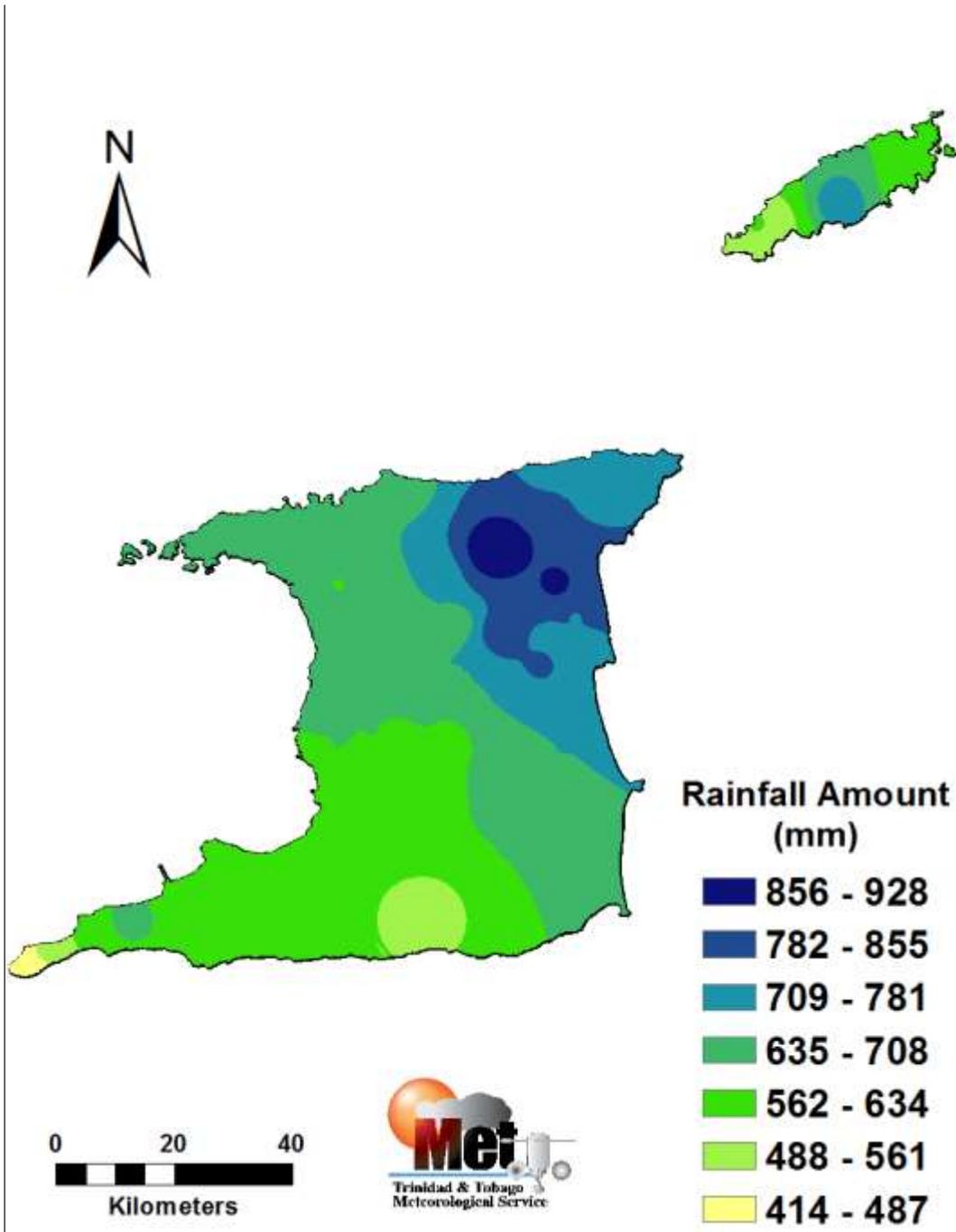


Figure 3: Outlook of possible rainfall accumulated totals for August to October 2017, with the highest chance of occurring.

ASO largest rainfall accumulated totals are likely to be near 900mm in areas such as Valencia, Sangre Grande and environs in east Trinidad; and near 700 mm in Mount Saint George, Goodwood and environs in mid-Tobago.

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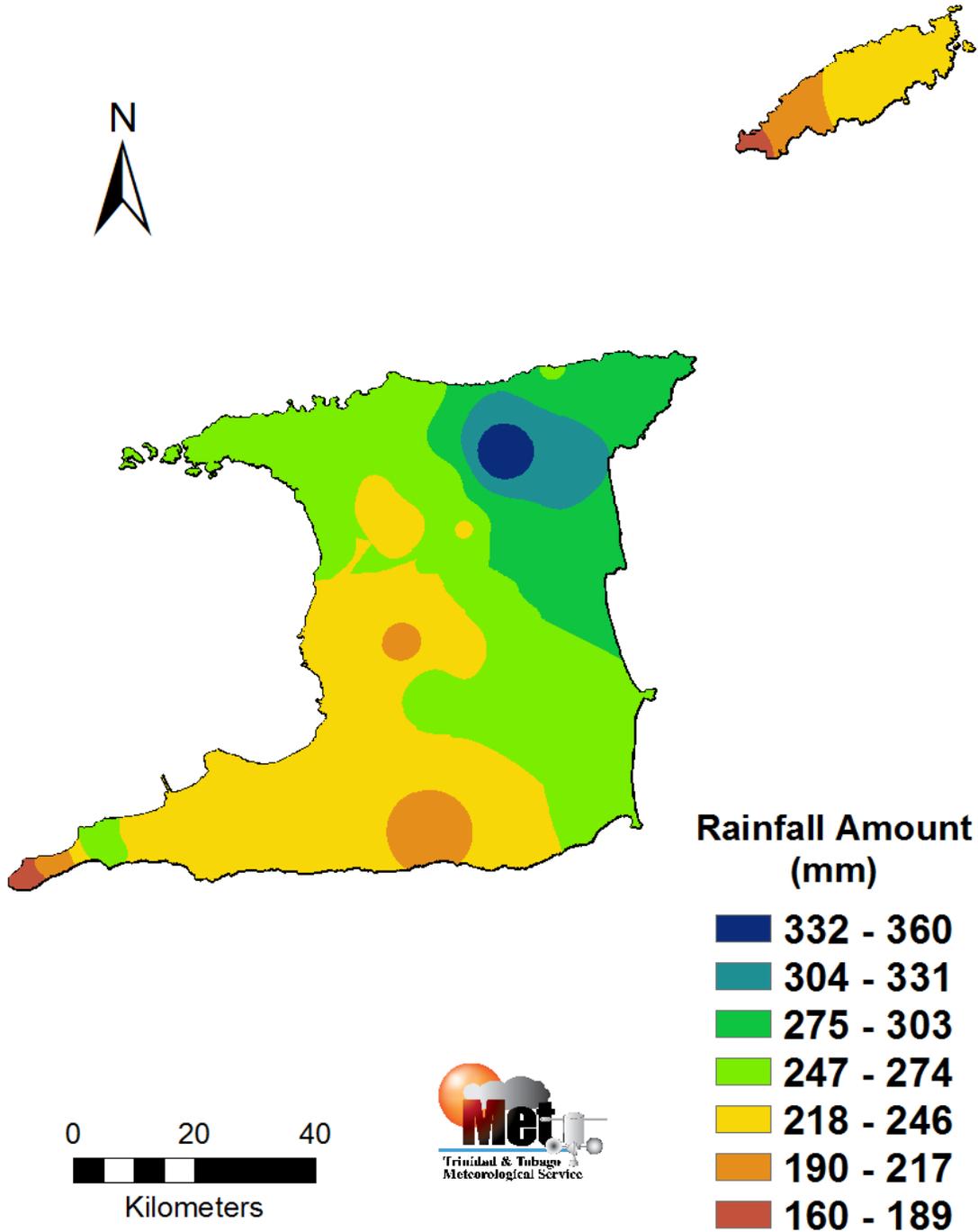


Figure 3: Outlook of possible rainfall accumulated totals for August 2017, with the highest chance of occurring.

- ✓ August rainfall totals with highest chance of occurring range between 160 and 360 mm in Trinidad and 160 and 220mm in Tobago.

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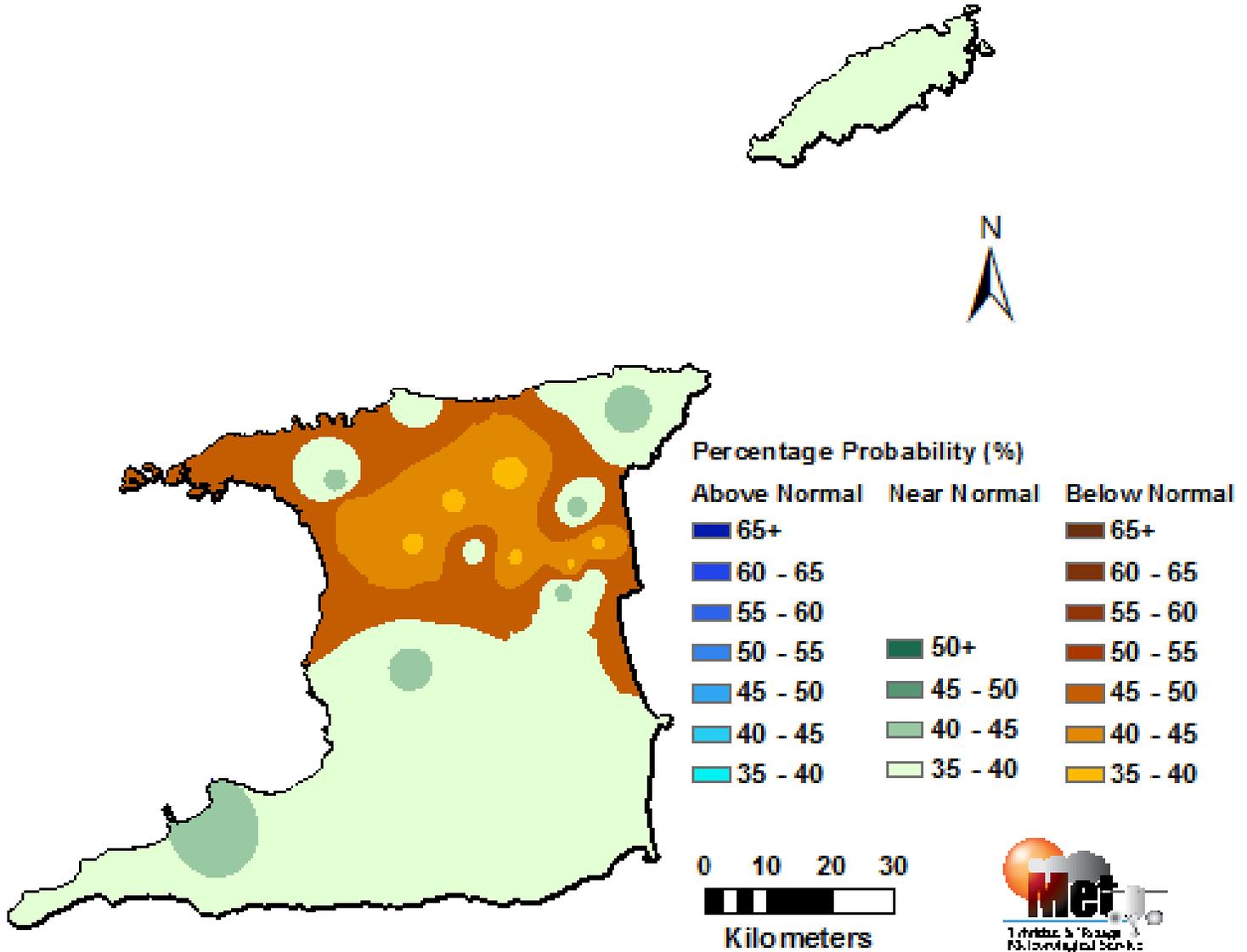


Figure 2: Category of rainfall likely for November 2017 to January 2018 (NDJ) with the highest chance of occurrence expressed as probabilities represented on the map. Blue areas indicate places with an increased chance for above normal rainfall, brown areas show an increased chance for below normal rainfall, 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 NDJ seasons during the historical period used to produce the outlook.

- ✓ NDJ rainfall totals are likely to be below normal for large areas in the northern half of Trinidad;
- ✓ Tobago and the rest of Trinidad are likely to receive near normal rainfall.

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The Temperature Outlook Favours Hotter than Usual Temperatures for ASO 2017

- ✓ Both daytime and night temperatures are likely to be hotter than average over both islands with a 57% chance for hotter than average maximum temperatures in Trinidad and 52% chance in Tobago;
- ✓ Chances of warmer than average nights are highest in Trinidad where there is 59% chance; while Tobago has a 51% chance;
- ✓ Usually ASO is characterized as the second heat season in Trinidad and Tobago. A very good chance (60%) exists for increases in short hot-spells and hot days during ASO (hot day: maximum temperatures greater than or equal to 34.0°C in Trinidad and 32.0°C in Tobago; hot-spell: 3 or more successive hot days);
- ✓ Historically, September is the warmest month during ASO. For the forecast period, October is likely to be the warmest month, with maximum temperatures likely to get as high as 35.0°C in Trinidad and 33.5°C in Tobago.

Likely Implications for Near to Below Normal Rainfall and Warmer than Normal Temperatures

- ✓ Most areas in Trinidad are already soaked and water levels are high. With normal to below normal rainfall totals, there is still high risks for flash and riverine flooding, landslips and landslides;
- ✓ Recent increases in surface water ponding can promote mosquito breeding leading to increased risk for incidences of vector borne diseases;
- ✓ Increased rainfall, mixed with warm and humid conditions tend to promote rapid multiplication of some agricultural pests, diseases and fungal growth;
- ✓ Humid and wet conditions have been associated with increase in flies and flies are known to carry and spread diseases such as Gastroenteritis and Salmonella infection;
- ✓ Below to near normal rainfall during ASO could still lead to reduced traffic flows, disruptions in localized travel, longer travelling times and increased disruption of outdoor activities during and after heavy downpours;
- ✓ Hotter than usual temperatures can enhance some health risks that are sensitive to or related to extremely hot conditions. Those most likely to be affected include frail and fragile elderly persons, babies and young children, socially isolated and displaced, and persons with heat related illnesses.

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How Should You Respond?

Take Early Action!

Health Sector:

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

Disaster Risk Management Sector:

- ✓ Sensitize communities on the forecast and its negative impacts;
- ✓ Revisit early warning information dissemination channels;
- ✓ Alert communities in low lying areas (flood prone) to act early;
- ✓ Alert at risk residence and communities that are still prone to landslide and slip.

Agriculture & Food Security Sector

- ✓ Practice soil moisture conservation like mulching and trenches;
- ✓ Put in place disease control measures.

Water, Drainage and Energy sector

- ✓ Conduct routine de-silting of water channels, canals and reservoirs;
- ✓ Remove dry branches, trees and overhang near electrical wires.

General Public

- ✓ Proper preparation especially for persons at risk and in risk areas;
- ✓ Clean drains and surrounding areas of debris, be sand-bag ready;
- ✓ Conserve, store and manage water in a safe and adequate manner;
- ✓ Be watchful for extreme rainfall events especially on extremely hot days;
- ✓ Be watchful for extreme hot days and spells;
- ✓ Take measures to lessen the potential impacts from the expected increase in rainfall and warmer than average temperatures.

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

- ✓ Currently, sea surface temperatures (SSTs) in waters surrounding Trinidad and Tobago and further east of the islands are warmer than average. Most climate models surveyed favour these conditions to persist during ASO. This is likely to exert the greatest influence on local rainfall during ASO.
- ✓ ENSO-neutral conditions on the warm side currently exist and are favoured to continue during ASO; however there is still a diminished chance (30- 40%) for El Niño development. SSTs in the Nino 3.4 region used to monitor El Nino remain warmer than average but have cooled during the last 4 weeks. Historically, ENSO-neutral conditions on the warm-side have been associated with the suppression of local rainfall, but not always.
- ✓ During the month of July the North Atlantic Oscillation (NAO) moved from being in a positive phase during the first two weeks to a negative phase during the last two weeks but it is likely to return to a positive phase by week two of August. Based on analysis, the overall influence is likely to be negative on local rainfall.
- ✓ Models indicate a low Madden Julian Oscillation (MJO) signal during mid to late August with the rainfall enhanced phase likely to encroach on the region. This can have a positive influence on late August rainfall.

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