

National Drought Management Authority

MERU (MERU-NORTH) COUNTY

DROUGHT EARLY WARNING BULLETIN FOR MAY 2021



A Vision 2030 Flagship Project



MAY 2021 EW PHASE

Early Warning Phase Classification



Livelihood Zone	Phase	Trend
Mixed Farming	Normal	Stable
Agro - Pastoral	Normal	Stable
Rain Fed Cropping	Normal	stable
County	Normal	Stable
Biophysical Indicators	Value	Normal Range/ Value
Rainfall (% of Normal)	60	80 – 120
VCI-3Month	56.62	35 – 50
Production indicators	Value	Normal
Maize Crop Condition	Fair	Good
Livestock Body Condition for cattle	Good	Good
Milk Production per HH/ day	1.7	2.1 litres
Livestock Migration Pattern	No migration	No migration
Access Indicators	Value	Normal
Terms of Trade (ToT)	153.4	129
Milk Consumption per HH/ day	1.1	1.3 Litres
Return HHs distance to water sources	6.3	5.8 Km
Water source return distance from grazing areas	8.9	8.7 Km
Cost of water (20 litres)	Kshs 2.5-5.00	Kshs 2.5 - 5.00
Utilization indicators	Value	Normal
Nutrition Status, MUAC (% at risk of malnutrition)	G 95.2%, Y = 4.2%	0
Copying strategy Index(CSI)	7	<15

Drought Situation & EW Phase Classification

Biophysical Indicators

Rainfall: Below average rainfall was recorded in the region in the month of May. The spatial and temporal distribution of the rains was uneven and poor across the livelihood zones.

Vegetation condition: The County recorded above normal vegetation greenness with Igembe north and Tigania west recording above normal and Igembe central and Tigania east showing normal greenness. The pasture condition was fair to poor in the mixed and agro pastoral livelihood zones and good in the rain fed livelihood zone. The browse condition was good 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: Rain- fed crops are at grain filling, podding and tussling stage. The livestock body condition for small stock and cattle was good across the zones. No cases of diseases were reported.

Access Indicators: The average return distances to water sources for households and livestock decreased. Terms of trade remained favourable and above the average norm.

Utilization Indicators: Milk consumption per HH per day remained stable. 62.39% of household food consumption score is within the acceptable band, 2% under borderline and 9% under poor. The nutritional status of children under five was within the green band. The coping strategy index is below the LTA.

<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 								
Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec

1. CLIMATIC CONDITIONS

1.1 RAINFALL PERFORMANCE

- According to WFP-VAM, rains received within the first and second dekads of May were above the normal average with the third dekad receiving little to no rainfall.
- The rains received were erratic and evenly distributed across all the livelihood zones

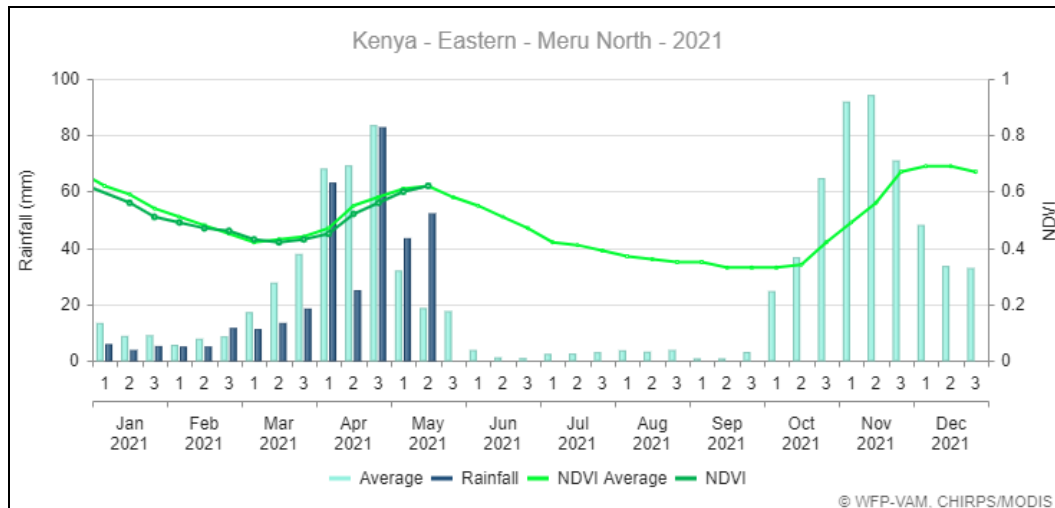


Figure 1: Rainfall estimates in Meru North

- From the figure 1 above the Rainfall for Estimate (RFE) amounts for the first and second dekads of May was above normal compared to their long term averages.
- The County received an average of 48.124 mm compared to the long term average of 25.058 mm for the same period. The first dekad received 43.217 mm and second dekad received 52.031.
- Normalized Difference Vegetation Index (NDVI) for the first and second dekads were within the average when compared to their respective long term decadal NDVI values.

2. IMPACTS ON VEGETATION AND WATER

2.1 VEGETATION CONDITION

2.1.1 Vegetation Condition Index (VCI)

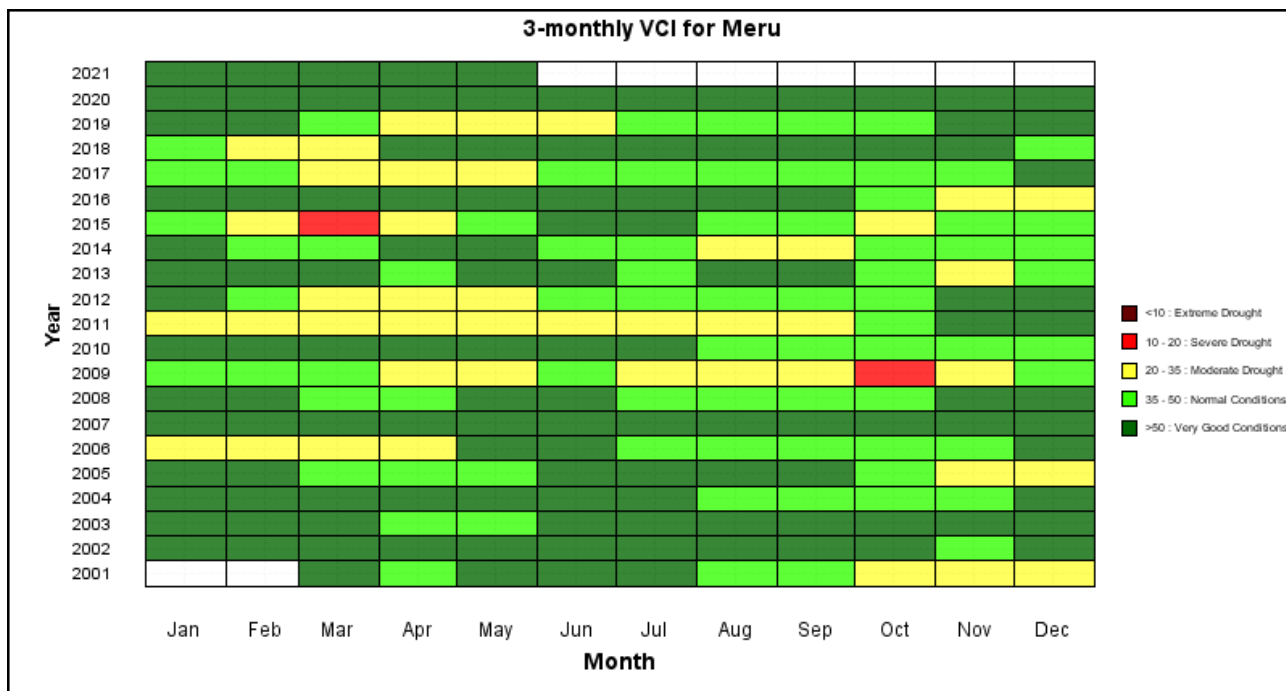


Figure 2: Three-monthly VCI for Meru County [Source: MODIS Data]

- 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).
- The areas of Igembe North and Tigania East depicted normal vegetation greenness while Igembe central and Tigania West depicted above normal vegetation greenness.
- The combined 3-month Vegetation Condition Index (VCI) was at 56.62 in the month under review compared to 53.8 recorded previous month of April
- The 3-monthly vegetation condition index for Meru Igembe Central was at 57.91 Igembe North at 37.73, Tigania East 46.76 and Tigania west was at 57.84.

2.1.2 Pasture Condition

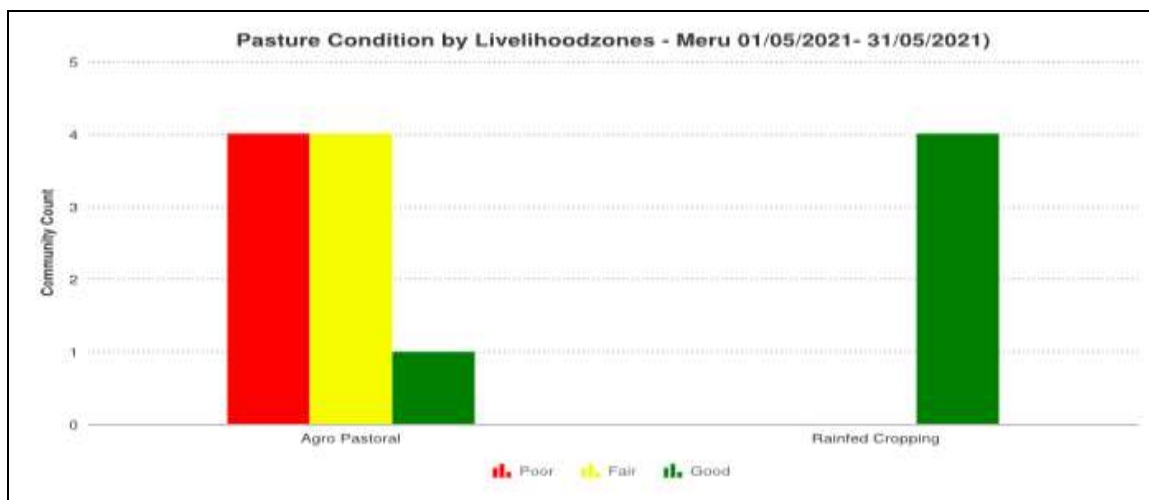


Figure 3: Pasture condition in Meru County

- The pasture condition ranged from fair to poor in the Agro-Pastoral and Mixed livelihood zones. In the Rain Fed livelihood zone the pasture condition was condition good.
- The pasture condition is below normal in the Agro Pastoral livelihood zones of Igembe North and mixed livelihood zones of Tigania west and normal for the rain fed livelihood zone for the same periods for this time of the year.
- The available pasture is estimated to last for to 1 to 2 months across the livelihood zones.
- The below normal pasture condition is attributed to the below average rainfall received hence little regeneration and fast depletion.

2.1.3 Browse

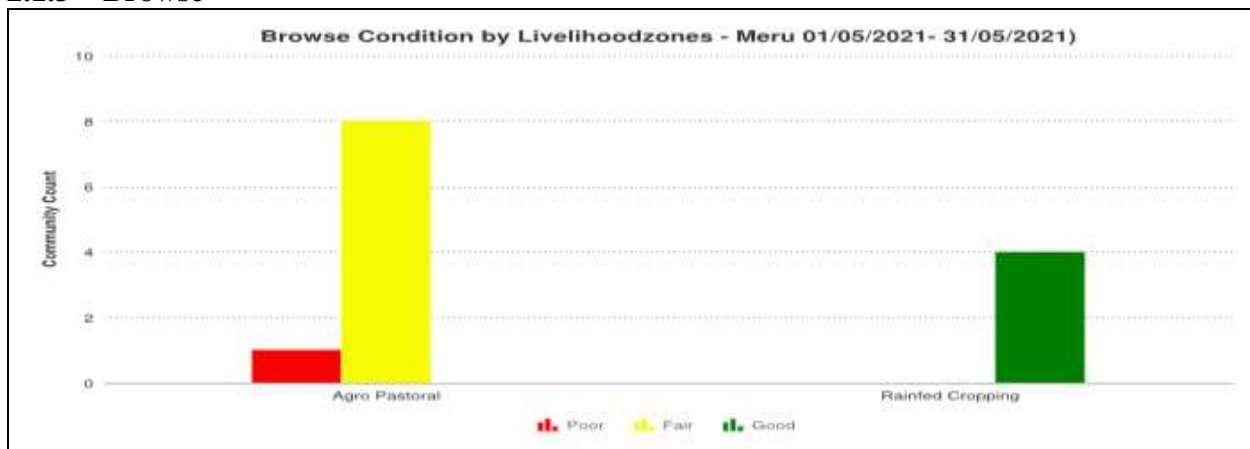


Figure 4: Browse condition in Meru County

- The browse condition was good across the livelihood zones with areas of agro pastoral livelihood zones recording poor to fair conditions.
- The browse condition is normal for this time of the year in the Rain fed and mixed livelihood zones and below normal for the agro pastoral livelihood zones.
- The browser conditions expected to last for 2 to 3 months across the livelihood zones.
- The good condition is accredited to the regeneration from the long rains season across the livelihood zones. The below normal conditions are attributed to uneven distribution of the rains received with the agro pastoral receiving below average rainfall hence little regeneration with fast depletion.

2.2 WATER RESOURCE

2.2.1 Sources

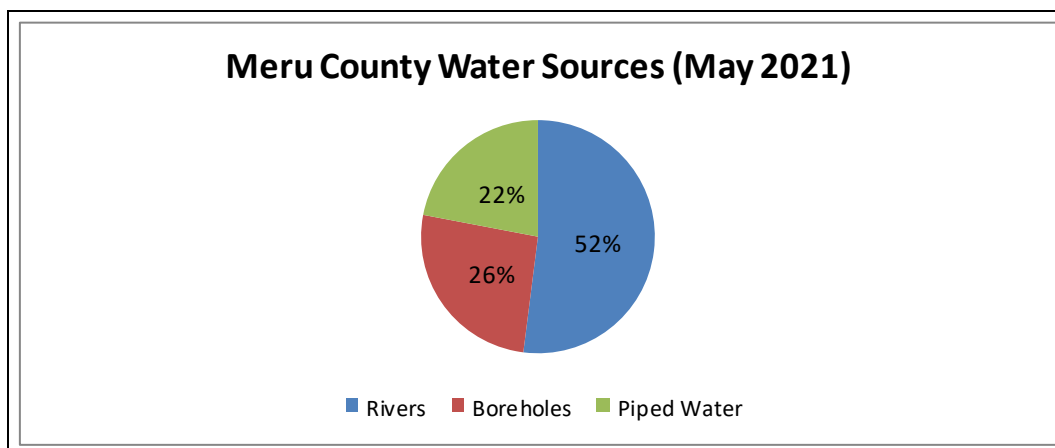


Figure 5: Water sources for Meru County

- From figure 5 shown above, the three main sources of water within the period under review were; rivers, boreholes and piped water. Other sources of water relied on during this period include springs and water trucks.
- There was a rise in levels of water in rivers due to the run off received in the first two weeks of the month across the livelihood zones.
- 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

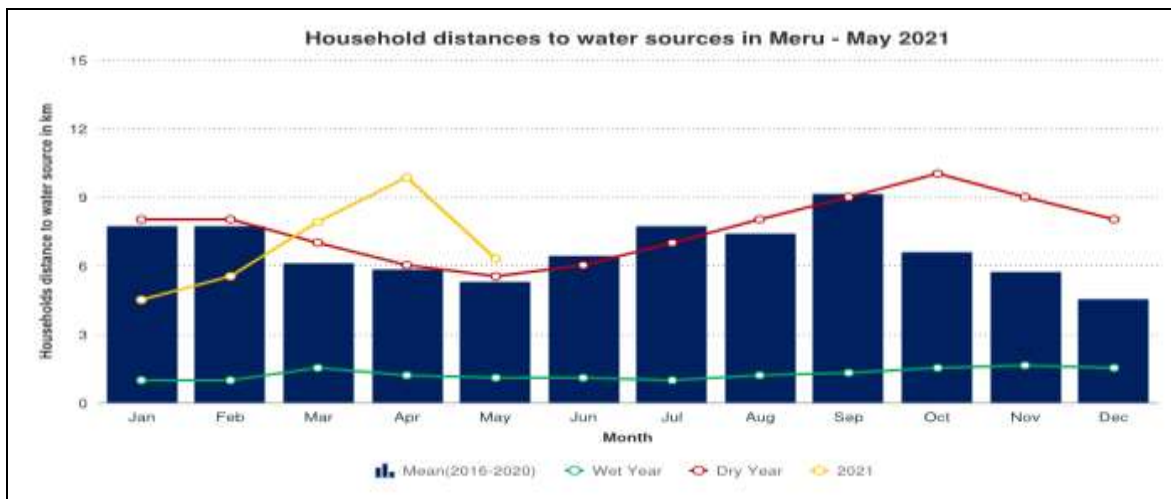


Figure 6: Household average distances to water sources

- From the figure {6} shown above, the average return distances to household water sources significantly decreased to 6.3 km in May compared to previous month of 9.9 km in April.
- The decrease is attributed to the increase of water levels in rivers and other sources due to run off from the rainfall received in the month.
- The current household water distance of 6.3 km is 19 percent above the long term average of 5.3 km compared to similar periods.
- The average cost of 20 litre jerry can at water kiosks was at ksh 2.5 to 5 across livelihood zones except in Igembe North areas of Kachiuru where Households depended on water trucking, the cost of a 20 litre jerry ranged at Ksh 20.
- Treatment of drinking water is done by boiling and use of filtration with 27% of households treating drinking water.

2.2.3 Livestock Trekking Distance to Water Sources from Grazing Areas

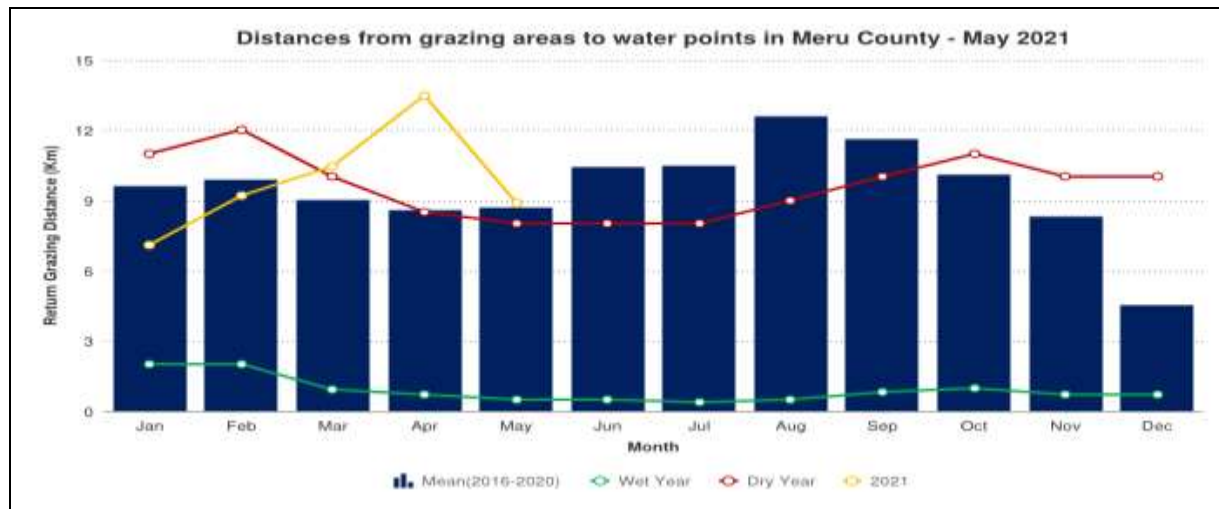


Figure 7: Livestock average return distances to water sources

- From (Figure 7) shown above, the average return distance to water source from grazing areas significantly decreased to 8.9 km in May when compared to the previous month of 13.5 km.
- The decrease was due to decreased distances to grazing areas in search of pasture and recharging of water sources due to the rainfall received.
- The watering frequency for livestock was on a daily basis across the livelihood zones for cattle and small stock except in Igembe North where frequency was twice a week for both cattle and small stock which is normal.
- The current average return distance to water sources was within the long term average of 8.7 km

3.0 PRODUCTION INDICATORS

3.1 LIVESTOCK PRODUCTION

3.1.1 Livestock Body Condition

- The body condition of cattle and small stock was good across the livelihood zones.
- The body condition in rain fed and mixed farming livelihood zone was good with majority of the livestock with good smooth appearance.
- In some parts of Agro pastoral : kamweline in Igembe North, Buuri, Kadembeni in Tigania west the body condition for majority of the livestock was fair with the livestock neither thin or fat.

3.1.2 Livestock Diseases

- No cases of livestock diseases were reported in the month.
- Routine surveillance measures by the County government continued in the month under review.

3.1.4 Milk Production

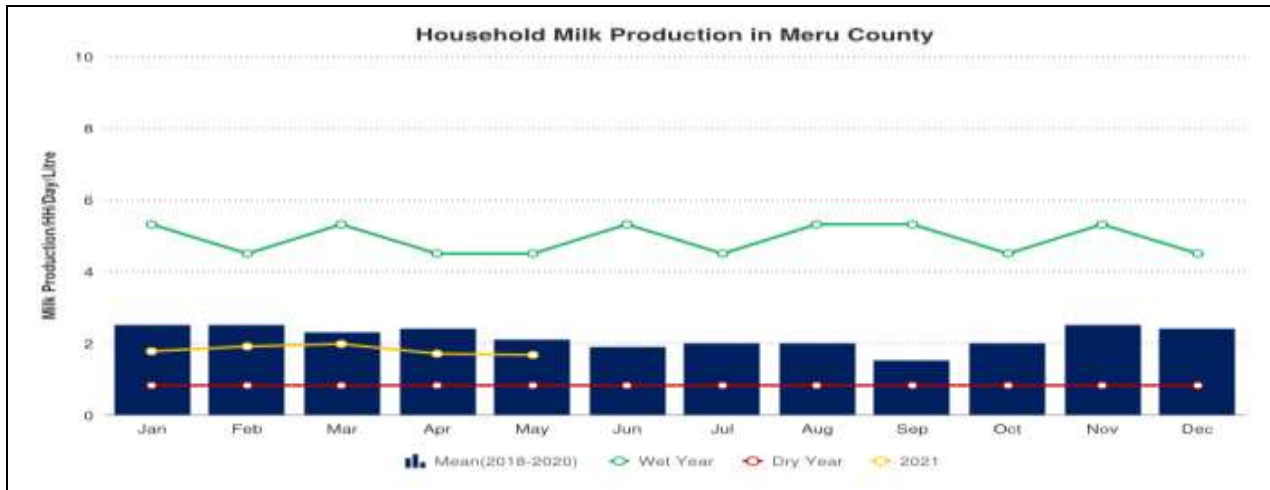


Figure 8: Household milk production in Meru North

- From the figure 8 above, the average daily milk production per household per day remained stable at 1.7 litres in the month under review.
- Current milk production of 1.7 litres is significantly below normal the long term average milk production of 2.1 litres for this time of the year.
- Average milk price per litre at household level ranged from Ksh. 40 – 100 across the livelihood zones.

3.2 RAIN-FED CROP PRODUCTION

3.2.1 Stage and Condition of food Crops

- Rain fed crops was at grain filling, podding and tussling stage of development across all the livelihood zones.
- The crop condition is good in the Rain fed livelihood zones, in the mixed farming livelihood zone the condition is good to fair while in the Agro pastoral livelihood zones the condition is poor. The variance in crop condition is attributed to uneven distribution of rainfall with Agro pastoral areas receiving below average rains.

4.0 MARKET PERFORMANCE

4.1 LIVESTOCK MARKETING

4.1.1 Cattle Prices

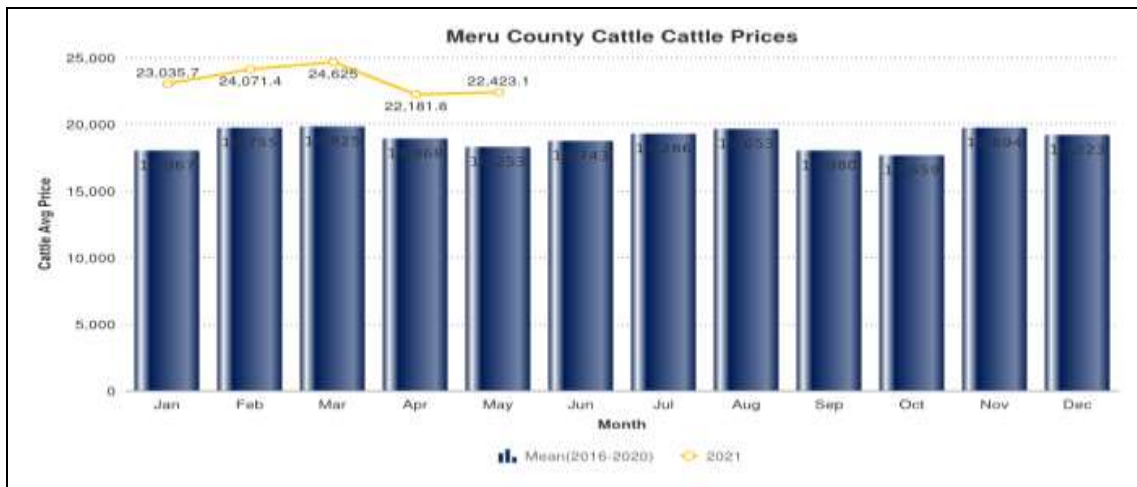


Figure 9: Average Market prices for cattle in Meru County

- From the figure (9) shown above, the average market price of three-year-old cattle for the month under review remained stable at average of Ksh. 22,420 in May when compared to the previous month of April price of Ksh. 22,180.
- When compared to similar periods, current cattle price of Kshs. 22,420 is above the long term price of Kshs. 18,253 by 23 percent.
- The stability is attributed to good body condition for the livestock.
- The highest price recorded for the month for cattle was at Ksh 35,000 in Kianjai in Tigania west and lowest price recorded was Ksh.15,000 in Kangeta market in Igembe Central.

4.1.2 Goat Price

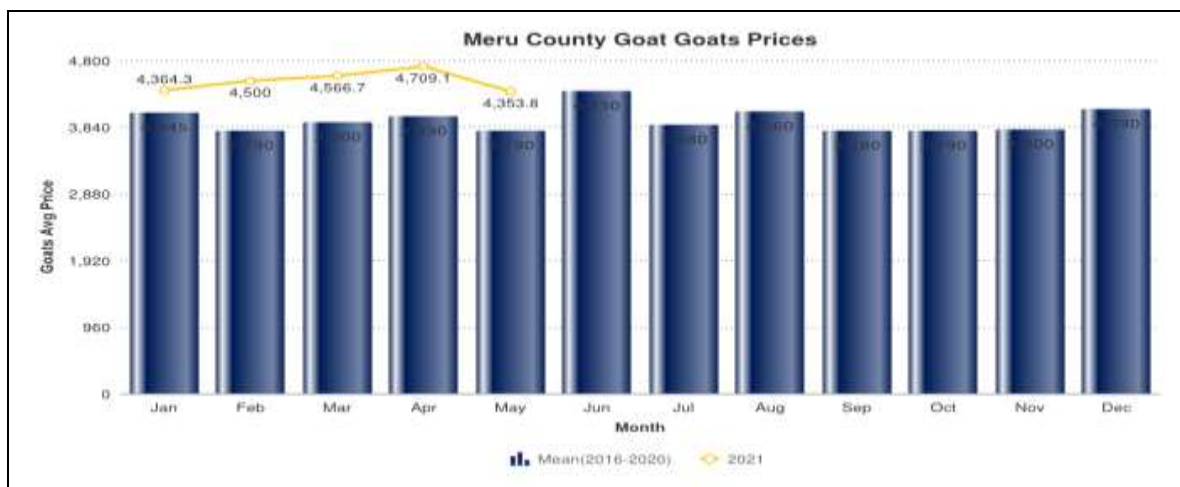


Figure 10: Average Market prices for goat in Meru County

- The average market price of a two-year goat for the month under review slightly decreased to Ksh. 4,353 in May compared to 4709 in April as illustrated in the above figure (10).
- When compared to the long term average price of Ksh. 3790 at similar periods the current price is above normal by 24 percent.
- The high prices are attributed to good body condition.
- The highest goat prices were recorded in Kangeta market in Igembe Central at Ksh 5000 and lowest price was Ksh.3,500 in Mulika Market in Tigania West.

4.2 CROP PRICES

4.2.1 Maize



Figure 11: Average market prices for maize in Meru County

- The average market price of a kilo of maize remained stable at ksh 28 in May compared to ksh 29 in April across the livelihood zones.
- The highest maize price was recorded in Kianjai Market in Tigania West at Ksh 32 with lowest price recorded in Mutuati Market in Igembe North at Ksh 25.
- The current market price is 14 percent below the long term average of Ksh 33 at similar periods at this time of the year.

4.2.2 Beans Prices

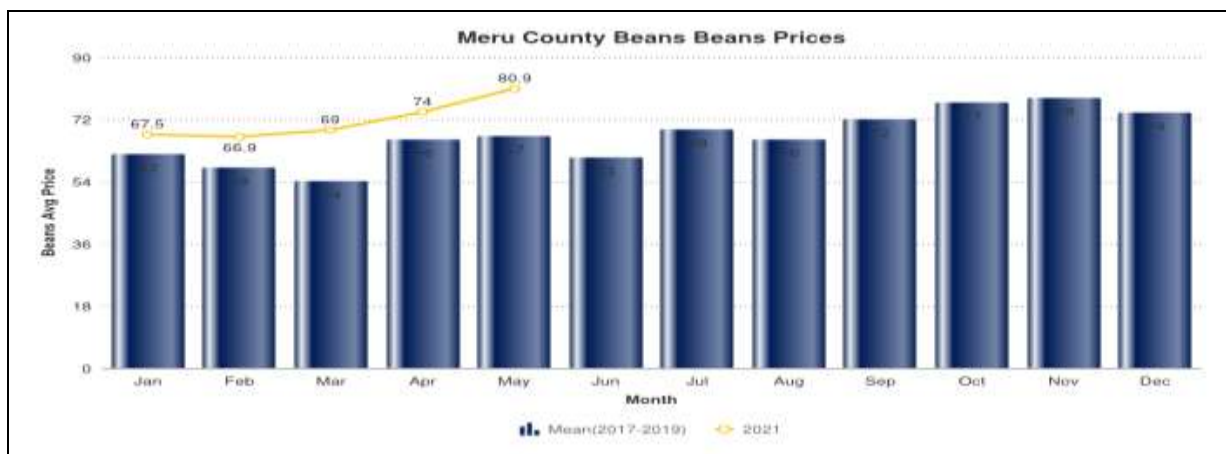


Figure 12: Average market prices for beans in Meru County

- From the figure {12} shown above, the average market price of beans increased in May to Ksh 80.9 per kilogram compared to the previous month of April at Ksh 74 per kilogram.
- The increase is attributed to the decrease of stock at household level creating high demand in the market.

- The highest market price per kilo was recorded in Kianjai Market at Ksh 90 in Tigania west while the lowest in Mulika market in Tigania East at Ksh 70 per kilogram.
- The current average beans price is 21 percent above the long term average of Ksh 67 per kilogram.

4.2 INCOME

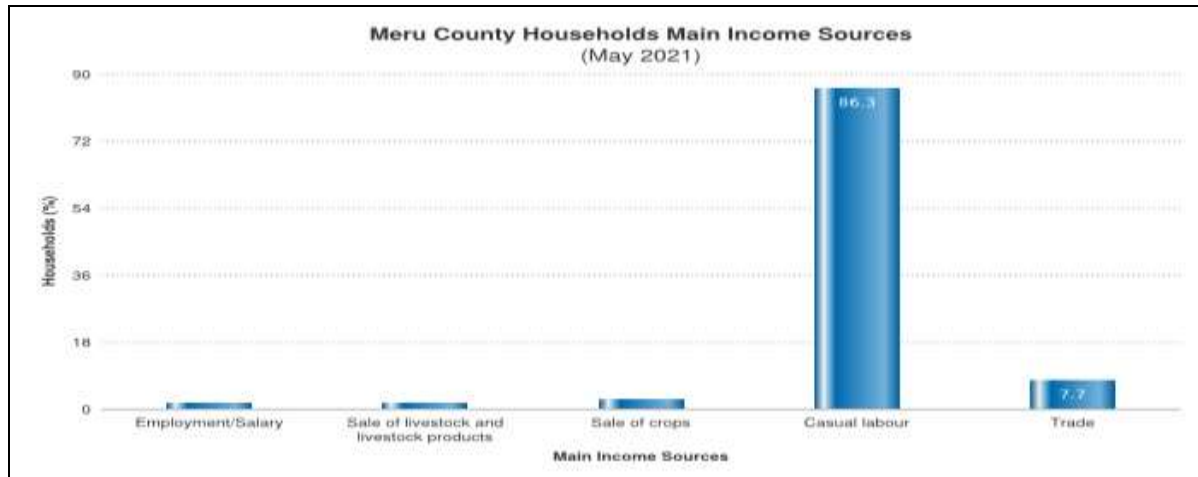


Figure 13: Sources of household income in Meru North

- The households' main source of income was casual labour accounting for 86.3 percent of household source of income, trade at 7.7 percent with sale of crops at 2.6 percent, sale of livestock and livestock products at 1.7 and employment at 1.7 percent
- Households also depended on sale of 'Miraa' which is considered as a major cash crop and sale of charcoal and wood.

4.3 TERMS OF TRADE

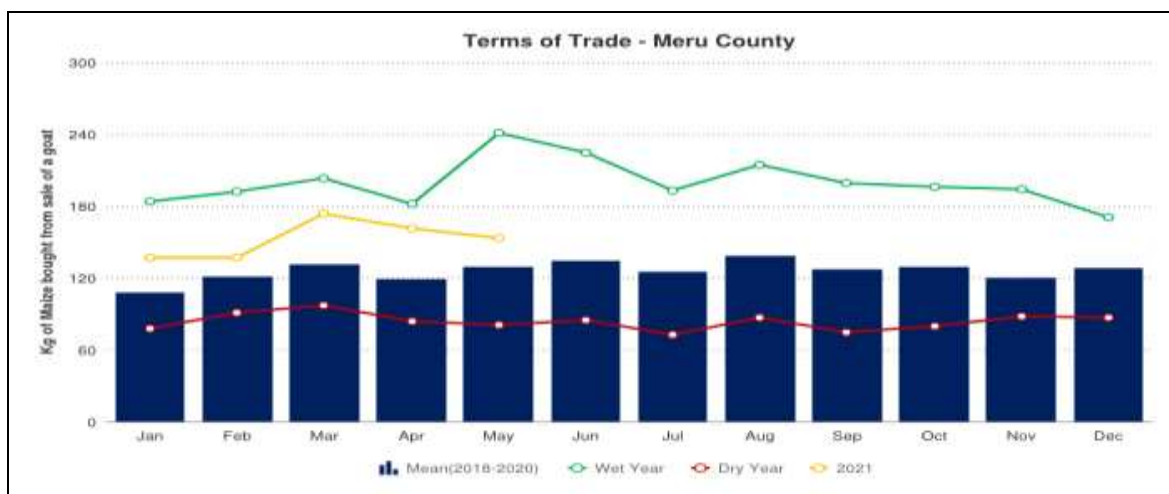


Figure 14: Terms of trade in Meru North

- The Terms of trade slightly decreased in the month under review to Ksh 153.4 per kilogram of maize bought from a sale of a goat from Ksh 161.4 in April as illustrated in the above figure 14.

- The highest amount for the Terms of Trade was in Igembe North at Ksh 200 and lowest at Ksh 132.6 per Kilogram of maize realised from a sale of a goat in Tigania West
- The current terms of trade are 25 percent above the long term average of Ksh .129 per kilogram of maize realised from sale of a goat.

5. FOOD CONSUMPTION AND NUTRITION STATUS

5.1 MILK CONSUMPTION

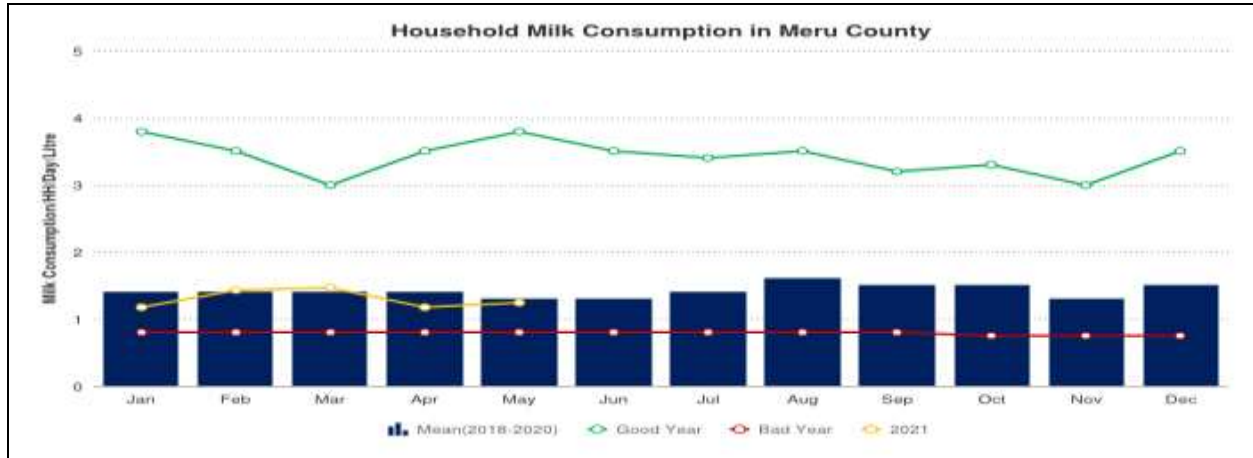


Figure 15: Average household milk consumption (l/hh/day)

- Milk consumption per household per day remained stable at 1.2 litres per household per day in April to 1.3 litres in May.
- The stability is attributed to good body condition occasioned by availability of pasture and browse.
- The current milk consumption per household per day is within the long term average of 1.3 litres

5.2 FOOD CONSUMPTION SCORE

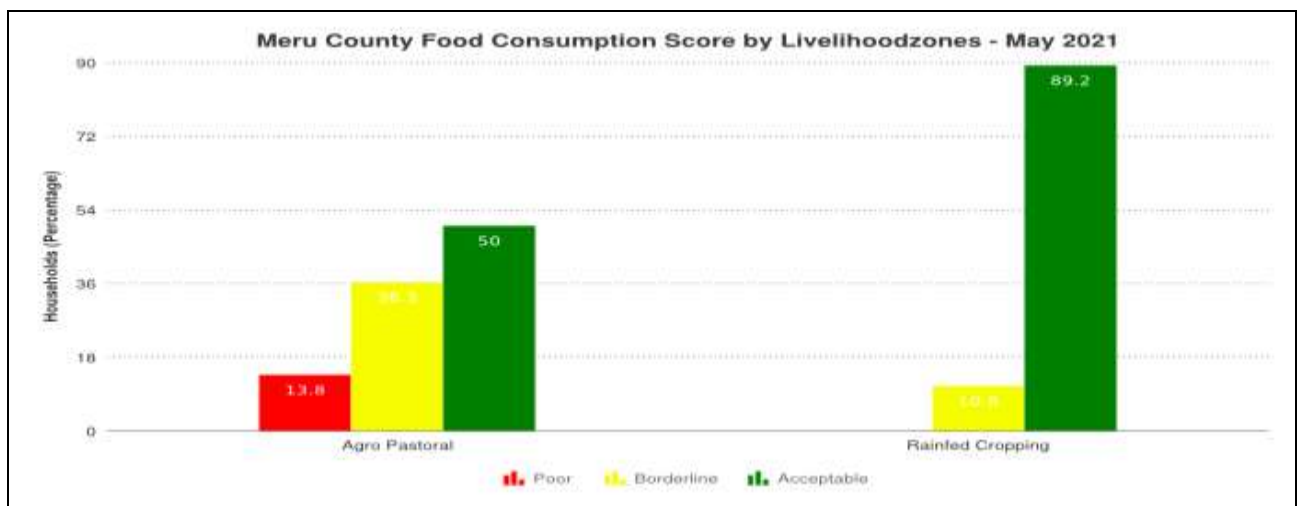


Figure 16: Household food consumption score

- Out of the households sampled from the sub counties, majority of the households averagely 62.39 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, 28 percent were under the borderline food consumption score and nine percent under poor food consumption score.

- The households on average consumed; grains and pulses for six to seven days, fruits and vegetables were consumed for three to four days there was minimal consumption of milk and meat.

5.3 HEALTH AND NUTRITION STATUS

5.3.1 Nutrition Status of Children

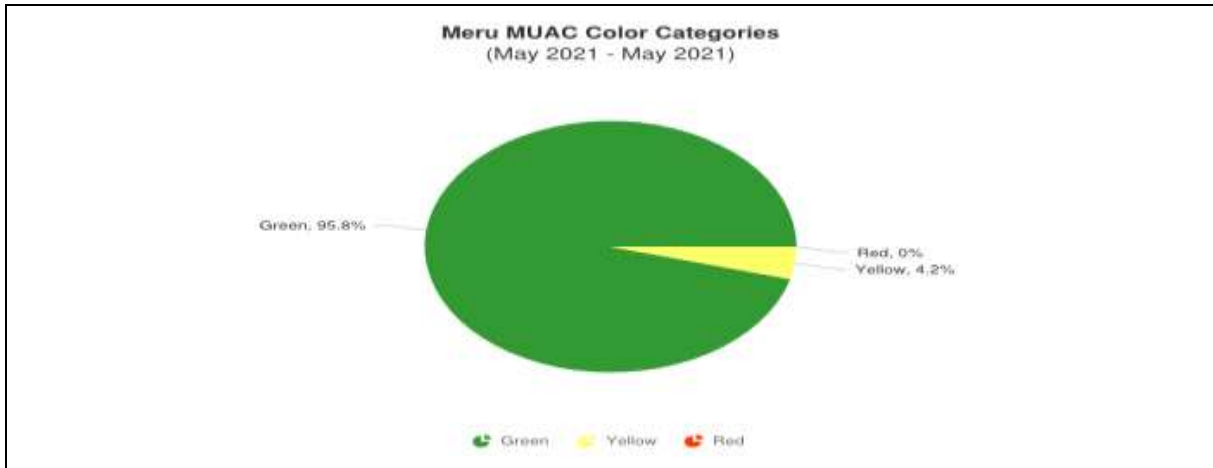


Figure 17: Children under five at risk of malnutrition in Meru County

- Out of the sampled children at risk of malnutrition 95.8 percent at green with the remaining 4.2 percent at yellow.

5.4 Coping Strategy Index



Figure 18: Household coping in Meru North

- Reduced consumption based coping strategy index (rCSI) for the month under review slightly remained stable at 6.9 compared to previous month of 7. The coping strategy index is below the long term average.

- The agro pastoral livelihood zone recorded a higher CSI of 6.2 while the rain fed livelihood zone recorded a coping strategy index of 8.3.
- Households mainly resulted to reducing the quality of food consumed by adults as a coping strategy.

6.1 Insecurity/ Conflict/ Human Displacement/ emerging issues

- Competition over water and pasture between herders from Isiolo and meru was reported in Igembe North areas of Ndoleli Ward with herds of camels invading grazing lands.
- The competition has caused insecurity in the area with theft of cattle occurring between the herders, however the issue was solved through collaboration from members of the public and the security teams and livestock were recovered.

6.2 FOOD SECURITY PROGNOSIS

- Household food security is expected to remain stable for the next 2 months since farmers are expecting harvests of the long rains in the next two months. However, poor harvests are expected since the area received below average rainfall.
- Quality and quantity of pasture and browse is expected to remain stable for the next two months owing to regeneration from the long rains.
- Livestock production and productivity is expected to remain stable in the next two months due to availability pasture and water.
- Food commodity prices are expected to remain stable occasioned by held household food stocks and the harvests of the long rains in the next two 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 replenished 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 Capacity building on food storage 	<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 Desilting of earth dams. 	<p>County government,</p> <p>Other</p>	Improved potable water accessibility and consumption

	<ul style="list-style-type: none"> • Construction of new big dams and pans. • Repair of the broken boreholes 	Stakeholders	
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. 	County department of health NDMA Development partners	Management of malnutrition amongst under five children Reduced cases of water borne diseases