

National Drought Management Authority

MERU 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

Rainfall: August was characterized by cold weather condition with light showers of rainfall being received in the Sub counties.

Vegetation condition: Above normal greenness condition was recorded across all livelihood zones. Pasture condition was fair to poor while browse condition ranged from good to fair across all the livelihood zones with exception of Agro- pastoral livelihood zone where condition was fair to poor.

Socio Economic Indicators (Impact Indicators)

Production Indicators: Land clearance and preparation for the short rain season was ongoing. Livestock body condition was good to fair for all species. There were no Cases of livestock diseases.

Access Indicators: Average return distance to water sources for both households and livestock remained stable but with increasing trend. Terms of Trade remained favorable. Milk consumption per HH per day remained stable.

Utilization Indicators: Nutritional status of children below the age of five years was stable and within the normal ranges. Food consumption score fell within acceptable score while majority of households applied reduced consumption based coping strategies across the livelihood zones.

Early Warning Phase Classification

Livelihood Zone	Phase	Trend
Mixed Farming	Normal	Deteriorating
Agro - Pastoral	Normal	Deteriorating
Rain Fed Cropping	Normal	Stable
County	Normal	Deteriorating
Biophysical Indicators	Value	Normal Range/ Value
Rainfall (% of Normal)	77	80 - 120
VCI-3Month	80.57	35 - 50
Production indicators	Value	Normal
Maize Crop Condition	No crops	No crops
Livestock Body Condition for cattle	Good	Good
Milk Production per HH/ day	1.6	1-2Litres
Livestock Migration Pattern	Normal	Normal
Access Indicators	Value	Normal
Terms of Trade (ToT)	176.6	72.8
Milk Consumption per HH/ day	1.3	1.6 Litres
Return HHs distance to water sources	7.2	8 Km
Water source return distance from grazing areas	10.5	21.5 Km
Cost of water (20 litres)	2.50	Kshs 3.00 - 5.00
Utilization indicators	Value	Normal
Nutrition Status, MUAC (% at risk of malnutrition)	7% yellow 93% green	
Copying strategy Index(CSI)	6.44	<15

<ul style="list-style-type: none"> Short rains harvests Increased HH Food Stocks Short dry spell Reduced milk yields 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 Increased HH Food Stocks A long dry spell Land preparation Kidding (Sept) 	<ul style="list-style-type: none"> Short rains Planting/weeding
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Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
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1. CLIMATIC CONDITIONS

1.1 RAINFALL PERFORMANCE

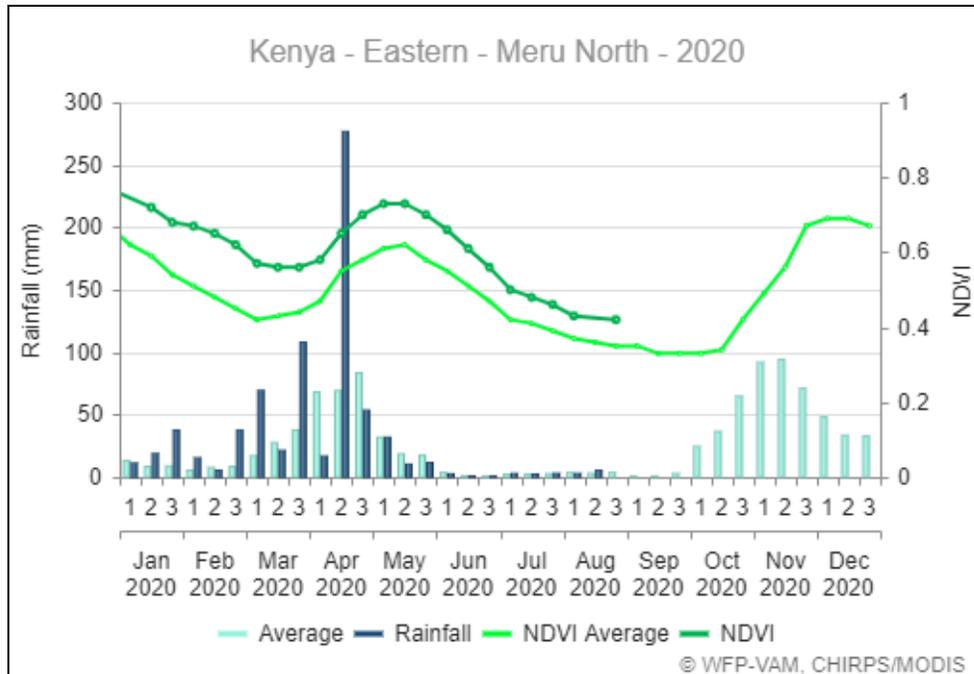


Figure 1: Rainfall estimates in Meru North

- From the figure 1 shown above, dekadal rainfall for estimate (RFE) amounts for the first and second dekads were normal when compared to their respective long-term dekadal rainfall for estimate (RFE) averages. The County received an average of 3.99 mm of rainfall in the Month of August compared to normal average amount of 3.11 mm for the same period.
- The rains received were erratic with poor temporal and spacial distribution across the livelihood zones
- Normalized Difference Vegetation Index (NDVI) for the first and second dekads were above normal when compared to their respective long term dekadal NDVI values.

2. IMPACTS ON VEGETATION AND WATER

2.1 VEGETATION CONDITION

2.1.1 Vegetation Condition Index (VCI)

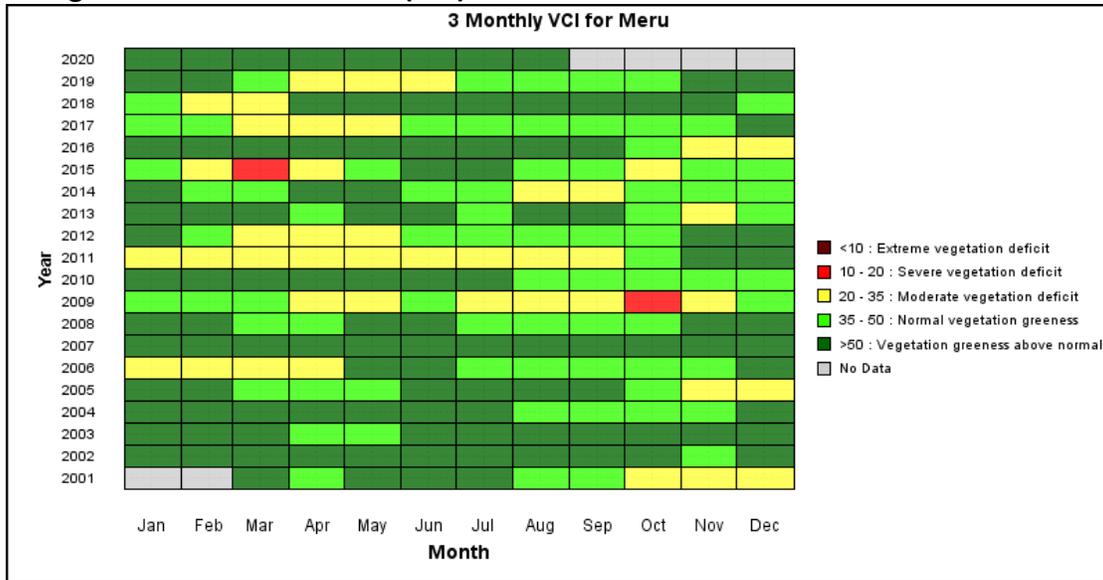


Figure 2: Three-monthly VCI for Meru County [Source: MODIS Data]

- From the figure {2} shown above, the County vegetation condition in the month under review is within vegetation greenness above normal as depicted by a vegetation condition index (VCI).
- All Sub Counties depicted vegetation greenness above normal.
- The combined 3-month Vegetation Condition Index (VCI) remained stable at 80.75 compared to previous month which was at 74.33.
- The 3-monthly vegetation condition index for Meru Igembe Central was at 88 Igembe North at 72.74, Tigania East at 75.57 while that of Tigania West was at 82.86

2.1.2 Pasture Condition

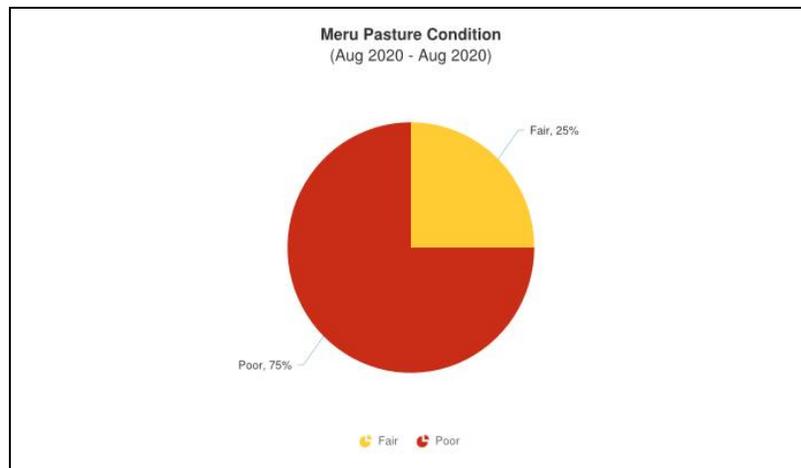


Figure 3: Pasture condition in Meru County

- The pasture condition deteriorated to fair to poor across all the livelihood zones. This is attributed to reduced regeneration and pressure from large stock.
- The pasture condition is below normal at this time of the year.

2.1.3 Browse

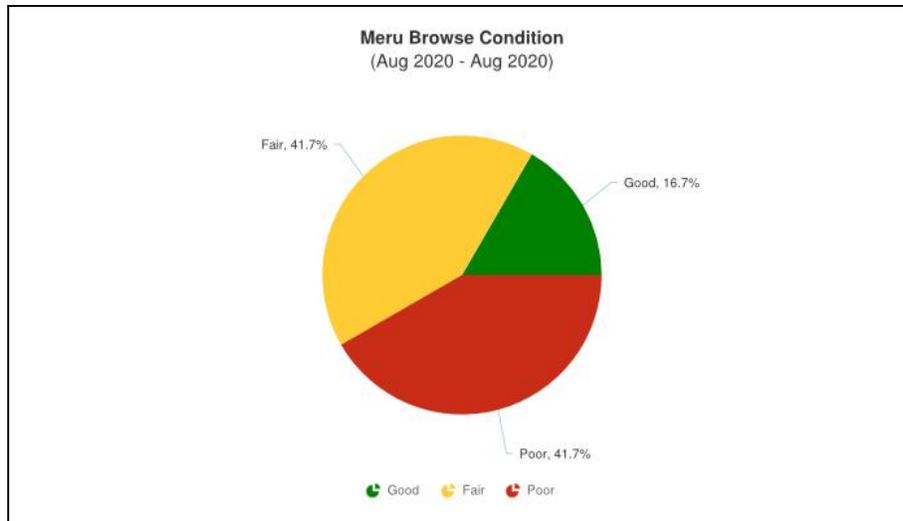


Figure 4: Browse condition in Meru County

- The browse condition was good to fair across all the livelihood zones. However in the Agro pastoral livelihood zones the condition is poor. This is attributed to reduced regeneration and pressure from both large and small stock due to depletion of pasture.
- Browse is expected to last for one months in all the livelihood zones.
- The browse condition is normal at this time of the year.

2.2 WATER RESOURCE

2.2.1 Sources

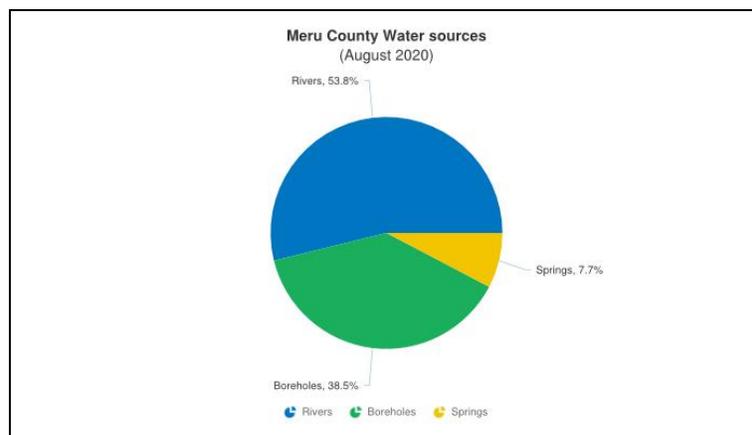


Figure 5: Water sources for Meru County

- Figure 5 shows the three main sources of water were; rivers, boreholes and springs. Other sources included; pans & dams and shallow wells which was also relied upon as a major water source during the review period.
- The quality of water in boreholes was good while that of rivers and other surface sources was poor due to ground rain water run-off.

2.2.2 Household Access to Water

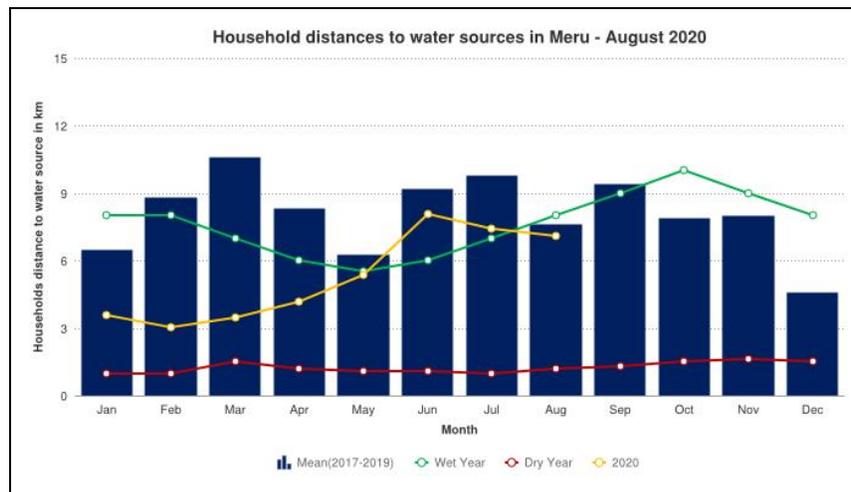


Figure 6: Household average distances to water sources

- From the figure {6} shown above, the average return distances to household water sources remained stable at 7.2 kms compared to previous month 7.4 kms.
- When compared to similar periods, the current household water distance of 7.2 km is 10 percent shorter than the long term average.
- The current average water consumption in all the livelihood zone is 15-20 litres per person per day which is normal.
- The average cost of 20 litre jerry can at water kiosks was ranging between Kshs 2.50 to Kshs 5.00 which is normal at this time of the year
- Based on key informant and households interviews, 40 percent of households treat water.

2.2.3 Livestock Trekking Distance to Water Sources from Grazing Areas

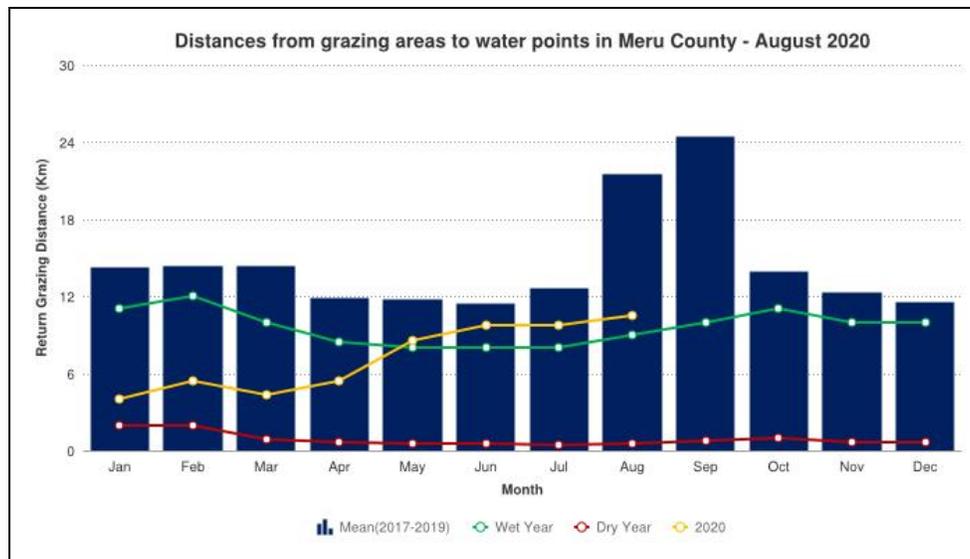


Figure 7: Livestock average return distances to water sources

- From (Figure 7) shown above, the average return distance to water source from grazing areas is 10.5 km which illustrates an increase when compared to the preceding month's distance of 9.1km.
- The increase is attributed to increased distances trekked by animals in search of pasture occasioned by the poor condition of pasture across the livelihood zones.
- The watering frequency for livestock in both livelihood zones was on daily basis.
- The current average return distance to water sources was 51 percent shorter compared to long term average at this time of the year.

3.0 PRODUCTION INDICATORS

3.1 LIVESTOCK PRODUCTION

3.1.1 Livestock Body Condition

- The body condition of cattle and small stock was good to fair across all the livelihood zones which is normal when compared to similar periods.
- With the progression of the long dry spell, the livestock body condition is expected to deteriorate but still be within the good-fair condition range and above normal in all the livelihood zones.

3.1.2 Livestock Diseases

- There were no reported cases of Livestock diseases.
- Routine surveillance measures by the County government continued in the month under review.

3.1.3 Milk Production

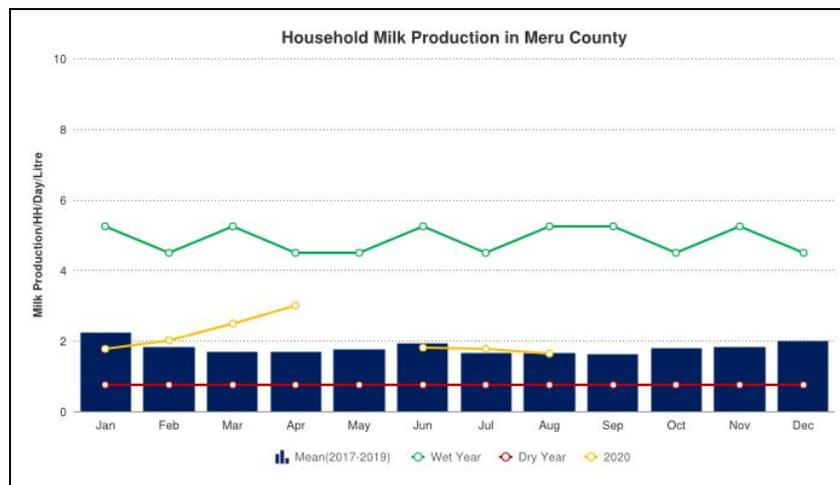


Figure 8: Household milk production in Meru North

- From the figure {8} shown above, the average daily milk production per household per day remained stable at 1.6 litres compared to the previous month at 1.8 litres.
- Milk production was high in Mikinduri Ward where cattle practice zero grazing and are of good breed.
- Current milk production of 1.8 litres is normal when compared to the long term average milk production of 1.7 litres
- Average milk price per litre at household level was at Ksh 60.00 which was normal at this time of the year.

3.2 RAIN-FED CROP PRODUCTION

3.2.1 Stage and Condition of food Crops

- There were no crops at the farms
- Farmers are clearing and preparing farms for the short rain season.

4.0 MARKET PERFORMANCE

4.1 LIVESTOCK MARKETING

4.1.1 Cattle Prices

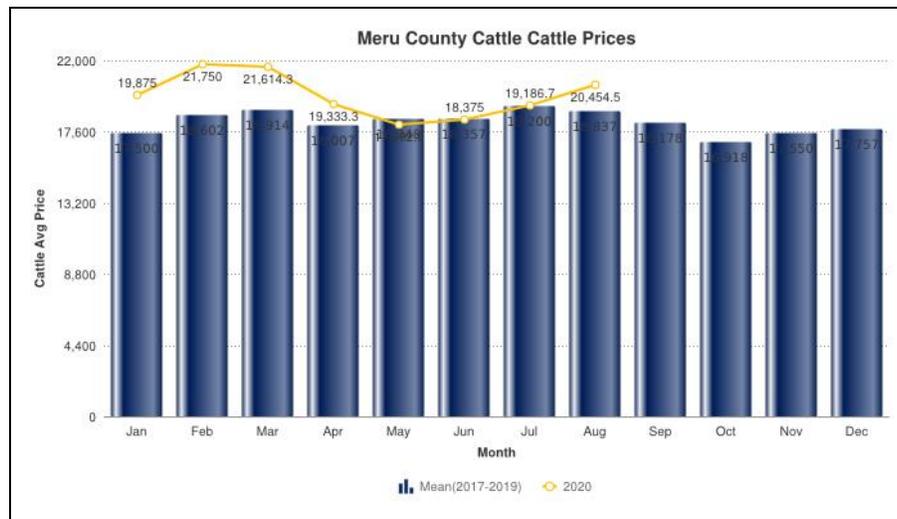


Figure 9: Average Market prices for cattle in Meru County

- From the figure (9) shown above, the average market price of three-year-old cattle for the month under review slightly increased to Kshs. 20,454 when compared to the preceding month of July price of Kshs. 19,186.
- The increase in prices is attributed to low supply and the good body condition of the animals,
- Major livestock markets remained operational and operating under the current COVID-19 pandemic guidelines.
- When compared to similar periods, current cattle price of Kshs. 20,454 is above the long term price of Kshs. 18,375.

4.1.2 Goat Prices

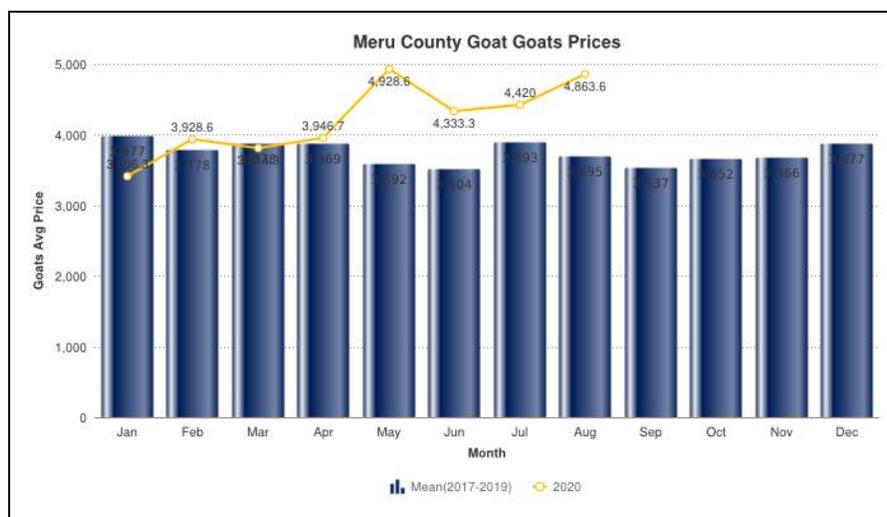


Figure 10: Average market prices for goats in Meru County

- The average market price of a two-year goat slightly increased to Kshs. 4,860 when compared to the preceding month of July price of Kshs. 4,420 as illustrated in the above figure (10).
- When compared to the long term average price of Ksh. 4,860, current goat price is above normal by 32 percent.
- Above normal goat price was attributed to good body condition and high demand and low supply across the livelihood zones.

4.2 CROP PRICES

4.2.1 Maize



Figure 11: Average market prices for maize in Meru County

- From the figure 11 shown above, the average market price of a kilo of maize retailed at Kshs.27.5/kg in the month under review across the livelihood zones hence slightly reduced when compared to the previous month's maize price of Kshs.32.7/kg.
- The reduction is attributed to held households' stocks from the long rains harvests.
- The average market price was 28 percent lower compared to the long term average at this time of the year.

4.2.2 Beans Prices

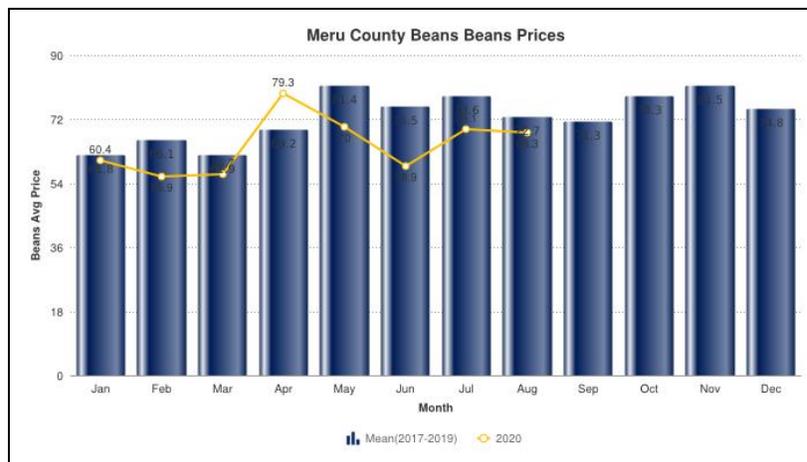


Figure 12: Average market prices for beans in Meru County

- From the figure {12} shown above, the average market price of a kilo of beans remained stable at Kshs 68 compared to previous month price of Kshs 69.
- The average market price for beans was five percent lower compared to long term average at this time of the year.

4.2 INCOME

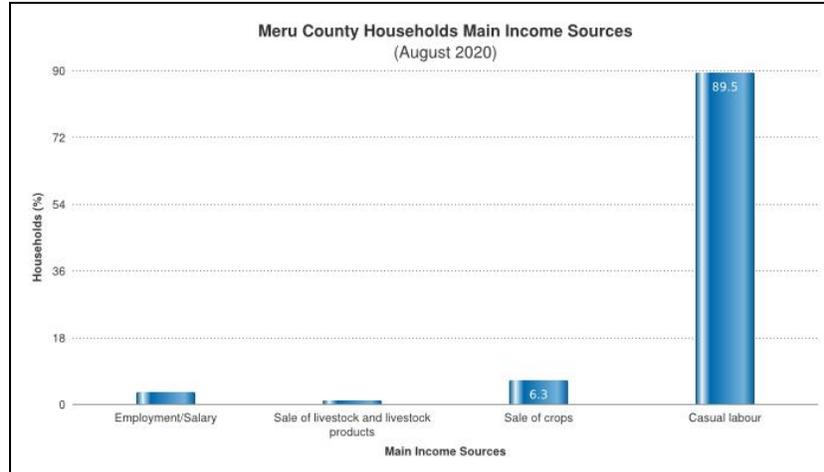


Figure 13: Sources of household income in Meru North

- Households main source of income were; casual labour, sale of crops, trade, sale of livestock and livestock products and employment/salary.
- Households also depend on sale of 'Miraa' which is considered as a major cash crop. However, the business has been affected by the guidelines imposed in terms of the curfew and transportation as a result of outbreak of the Corona Virus (COVID-19).

4.4 TERMS OF TRADE

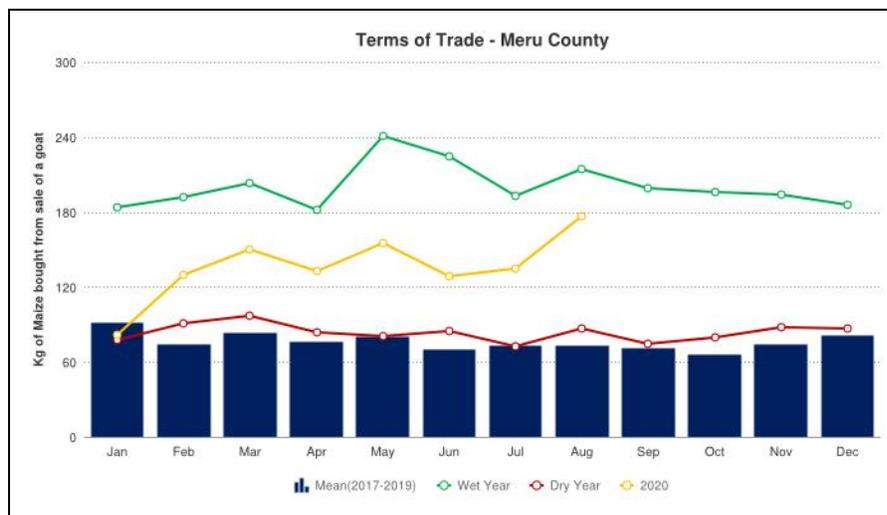


Figure 14: Terms of trade in Meru North

- The Terms of trade increased to 176.6 kilograms of maize realised from a sale of goat compared to 135 kilograms recorded previous month as illustrated in the above figure 14.
- The increase is attributed to increase of goat prices while maize prices significantly declined. The increase of terms of trade slightly improved the purchasing power of livestock keepers during the month.
- The Terms of Trade was 143 percent higher than the long term average.

5. FOOD CONSUMPTION AND NUTRITION STATUS

5.1 MILK CONSUMPTION

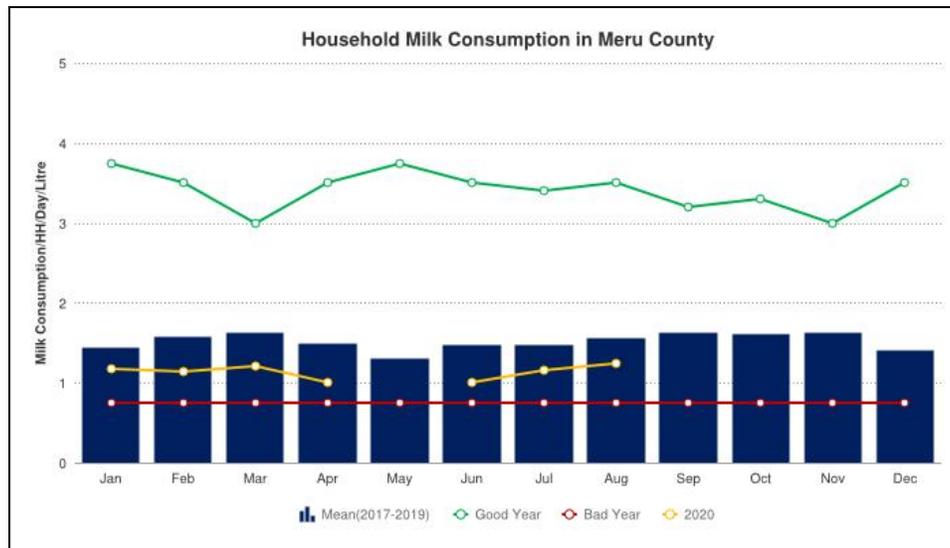


Figure 15: Average household milk consumption (l/hh/day)

- Milk consumption per household per day remained stable at 1.3 litres compared to previous month at 1.2 litres.
- When compared to the long-term average, current milk consumption is below normal by 19 percent.

5.2 FOOD CONSUMPTION SCORE

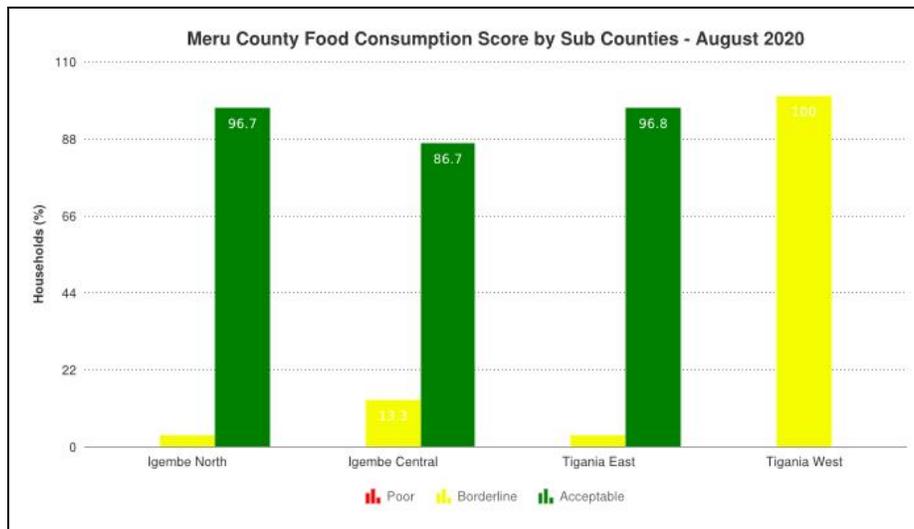


Figure 16: Household food consumption score

- Out of 120 households sampled from the sub counties, majority of the households averagely 89 percent were in the acceptable food consumption score category indicating that they were consuming an acceptable diet in terms of meal frequency, dietary diversity, nutritional value and amount. The rest of the households, 11 percent, were under borderline consumption score category, no households under poor food consumption score.
- The households on average consumed; grains and pulses for six to seven days, vegetables for an average of five days and fruits for four days. The households consumed milk for an average of three days while meat consumption was minimal.

5.3 HEALTH AND NUTRITION STATUS

5.3.1 Nutrition Status of Children

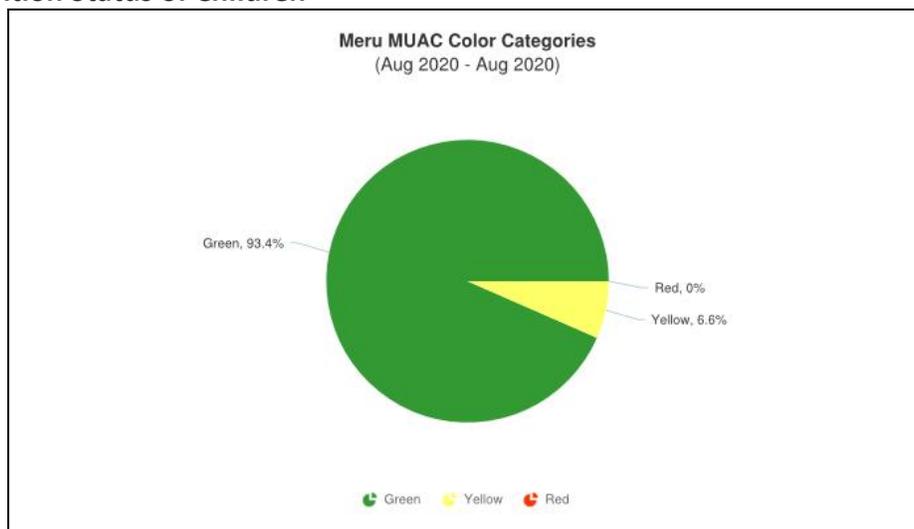


Figure 17: Children under five at risk of malnutrition in Meru County

- Out of the sampled children at risk of malnutrition 93% were at green 7% at yellow. Caregivers with children at yellow were advised on improved nutrition and were asked to monitor the growth and the health of the children.
- The households in Kangeta in Igembe Central Sub-County recorded high proportion of children at risk of malnutrition. This is attributed to poor eating habits.

- The proportion of the sampled children at risk of malnutrition declined compared to the previous month.
- The decline is attributed to held households' stocks and milk consumption at household level.

5.4 Coping Strategy Index

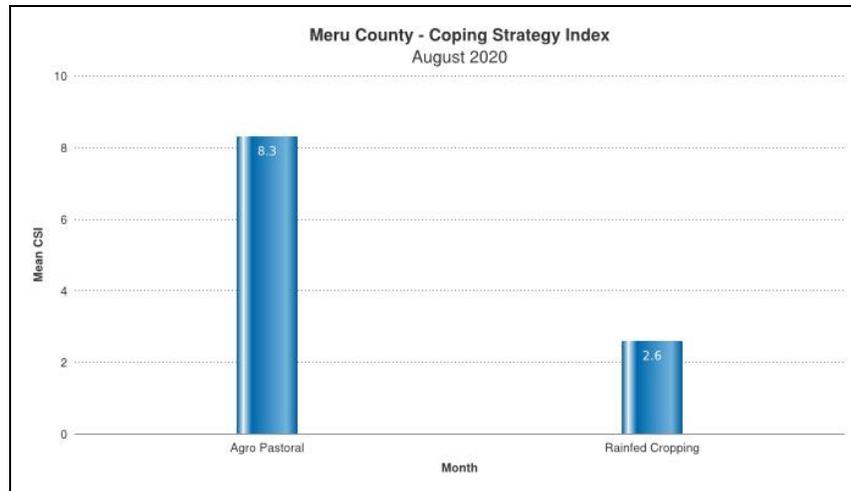


Figure 18: Household coping in Meru North

- Reduced consumption based coping strategy index (rCSI) for the month under review is 6.44 which was a reduction from 8.7 recorded previous month.
- The reduction is attributable to availability of food at household level from the long rains harvests and improved purchasing power of households due to favourable terms of trade.
- Agro pastoral livelihood zone recorded a higher coping strategy index of 8.3 while Rained livelihood zone recorded a coping strategy index 2.6.
- The coping strategy index was normal at this time of the year.

6.1 Insecurity/ Conflict/ Human Displacement

- There were no insecurity and conflicts reported under the review month.

6.2 FOOD SECURITY PROGNOSIS

- Household food security is expected to remain stable for the next one to two months due to held household food stocks from the long rains harvests.
- Above normal vegetation greenness was attributed to cumulative effect of the good performance of the long rains that was well distributed in all the livelihood zones. With the progression of the long dry spell, the 3-months vegetation condition index will gradually deteriorate in the next one month and likely shift to the normal vegetation greenness band.
- Pasture and browse condition is expected to deteriorate further in the next three months occasioned by the dry season.
- Livestock production and productivity is expected to decline in the next three months due to deteriorating pasture conditions and increased distances to water sources.
- Food commodity prices are expected to remain stable occasioned by held household food stocks and the harvests of the long rains in the next three months.

- The terms of trade are also expected to remain favourable.
- The proportion of children at risk of malnutrition is likely to remain stable due to held households' stocks and favourable terms of trade.

6.3 On-going interventions

Intervention	Implementer	Beneficiaries
<ul style="list-style-type: none"> • Routine livestock diseases surveillance 	<ul style="list-style-type: none"> • County Department of Livestock Production and Veterinary Services 	Livestock farmers from both sub counties
<ul style="list-style-type: none"> • Routine Disease Surveillance • Routine disease surveillance on outbreak of Corona virus (COVID- 19). • Routine screening management of malnutrition at health facility level • Routine Vitamin A and Zinc Supplementation and deworming at health facility level 	<ul style="list-style-type: none"> • County Department of Health Services 	<p>Mothers and children who visited health facilities in both sub counties</p> <p>Households and health facilities in targeted community areas</p>
<ul style="list-style-type: none"> • Surveillance of the locusts 	<ul style="list-style-type: none"> • County department of Agriculture department 	Farmers

7. SECTOR RECOMMENDATIONS

Sector	Recommended Activities	Proposed Implementers	Expected Outcome/Impact
AGRICULTURE	<ul style="list-style-type: none"> • Sensitization on improved farming methods • Capacity building on pest and diseases (Fall army worm and Locust) • Development of irrigation schemes 	<p>County government</p> <p>Other Stakeholders</p>	Reduced post-harvest losses due to poor storage

LIVESTOCK	<ul style="list-style-type: none"> • Disease surveillance and promotion of good and husbandry practices and silage making • Strategic vaccination of animals 	<p>County government</p> <p>Other Stakeholders</p>	<p>Increased productivity</p> <p>Diversification of income</p> <p>Reduced outbreak of diseases</p>
WATER AND SANITATION	<ul style="list-style-type: none"> • Drilling and equipping of more boreholes • Construction of new big dams and pans. 	<p>County government,</p> <p>Other Stakeholders</p>	<p>Improved potable water accessibility and consumption</p>
HEALTH AND NUTRITION	<ul style="list-style-type: none"> • Provision of Personal Protective Equipment (PPE) at the hospital and at community level to curb spread of corona virus • Sensitization on COVID-19 • Provision of commodities for management of various types of malnutrition at health facilities. • Sensitization on use and provision of water treatment chemicals to households. 	<p>County department of health</p> <p>NDMA</p> <p>Development partners</p>	<p>Management of malnutrition amongst under five children</p> <p>Reduced cases of water borne diseases</p>