

***Near Average Season Expected***

**SEASONAL CLIMATE FORECAST PRODUCED BY THE CLIMATE PREDICTABILITY TOOL (CPT)**

**SUMMARY:**

Station	Below (B) %	Normal (N) %	Above (A) %
<b>Jamaica Rainfall Outlook</b>	<b>33</b>	<b>34</b>	<b>33</b>
<b>Jamaica Temperature Outlook</b>	<b>25</b>	<b>45</b>	<b>30</b>

During the period of September to November the forecasts are indicating that most areas are likely to experience near-normal conditions.

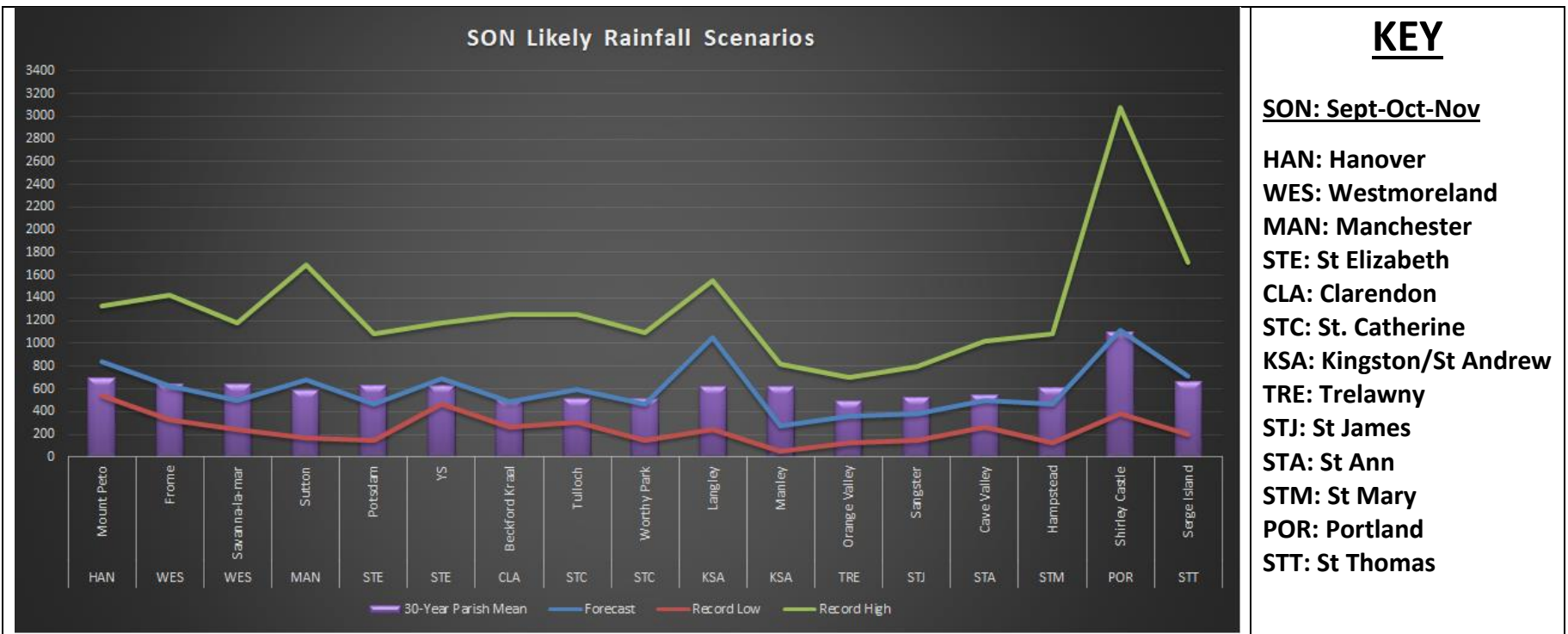
Model projections are now indicating that rainfall amounts across the island could remain near-normal with the possibility of declining rainfall amounts in a few isolated areas. While most areas are likely to experience near-normal amount of rainfall, this may not be sufficient to reverse the dry conditions currently affecting sections of the island.

The Meteorological Service will continue to monitor the findings from the models in the upcoming months so as to advise our stakeholders, especially farmers accordingly.

**FORECAST VERIFICATION SEPTEMBER TO NOVEMBER 2017**

For the same period last year, September-November 2017, the models performed generally well, with accuracy in the range of 53-88 percentage points. The initial forecast indicated that rainfall was likely to be near-normal to above-normal for the period. Preliminary findings indicated that most stations recorded near-normal to above-normal rainfall amounts during the period.

**Seasonal Forecast Outlook September-November 2018 and the Likely Scenarios**



**KEY**

- SON: Sept-Oct-Nov**
- HAN: Hanover**
- WES: Westmoreland**
- MAN: Manchester**
- STE: St Elizabeth**
- CLA: Clarendon**
- STC: St. Catherine**
- KSA: Kingston/St Andrew**
- TRE: Trelawny**
- STJ: St James**
- STA: St Ann**
- STM: St Mary**
- POR: Portland**
- STT: St Thomas**

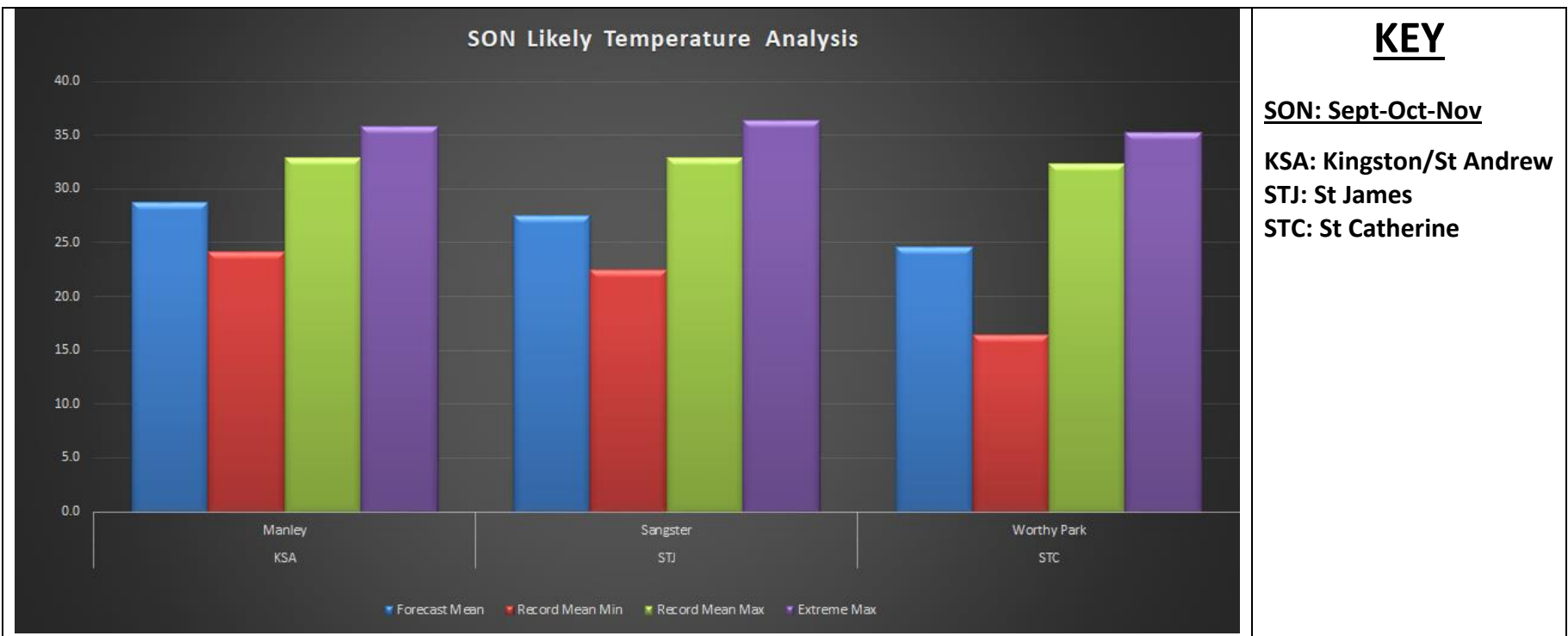
**Figure 1: September-October-November likely Rainfall Scenarios.**

**Parish Mean: 1981-2010**

**Local Precipitation Outlook Analysis:**

From the analysis of the forecasted rainfall pattern for the upcoming three months period, September, October and November, the data favour a near-normal rainfall pattern. The graph above, indicates that most stations are likely to receive about average amount of rainfall. However, the following stations could receive in excess of the parish mean, Mount Peto, Sutton, YS, Tulloch, Langley and Shirley Castle. Langley and Shirley Castle are likely to experience the greater amounts of rainfall while Manley in Kingston could experience the least amount of rainfall during the period.

## Jamaica's Seasonal Climate Outlook September-November 2018



**Figure 2: September-October-November likely Temperature Scenarios.**

**Local Temperature Outlook Analysis:**

Over the period, temperature values are likely to be near-normal with mean temperatures varying between 25 and 29 degrees Celsius. Manley in the Southeast is likely to experience the warmest temperatures, while Worthy Park is forecasted to experience the lowest temperatures during the period.

Climate Predictability Tool (CPT) Station Outlook

Parishes	Stations	Below-Normal (%)	Normal (%)	Above-Normal (%)
Clarendon	Beckford Kraal	40	35	25
Hanover	Mount Peto	33	34	33
KSA	Manley	30	40	30
KSA	Langley	35	20	45
KSA	Lawrence Tavern	35	35	30
Manchester	Sutton	30	40	30
Portland	Shirley Castle	35	20	45
St James	Sangster	30	40	30
ST. Ann	Cave Valley	30	40	30
ST. Catherine	Tulloch	33	34	33
ST. Catherine	Worthy Park	35	35	30
ST. Elizabeth	YS	33	34	33
ST. Elizabeth	Potsdam	40	35	25
ST. Mary	Hampstead	35	20	45

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ST. Thomas	Serge	30	20	50
Trelawny	Orange Valley	35	20	45
Westmoreland	SAV	40	35	25
Westmoreland	Frome	33	34	33

### Key

Above normal rainfall means greater than 66 percentile of the rank data

Near normal rainfall means between 33 and 66 percentile of the rank data

Below normal rainfall means below 33 percentile of the rank data

### Background

Human induced climate change and increasing climate variability, as well as other environmental issues such as land degradation, threaten the ability of the nation to meet the needs of its population for food. To address these challenges, it is important to integrate the issues of climate variability and climate change into resource use and developmental decisions.

Decreasing the vulnerability of agriculture to natural climate variability is a key issue for small islands like Jamaica. Introducing seasonal rainfall forecasts into management decisions can reduce this vulnerability of agriculture to droughts and floods. Therefore, short to long term precipitation forecasts as well as drought monitoring products will assist in making critical decisions about the growing seasons for crops as well as irrigation scheduling.

This seasonal rainfall summary is prepared by the Climate Branch of the Meteorological Service Jamaica and takes into account a correlation between the rainfall totals and sea surface temperatures across the Pacific and Atlantic Oceans. The experiment also looks at a number of drivers of rainfall across the region, like El Niño and the North Atlantic Oscillation. Before we can arrive at the forecast, an extensive training period with a minimum of thirty years of data is used to work out the best forecast.

### **Indices and Definitions**

**El Niño:** A phenomenon in the equatorial Pacific Ocean characterized by a positive sea surface temperature departure from normal (for the 1971-2000 base period) in the Niño3.4 region greater than or equal in magnitude to 0.5°C, averaged over three consecutive months.

**La Niña:** A phenomenon in the equatorial Pacific Ocean characterized by a negative sea surface temperature departure from normal (for the 1971-2000 base period) in the Niño3.4 region greater than or equal in magnitude to 0.5°C, averaged over three consecutive months.

**ENSO (El Niño-Southern Oscillation):** An ENSO warm phase refers to an El Niño event, and an ENSO cold phase refers to a La Niña event. As El Niño and the Southern Oscillation are related, the two phrases are often combined as ENSO (El Niño-Southern Oscillation). El Niño and La Niña events have now been clearly identified as perturbations of the ocean atmosphere system. In addition to changes in SSTs, there are typically changes in the strength and direction of the Trade winds.

**NAO conditions and the Atlantic Subtropical High:** The NAO is the dominant mode of winter climate variability in the North Atlantic region ranging from central North America to Europe and much into Northern Asia. The NAO is a large scale seesaw in atmospheric mass between the subtropical high and the polar low. The corresponding index varies from year to year, but also exhibits a tendency to remain in one phase for intervals lasting several years.

**APCC: APEC (Asia-Pacific Economic Cooperation) Climate Center:** Provides reliable real-time climate prediction system, through a state-of-the-art multi-model climate prediction system utilizing model predictions from member economies.

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