

National Drought Management Authority

MAKUENI COUNTY

DROUGHT EARLY WARNING BULLETIN OCTOBER 2020



A Vision 2030 Flagship Project



OCTOBER 2020 EW PHASE

Drought Status: **NORMAL**



Shughuli za kawaida

Drought Situation & EW Phase Classification

Biophysical Indicators

- Generally the month of October was dry in most parts of the County and this normal at this time of the year. A few areas received some rain on dekad 3 of the month.
- Weather forecast from Kenya Meteorological Department (KMD) predicts depressed October to December (OND) rainfall season.
- Pasture & browse condition ranged from good to fair across all the livelihood zones though with a fast declining trend.
- Water was available across all livelihood zones though with a declining trend especially in the Marginal Mixed zone.

Socio-Economic Indicators

- Livestock body condition ranged from good to fair across all the three livelihood zones with no abnormal cases of migration or death as a result of drought.
- Main agricultural activity on the field was land preparation and planting.
- Milk production for the month was normal.

Access Indicators

- Market operations had stabilized, this is after a long closure due to the covid-19 outbreak.
- Terms of trade was above the seasonal range.

Utilization Indicators

- Households continued to employ minimal coping strategies to deal with lack of food or money to buy food.
- Percentage of children at risk of malnutrition was within the normal range

Livelihood Zone (LZ)	Phase	Trend
Mixed Farming (Coffee/Dairy)	Normal	Worsening
Mixed Farming (Food Crop/Livestock)	Normal	Worsening
Marginal Mixed Farming	Alert	Worsening
County	Normal	Worsening
Biophysical Indicators	Value	Normal Ranges
Rainfall (% of Normal)	106	80-120%
VCI- 3 Month	99.91	35-50
State of Water Sources	4	5
Production indicators	Value	Normal
Crop Condition	Early planting	Early Planting
Livestock Body Condition	Good to Moderate	Good- Normal
Milk Production	1.8 Litres	1.8 Litres
Livestock Migration Pattern	No migration	No migration
Livestock deaths (from drought)	No death	No death
Access Indicators	Value	Normal
Terms of Trade (TOT)	108	86
Milk Consumption	1.0 litres	1.6 litres
Return distance water sources	5.8 Km	6.1 Km
Cost of water at source (20 litres)	KSh 2-5	KSh 2-5
Utilization indicators	Value	Normal
Coping Strategy Index (CSI)	9.8	<10

<ul style="list-style-type: none"> ▪ Short rains harvests ▪ Short dry spell ▪ Reduced milk yields ▪ Increased HH Food Stocks 	<ul style="list-style-type: none"> ▪ Planting/Weeding ▪ Long rains ▪ High Calving Rate ▪ Milk Yields Increase 	<ul style="list-style-type: none"> ▪ Long rains harvests ▪ A long dry spell ▪ Land preparation ▪ Increased HH Food Stocks ▪ Kidding (Sept) 	<ul style="list-style-type: none"> ▪ Short rains ▪ Planting/weeding 								
Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec

1. CLIMATIC CONDITIONS

1.1 RAINFALL PERFORMANCE

- The month of October was generally hot and dry in most parts of the County. According to the WFP VAM rainfall estimates, dekad one recorded 7.3mm against an average of 6.7mm, dekad 2 9.6 mm against an average of 8.6mm and dekad 3 13.7 mm against an average of 13.5 mm.
- According to the KMD forecast, onset of the OND rains is likely to be between the 4th week of October and 1st week of November 2020.
- Highest amounts of rain are likely to be received in the hilly areas of Kilungu and Mbooni
- Both temporal and spatial distribution is expected to be poor.
- Cession of the 2020 OND rains is likely to be on the 2nd to 3rd week of December 2020.
- In week 4 of October, Kikima received 25 mm, Mulala 18 mm, samba 4 mm and Mukuyuni 7 mm.
- The Marginal Mixed Livelihood zone remained largely dry. Makindu received 22.7 mm in 1 rainy day, Kambi ya Mawe received 8.5 mm in 2 rainy days. Wandei received 8.9 mm in one rainy day.

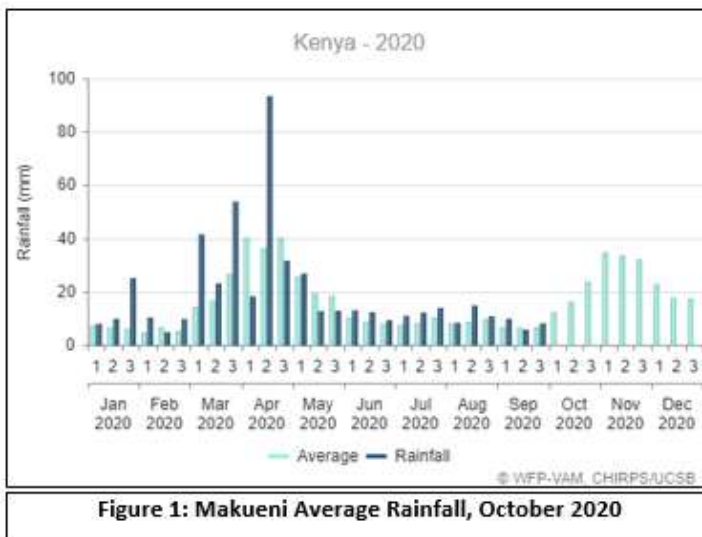


Figure 1: Makueni Average Rainfall, October 2020

2. IMPACTS ON VEGETATION AND WATER

2.1 VEGETATION CONDITION INDEX

2.1.1 The vegetation condition (VCI)

The county exhibited above normal vegetation greenness throughout the month. The county recorded a 3 month average VCI index of 99.91. Kaiti, Kibwezi East, Kibwezi West, Kilome, Makueni and Mbooni recorded indices of 93.19, 94.48, 95.73, 88.1, 107.87 and 121.71 respectively.

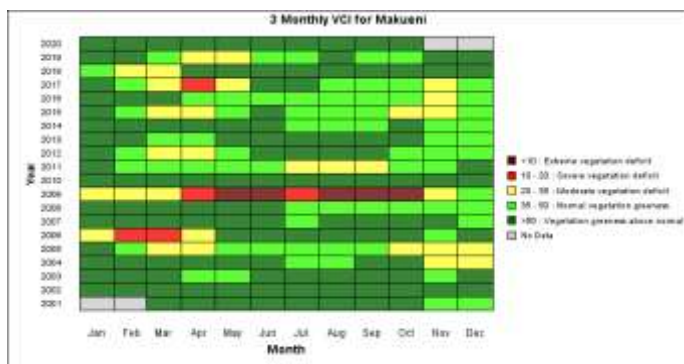


Figure 2(a) VCI matrix and graph for Makueni County.

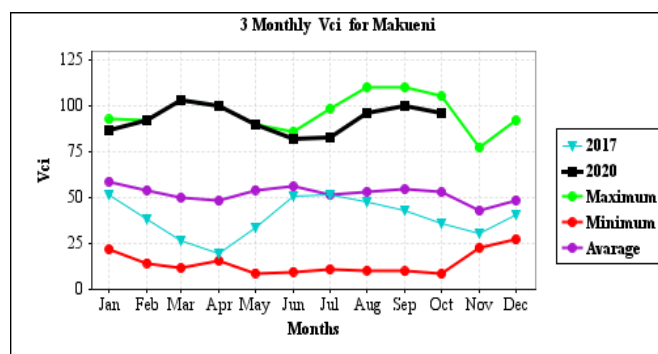


Figure 2(b) VCI graph for Makueni County.

2.1.2 Pasture and Browse

- Pasture and browse condition ranged from fair to poor across all the livelihood zones with a declining trend. The decline is attributed to the heat effect that was being experienced throughout the month.
- On average, about 7.1 percent of the available pastures and browse was deemed to be good, 28.6 percent fair while 64.3 percent was poor.
- The available pasture and browse is expected to last until the onset of the OND rains.
- Below is an illustration of the state of pasture and browse condition during the month of October.

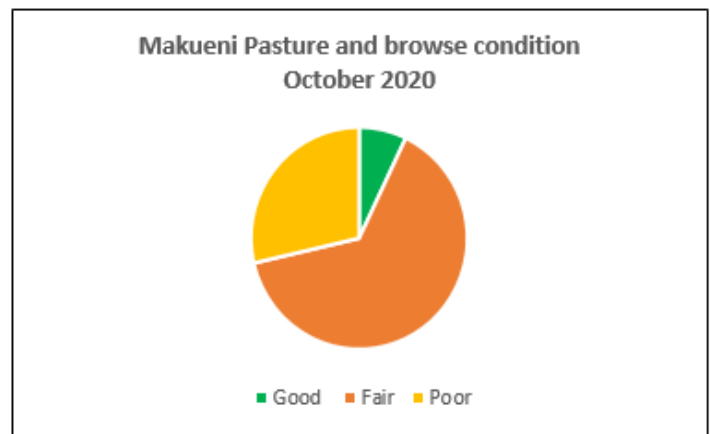


Fig 4: Pasture & Browse condition October 2020

WATER RESOURCE

2.2.1 Sources

- The main water sources for both human and livestock consumption were: Rivers at 43.8%, boreholes at 25 percent, Traditional river wells 18.8 percent and springs at 12.5 percent as illustrated alongside.
- The water levels in most of the open surface water sources like dams in the county were less than 40 percent. It is expected that the available volumes of water will last until the onset of the OND season.
- Water stress was evident in the marginal mixed farming livelihood zone where long queues and waiting time was witnessed.

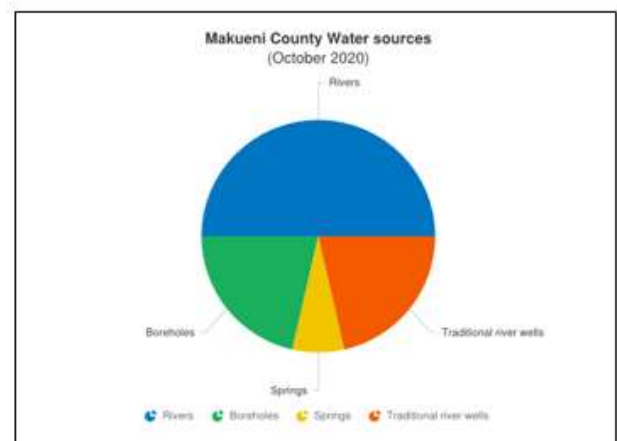


Fig 5: Makueni County Water Sources for October 2020

2.2.2 Household access and Utilization of water Distances to water sources (household consumption)

- The average return distance from the household to water sources increased by 13.7 percent to an average of 5.8 Km.
- Compared to the good year the current distances were slightly above but below the long term average.
- The distances are expected to decrease in the next one month with the onset of the OND rains.
- The average price of water per 20 litre Jerri cans at the source/water Kiosks was between 2-5 Shillings.

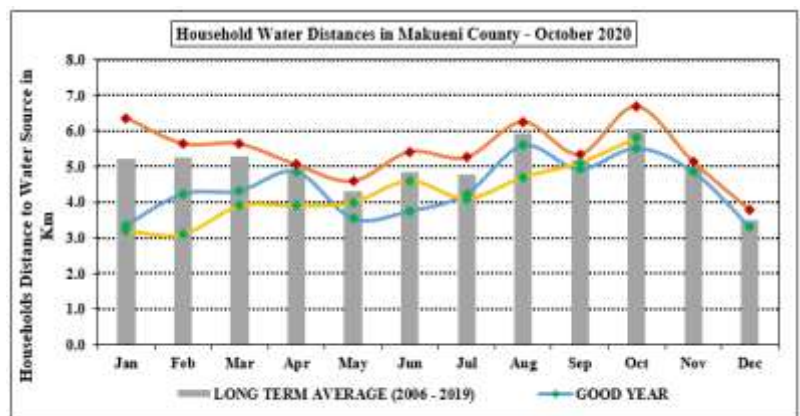
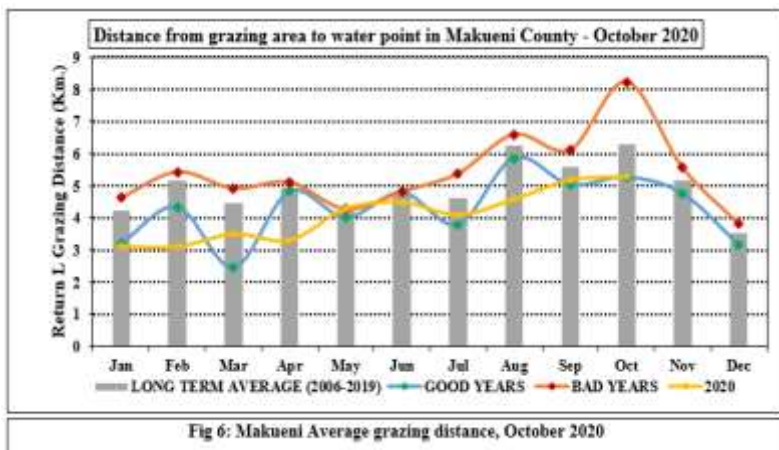


Fig 6: Makueni Household Access to Water, October 2020

2.2.3 Livestock access to water

- The average return distance from the grazing areas to watering points increased by 1.9 percent from last month to an average of 5.3 Km.
- Compared to the long-term mean the current distances were below normal by 15.8 percent
- The increase in distance is attributed to the change to alternate water sources since most seasonal rivers had dried up.
- The distances are expected to decrease in the next one to two months with the onset of the OND rains.



2.3 Implication of the above indicators to Food Security

- If the 2020 OND rains fail, the availability of water and pasture is expected to decline more hence impacting negatively on livestock productivity.

3.0 PRODUCTION INDICATORS

3.1 LIVESTOCK PRODUCTION

3.1.1 Livestock Body Condition

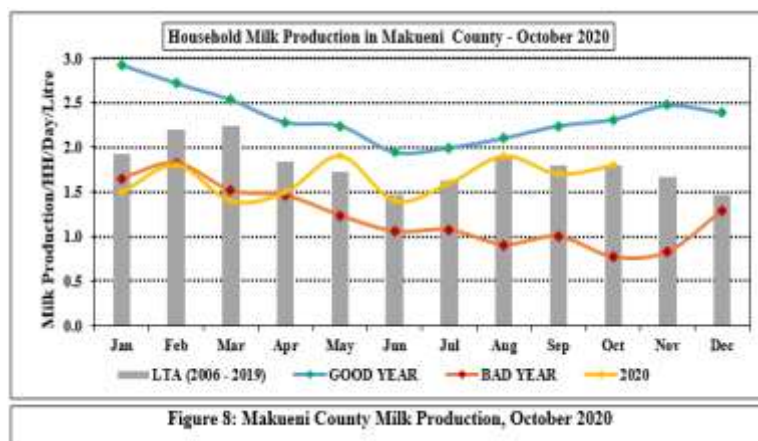
- Livestock body condition for all species ranged from good to fair across all the three livelihood zones.
- On average 50 percent were moderate neither fat nor thin, 43 percent was at the borderline (fore ribs not visible 12th and 13th ribs visible) while the remaining 7 percent had a smooth good appearance.
- The current condition is normal at this time of the year but it's expected to improve in the next one to two months with the onset of the OND rains.

3.1.2 Livestock Diseases

- Sporadic cases of FMD disease was reported in malili area in Mukaa.

3.1.2 Milk Production

- The average Milk production per household per day increased by 5.8 percent to an average of 1.8 litres.
- Compared to the long-term average the current production was normal and below the good year by 22.2 percent.
- The current milk production is attributed to the available pasture and water for the livestock.
- Minimal milk production was recorded in the marginal mixed livelihood zone.



3.2 RAIN-FED CROP PRODUCTION

3.2.1 Stage and Condition of food Crops

- Currently there were no crops in the farms apart from the irrigated crops like kales, tomatoes along the major rivers and swamplands.
- Land preparation and early planting was ongoing across all the three livelihood zones in anticipation of the 2020 October, November, December (OND) rains.

4.0 MARKET PERFORMANCE

- Normalcy had returned in all the markets (both livestock and food stuff).

4.1 LIVESTOCK MARKETING

4.1.1 Cattle Prices

- The average price for the cattle (2 year old bull) remained stable at KSh 24,500.
- The stability in price is attributed to the good body condition and the normalcy which has returned in all the livestock markets across the county.
- Compared to a similar time during the wet good year the recorded market price was comparatively normal.
- Compared to the Short term average, the current market price was above normal by 54 percent.

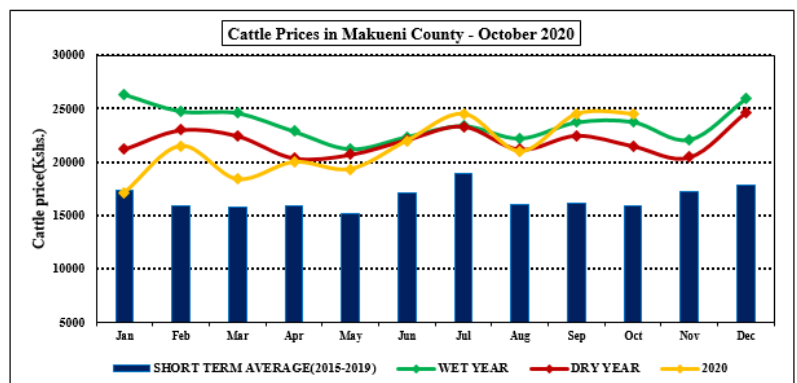


Figure 9: Makueni County Cattle prices, October 2020

4.1.2 Goat Prices

- The average market price for a medium sized goat increased by 5.3 percent to an average of KSh 4,000.
- The fair price is attributed to the good body condition and the resumption of market operations after the long closure due to Covid-19.
- Compared to both the good, bad season and the long-term average, this month's price was above normal.
- The current fair market prices is attributed to the prevailing good body condition.

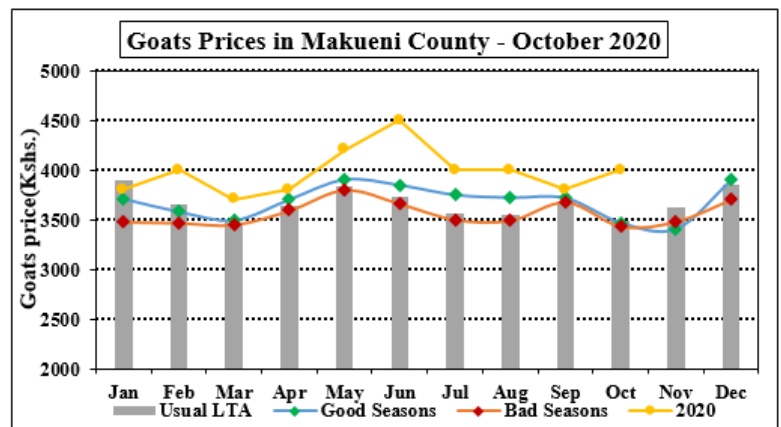
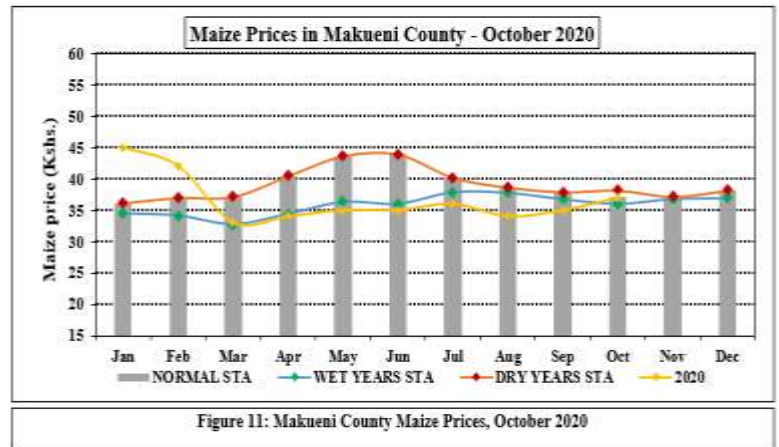


Figure 10: Makueni County Goat prices, September 2020

4.2 CROP PRICES

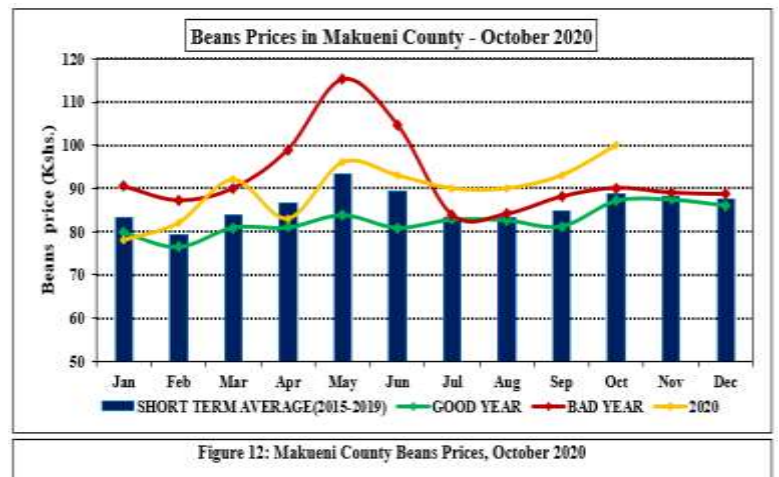
4.2.1 Maize

- The average price of maize (at the cereals shops) per kilogram increased slightly by 5.7 percent to Ksh37.
- Compared to a similar time during the wet season and the short term average the current price is normal.
- The stability in price is attributed to the available stocks majorly imports from counties in western Kenya.
- However, the price is on an increase trend mostly in the marginal mixed farming livelihood zone where there was minimal harvest.



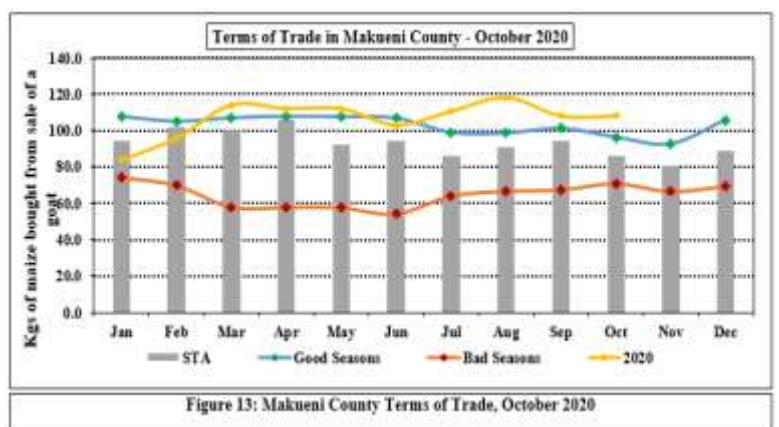
4.2.2 Beans

- The average price for beans at the cereals shop increased by 7.5 percent to an average of KSh 100.
- Compared to both the short-term average and the good months, the current price was above normal by 13.6 and 11 percent respectively.
- The high price is attributed to the decline in supply of the commodity into the local markets.
- The price is expected to increase steadily in the next one with the increase in demand for the product as a seed.
- High prices were recorded in cereal shops within the Marginal Mixed Farming zone where stocks had declined.



4.3 Livestock Price Ratio/Terms of Trade

- The current terms of trade (goat for maize) remained stable at 108.
- This implies that from the sale of one goat, a household would be able to purchase 108 kg of maize.
- Compared to both the good year and the (2016-2019) short term average, the current TOT was above average by 12.5 and 25.6 percent respectively.



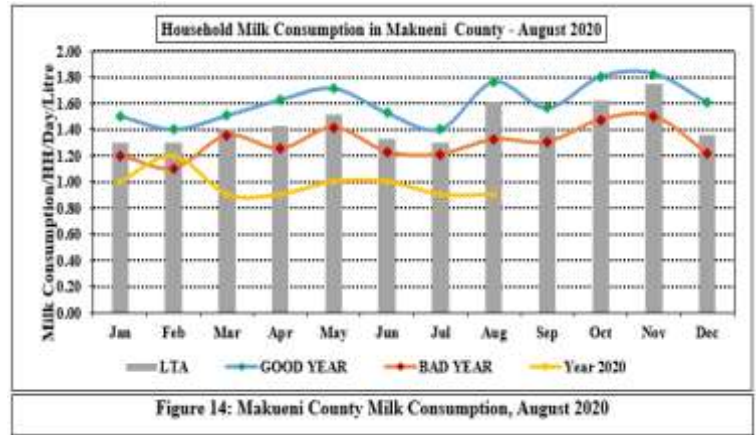
4.3.3. Implications of the above indicators on Food security.

- The reopening and normalcy livestock markets in the last one month has led to availability positive and stability in prices. This is likely to impact the household purchasing power positively.
- On the other hand households' purchasing power is expected to decline, as the socio-economic impacts prompted by COVID-19 restrictions continue to be felt across the county.

5.0 FOOD CONSUMPTION AND NUTRITION STATUS

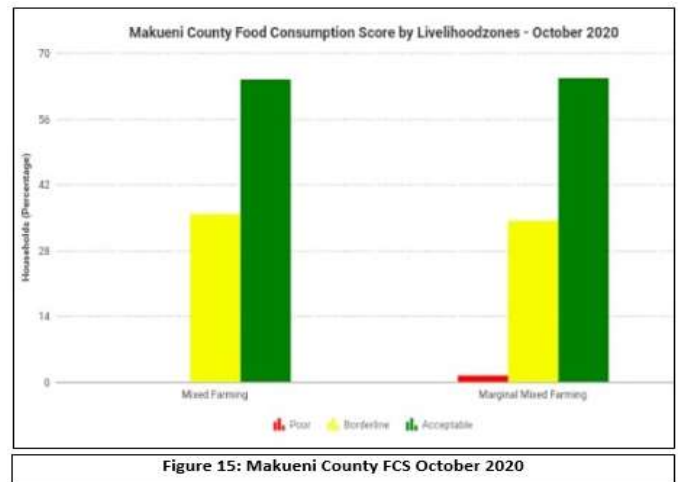
5.1 MILK CONSUMPTION

- The average daily milk consumption per household remained reasonably stable at 1.0 litres
- Compared to both the long-term Average and the good year, the current milk consumption was below normal.
- Milk consumption has remained relatively stable since March as most households have children at home at this time due to the covid-19 outbreak.



5.2 FOOD CONSUMPTION SCORE

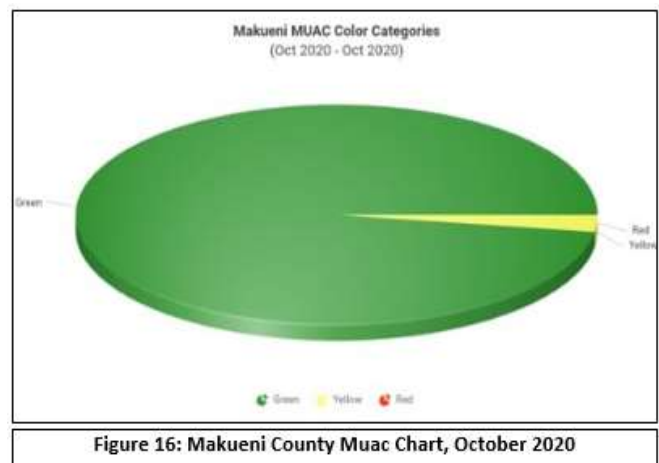
- The proportion of households in the mixed farming livelihood zone who had an acceptable Food Consumption score was 64.3%, while the remaining 35.7% were at the borderline. In the marginal mixed farming livelihood zone 64.6% had an acceptable Food Consumption score, while the remaining 34.2% of households were at the borderline.
- The acceptable food consumption is attributed to the improvement in dietary diversity and food availability at the household level.
- Most households were consuming at least three meals a day comprising of diverse food groups.



5.3 HEALTH AND NUTRITION STATUS

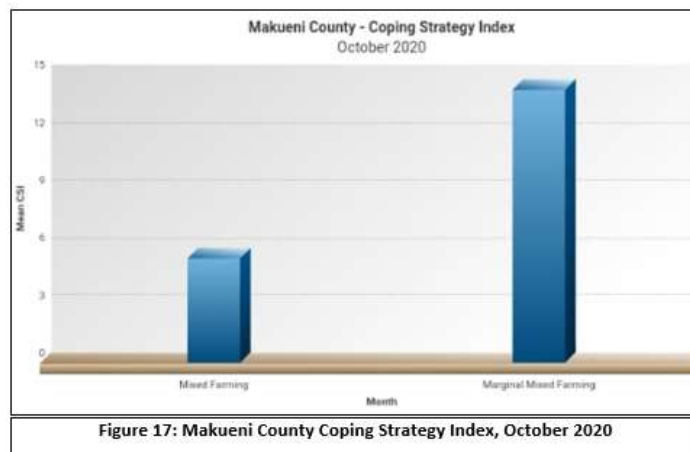
5.3.1 Nutrition Status

- From the analysis of the family Muac data, the proportion of children (under-fives) who were well nourished was 97.5 percent (green) while only 2.5 percent of the sampled children were at risk for acute malnutrition (represented by yellow).
- The 2.5 percent were counselled and referred for follow-up for Growth Promotion and Monitoring (GPM).
- The improvement in MUAC trend is attributed to the constant milk consumption over the last four few months mostly for the under-fives.



5.4 COPING STRATEGIES

- Average mean CSI for the county was 9.8
- The reduced coping strategies index (rCSI) in the marginal mixed farming zone was 14.2 while in the Mixed farming livelihood zone it was 5.4
- This implied that majority of the households were employing none or minimal coping strategies to deal with lack of food or money to buy food.



6.0 CURRENT INTERVENTION MEASURES (ACTION)

6.1 NON-FOOD INTERVENTIONS

- Participatory Scenario Planning (PSP) and development of weather advisories for the October-November-December season by ASDSP, KCEP-CRAL, meteorology, county departments of agriculture, irrigation livestock and fisheries and other partners.
- Economic stimulus programme for the locally assembled desks for the needy public primary and secondary schools.
- National hygiene program/Kazi Mtaani as part of the strategies to alleviate the adverse effects of Covid-19. The program aims at utilizing labour intensive resources at the informal settlements across the county.
- Capacity building of farmers on climate smart agriculture and post-harvest management by DOALF and partners.
- Donation of drought tolerant seeds to farmers by the department of Agriculture.
- Promotion of drought tolerant crop production by DOALF and partners such as ASDSP, KCEP-CRAL, AVCD, KCDMS, NCPB and NARIGP.
- Excavation of Ngomeni earth dam by NDMA with the support of European Union and the county government.

6.2 FOOD AID

- There was no food aid allocation for the month under review.

7.0 EMERGING ISSUES

7.1 Insecurity/Conflict/Human Displacement/Human-Wildlife conflict/Floods

- Enforcement of the daily curfew from 9.00 p.m. to 4 a.m. as a precautionary measure for COVID-19

7.2 Migration.

- There were no reported cases of livestock migration for the period under review.

7.3 Food Security Prognosis

- According to KMD, several parts within the county will experience depressed (below long-term average) rainfall that will be poorly distributed both in time and space. Farmers are advised to liaise with the department of Agriculture for advice on the appropriate seeds to plant. In the MMF, farmers are advised to liaise with the department of Agriculture to get advice on appropriate crops that are drought resistant in order to make the best use of the anticipated poor rainfall performance.
- Livestock farmers are advised to liaise with livestock departments for livestock vaccinations.

8. RECOMMENDATIONS

Immediate/Short term contingency measures

- Extension services should be offered to farmers on the best crop varieties to plant for the season in addition to dissemination of Participatory Scenario planning advisories.
- County government should enhance market linkages so as to absorb the harvests from the pigeon peas into the markets at fairly good prices.
- Repair of strategic boreholes especially in the marginal mixed farming livelihood zone which are likely to breakdown as water stress increases
- Ensuring proper functioning of markets for major food commodities in the rural areas.
- Intensify livestock disease control measures
- Promote home-based water treatment and conservation measures such as storage facilities.
- Promotion of livestock feed storage and management practices.
- Continuous community sensitization on COVID-19 preventive measures.
- Enhance peace building and conflict management activities.

Medium and long term

National Government, County Government and Development partners to collaborate on:

Water Sector;

- Promotion of water harvesting, storage and management.
- Awareness creation on the importance of protecting water sources.

Agriculture Sector;

- Capacity building on safe use of chemicals.
- Enhancing asset creation for households especially Farm ponds and water pans for food production.
- Community sensitization on soil conservation structures.

Livestock Sector.

- Community sensitization on the importance of fodder preservation and controlled grazing.
- Pasture establishment and seed bulking.
- Feed formulation(cattle, goats, sheep and poultry)

Health and Sanitation Sector;

- Sensitization on hygiene and sanitation at household level with emphasis on Water treatment.
- Routine disease surveillance.

- Improve Vitamin A supplementation and de-worming to children under five years
- Continuous sensitization on staying safe from the COVID-19.

Peace and Security;

- Peace building and conflict management initiatives.