



Date: 6<sup>th</sup> June 2016

**WEATHER FORECAST FOR THE NEXT SEVEN-DAY PERIOD VALID 7<sup>TH</sup> TO 13<sup>TH</sup> JUNE 2016 AND THE REVIEW OF MAM-2016 RAINS**

**REVIEW OF THE MARCH-APRIL-MAY (MAM)-2016 SEASONAL RAINFALL, RAINFALL OVER THE LAST WEEK (30<sup>TH</sup> MAY TO 5<sup>TH</sup> JUNE 2016) AND THE PREVIOUS WEEK (23<sup>RD</sup> TO 29<sup>TH</sup> MAY 2016)**

Last week (30<sup>th</sup> May to 5<sup>th</sup> June 2016) was drier than the previous week (23<sup>rd</sup> to 29<sup>th</sup> May 2016). This is as expected since we are already out of the long rains season. Only Kangaita Tea Farm station is the only one which reported a total of 1.6mm. All the other stations reported no rainfall the whole week. The foregoing can be seen in Table 1 and Figure 1 below.

*Table1: Rainfall intensities in order of decreasing wetness during last week (30th May to 5th June 2016)*

Station No.	Station Name	Last Week	Previous Week
	Kangaita Tea Factory/Farm	1.6	5.4
9037112	MIAD-Kandongu	0	0
9037140	Njuki-ini Forest station	0	0
9037264	Gathambi Coffee Factory	0	2.7
9037110	Mwea-KALRO Kimbimbi	0	0
9037115	Castle Forest Station	0	13.1

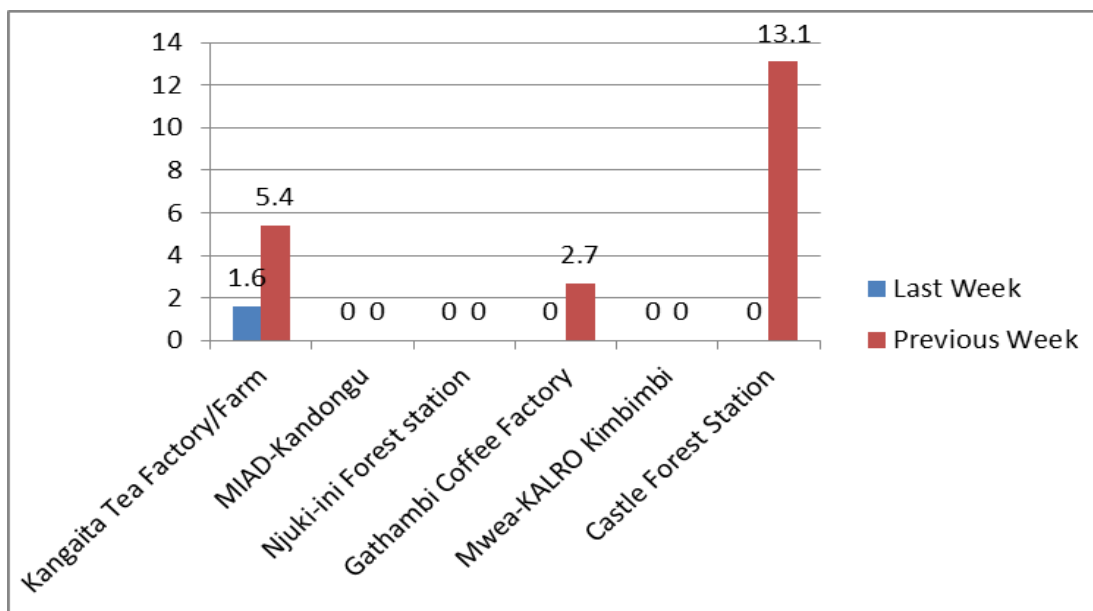


Fig. 1: Rain performance comparison between last week (30<sup>th</sup> May to 5<sup>th</sup> June 2016) and the previous week (23<sup>rd</sup> to 29<sup>th</sup> May 2016)

## MARCH-APRIL-MAY (MAM)-2016 SEASONAL RAIN REVIEW

### RAIN PERFORMANCE IN THE MONTH OF MARCH 2016

Due to the forecasted late onset, March 2016 was very dry and sunny thus increasing day and night temperatures. Kangaita Tea Farm received the highest amount of rainfall during the month of March 2016 followed by Njuki-ini Forest, MIAD-Kandongu, Kerugoya WRMA, Castle Forest, Kibirigwi Irrigation Scheme, Gathambi Coffee Factory and Mwea-KALRO Kimbimbi stations in that order. This is as shown in Table 2 and Figure 2 below.

Table 2: Rainfall intensities in order of decreasing wetness during the month of March 2016)

Station No.	Station Name	March 2016 Total
	Kangaita Tea Factory/Farm	94.6
9037140	Njuki-ini Forest station	91.2
9037112	MIAD-Kandongu	71.7
9037031	Kerugoya WRMA	68.9
9037115	Castle Forest Station	62.8
9037174	Kibirigwi Irrigation Scheme	55.9
9037264	Gathambi Coffee Factory	55
9037110	Mwea-KALRO Kimbimbi	43.8

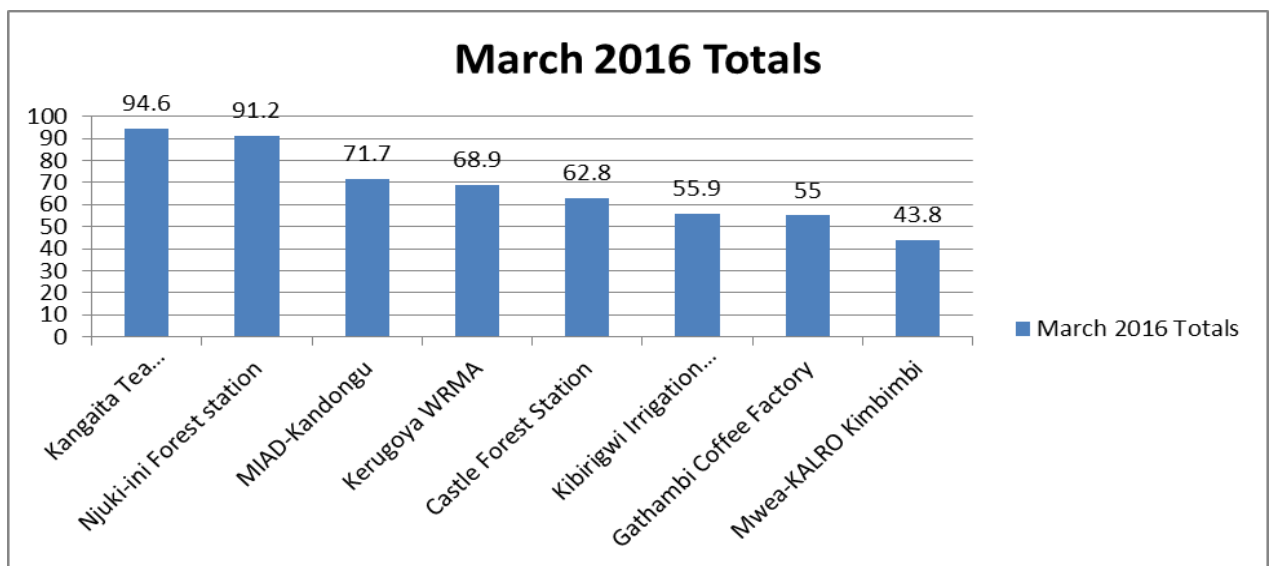


Fig. 2: Rain performance comparison during the month of March 2016

The rainfall performance during the month of March was below what is usually experienced in Kirinyaga County. Long term means (LTM) of the stations with many years of data collected showed that all the stations considered reported less than their LTM. This is as indicated in Table 3 and Figure 3 below.

Table 3: March 2016 rainfall performance as compared to the Long Term Means (LTM) of March

Station No.	Station Name	March 2016 Total	March LTM
9037140	Njuki-ini Forest station	91.2	95.2
9037112	MIAD-Kandongu	71.7	112.9
9037031	Kerugoya WRMA	68.9	84.8
9037115	Castle Forest Station	62.8	115.8
9037264	Gathambi Coffee Factory	55	64.0

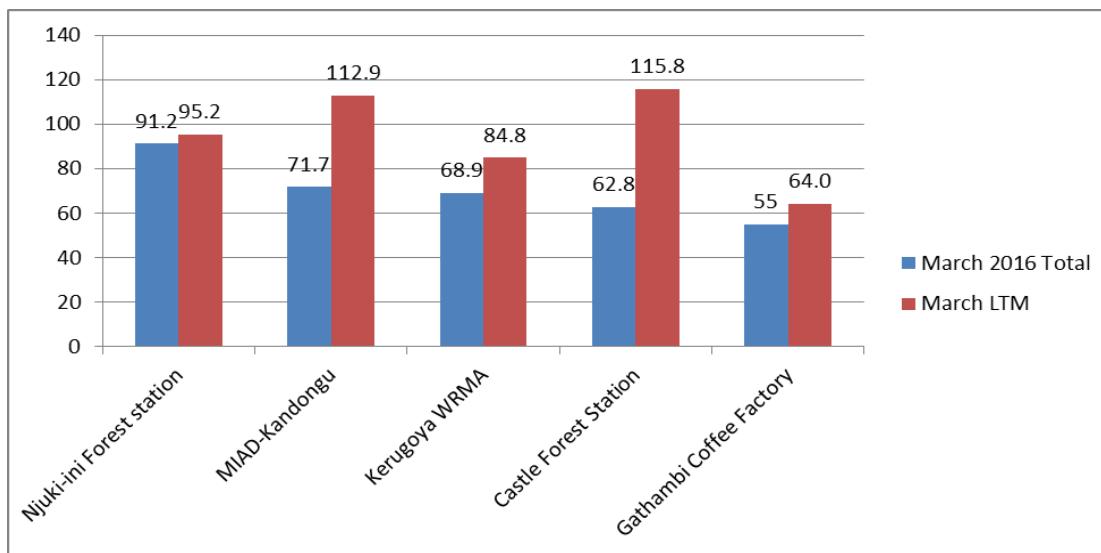


Fig 3: Comparison between the March 2016 monthly totals and the March Long Term Means

### Rains Performance for the Month of April 2016 in Kirinyaga

The month of April 2016 was quite wet and in order of reducing wetness, Njuki-ini Forest Station recorded the highest monthly total, followed by Kerugoya WRMA, Kangaita Tea Farm, Gathambi Coffee Factory, Kibirigwi Scheme, Castle Forest, Mwea KALRO Kimbimbi and MIAD-Kandongu stations. Table 4 and Figure 4 show the above.

Table 4: Rains Performance for the Month of April 2016 in Kirinyaga

Station No.	Station Name	April 2016 Monthly Totals
9037140	Njuki-ini Forest station	559.4
9037031	Kerugoya WRMA	525.5
	Kangaita Tea Factory/Farm	443.7
9037264	Gathambi Coffee Factory	440.7
9037174	Kibirigwi Irrigation Scheme	422.1
9037115	Castle Forest Station	400
9037110	Mwea-KALRO Kimbimbi	358.9
9037112	MIAD-Kandongu	337.7

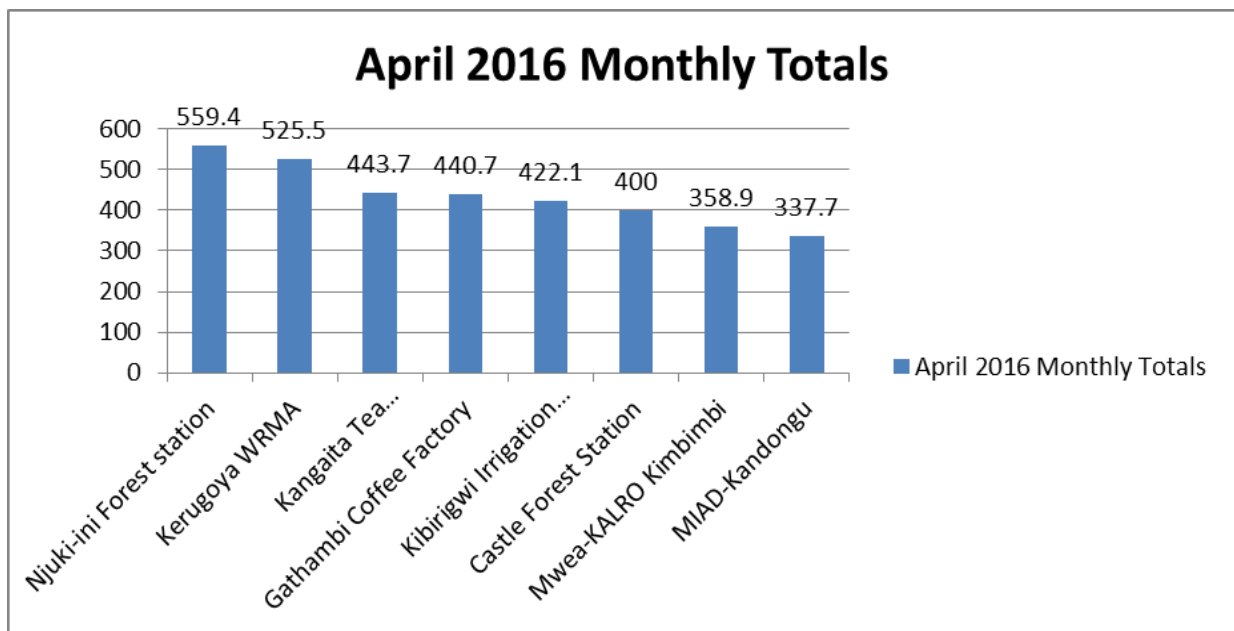


Fig. 4: Rains Performance for the Month of April 2016 in Kirinyaga

### Comparison between the April 2016 monthly totals and the Long Term Means

As compared to other months of April during past years, April of 2016 was generally wetter than the April average as calculated from previous years. All stations apart from Castle Forest Station, reported more than the long term mean. This means that the month of April 2016 received above normal rainfall as compared to the other months. Figure 5 and Table 5 show the foregoing.

Table 5: Comparison between the April 2016 monthly totals and the Long Term Means

Station No.	Station Name	April 2016 Monthly Totals	April LTM
9037140	Njuki-ini Forest station	559.4	282.4
9037031	Kerugoya WRMA	525.5	307.3
9037264	Gathambi Coffee Factory	440.7	304.2
9037115	Castle Forest Station	400	414.2
9037112	MIAD-Kandongu	337.7	263.5

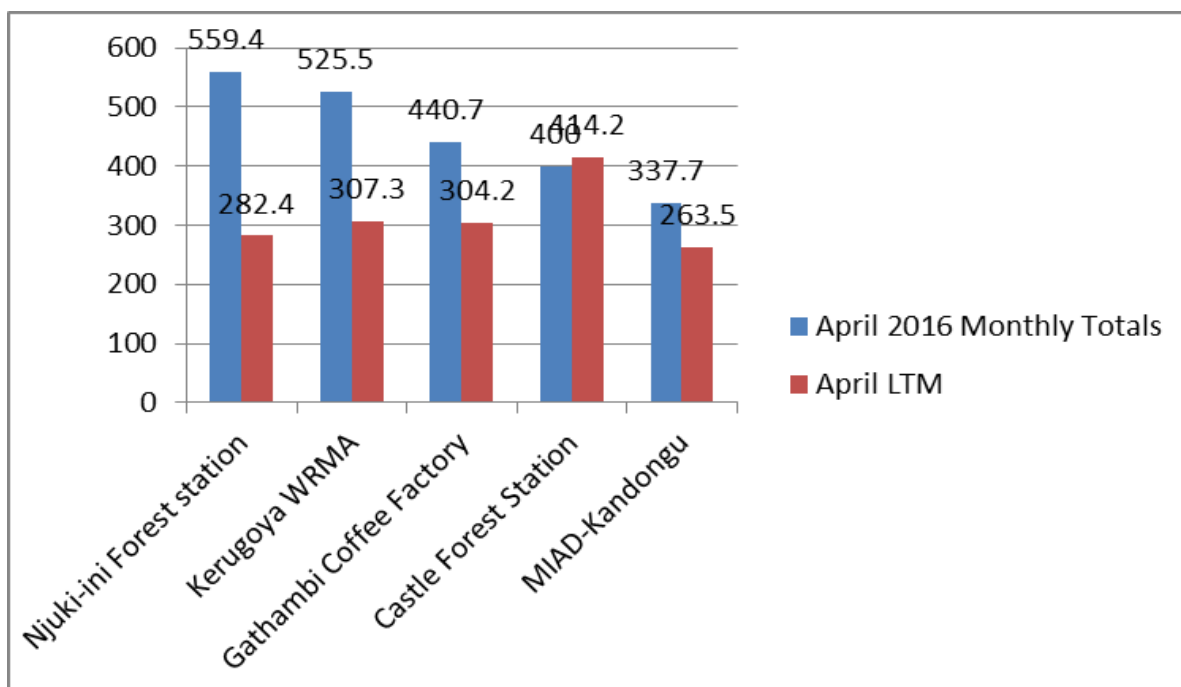


Fig 5: Comparison between the April 2016 monthly totals and the Long Term Means

### Rains Performance during the Month of May 2016 in Kirinyaga

The month of May 2016 was not as wet as the month of April 2016. In order of reducing wetness, Castle Forest station recorded the highest monthly total followed by Kangaita Tea Farm, Kibirigwi Scheme, Kerugoya WRMA, MIAD-Kandongu, Gathambi Coffee Factory, Njuki-ini Forest and Mwea KALRO Kimbimbi stations. Table 6 and Figure 6 show the above.

Table 6: Rains Performance for the Month of May 2016 in Kirinyaga

Station No.	Station Name	MAY 2016 Monthly Total
9037115	Castle Forest Station	184.1
	Kangaita Tea Factory/Farm	182.5
9037174	Kibirigwi Irrigation Scheme	172.8
9037031	Kerugoya WRMA	142.1
9037112	MIAD-Kandongu	123.3
9037264	Gathambi Coffee Factory	122.5
9037140	Njuki-ini Forest station	104.0
9037110	Mwea-KALRO Kimbimbi	98.9

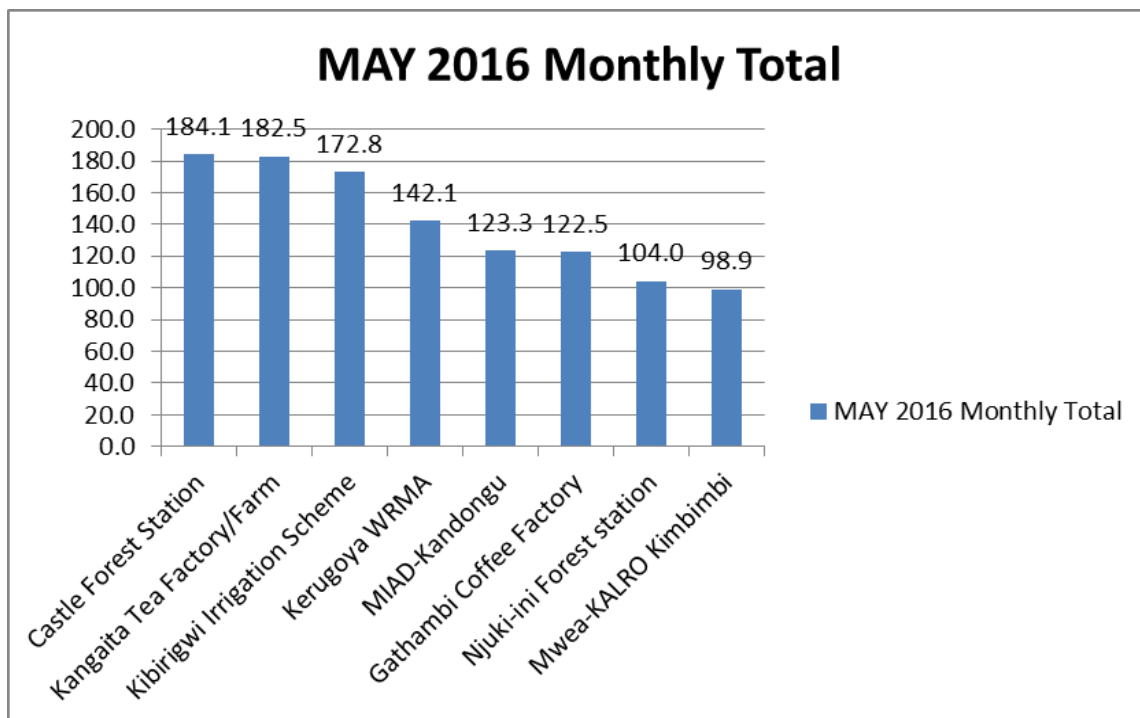


Fig. 6: Rains Performance for the Month of May 2016 in Kirinyaga

### Comparison between the May 2016 monthly totals and the May Long Term Means

As compared to other months of May during past years, May of 2016 was generally drier than the May average as calculated from previous years. All stations in Kirinyaga County reported less than the May long term mean. This means that the month of May 2016 received below normal rainfall as compared to the long term mean. Figure 7 and Table 7 show the foregoing.

Table 7: Comparison between the May 2016 monthly totals and the May Long Term Means

Station No.	Station Name	May 2016 Monthly Total	May LTM
9037115	Castle Forest Station	184.1	356.8
9037031	Kerugoya WRMA	142.1	274.4
9037112	MIAD-Kandongu	123.3	178.0
9037264	Gathambi Coffee Factory	122.5	333.6
9037140	Njuki-ini Forest station	104.0	176.8

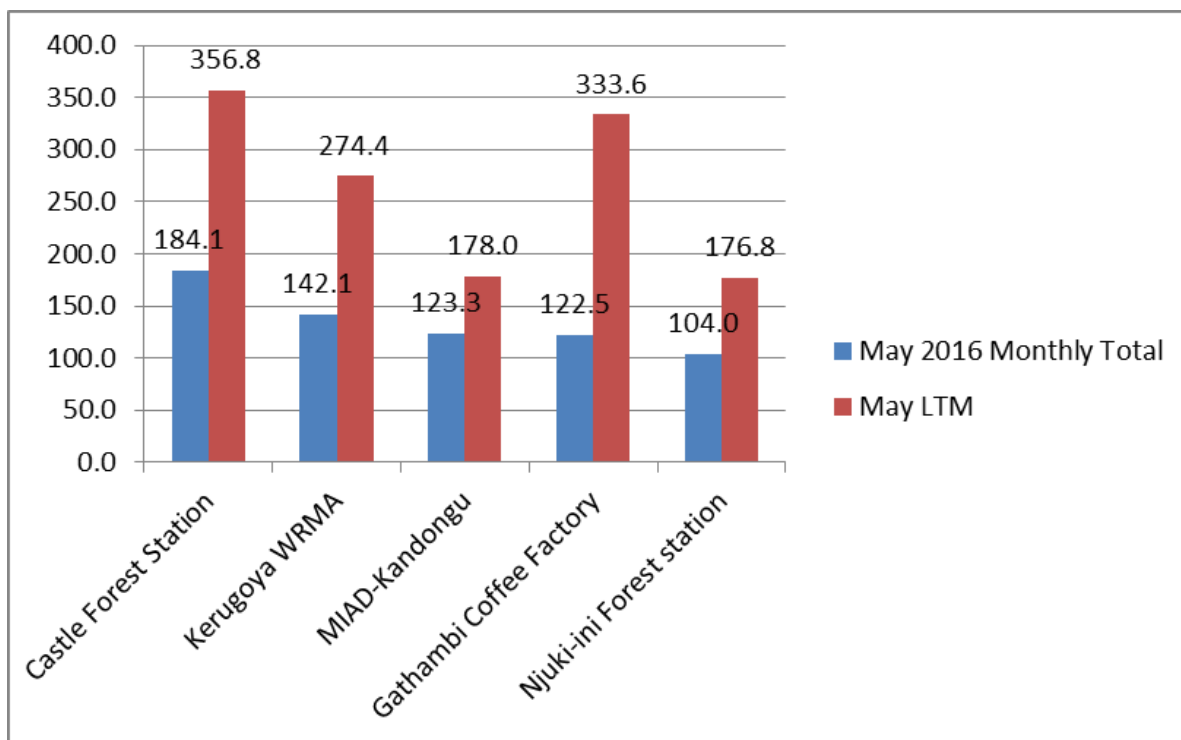


Fig 7: Comparison between the May 2016 monthly totals and the May Long Term Means

### Rains Performance during the March-April-May (MAM)-2016 in Kirinyaga County

The MAM-2016 season rains performed as forecasted in February 2016 which indicated near average/normal rainfall with poor distribution aspect. In order of reducing wetness, Njuki-ini Forest station recorded the highest monthly total followed by Kerugoya WRMA, Kangaita Tea Farm, Kibirigwi Scheme, Castle Forest, Gathambi Coffee Factory, MIAD-Kandongu, and Mwea KALRO Kimbimbi stations. Table 8 and Figure 8 show the above.

Table 8: The performance of MAM-2016 Season

Station Name	MAM-2016
Njuki-ini Forest station	754.6
Kerugoya WRMA	736.5
Kangaita Tea Factory/Farm	720.8
Kibirigwi Irrigation Scheme	650.8
Castle Forest Station	646.9
Gathambi Coffee Factory	618.2
MIAD-Kandongu	532.7
Mwea-KALRO Kimbimbi	501.6



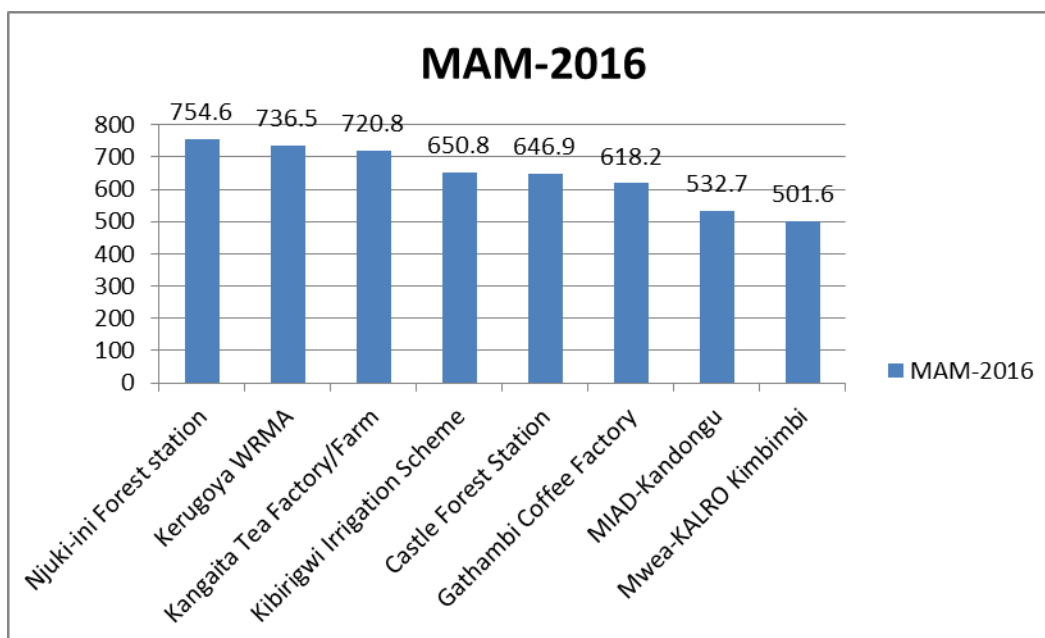


Fig. 8: Rains Performance during the March-April-May (MAM)-2016 in Kirinyaga

### Comparison between the MAM 2016 Totals and the MAM Long Term Means

As compared to other MAM during past years, only two stations, Njuki-ini and Kerugoya that achieved more than their LTM. All the other three stations received less than their LTM. MAM of 2016 was generally Normal since the globally agreed normal lies between 75% of the LTM and 125% of the LTM. As Table 9, Fig. 9 and Fig. 10 show, the station (Njuki-ini Forest Station) that achieved Above Normal just slightly did so while the same applies for Castle Forest Station which achieved below Normal. So we can conclude by saying that MAM-2016 in Kirinyaga County was near average/normal as forecasted.

Table 9: The Scenario of MAM-2016 Season in each station

Station Name	MAM-2016	MAM-LTM	75%of LTM	125%ofLTM	SCENARIO
Kerugoya WRMA	736.5	666.6	499.9	833.2	N
MIAD-Kandongu	532.7	554.5	415.9	693.1	N
Castle Forest Station	646.9	886.8	665.1	1108.5	BN
Njuki-ini Forest station	754.6	554.4	415.8	693.0	AN
Gathambi Coffee Factory	618.2	701.7	526.3	877.2	N

Key: AN=Above Normal, N=Normal, BN=Below Normal

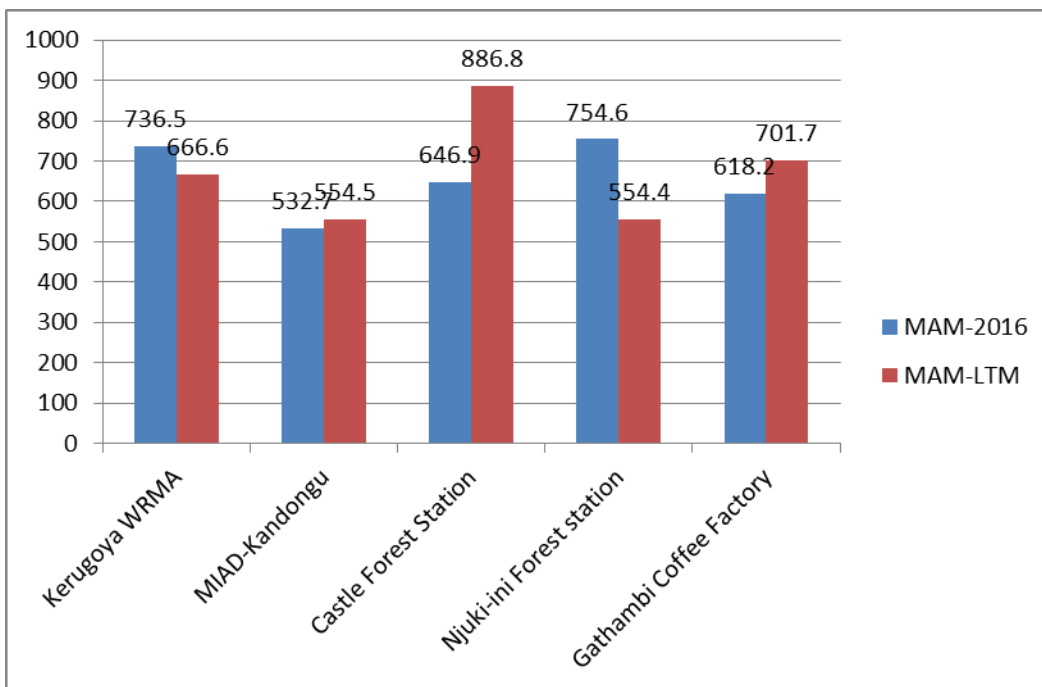


Fig. 9: The Scenario of MAM-2016 Season in each station

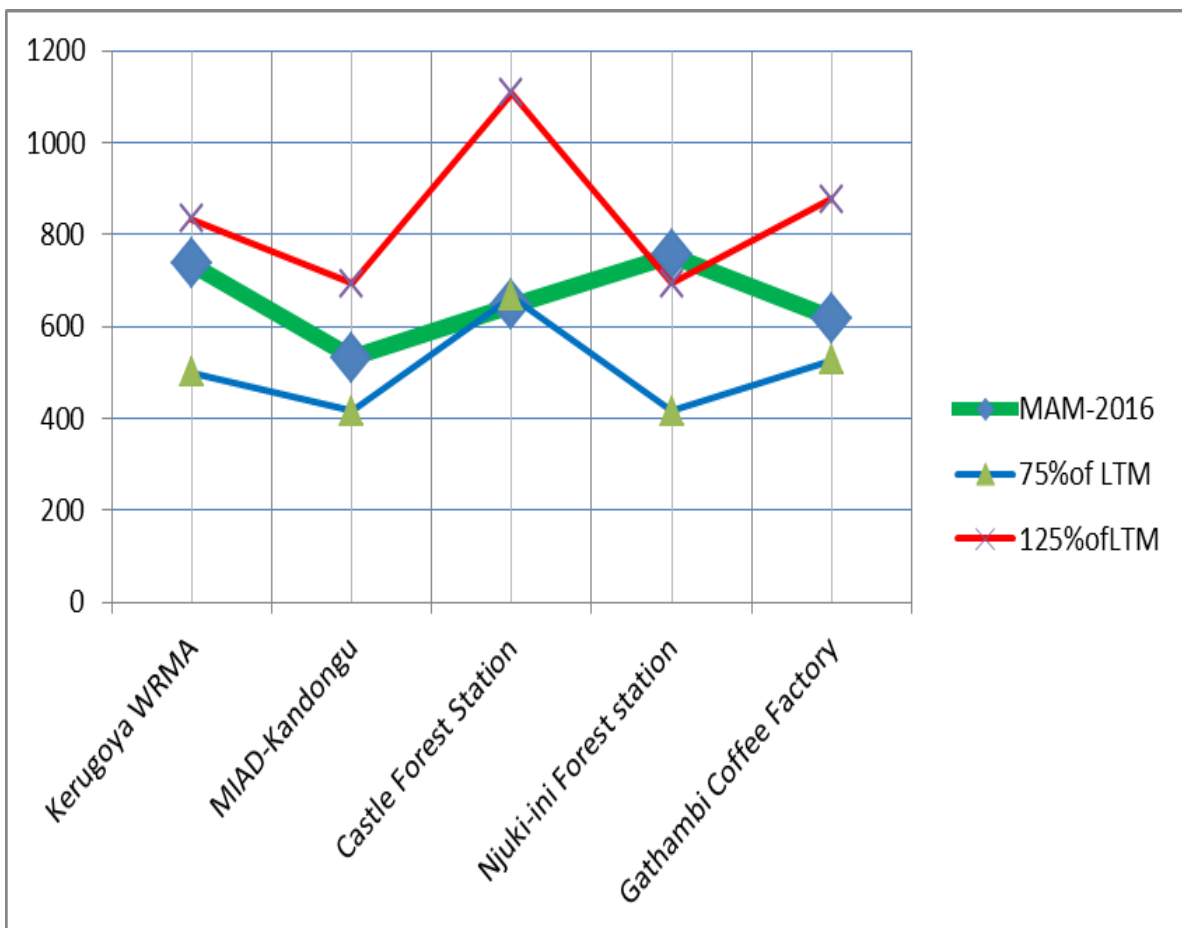


Fig. 10: The Scenario of MAM-2016 Season in each station and the deviation from the normal

.....**START OF REPEATED IMPORTANT INFORMATION** .....

**MAM-2016 SEASONAL FORECAST**

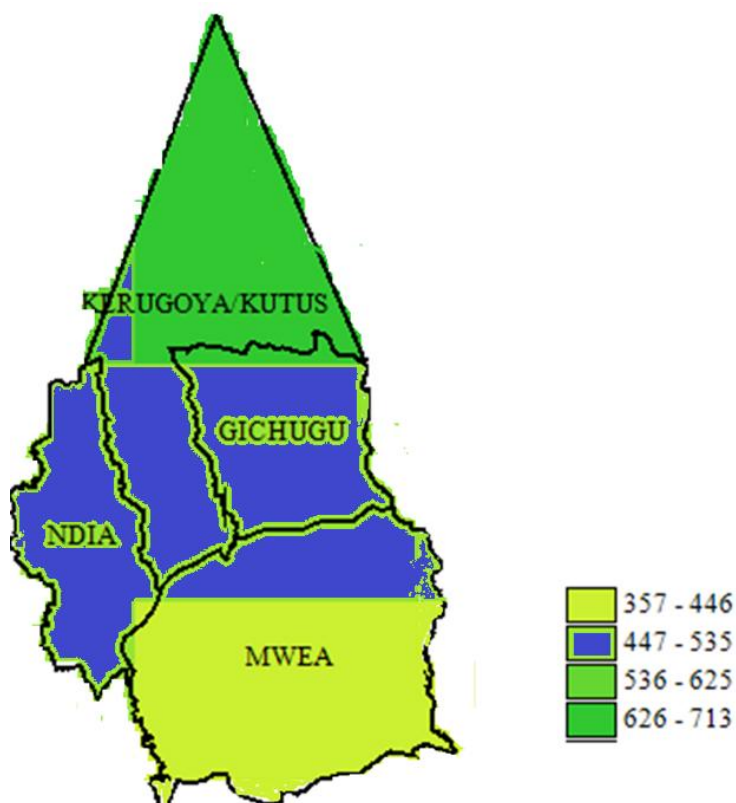
March-April-May (MAM)-“Long” Rains 2016 forecast is as given on Table 10 and Figure 11 below.

**Kirinyaga County is likely to receive near normal (average) rainfall.**

*Table 10: Seasonal Forecast*

REGION	START OF MAM RAINS	END OF MAM RAINS
Central highlands including KIRINYAGA COUNTY	4th week of March to 1st week of April 2016	3rd to 4th week of May

**Poor temporal distribution of the seasonal rainfall expected**



*Fig. 11: Downscaled County Seasonal Forecast for March-April-May 2016. The figures are likely to have been an underestimation. The blue shaded region deserve approximately 700mm while the green shaded areas deserve more than 800mm.*

\*\*\*\*\* **END OF REPEATED IMPORTANT INFORMATION** \*\*\*\*\*

## KIRINYAGA COUNTY WEEKLY FORECAST

FOR THE NEXT SEVEN DAYS (7<sup>th</sup> to 13<sup>th</sup> June 2016):

Most of Kirinyaga County is expected to remain mainly dry although showers shall occur over high ground areas in the afternoon. Cool conditions are likely to continue over several parts of the county.

DAY	MORNING	AFTERNOON/EVENING
TUESDAY 7/6/2016	Cool (low temperatures)	showers over
WEDNESDAY 8/6/2016	cloudy	few place in the
THURSDAY 9/6/2016	with	afternoon especially
FRIDAY 10/6/2016	occasional drizzles	over high ground areas.
SATURDAY 11/6/2016	breaking to sunny intervals	Sunny intervals are however
SUNDAY 12/6/2016		expected throughout the rest
MONDAY 13/6/2016		of the regions

### KEY OF SCIENTIFIC WORDS USED

Most Places: Between 66% and 100% of Kirinyaga County

Several Places: Between 33% and 66% of Kirinyaga County

Few Places: Between 0 and 33% of Kirinyaga County

### OTHER INFORMATION

\*\*\*\*\* START OF RETAINED IMPORTANT INFORMATION \*\*\*\*\*

#### PSP Advisory

Weather/climate advisory from PSP workshop has been disseminated to all stakeholders. Just like the other weather products, the PSP Advisory is attached in the link: <http://kirinyaga.go.ke/weather.html>

### QUESTIONNAIRE

Please take your time and fill in the questionnaire which is attached alongside this forecast (if you have never filled it before). You are kindly requested to send the filled questionnaire to [meteorological@kirinyaga.go.ke](mailto:meteorological@kirinyaga.go.ke) for onward delivery to the research centre.

\*\*\*\*\* END OF RETAINED IMPORTANT INFORMATION \*\*\*\*\*

**Weather Link on the County Government of Kirinyaga website is:**

<http://kirinyaga.go.ke/weather.html>

You can access the weather products using this link on a smart phone.

O.k.

James Gichuki Gathura

**County Director of Meteorological Services**