




A Vision 2030 Flagship Project



National Drought Management Authority
KITUI COUNTY
DROUGHT EARLY WARNING BULLETIN FOR AUGUST 2020

AUGUST EW PHASE	Early Warning Phase Classification		
Drought Status: NORMAL  Shughull za kawaida	LIVELIHOOD ZONE	EW PHASE	TRENDS
	Marginal Mixed Farming	Normal	Worsening
	Mixed Farming	Normal	Stable
	County	Normal	Worsening

Drought Situation & EW Phase Classification

Biophysical Indicators

- The month of August was dry in most parts of the county and this is normal.
- The vegetation greenness was above normal.

Socio-Economic Indicators (Impact Indicators)

Production Indicators

- Harvesting of food crops was on going across the livelihood zones. However, there was wilting of late planted crops.
- Livestock body condition was good to fair with normal cases of livestock migration and no deaths because of drought reported. However, confirmed cases of trypanosomiasis disease and deaths in cattle was reported.
- Milk production was below normal.

Access Indicators

- Terms of trade were favourable compared to long term mean.
- Milk consumption was below normal.
- Water distances were within normal range.
- The cost of water at source was normal.

Utilization Indicators

- The percentage of children at risk of malnutrition was within normal range.
- Households employed consumption based coping mechanisms less frequently compared to normal.

Biophysical Indicators	Value	Normal ranges
Rainfall (% of normal)	118	80-120
VCI-3 month	97.13	35-50
Forage Condition	Good to fair	Good to fair
Production indicators	Value	Normal ranges
Livestock Body Condition	Good to fair	Good to fair
Milk Production (in litres)	1.1	≥ 1.2
Livestock Migration Pattern	Normal	Normal
Livestock Deaths (from Drought)	No death	No death
Access Indicators	Value	Normal ranges
Terms of Trade (ToT)	114	≥ 94
Milk Consumption (in litres)	0.6	≥ 0.8
Return Distance to Water Sources (in km)	5.6	≤ 6.7
Cost of Water at Source (20 litres Jerry can)	2-5	≤ 5Ksh
Utilization indicators	Value	Normal ranges
Nutrition Status, MUAC (% at risk of malnutrition)	2.9	≤ 7.7
Coping Strategy Index (rCSI)	3.5	≤ 5.2

<ul style="list-style-type: none"> ▪ Short rains harvests ▪ Short dry spell ▪ Reduced milk yields ▪ Increased HH Food Stocks ▪ Land preparation 	<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 								
Dry Season	Long Rains	Dry Cool Season	Short Rains Season								
Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec

1.0 CLIMATIC CONDITIONS

1.1 RAINFALL PERFORMANCE

- The said period was generally dry with light showers across the livelihood zones as shown in figure 1.
- On average the county recorded 2.4 milimetres of rainfall for first and second dekad of August compared to 1.7 and 1.5 milimetres normally. This was 118 percent of normal rainfall recorded in August.

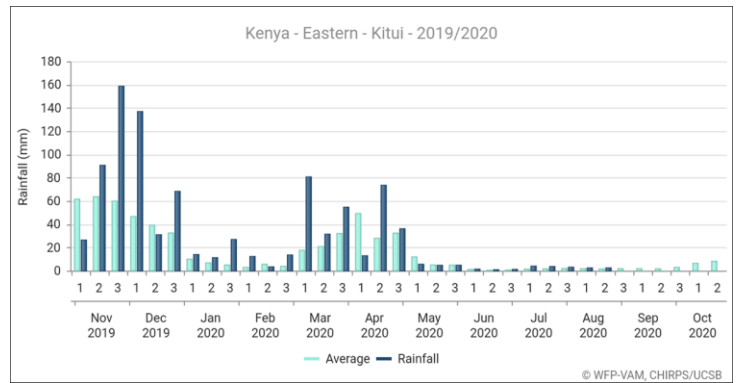


Figure 1: Rainfall Distribution for the Year 2020

2.0 IMPACTS ON VEGETATION AND WATER

2.1 VEGETATION CONDITION

2.1.1 Vegetation Condition Index (VCI)

- The county vegetation greenness increased by 11 percent to stand at a 3 month VCI of 97.13 in August from 86.74 in previous month. This is an indication of vegetation greenness above normal as shown in figure 2.
- Kitui Rural, Kitui West and Kitui East sub counties recorded the highest 3 month VCI at 112.85, 109.24 and 108.47 respectively while Mwingi North sub county recorded the lowest vegetation greenness at a 3 month VCI of 76.84.
- The county vegetation greenness is above the long term average and within the maximum recorded value as shown in figure 3.

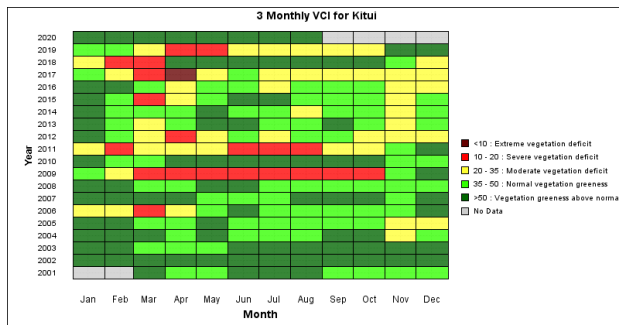


Figure 2: Kitui County 3 Month VCI Matrix

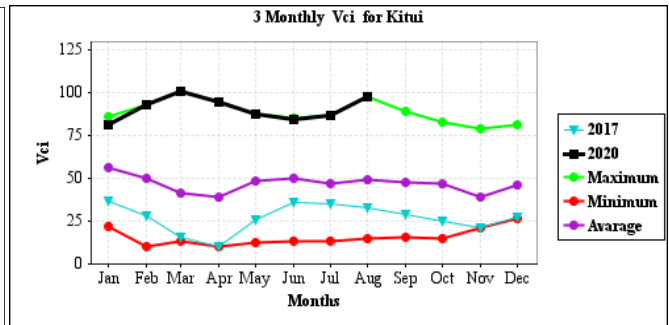


Figure 3: Kitui County 3 Month VCI Trend

2.1.2 Pasture

- Pasture condition ranged from good to fair across the livelihood zones with a declining trend.
- In August, about 81.5 percent of pasture was considered fair in both quality and quantity compared to 50 percent in previous month. The remaining 18.5 percent of pasture was good.
- The available pasture is expected to last for 2-3 months compared to 1-2 months normally.

2.1.3 Browse

- Browse condition was good to fair across the livelihood zones with a declining trend.
- About 37 percent of browse was considered good in August compared to 96 percent in previous month and this was attributed to progression of the dry spell in the county. The remaining 63 of browse was fair in both quality and quantity.
- The available browse is expected to last for the next 3-4 months compared to 2-3 months normally.

2.2 WATER RESOURCE

2.2.1 Sources

- The main water sources for both human and livestock consumption were Boreholes, pans & dams, traditional river wells, boreholes and shallow wells as shown in figure 4.
- Boreholes are more reliable during the dry spell progresses.
- This situation is fairer than normal at this time of the year.
- Most of open water facilities are past 30 percent of their capacity and they are likely to last for 2-3 months across the livelihood zones.

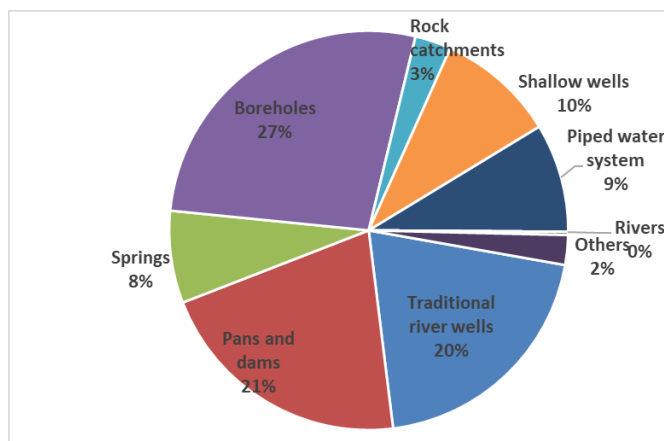


Figure 4: Major Water Sources in Kitui County

2.2.2 Household Access and Utilization

- The average return distances from the households to water sources remained stable at 5.6 km in August compared to 5.5km in previous month.
- Households in Marginal Mixed Farming livelihood zone trekked an average of 6.6 km compared to 4.4 km in Mixed Farming livelihood zone.
- The current water distance is lower than the long-term mean and the distance for wet year by 16 and two percent respectively as shown in figure 5.

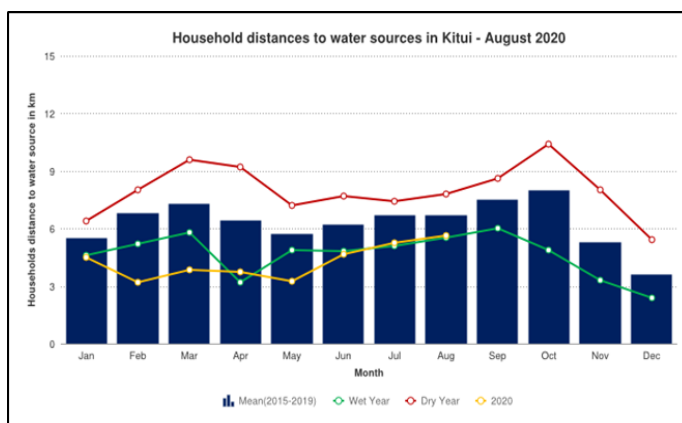


Figure 5: Household Access to Water

- Water consumption per person per day remained at 17 litres in August as it was in previous month and about 13 percent of household were treating their water before consuming in August compared to 17 percent in previous month. Water treatment chemicals (12 percent) and boiling (one percent) were the most preferable treatment methods.
- The proportion of households buying water stood at 45 percent in August compared to 48 percent in previous month.
- The average price of water per 20-litre Jerry can at source was normal at 2-5 shillings. In some areas, the price of water was one shilling.

2.2.3 Livestock Access

- The average return distances from livestock grazing areas to watering points remained stable at 5.7km in August compared to stand at 5.8km previous month.
- Livestock in Marginal Mixed Farming livelihood zone trekked a distance of 6.7 km compared to 4.5km in Mixed Farming livelihood zone.
- Most livestock were watered on alternate days across the livelihood

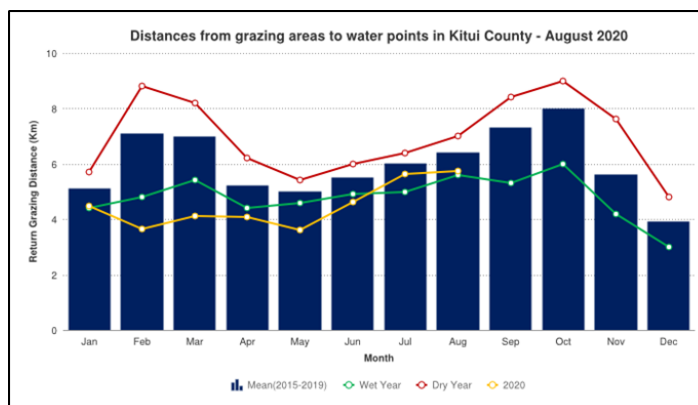


Figure 6: Average-Grazing Distances

zones and this is normal at this time of the year.

- The current average distance from livestock grazing areas to watering points is 11 percent lower than the long-term mean as shown in figure 6.

2.3 Implication of the Above Indicators to Food Security

- Progression of dry spell will lead to declining availability of water and pasture which is likely to impact negatively on livestock productivity.

3.0 PRODUCTION INDICATORS

3.1 LIVESTOCK PRODUCTION

3.1.1 Livestock Body Condition

- Livestock body condition was good to fair for all species across the livelihood zones with a deteriorating trend.
- On average, 52 percent of cattle had good smooth appearance body condition in August compared to 77 percent in previous month. The remaining 48 percent of livestock had moderate (neither fat nor thin) body condition.

3.1.2 Livestock Diseases

- Outbreak of trypanosomiasis has been reported in Mutha ward, Kitui South Sub County where there were 23 confirmed cases and 31 deaths.

3.1.3 Milk Production

- The average daily milk production per household increase by 22 percent to stand at 1.1 litres in August compared to 0.9 litres in previous month.
- Households in Marginal Mixed Farming livelihood zone produced an average of 1.3 litres per day compared to 0.9 litres in Mixed Farming livelihood zone.
- The current average daily milk production per household is lower than the long-term average and wet year by 21 and 39 percent respectively as shown in figure 7. This is mainly attributed to household preference of holding bulls for farming and reduced calving rates.

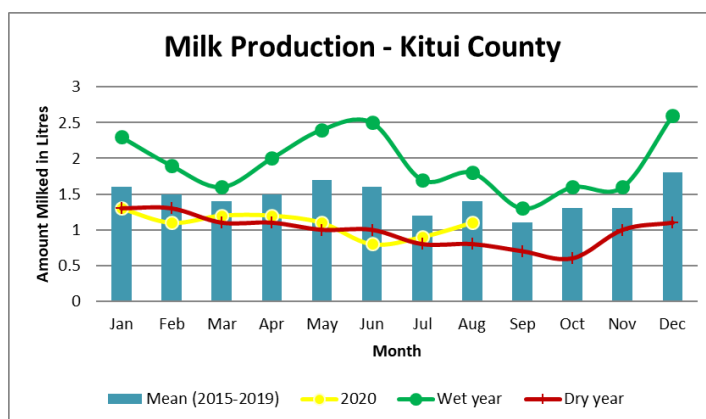


Figure 7: Milk Production per Household per Day

3.2 RAIN-FED CROP PRODUCTION

3.2.1 Stage and Condition of Food Crops

- The major crops planted in Mixed Farming livelihood zone were maize, cowpeas, beans, pigeon peas and green grams while green grams, sorghum, millet, cowpeas and maize were planted in the Marginal Mixed Farming livelihood zone.
- Majority of crops especially the pigeon peas were at harvesting stage and in fair condition.
- However, some of the late planted crops mainly cowpeas wilted due to moisture stress and pigeon peas were more vegetative than productive.
- In addition to rain-fed cropping, farmers along main rivers (Athi, Tana, Tiva and Thua) had horticultural crops that were at various stages of development.

3.3 Implication of the above indicators to food security

- Harvesting of food crops is expected to boost household food stocks hence reduce overreliance of market for food commodities. This will stabilize household purchasing power.

- However, cases of livestock diseases might have a negative impact on household food consumption patterns.

4.0 MARKET PERFORMANCE

4.1 LIVESTOCK MARKETING

4.1.1 Cattle Prices

- The average market price of cattle remained stable to stand at Ksh.29, 093 in August from Ksh. 28, 989 in previous month. This is attributed to stability in cattle body condition.
- Cattle prices were higher in Mixed Farming livelihood zone at Ksh. 31,633 compared to Ksh. 25,917 in Marginal Mixed Farming livelihood zone.
- The current market price of cattle is 18 and 27 percent higher than the long-term mean and 2019 price respectively as shown in figure 8.

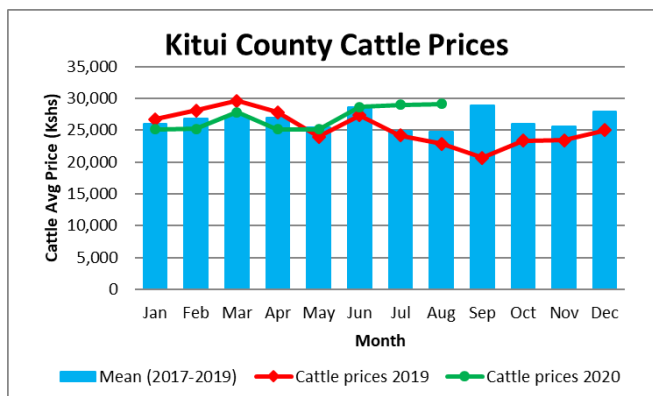


Figure 8: Cattle Prices

4.1.2 Small Ruminants Prices (Goat price)

- The average market price of goat remained stable at Ksh.3, 741 in August from Ksh.3, 789 in previous month. This is attributed to increased demand of goats at farm gate and markets.
- Mixed Farming livelihood zone recorded a higher price of Ksh. 4,042 compared to Ksh. 3,375 in Marginal Mixed Farming livelihood zone.
- The current market price of goat is four percent above normal as shown in figure 9.

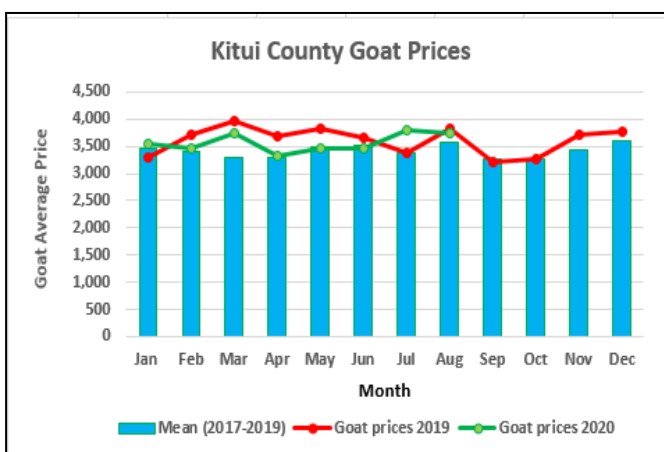


Figure 9: Goat Prices

4.2 CROP PRICES

4.2.1 Maize

- There was a slight decrease on the average market price of maize by three percent to stand at Ksh. 33 per kilogram in August from Ksh.34 in previous month.
- There was no major variance in price across the livelihood zones.
- The current market price of maize is 18 and 27 percent lower than the long-term average and 2019 price respectively as shown in figure 10.

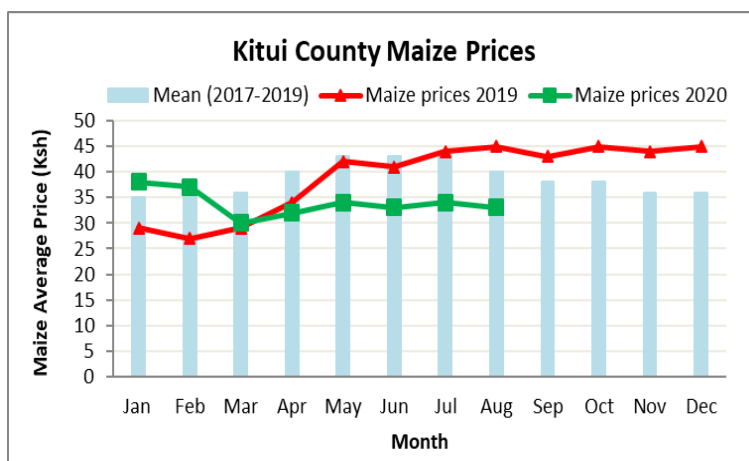


Figure 10: Maize Prices

- This is due to the availability of the commodity in the market from outside the county.

4.2.2 Beans

- The average market price of beans decreased by six percent to stand at Ksh.92 in August from Ksh.98 in previous month. The decrease in price can be attributed to the availability of substitute pulses especially pigeon peas at household level.
- Beans price was higher in Marginal Mixed Farming livelihood zone at Ksh.96 compared to Ksh.88 in Mixed Farming livelihood zone.
- The current beans price is 10 percent higher than the long-term mean and similar to 2019 price as shown in figure 11.

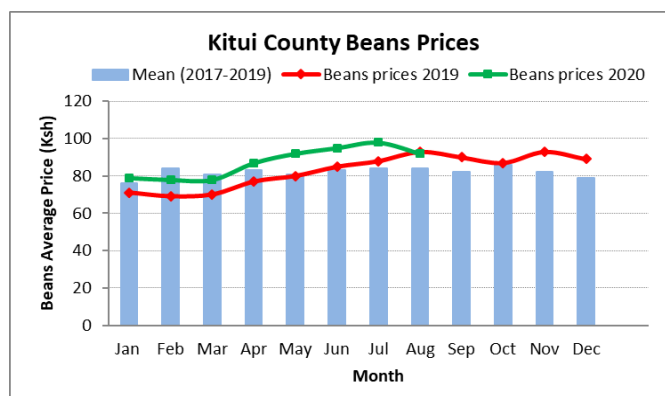


Figure 11: Beans Prices

4.3 Livestock Price Ratio/Terms of Trade

- Terms of trade, increased by two percent to stand at 114 in August compared to 111 in previous month. This implies that, households were able to purchase 114 kilograms of maize from earnings of a goat in August compared to 111 kilograms in previous month.
- The sale of one goat would enable a household in Mixed Farming livelihood zone to purchase 130 kilos of maize compared to 104 kilos in Marginal Mixed Farming livelihood zone.
- The current terms of trade is 20 percent higher than the long term mean but 10 percent lower than the wet year as shown in figure 12.

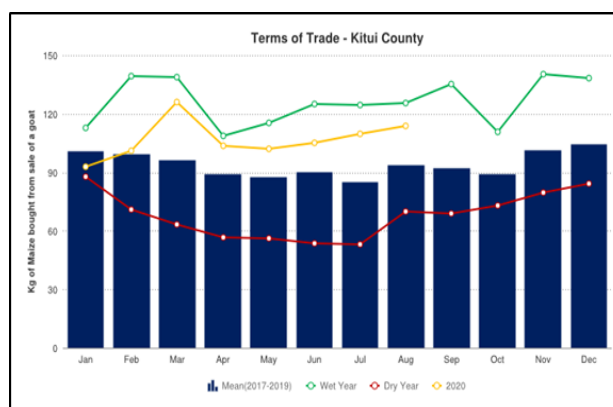


Figure 12: Terms of Trade

4.4 Implication of the above indicators to food security

- On-going harvest of food crops, stability of both crop and improved livestock prices is likely to boost household purchasing power.

5.0 FOOD CONSUMPTION AND NUTRITION STATUS

5.1 MILK CONSUMPTION

- The average daily milk consumption per household remained stable at 0.6 litres in August as that in previous month.
- Milk consumption was higher in Marginal Mixed Farming livelihood zone at 1.2 litres compared to 0.3 litres in Mixed Farming livelihood zone.
- The current milk consumption is 25 and 45 percent lower than the long-term average and 2019 litres respectively as shown in figure 13 and this is due to low milk produced compared to normal.

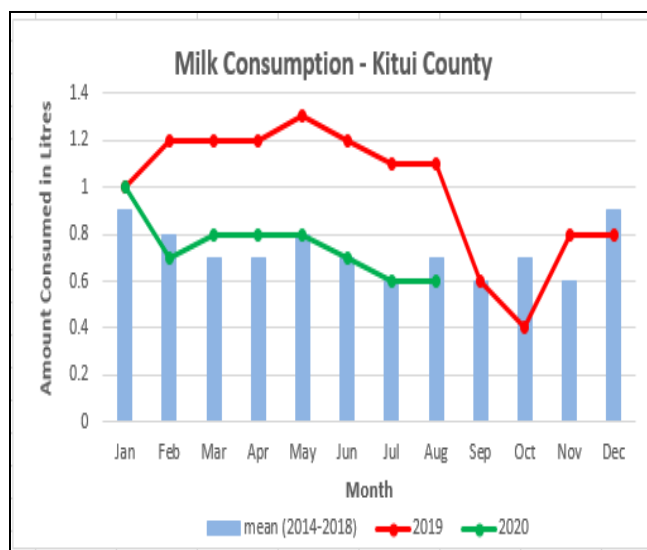


Figure 13: Milk Consumption per Household per Day

5.2 FOOD CONSUMPTION SCORE

- The proportion of households in acceptable food consumption category reduced to 85 percent in August from 87 percent in previous month. This is an indication of declining household dietary diversity.
- The remaining 15 percent of the households were in borderline food consumption category as shown in figure 14.
- Majority (89 percent) of the households in Mixed Farming Livelihood zone were in acceptable food consumption category compared to 82 percent in Marginal Mixed Farming livelihood zone.

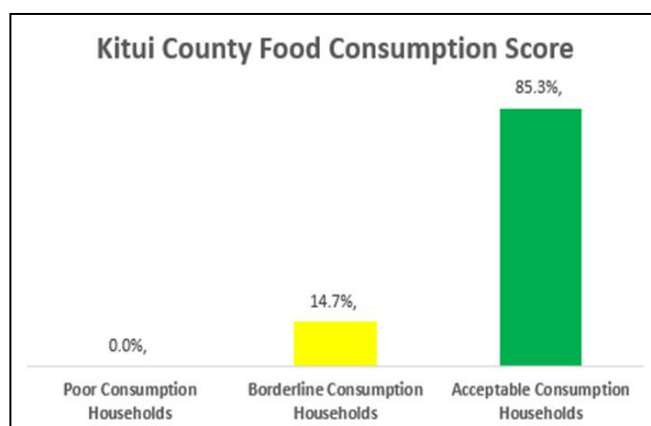


Figure 14: Food Consumption Score

5.3 HEALTH AND NUTRITION STATUS

5.3.1 Nutrition Status

- The proportion of children at risk of malnutrition reduced by 3.7 percent to stand at 2.9 percent in August from 6.6 percent in previous month.
- Moreover, Global Acute Malnutrition (GAM) based on Mid Upper Arm Circumference (MUAC) was at 0.3 percent.
- The current level of children at risk of malnutrition is 5.1 percent lower than the long-term mean as shown in figure 15 and this is attributed to on-going harvest which has improved availability of diversified foods at household level

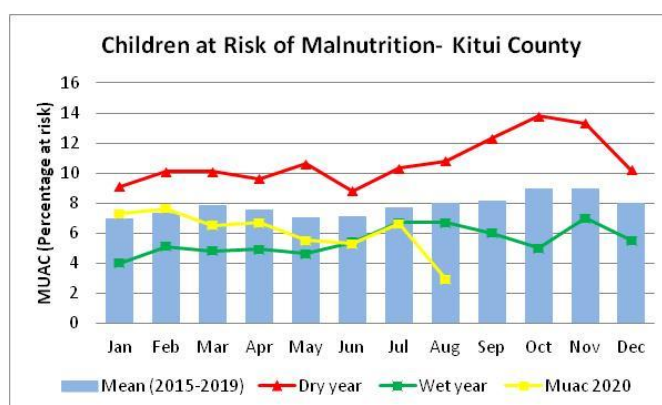


Figure 15: Children at Risk of Malnutrition

5.3.2 Health

- The proportion of children suspected to have fever with chills like malaria, fever with breathing difficulties and diarrhoea stood at 1.3, 0.3 and 1.3 in August compared to 1.1, 2.2 and 0.4 percent in previous month respectively.

5.4 COPING STRATEGIES

- The mean of reduced coping strategy index (rCSI) remained stable at 3.5 in August compared to that in previous month.
- Households in Marginal Mixed Farming livelihood zone had a high rCSI of 5.1 compared to 1.9 in Mixed Farming livelihood zone. Reliance on less preferred or less expensive food and reduced portion size of meals were the most frequent coping mechanisms adopted across the livelihood zones.

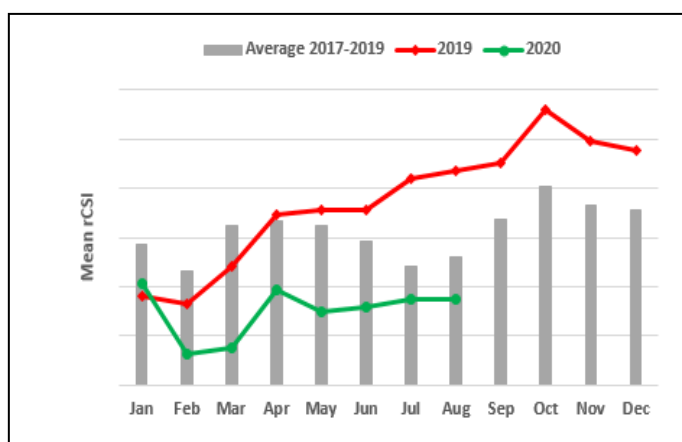


Figure 16: Reduced Coping Strategy Index (rCSI)

- The current rCSI is 33 percent lower than the long-term mean as shown in figure 16.
- Moreover, about 78 percent of the households were employing none or minimal coping mechanisms to cope with lack of food or money to buy food in August compared to 83 percent in previous month. The remaining 12 and 10 percent of the households were employing stress and crisis coping mechanisms respectively.

6.0 CURRENT INTERVENTION MEASURES

6.1 NON-FOOD INTERVENTIONS

- Promotion of high value horticulture crops, mango production & value addition, Promotion of viable and equitable commercialization of the agricultural sector through value chain development and strengthening sorghum & millet value chains across the county by County Government of Kitui in collaboration with various partners.
- Rehabilitation of water supplies, drilling of boreholes and construction of earth dams by County Government of Kitui in collaboration with various partners.
- Vitamin A Supplementation/Deworming, Growth Monitoring, Iron and Folic acid supplementation (IFAS) by Ministry of Health supported by development partners.

6.2 FOOD INTERVENTIONS

- Therapeutic integrated management of acute malnutrition for the under-fives, pregnant and lactating mothers [supplementary feeding program (SFP)], Outpatient therapeutic program (OTP) and Stabilization centres by Ministry of Health supported by several partners.

7.0 EMERGING ISSUES

7.1 Insecurity/Conflict/Human Displacement

- Reported normal in migration of livestock from neighbouring Tana River County through Mutha ward, Kitui South Sub County.

7.2 FOOD SECURITY PROGNOSIS

- The weather outlook for September 2020 published by Kenya Meteorological Department, issued on 31st August 2020 indicates that, the county is likely to remain generally sunny and dry throughout the forecasted period. This will lead to declining water availability and accessibility condition together with livestock feeds. Livestock productivity is expected to decline hence lower household purchasing power and food consumption patterns.
- Based on TAMSAT-ALERT Soil Moisture Forecast released on 1st July 2020, Kitui County is likely to experience average to above average soil moisture conditions, this will boost vegetation condition hence impact positively on availability of livestock feeds.
- Based on available information from the Ministry of Health and leading local and international health experts including the World Health Organization (WHO), the number of confirmed COVID-19 cases are likely to rise between June and September due to both the spread of the virus and increasing testing. In this respect, more stringent measures to curb the spread of the virus are likely to be employed and the current restrictions are likely to remain in place and eased from October onwards. More households are likely to lose their livelihoods hence affecting negatively on their food security status.
- Based on Kenya Food Security Outlook for June 2020 to January 2021, Kenya's maize supply is expected to be adequate to meet the national consumption throughout the scenario period despite border closures and restrictions on movement as a measure to curb the spread of corona virus which will slow down cross-border trade in food commodities. Thus, maize supply will be filled by local production and regional imports. This will stabilize staple food prices thus boost household purchasing power and access to diversified foods.
- Increased upsurge of livestock in-migration will result to accelerated depletion of rangeland resources leading to increased risk of resource-based conflicts between in-migrating herders

and farmers. Moreover, there is a likelihood of upsurge of livestock pests and diseases would affect negatively on livestock productivity.

- On-going harvest of food crops will marginally boost household food consumption patterns.

8.0 RECOMMENDATIONS

Immediate/Short term

- Intensify livestock disease control measures
- Promote home-based water treatment and conservation measures such as storage facilities.
- Repair and maintenance of water points.
- Promotion of post-harvest management.
- Promotion of livestock feed storage and management practices.
- Community sensitization on COVID-19 preventive measures.
- Mapping of vulnerable and at-risk households, affected food systems and responding through safety-nets
- 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.
- Enhancing Soil analysis and crops suitability surveys in all sub counties to support irrigation activities.
- Community sensitization on soil conservation structures.

Livestock Sector

- Community sensitization on the importance of fodder preservation and controlled grazing.
- Pasture establishment and seed bulking.
- Livestock development programs to improve production (goats, chicken, cattle).

Health and Sanitation Sector

- Sensitization on hygiene and sanitation at household level with emphasis on Water treatment.
- Carry out routine disease surveillance.
- Improve Vitamin A supplementation and de-worming to children under five years
- Improve vector control activities.
- Promotion and sensitization of kitchen garden
- Continuous sensitization on staying safe from the COVID-19 as the infections are continuously rising

Education Sector

- Promotion of water harvesting, storage and management in schools.

Peace Building Initiatives

- Peace building and conflict management initiatives.