




A Vision 2030 Flagship Project



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

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

Drought Situation & EW Phase Classification

Biophysical Indicators

- The month of May 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

- Crops were mainly at knee high/flowering stage and in fair condition.
- Livestock body condition was good to fair with no abnormal cases of livestock migration and deaths as a result of drought. However, suspected cases of lumpy skin disease were 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)	79	80-120
VCI-3 month	87.54	35-50
Forage Condition	Good to fair	Good to fair
Production indicators	Value	Normal ranges
Maize Crop Condition	Fair	Good to fair
Livestock Body Condition	Good to fair	Good to fair
Milk Production (in litres)	1.1	≥ 1.7
Livestock Migration Pattern	Normal	Normal
Livestock Deaths (from Drought)	No death	No death
Access Indicators	Value	Normal ranges
Terms of Trade (ToT)	102	≥ 87
Milk Consumption (in litres)	0.8	≥ 0.9
Return Distance to Water Sources (in km)	3.2	≤ 5.7
Cost of Water at Source (20 litres Jerry can)	2-5	≤ 5Ksh
Utilization indicators	Value	Normal ranges
Nutrition Status, MUAC (% at risk of malnutrition)	5.5	≤ 7.0
Coping Strategy Index (rCSI)	3.0	≤ 6.5

<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 onset of March-April-May 2020 long rains was early in the first dekad of March compared to second dekad normally while cessation was timely in the third dekad of April as shown in figure 1.
- The month of May was dry in most parts of the county however the county recorded an average of 5.5, 4.6 and 4.7 milimetres of rainfall in first, second and third dekad of May compared to 11.8, 4.9 and 4.8 milimetres normally. This was 79 percent of normal rainfall recorded in May.

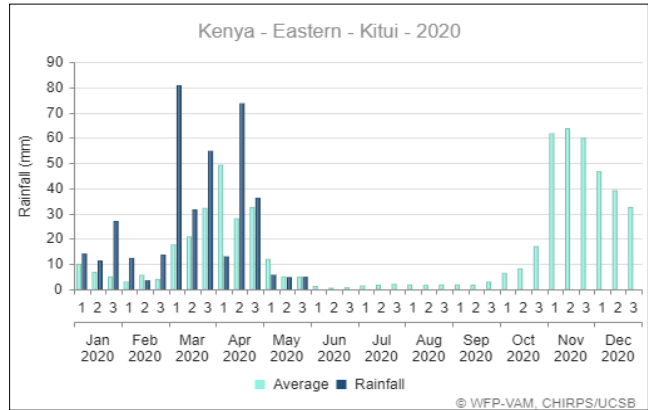


Figure 1: Rainfall Distribution for the Year 2020

2.0 IMPACTS ON VEGETATION AND WATER

2.1 VEGETATION CONDITION

2.1.1 Vegetation Condition Index (VCI)

- The county vegetation greenness declined marginally by eight percent to stand at a 3 month VCI of 87.54 in May from 94.7 in previous month. This is an indication of vegetation greenness above normal as shown in figure 3.
- Kitui Rural, Mwingi West and Kitui South sub counties recorded the highest 3 month VCI at 93.61, 93.55 and 92.24 respectively while Mwingi North sub county recorded the lowest vegetation greenness at a 3 month VCI of 73.2.
- The county vegetation greenness is above the long term average and within the maximum recorded value as shown in figure 2.

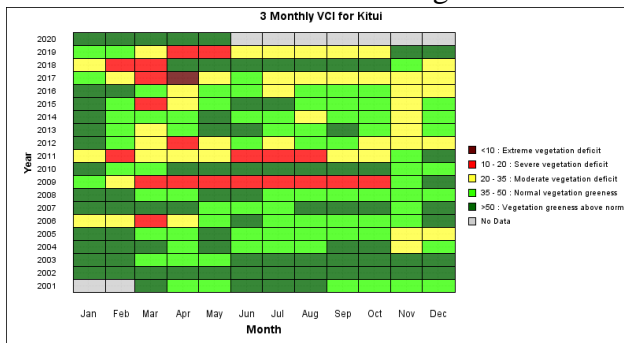


Figure 3: Kitui County 3 Month VCI Matrix

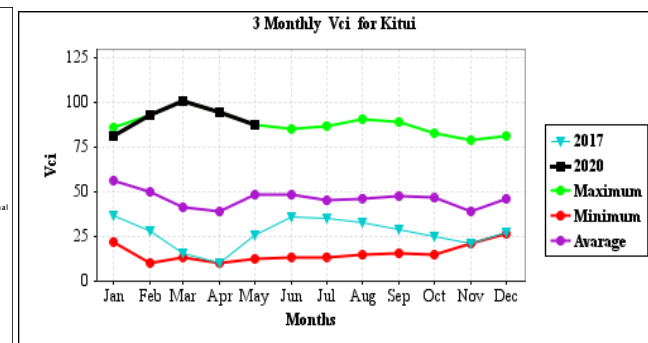


Figure 2: Kitui County 3 Month VCI Trend

2.1.2 Pasture

- Pasture quality and quantity ranged from good to fair across the livelihood zones with a declining trend.
- About 78 percent of pasture was considered good in May compared to 85 percent in previous month. The remaining 22 percent of pasture was fair in both quality and quantity.
- The available pasture is expected to last for 3-4 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 91 percent of browse was considered good in both quality and quantity in May compared to 99.9 percent in previous month. The remaining nine percent of browse was fair in both quality and quantity.
- This situation is better compared to normal season.

2.2 WATER RESOURCE

2.2.1 Sources

- The main water sources for both human and livestock consumption were pans & dams, boreholes, shallow wells and traditional river wells as shown in figure 4.
- This situation is normal at this time of the year.
- Most of open water facilities are past 60 percent of their capacity and they are likely to last for 3-4 months across the livelihood zones.

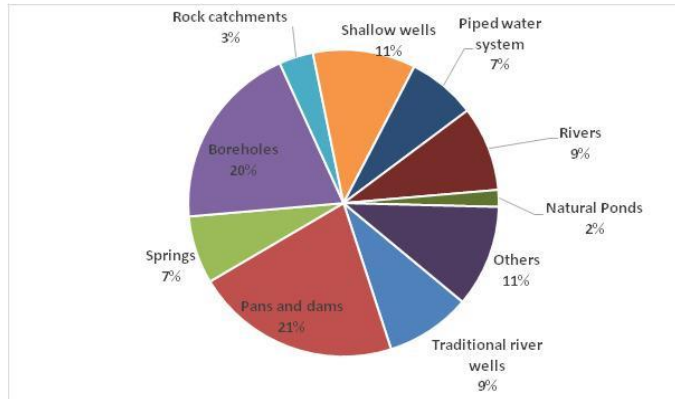


Figure 4: Major Water Sources in Kitui County

2.2.2 Household Access and Utilization

- The average return distances from the households to water sources remained stable at 3.2km in May from 3.7km in previous month.
- Households in Marginal Mixed Farming livelihood zone trekked an average of 4.2km compared to 2.5km in Mixed Farming livelihood zone.
- The current water distance is lower than the long-term mean and the distance for wet year by 44 and 35 percent respectively as shown in figure 5.
- Water consumption per person per day remained stable at 16 litres in May as it was in previous month and about nine percent of household were treating their water before consuming. Water treatment chemicals (seven percent) and boiling (two percent) were the most preferable treatment methods.
- The proportion of households buying water stood at 17 percent in May as it was 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.

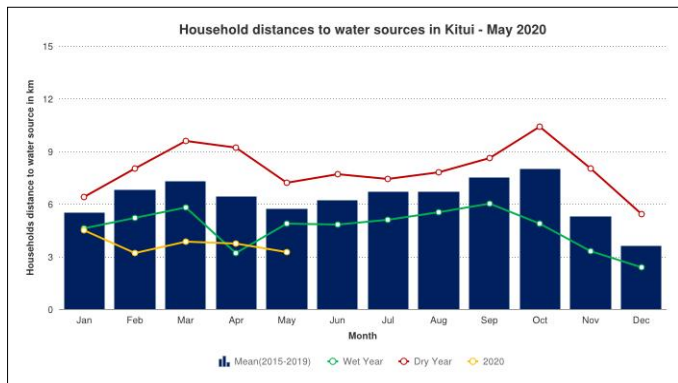


Figure 5: Household Access to Water

2.2.3 Livestock Access

- Livestock average return distances from grazing areas to watering points remained stable at 3.6km in May from 4.1km in previous month.
- Livestock in Marginal Mixed Farming livelihood zone trekked a distance of 4.8km compared to 2.4km in Mixed Farming livelihood zone.
- Livestock were being watered daily across the livelihood zones and this is normal at this time of the year.
- The current average distance from livestock grazing areas to watering points is 28 and 22 percent lower than the long term mean and the distance for wet year respectively as shown in figure 6.

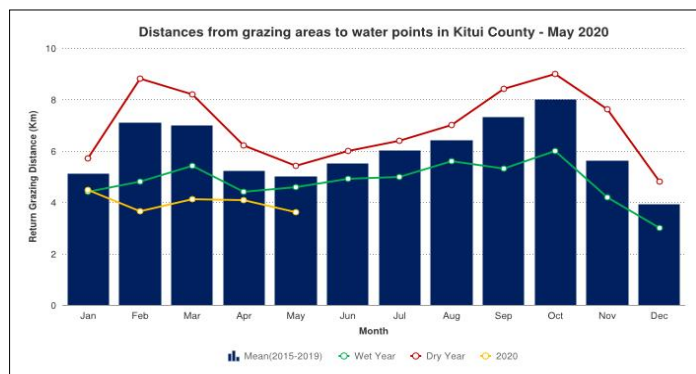


Figure 6: Average Grazing Distances

2.3 Implication of the Above Indicators to Food Security

- Availability of water and forage for livestock is likely to impact positively on livestock productivity hence household purchasing power.

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, 83 percent of cattle had good smooth appearance body condition in May compared to 89 percent in previous month. The remaining 17 percent of livestock had moderate (neither fat nor thin) body condition.

3.1.2 Livestock Diseases

- Suspected cases of lumpy skin disease (LSD) were reported in Kitui Central (Kyangwithya West, Kyangwithya East), Kitui West (Kauwi, Matinyani) and Mwingi Central (Kivou, Waita) sub counties.

3.1.3 Milk Production

- The average daily milk production per household remained stable at 1.1 litres in May compared to 1.2 litres in previous month.
- Households in Marginal Mixed Farming livelihood zone produced an average of 1.4 litres per day compared to 0.7 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 35 and 54 percent respectively as shown in figure 7. This is mainly attributed to household preference of holding bulls for farming and reduced calving rates.

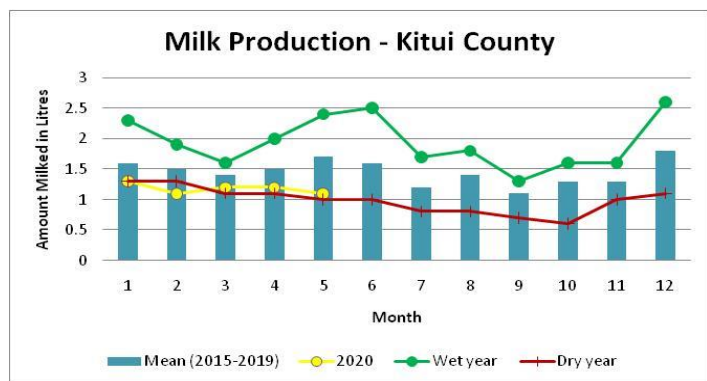


Figure 7: Milk Production per Household per Day

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 were at knee high/flowering stage. However, the early planted crops were at grain filling stage and in fair condition.
- 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

- Livestock productivity is expected to remain stable following availability of livestock forage and water. However, wilting of crops is expected following reduced soil moisture content and progression of the dry spell which might impact negatively on crop production.

4.0 MARKET PERFORMANCE

4.1 LIVESTOCK MARKETING

4.1.1 Cattle Prices

- The average market price of cattle remained stable at Ksh.25,143 in May from Ksh.25,148 in previous month. This is attributed to stability in cattle body condition.
- Cattle prices were higher in Marginal Mixed Farming livelihood zone at Ksh.25,500 compared to Ksh.25,417 in Mixed Farming livelihood zone.
- The current market price of cattle is normal compared to the long-term mean as shown in figure 8.

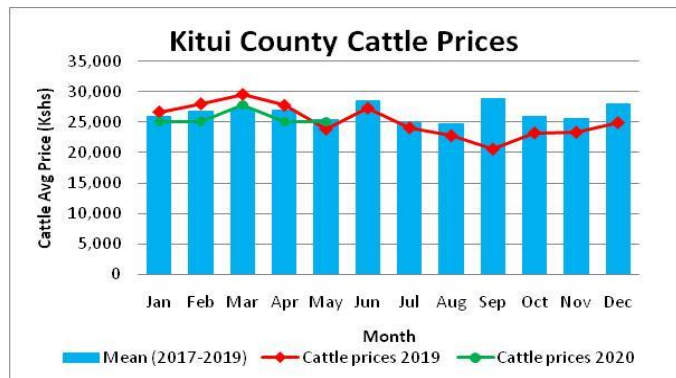


Figure 8: Cattle Prices

4.1.2 Small Ruminants Prices (Goat price)

- The average market price of goat remained stable at Ksh.3,471 in May from Ksh.3,328 in previous month. This is attributed to stability in goat body condition as a result of availability of browse and water.
- Mixed Farming livelihood zone recorded a higher price of Ksh.3,517 compared to Ksh.3,438 in Marginal Mixed Farming livelihood zone.
- The current market price of goat is normal at this time of the year but nine percent lower than the 2019 price as shown in figure 9.

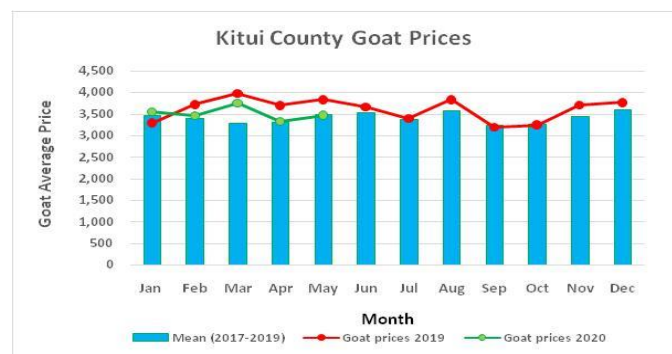


Figure 9: Goat Prices

4.2 CROP PRICES

4.2.1 Maize

- The average market price of maize per kilogram increased by six percent to stand at Ksh.34 in May from Ksh.32 in previous month and this was mainly attributed to increased demand of the commodity in the market and reduced household stocks.
- Mixed Farming livelihood zone recorded a higher price of Ksh.35 compared to Ksh.34 in Marginal Mixed Farming livelihood zone.
- The current market price of maize is 21 and 19 percent lower than the long-term average and 2019 price respectively as shown in figure 10.

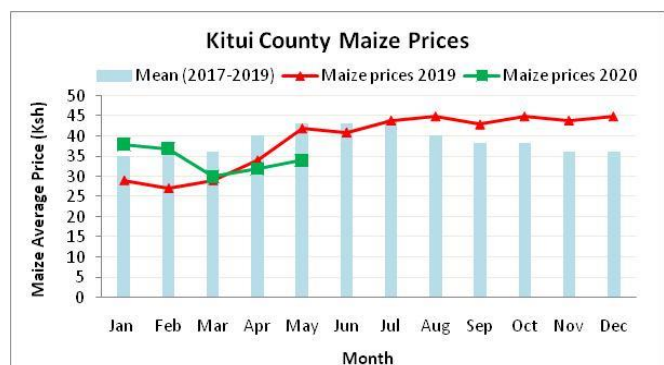


Figure 10: Maize Prices

4.2.2 Beans

- The average market price of beans increased by six percent to stand at Ksh.92 in May from Ksh.87 in previous month and this was mainly attributed to increased demand of the commodity in the market and reduced household stocks.
- Beans price was higher in Marginal Mixed Farming livelihood zone at Ksh.96 compared to Ksh.83 in Mixed Farming livelihood zone.
- The current beans price is 14 percent higher than the long-term mean as shown in figure 11.

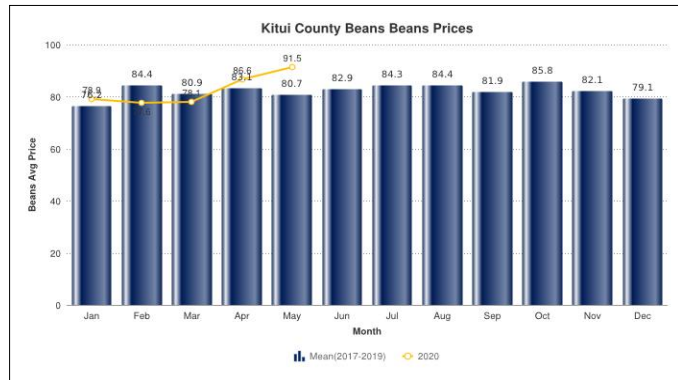


Figure 11: Beans Prices

4.3 Livestock Price Ratio/Terms of Trade

- Terms of trade remained stable to stand at 102 in May compared to 104 in previous month. This implies that, households were able to purchase 102 kilos of maize from earnings of a goat in May compared to 104 kilos in previous month.
- The sale of one goat would enable a household in Marginal Mixed Farming livelihood zone to purchase 102 kilos of maize compared to 100 kilos in Mixed Farming livelihood zone.
- The current terms of trade is 17 percent higher than the long term mean but 11 percent lower than the wet year as shown in figure 12.

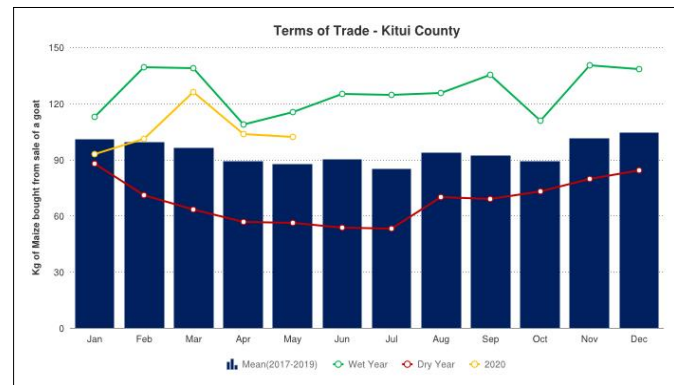


Figure 12: Terms of Trade

4.4 Implication of the above indicators to food security

- Livestock prices are expected to remain stable while food prices are expected to increase further following increased demand for food commodities from the market. However, expected harvest may stabilize household food security.

5.0 FOOD CONSUMPTION AND NUTRITION STATUS

5.1 MILK CONSUMPTION

- The average daily milk consumption per household remained stable to stand at 0.8 litres in May as it was in previous month.
- Milk consumption was higher in Marginal Mixed Farming livelihood zone at 0.9 litres compared to 0.7 litres in Mixed Farming livelihood zone.
- The current milk consumption is 11 and 38 percent lower than the long term average and 2019 litres respectively as shown in figure 13 and this is attributed to low milk production compared to normal.

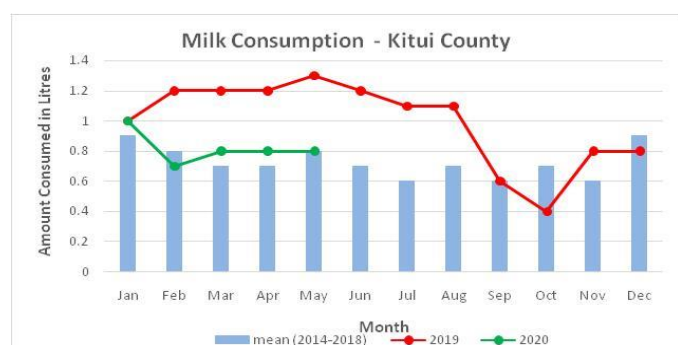


Figure 13: Milk Consumption per Household per Day

5.2 FOOD CONSUMPTION SCORE

- The proportion of households in acceptable food consumption category remained stable at 81 percent in May from 82 percent in previous month. This is an implication of improved household dietary diversity.
- The remaining 19 percent of the households were in borderline food consumption category as shown in figure 14.
- Majority (87 percent) of households in Mixed Farming livelihood zone were in acceptable food consumption category compared to 77 percent in Marginal Mixed Farming livelihood zone.

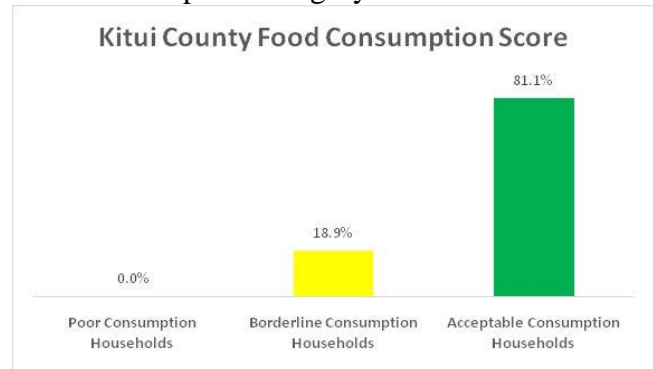


Figure 14: Food Consumption Score

5.3 HEALTH AND NUTRITION STATUS

5.3.1 Nutrition Status

- The proportion of children mid at risk of malnutrition (MUAC 125-134mm) declined to 5.5 percent in May from 6.7 percent in previous month. This is attributed to improved availability of diversified food commodities at household level and nutrition interventions.
- However, 0.4 percent of the children were moderately (MUAC 115-124mm) malnourished but none of the children was severely (MUAC<115mm) malnourished.
- The current level of children mid at risk of malnutrition is 1.5 percent lower than the long term mean as shown in figure 15.

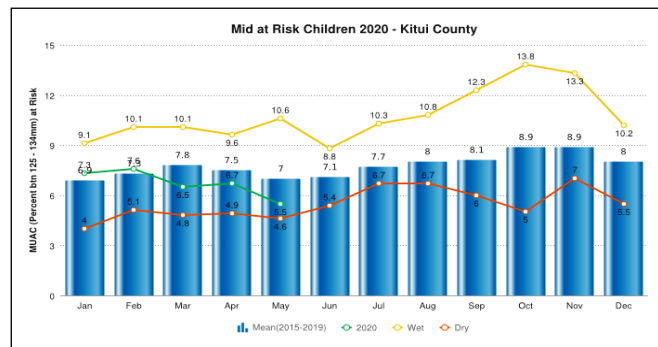


Figure 15: Children at Risk of Malnutrition

5.3.2 Health

- The proportion of children suspected to have fever with chills like malaria, fever with breathing difficulties and diarrhoea stood at 3.3, 2.5 and 0.4 percent in May compared to 1.3, 3.0 and 0.8 percent in previous month respectively.

5.4 COPING STRATEGIES

- The mean of reduced coping strategy index (rCSI) declined by 23 percent to stand at 3.0 in May from 3.9 in previous month.
- Households in Marginal Mixed Farming livelihood zone had a high rCSI of 4.6 compared to 0.8 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.
- The current rCSI is 54 percent lower than the long term mean as shown in figure 16.
- Moreover, about 86 percent of the households were employing none or minimal coping mechanisms to cope with lack of food or money to buy food in May compared to 81 percent in

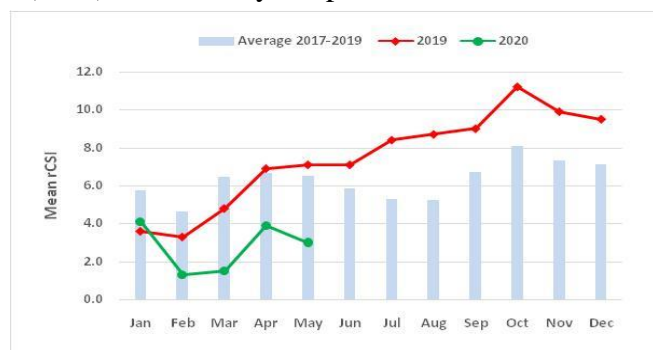


Figure 16: Reduced Coping Strategy Index (rCSI)

previous month. The remaining 8 and 6 percent of the households were employing stress and crisis coping mechanisms respectively.

6.0 CURRENT INTERVENTION MEASURES

6.1 NON-FOOD INTERVENTIONS

- Baby friendly community initiatives targeting all sub counties apart from Kitui Rural by County Government of Kitui in collaboration with World Vision Kenya.
- Development and distribution of weather advisories by Kenya Meteorological Department.
- Culling of mature stocks and urgent harvesting of pasture and storage by County Government of Kitui targeting all sub counties.

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

- Cases of human-wildlife conflict were reported in Kitui East and Mwingi Central sub counties after buffalos were suspected to have destroyed some farms and killed one person.

7.2 FOOD SECURITY PROGNOSIS

- The rainfall outlook for June 2020 published by Kenya Meteorological Department, issued on 30th May 2020 indicates that, the county is likely to remain generally sunny and dry. This might lead to wilting of late planted crops hence reduced crop production.
- Price of staple food commodities is expected remain high following reduced production and market interruptions due to effects of corona virus (COVID-19) pandemic.
- However, availability and accessibility of fodder and water is expected to boost livestock productivity hence stabilize household purchasing power.
- Presence of COVID-19 and livestock disease outbreaks might as well impact negatively on household food security.

8.0 RECOMMENDATIONS

Immediate/Short term

- Intensify livestock disease control measures.
- Routine monitoring of locust invasion situation.
- Promote home-based water treatment and conservation measures such as storage facilities.
- Repair and maintenance of water points.
- Promotion of water harvesting, storage and management.
- 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.

Medium and Long term

Water Sector

- Promotion of water harvesting, storage and management.
- Create awareness on the importance of protecting water sources.

Agriculture Sector

- Capacity building on safe use of chemicals by National Government, County Government and development partners.
- Enhance asset creation for households especially Farm ponds and water pans for food production by National Government, County Government and development partners.
- Enhance irrigated Agriculture by conducting Soil analysis and crops suitability surveys in all by National Government, County Government and development partners.
- 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.
- Enhance HGSMP in all public institutions.

Peace Building Initiatives

- Peace building and conflict management initiatives.