

National Drought Management Authority

MAKUENI COUNTY

DROUGHT EARLY WARNING BULLETIN FOR AUGUST 2020



A Vision 2030 Flagship Project



AUGUST 2020 EW PHASE

Drought Status: **NORMAL**



Shughuli za kawaida

Drought Situation & EW Phase Classification

Biophysical Indicators

- Most parts of the county were dry in August with the exemption of the hilly areas which received light showers.
- Pasture & browse condition ranged from good to fair across all three livelihood zones though with a worsening trend.
- Water availability was fair though with a declining trend as there was no significant recharge within the month.

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.
- Pigeon peas had reached full maturity and harvesting was ongoing.
- Milk production for the month was within normal range.

Access Indicators

- Market operations were gradually returning to normalcy through strict observation of the laid down Covid-19 control procedures.
- Terms of trade was 33 percent above seasonal range.

Utilization Indicators

- Majority of the Households employed consumption based coping mechanisms less frequently to cope with lack of food or money to buy food.
- Percentage of children at risk of malnutrition was within the normal range.

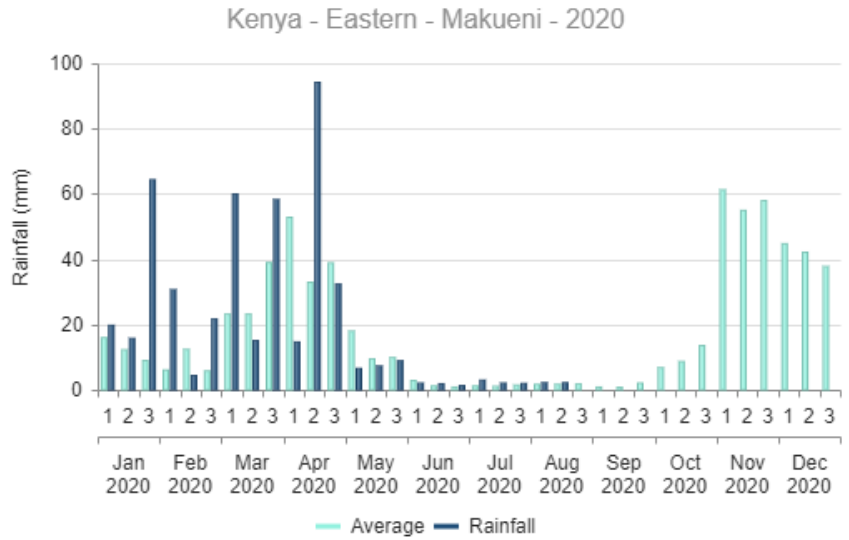
Livelihood Zone (LZ)	Phase	Trend
Mixed Farming (Coffee/Dairy)	Normal	Worsening
Mixed Farming (Food Crop/Livestock)	Normal	Worsening
Marginal Mixed Farming	Alert	Worsening
County	Normal	Worsening
Biophysical Indicators	Value	Normal Ranges
Rainfall (% of Normal)	131	80-120%
VCI-3Month	96.09	35-50
State of Water Sources	4	5
Production indicators	Value	Normal
Crop Condition	Harvesting	Harvesting
Livestock Body Condition	Good to Moderate	Good- Normal
Milk Production	1.9	1.9 Litres
Livestock Migration Pattern	No migration	No migration
Livestock deaths (from drought)	No death	No death
Access Indicators	Value	Normal
Terms of Trade (TOT)	118	91
Milk Consumption	0.9	1.6 litres
Return distance water sources	4.7 Km	5.9 Km
Cost of water at source (20 litres)	Ksh 2-5	Ksh 2-5
Utilization indicators	Value	Normal
Coping Strategy Index (CSI)	6.86	<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

- Generally, August was dry in most parts of the County characterized by cold days and nights. Light showers were recorded in the hilly areas of Kilungu and Mbooni. This is not normal at this time of the year.
- The vegetation greenness had deteriorated very fast in both the mixed farming and marginal mixed farming livelihood zones.
- Only traces of rainfall were recorded. The County recorded 2.1 mm of rainfall in dekad one against an average of 1.6 mm, 2.1 mm of rainfall in dekad two against an average of 1.6 mm and no rainfall in dekad 3. (Source WFP/VAM, CHIRP Data).



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2. IMPACTS ON VEGETATION AND WATER

2.1 VEGETATION CONDITION INDEX

2.1.1 The vegetation condition (VCI)

The vegetation condition was above normal. The 3 month average VCI index was 96.09, Kaiti, Kibwezi East, Kibwezi West, Kilome, Makueni and Mbooni sub-counties each recorded indices of 96.51, 88.92, 89.93, 87.28, 118.95 and 105.17 respectively.

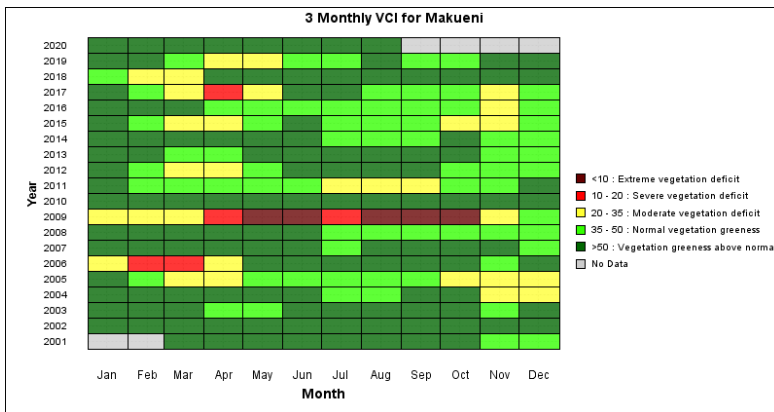


Figure 2(a): VCI matrix for Makueni County in August, 2020

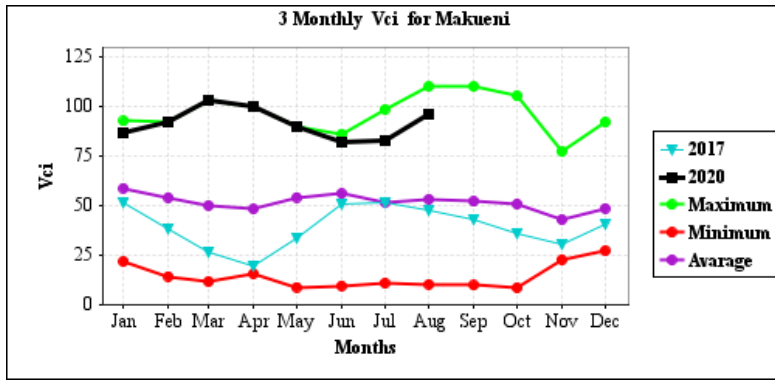


Figure 2(b): VCI graph for Makueni County in August, 2020

2.1.2 Pasture and Browse

- Pasture and browse condition ranged from fair to poor across all the livelihood zones. The trend was fast declining in the marginal mixed farming livelihood zone from the heat effect that was being experienced for the better part of the month.
- 11.3 percent of the available pastures was good, 64.7 percent was fair while the remaining 23.5 percent was poor while for browse 11.8 percent was good, 70.6 percent was fair while the remaining 17.6 percent was poor.
- Below is an illustration of the state of pasture and browse condition.

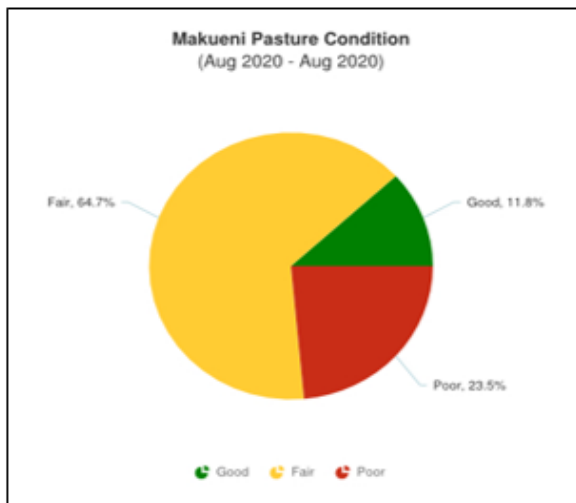


Fig 3: Makueni County Pasture Condition, August 2020

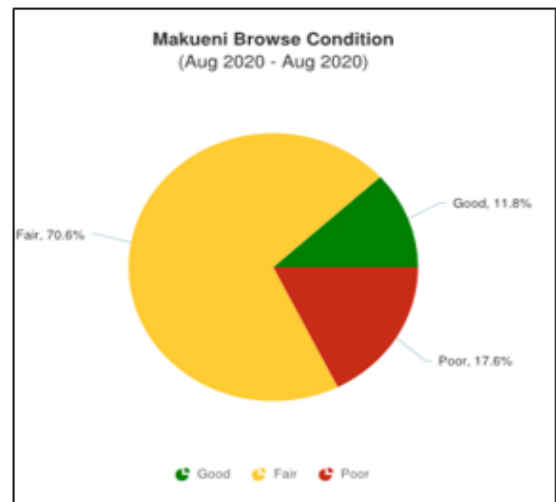


Fig 4: Makueni County Browse Condition, August 2020

WATER RESOURCE

2.2.1 Sources

- The main water sources for both human and livestock consumption were: Rivers at 31.6%, Traditional river-wells at 26.3%, Shallow wells 26.3%, Pan & dams, boreholes and springs each at 5.3% as illustrated alongside in figure 5.
- There was a significant reduction of water capacity water in most major reservoirs like dams and rivers across all the livelihood zones.
- The holding capacity for dams had significantly been reduced by the high siltation levels during the MAM season.
- This implies that the current water sources will last for two to three months.

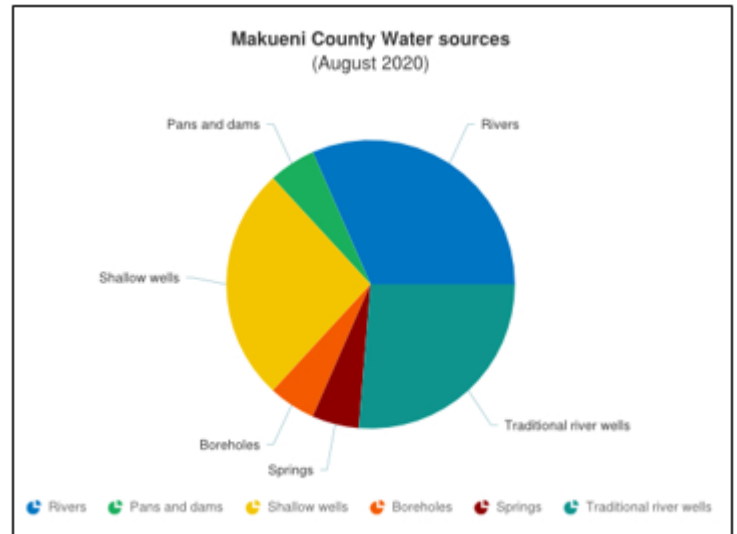


Fig 5: Makueni County Water Sources for August 2020

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 14.6 percent to an average of 4.7 Km.
- Compared to both the long-term, and the good year the current distances were below normal by 20% and 16% respectively.
- The distances are expected to increase more due to the declining water levels and change to alternative water sources.
- The average price of water per 20 litre Jerri cans at the source/water Kiosks was 2-5 Shillings.

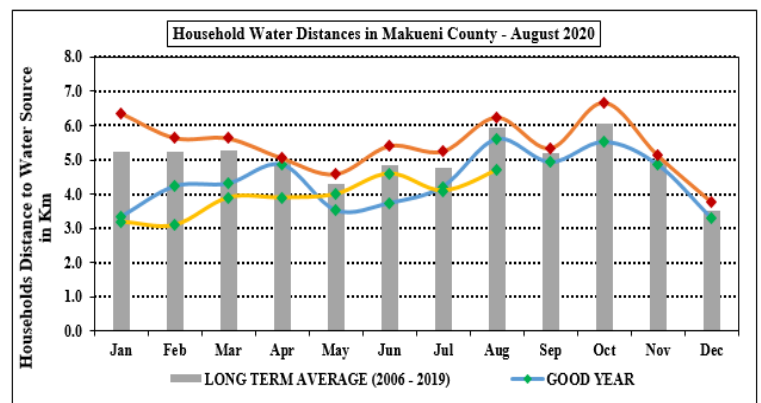


Fig 6: Makueni Household Access to Water, August 2020

2.2.3 Livestock access to water

- The average return distance from the grazing areas to watering points increased by 12.2% to an average of 4.6Km.
- Compared to both the long-term mean and the good year the current distances were below normal by 26% and 21% respectively.
- The increase in distance from that of last month is attributed to the change to alternate water sources since most seasonal rivers had dried up.
- Given the current high heat effect, the distances are expected to increase more in the next one month.

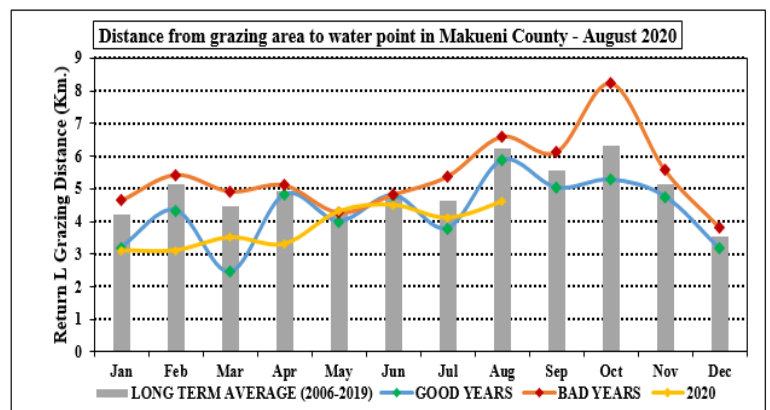


Fig 6: Makueni Average grazing distance, August 2020

2.3 Implication of the above indicators to Food Security

- The declining availability of water and state of pasture is likely to impact negatively on livestock production hence poor household purchasing power.

3.0 PRODUCTION INDICATORS

3.1 LIVESTOCK PRODUCTION

3.1.1 Livestock Body Condition

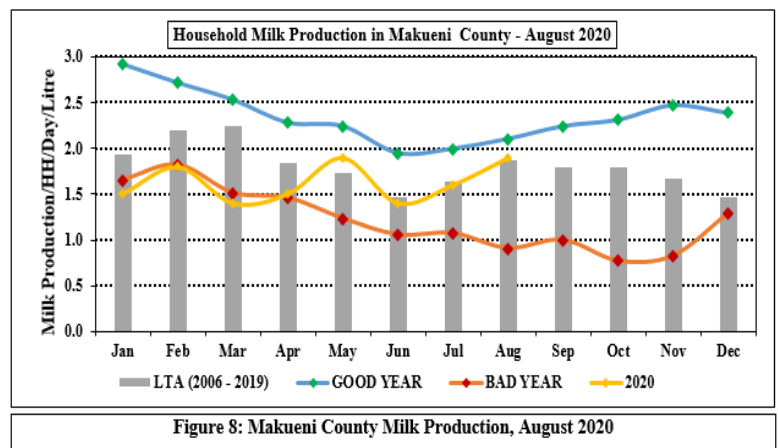
- The livestock body condition ranged from good to fair across all the three livelihood zones attributed to the available pastures (Hay and maize stalks) and water.
- Over 50 percent of the cattle had a good smooth appearance body condition (a score of 5-6) while the remaining 50 percent were at Moderate classification, neither fat nor thin.
- The current condition is normal at this time of the year but it's expected to decline more in the next one month with the drop of the available pastures and water for livestock mostly in the marginal mixed farming livelihood zone.

3.1.2 Livestock Diseases sporadic

- No major cases of livestock diseases apart from few sporadic cases of lumpy skin disease (LSD) in the marginal mixed farming livelihood zone.

3.1.2 Milk Production

- The average Milk production per household per day increased by 12.5 percent to an average of 1.9 litres.
- Compared to the long-term average, the current production was normal at this time of the year but lower than the good year by 9.5 percent.
- The current milk production is attributed to the available maize stalks, pods from pigeon peas, available pasture and water for the livestock.
- Low 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

- During the MAM season, majority of the households had failed to plant their short season crops due to the poor rain distribution across the county and the shading effect of perennial crops i.e. pigeon peas (Planted during 2019 OND season)
- Currently there were no crops in the farms apart from pigeon peas which was at the harvesting stage.
- Farmers were busy ploughing their farms across all the three livelihood as part of the early preparation for October, November, December (OND) season.

4.0 MARKET PERFORMANCE

- The designated livestock markets remained closed across all the three livelihood zone as a mitigation measure by the government to curb the spread of Covid-19. However, normalcy was returning in most markets for food stuff under strict guidelines by both the County government and the ministry health.

4.1 LIVESTOCK MARKETING

4.1.1 Cattle Prices

- The average farm gate price for the cattle was Ksh 21,000 a 14.3 percent decrease from that of last month.
- The 14.3 percent decrease is attributed to the closure of markets across the county as a mitigation measure by the government to curtail the spread of Covid-19.
- Compared to a similar time during the wet year the recorded farm gate price was comparatively normal.

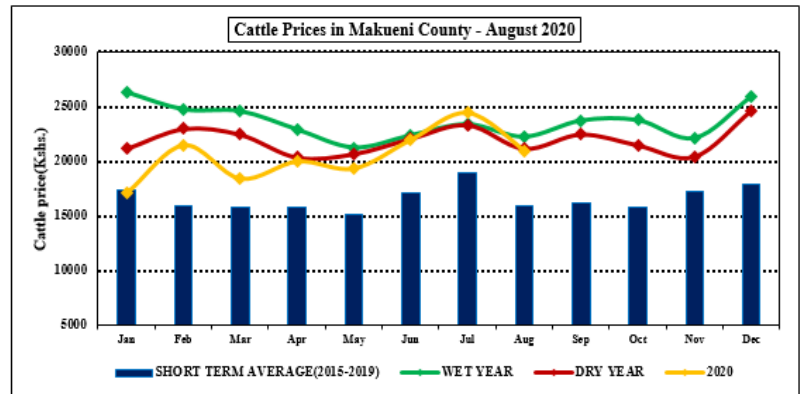


Figure 9: Makeni County Cattle prices, August 2020

4.1.2 Goat Prices

- The average farm gate price remained stable at KSh4, 000. The stability in price is attributed to the prevailing good body condition and the increased demand at the farm gate level.
- The prices are expected to improve more once the market operations resume paving way to both internal and external buyers.
- 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.

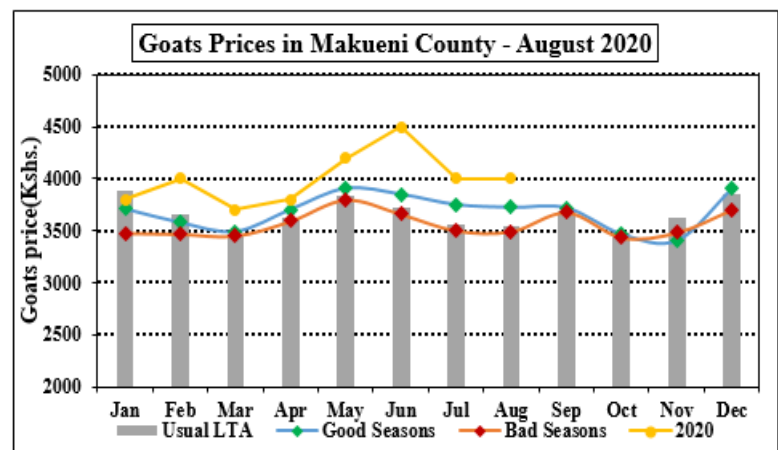


Figure 10: Makeni County Goat prices, August 2020

4.2 CROP PRICES

4.2.1 Maize

- The average price of maize (at the cereals shops) per kilogram remained stable at KSh35.
- Compared to a similar time during the wet season the price was slightly low by 7.9 percent.
- The stability in price is attributed to the available stocks (from both the previous OND and MAM season) and the imports from counties in western Kenya.
- However, the price is on an increase trend mostly in the MMF where there was minimal harvest. In the mixed farming livelihood zone, farmers were hoarding the produce in anticipation that the market price will go up.

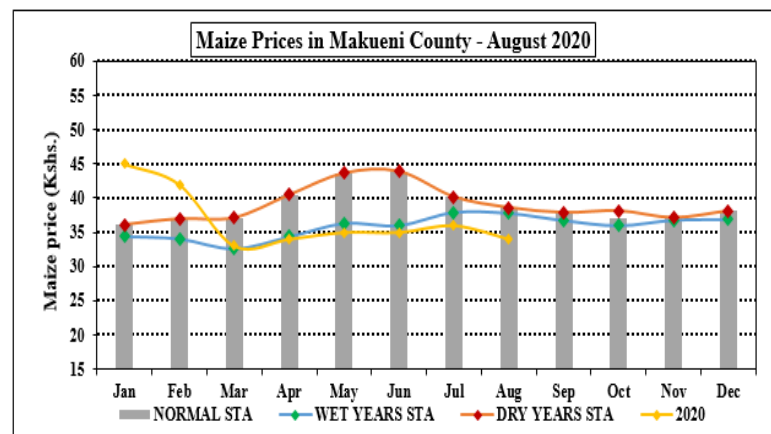


Figure 11: Makeni County Maize Prices, August 2020

4.2.2 Beans

- The average price for beans at the cereals shop remained stable at an average of Ksh 90.
- Compared to both the short-term average and the good months, the current price was above normal by 7.2 percent.
- The high prices in the last four months is attributed to the decline in supply of the commodity into the local markets.
- The price is expected to increase steadily towards the end of the year as the supplies decline.
- High prices were recorded in cereal shops within the Marginal Mixed Farming zone where poor harvest of the produce was witnessed.

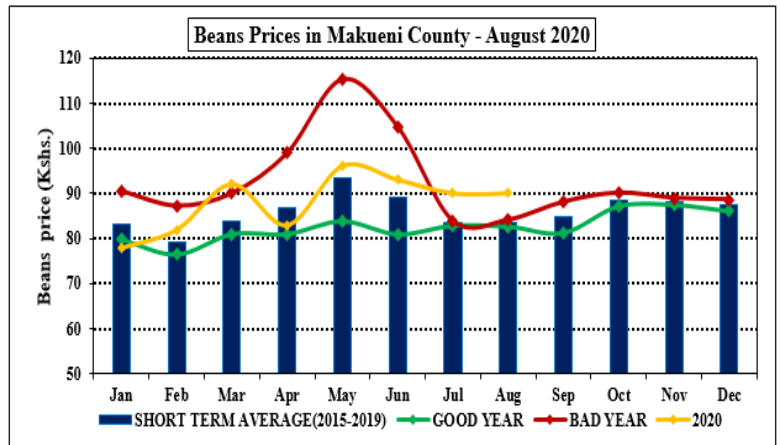


Figure 12: Makueni County Beans Prices, August 2020

4.3 Livestock Price Ratio/Terms of Trade

- The current terms of trade increased by 7.3 percent from the previous month to an average of 118.
- The current TOT was based on the prevailing goat farm gate prices against the maize price.
- Compared to both the good year and the (2016-2019) long term average of 91, the current TOT was 33 percent above average. This implied that from the sale of one goat, a farmer could purchase 118 kg of maize.

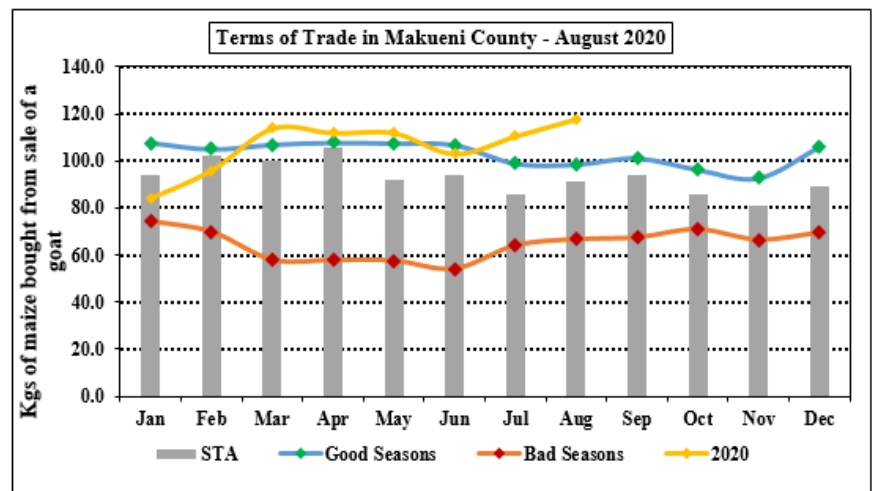


Figure 13: Makueni County Terms of Trade, August 2020

4.3.3. Implications of the above indicators on Food security.

- The closure of livestock markets has had a negative impact on the prices hence affecting the household purchasing power negatively.
- Given the unstable livestock marketing environment and the high maize prices, the households purchasing power is expected to decline in the coming months 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 stable at 0.9 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.

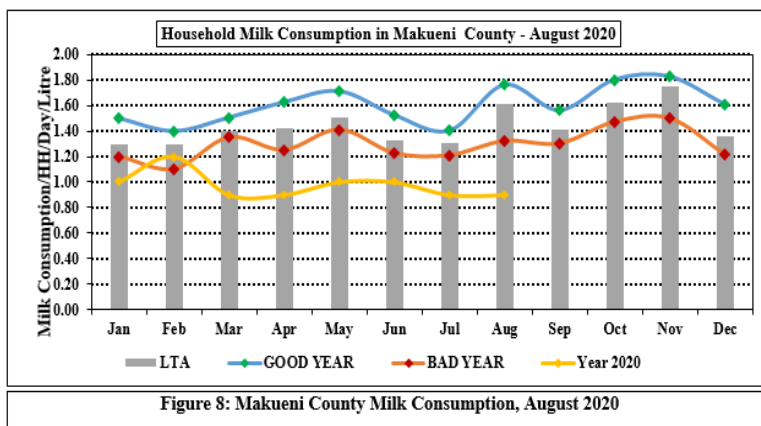


Figure 8: Makueni County Milk Consumption, August 2020

5.2 FOOD CONSUMPTION SCORE

- In the mixed farming livelihood zone 71.6% of households had an acceptable Food Consumption score while the remaining 28.4% were at the borderline. In the marginal mixed farming livelihood zone 67.9% had an acceptable Food Consumption score, 30.8% of households were at the borderline while the remaining 1.3% had a poor consumption score.
- 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.

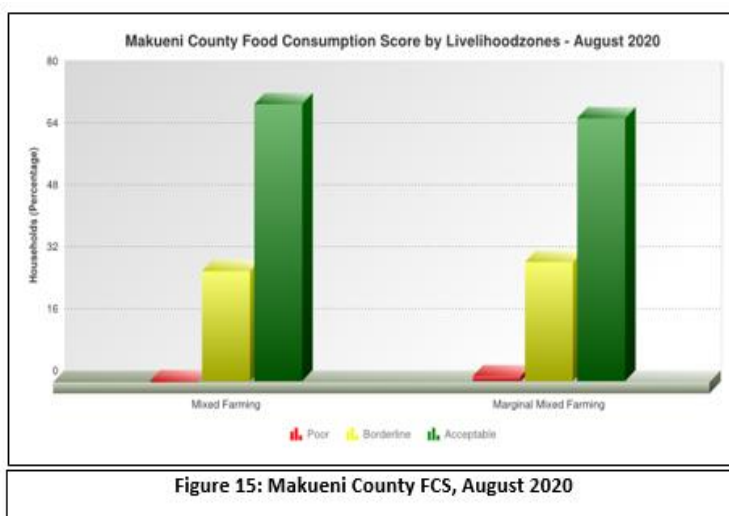


Figure 15: Makueni County FCS, August 2020

5.3 HEALTH AND NUTRITION STATUS

5.3.1 Nutrition Status

- Family Muac data for the month of August was collected by the mothers/caregivers where a total of 208 under-fives were sampled.
- From the analysis of the family Muac data, the proportion of children (under-fives) were well nourished was 97.8 percent (green) while only 2.2 percent of the sampled children were at risk for acute malnutrition (represented by yellow).
- The 2.2 percent should be counselled and followed-up for Growth Promotion and Monitoring (GPM).
- The improvement in MUAC trend is attributed to the availability of citrus fruits, pigeon peas and the constant milk consumption over the last three months mostly for the under-fives.

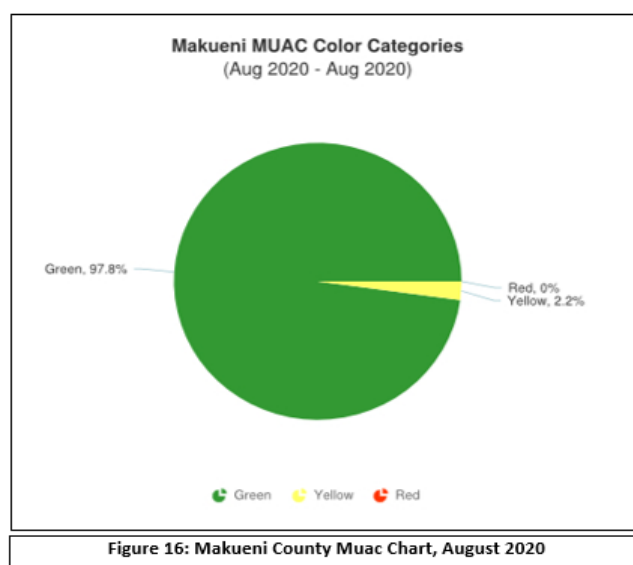


Figure 16: Makueni County Muac Chart, August 2020

5.4 COPING STRATEGIES

- Average mean CSI for the county decreased by 11.14 percent to an average of 6.86
- The reduced coping strategies index (rCSI) in the marginal mixed farming zone was 12 while in the Mixed farming livelihood zone it was 2.3
- 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.

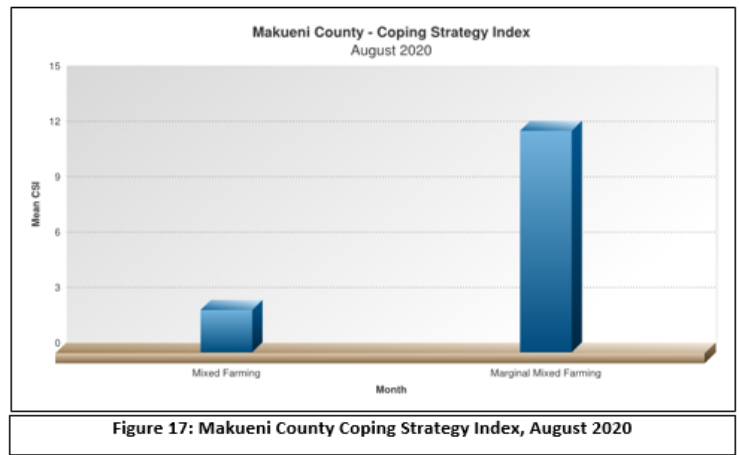


Figure 17: Makueni County Coping Strategy Index, August 2020

6.0 CURRENT INTERVENTION MEASURES (ACTION)

6.1 NON-FOOD INTERVENTIONS

- Donation of Ksh 2.2 million by Safaricom in partnership with the county government to rebuild houses of the 99 families that were affected by floods in areas of Kilungu, Kaiti, Kitundu and Sultan Hamud.
- 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.
- Inputs subsidy (seeds, fertilizer, hermetic bags, pesticides) by KCEP-CRAL
- Capacity building of farmers on climate smart agriculture and post-harvest management by DOALF and partners
- Promotion of drought tolerant crop production by DOALF and partners such as ASDSP, KCEP-CRAL, AVCD, KCDMS, NCPB and NARIGP.

6.2 COVID-19 INTERVENTIONS

- Donations of Personal protective equipment (PPE) worth 1.5 million to the frontline health workers by Safaricom. The PPEs include 1270 surgical gowns, 177 N-95 masks, 170 KN95 masks and 250 pairs of protective goggles.
- Cash donation of Ksh 1 million by Kenya commercial bank group to boost the County's preparedness in fighting Corona Virus.

6.3 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 Kenya Meteorological Department weather forecast for August, the sunny intervals are likely to remain over the next few weeks. This is likely to contribute to the reduction in water levels especially for surface water sources.

Livestock body condition especially for goats and sheep is expected to remain good, thus terms of trade may not change significantly. However, the body condition for cattle is likely to deteriorate as a result of the fast-deteriorating pasture quantities and quality. This in turn is expected to affect the selling prices of the cattle negatively.

Earth dam and pan water levels have reduced significantly in the Marginal Mixed Farming zone and parts of Mixed Farming(Food crop/livestock/cotton)zone which could lead to an increase in watering distances in the zone.

Pigeon peas which have been harvested at full maturity will boost household food security.

8. RECOMMENDATIONS

Immediate/Short term contingency measures

- Arrangement to support the affected population with means to acquire food either through a cash transfer programme or distribution of food commodities.
- Opening up of the livestock markets for communities to trade. This will ensure that there is recovery of the local economy from the effects of Covid-19 outbreak. Brokers have taken advantage of the closed markets by offering farmers low prices.
- County government should firm up plans 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 is prone to drought.
- Ensuring proper functioning of markets for major food commodities in the rural areas. This will be ensured that the proper measures for containing the spread of Covid-19 are adhered to.