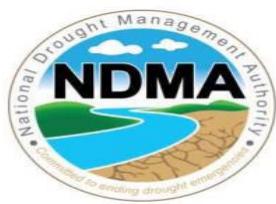


**NATIONAL DROUGHT MANAGEMENT AUTHORITY
LAMU COUNTY
DROUGHT EARLY WARNING BULLETIN FOR NOVEMBER 2020**



A Vision 2030 Flagship Project



Drought Status: NORMAL

Shughuli za kawaida

NOVEMBER 2020: EW PHASE

Drought Situation & EW Phase Classification

Biophysical Indicators

- The County received below average seasonal rainfall during the Month of November.
- The vegetation condition Index (VCI-3Month) was showing decrease of 14 percent compared to previous month.
- The VCI indicated above normal vegetation greenness. The overall drought phase in the county was at Normal in November.
- Forage condition was good to fair across all livelihoods zones during the month.

Socio Economic Indicators

Production indicators

- All livestock species exhibited fair to good body condition.
- Crops farmers are at harvesting and land preparation in all livelihood zones.
- Milk production slightly increased and below the LTA compared and previous month of October.

Access indicators

- Terms of trade were favorable to livestock herders than crop farmers in mixed and pastoral livelihood zones respectively.
- Water access for both human and livestock was good to fair depending on the water sources in the zone.
- Milk consumption increased and lower than the long term Average.

Utilization indicators

- The proportion of children at risk of malnutrition cases slightly increased and above the normal range as indicated by the percentage of mid upper arm Circumference (MUAC).
- The average coping strategy increased by 7.8 percent when compared to previous month of October.

Early Warning (EW) Phase Classification

Livelihood Zone	Phase	Trend
Agro pastoral	Normal	Stable
Mixed farming/Irrigated cropping	Normal	Stable
Fisheries /Mangroves	Normal	Stable
Formal/Casual Labour	Normal	Stable
County	Normal	Stable
Biophysical Indicators	Value	Normal Range/Value
Rainfall (% of Normal)	35	80 -120
VCI-3Month	57.04	<50
Forage condition	Good	Good
Production indicators	Value	Normal
Crop Condition(specify crop)Maize	Fair to Good	Good
Livestock Body Condition	Fair to Good	Good
Milk Production	1.5litres	>3 Litres
Livestock Migration Pattern	Not Normal	Normal
Livestock deaths (from drought)	No death	No death
Access Indicators	Value	Normal
Terms of Trade (ToT)	155	84
Milk Consumption	1.4litres	>2litres
Return distance to water sources (HH).	4	<5 Km
Cost of water at source (20 litres)	5-10	<5Kshs
Utilization indicators	Value	Normal
Nutrition Status, MUAC (% at risk of malnutrition)	6.5%	>5%
Coping Strategy Index (CSI)	7.79	<0.95

<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

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

1.0 CLIMATIC CONDITIONS

1.1 Rainfall performance

- Seasonal rainfall received during the month of November was of high intensity when compared to the previous months as recorded in the first and second dekad of November as in figure 1a below.
- The current NDVI value is slightly below when compared to the historical long-term values as shown in figure 1b.

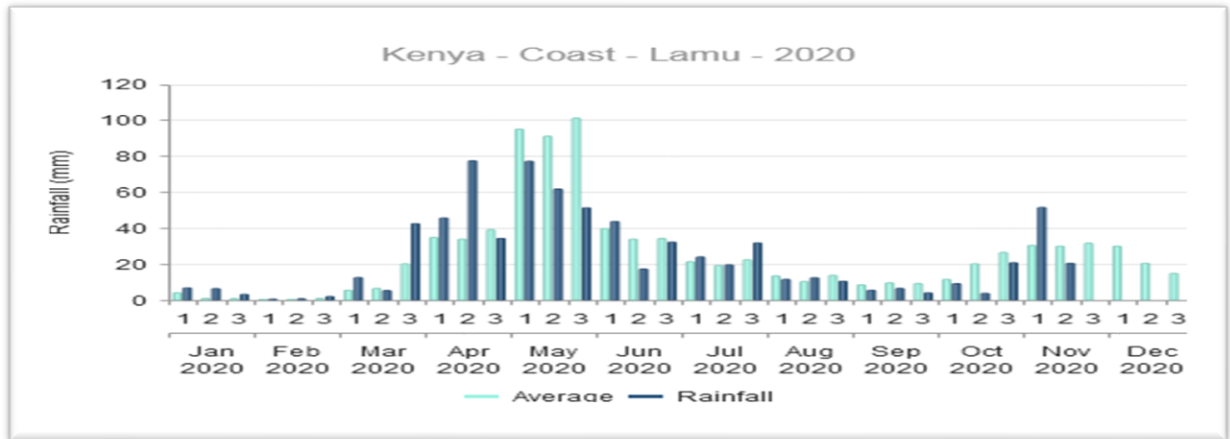


Figure 1a: Rainfall Satellite data. (Source: WFP-VAM, CHIRPS/UCSB)

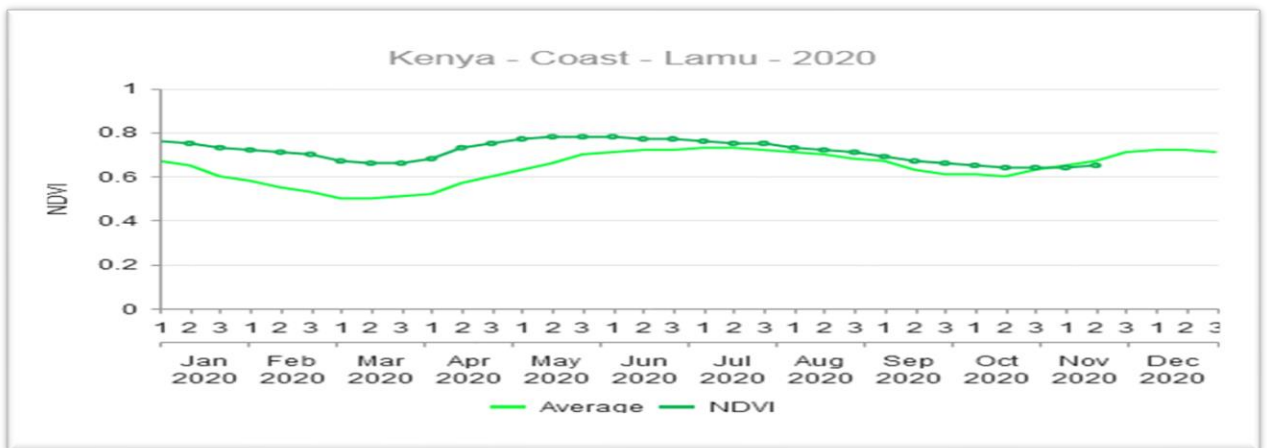


Figure 1b: NDVI data. {Source: wfp-Vam}

1.2 Amount of rainfall and spatial distribution

- According to VAM WFP rainfall and vegetation data, the County received a total of 71.8 mm of rainfall in the month of November during the first and second dekad.
- This was an increase of 53 percent rainfall when compared to previous month of October; however, this (71.8mm) was higher when compared to long-term average of 60.2 mm as in the figure 1a above.
- This 71.8 mm of rainfall was lower by 40 percent when compared to 119.7 mm received in the same period during the previous year.

- The rainfall received was fair, both in spatial and temporal and unevenly distribution in all parts of the livelihood zones of the county during the month under review.

1.3 Other hazards.

- There were reports of locust invasion in the mainlands of Lamu County hence destroying pasture, browse and farm crops.

2.0 VEGETATION CONDITION

2.1Vegetation Condition Index (VCI)

- The vegetation condition index for the month of November decreased by 14 percent compared to the previous month. This was due to low precipitation rate received during the previous month.
- The vegetation condition index for the month of November was 57.04 compared to 66.24 in the previous month.
- The VCI indicated vegetation above normal greenness in the County.
- VCI-3Months is below the long-term average and the previous year as shown in the figures 2a and 2b below. {Source: Boku University, Austria}



Figure 2a: VCI-Lamu County

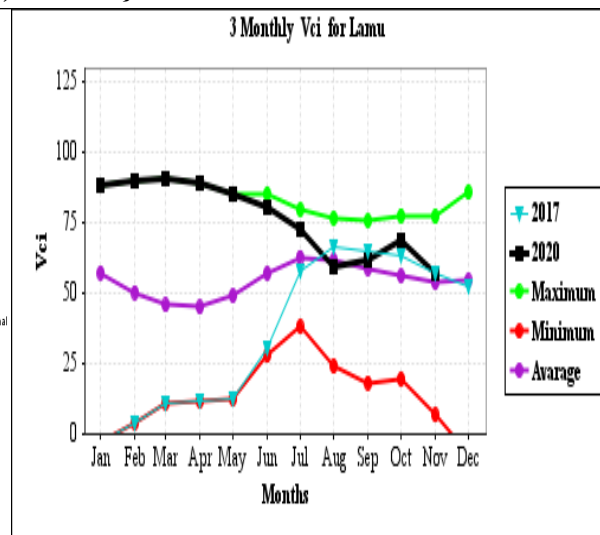


Figure 2 b: VCI-Lamu County

OBSERVATIONS-PASTURE AND BROWSE CONDITION

2.1.2 Pasture

- Pasture condition was fair across all livelihood zones in both quality and quantity.

- 50 percent of community members interviewed stated that pasture was good, 45percent indicated that pasture was fair, while 5 percent stated that the pasture was poor but with improving trend as in figure 3.
- Pasture condition by livelihood zones was as follows; Agro pastoral is good, mixed farming is good and fishing/ mangrove was good to fair as well.
- The available pasture expected to last three month. The current pasture is within the normal range.

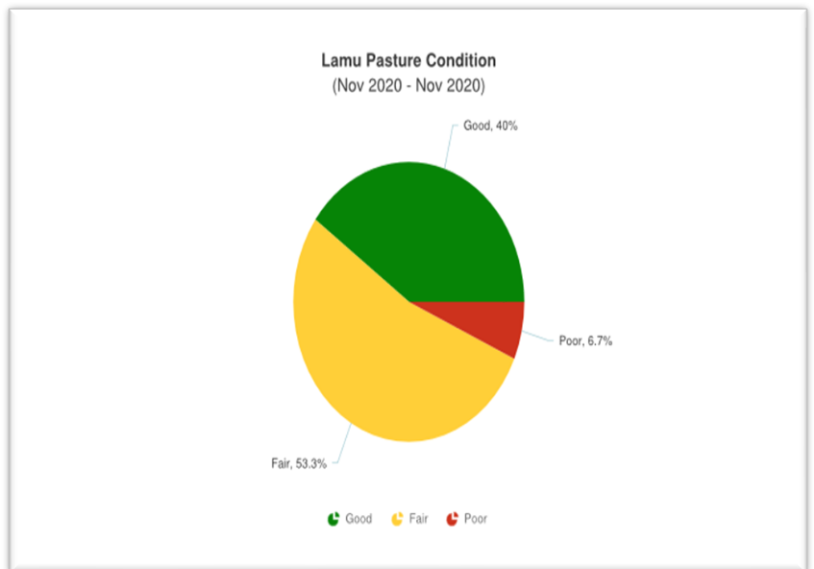


Figure 3: Pasture condition

2.1.3 Browse conditions

- The quantity and quality of browse was good across all livelihood zones.
- Community members interviewed indicated as follows; 50 percent of the respondents stated that browse was good, 45 percent stated it was fair while 5 percent said it was poor but improving due to the off seasonal rains and low rate of transpiration as shown below in figure 4.
- Browse condition by livelihood zones was as follows; Agro pastoral, mixed farming and fishing/ mangrove was good.
- The browse expected to last more than three months. The current browse condition is within the normal range compare to previous year.

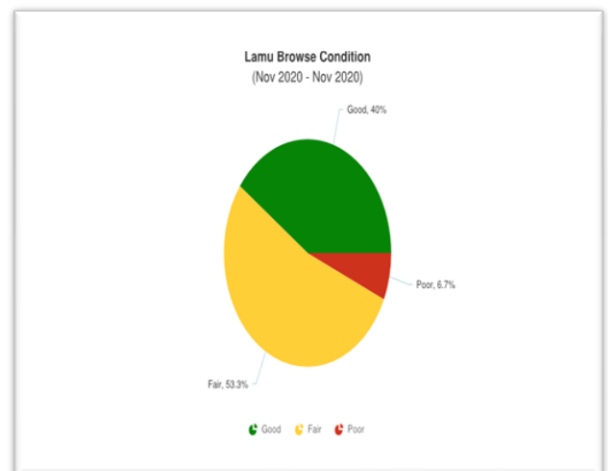


Figure 4: Browse conditions

2.2.0 HYDROLOGICAL DROUGHT

2.2.1 Water Sources and Availability

- The state and condition of water sources in the County was good to fair across most livelihood zones.

- However, the current water situation reduced compared to previous month.
- The main water sources in the month of November; Pans and dams 15.8 percent, shallow wells 52.6 percent, Boreholes 15.8 percent, Lakes 5.3 percent, Rivers 5.3 percent and Traditional river wells 5.3 percent, as shown in the figure 5.
- The status of main sources of water are on decline at this period of the Month.

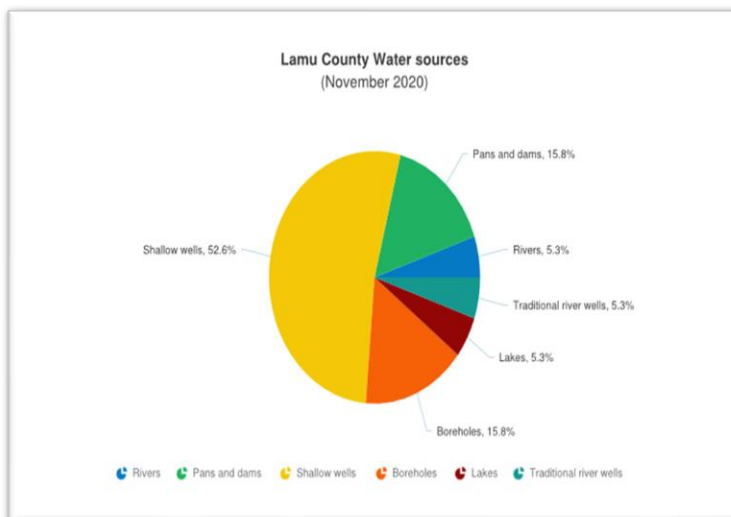


Figure 5: Main sources of water

2.2.2 Household access and Utilization

- Average household watering return distance was four Kilometres, which was stable when compared to previous month of October at four Kilometers. Household return water distances per livelihood zones were as follows; the Agro pastoral 2.6 Kilometers, Fishing & Mangrove Harvesting 3.5 Kilometers and for Mixed Farming Zone it was 1.4 Kilometers respectively.
- The below average precipitation received led to decrease in open water sources of between 20-30 percent of their capacity.
- The average household water distance for November was four Kilometres that is above LTA of 2.3 Kilometers as shown in figure 6 below.
- The average household water consumption per person per day is at 20-25liters in all livelihood zones. Water costs at source are 5-10 Kshs in town/village centers for 20 liters.

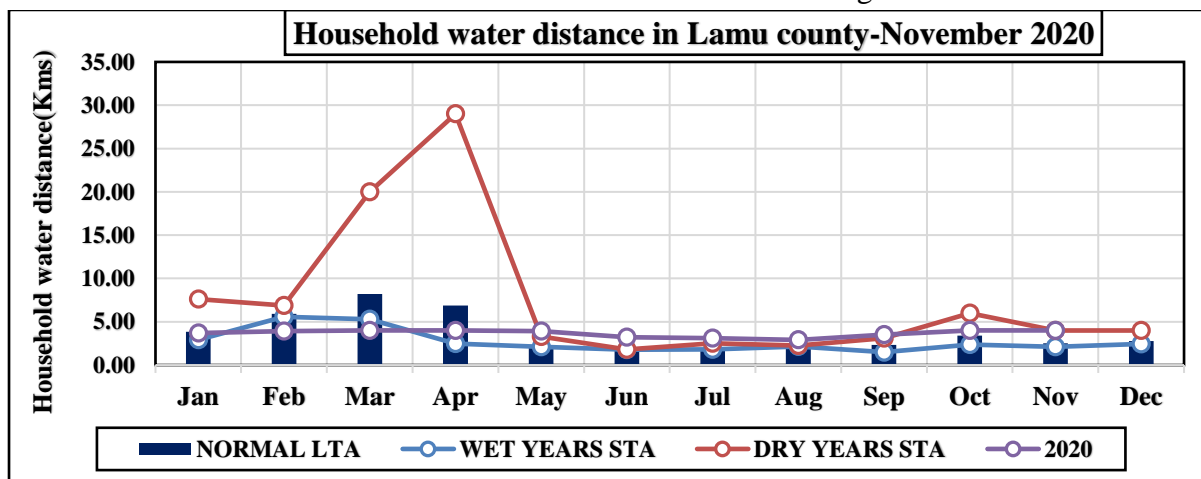


Figure 6: Household water Distance-Kms

2.3 Livestock access to Water

- Livestock average distance to water source from grazing areas remained stable at 6.9 Kilometres when compared to the previous month of October at 6.9 Kilometres as in figure 7.

- Grazing return water distances per livelihood zone were as follows: the Agro pastoral 4.8 Kilometres, Fishing & Mangrove Harvesting three Kilometres and for Mixed Farming zone it was 1.9 Kilometres and irrigated farming 1.5 Kilometres.
- The stability of grazing water distance when compared to last month was due to below average rainfall received.
- Watering frequencies for livestock species was seven times per week.
- The current average grazing distance for November was 6.9 Kilometers which was higher than the long-term average of 5.85 Kilometres.

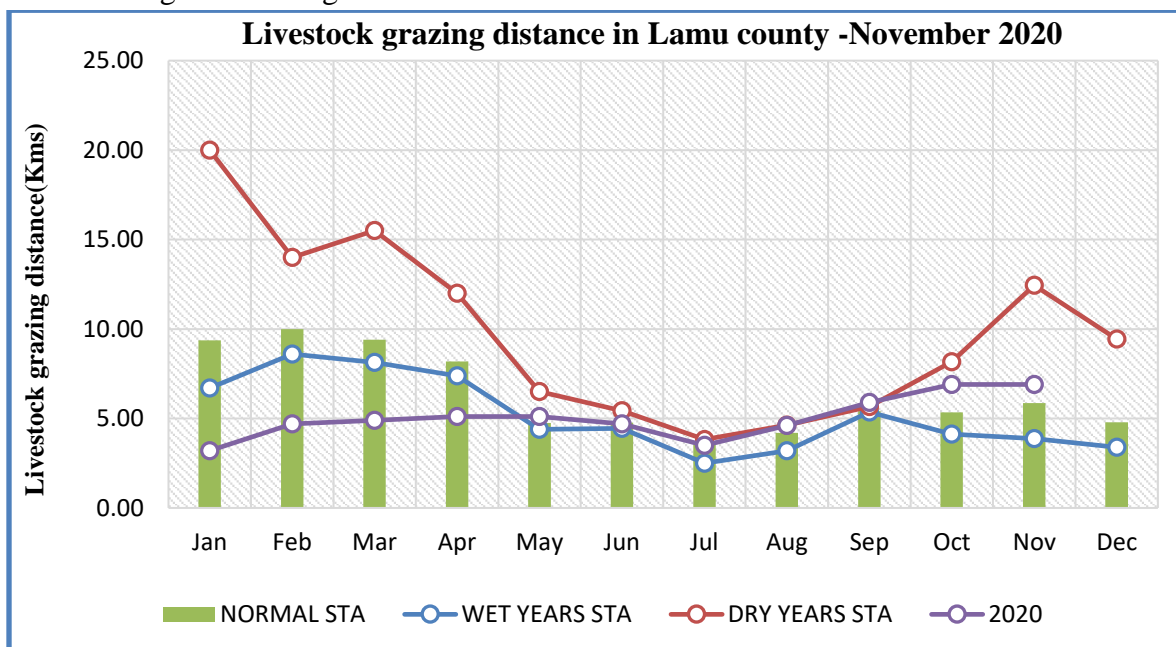


Figure7:Grazing water Distance-Kms.

2.2.4 Household Income Sources

- The main household income for the month of November was distributed as follows: Casual labour 52 percent, trade 18 percent, employment 13 percent, sale of livestock 10 percent and sale of crop 7 percent in figure 8 alongside.
- However, casual increased when compared to the previous month of October while trade decreased and sale of crop increased by two percent.

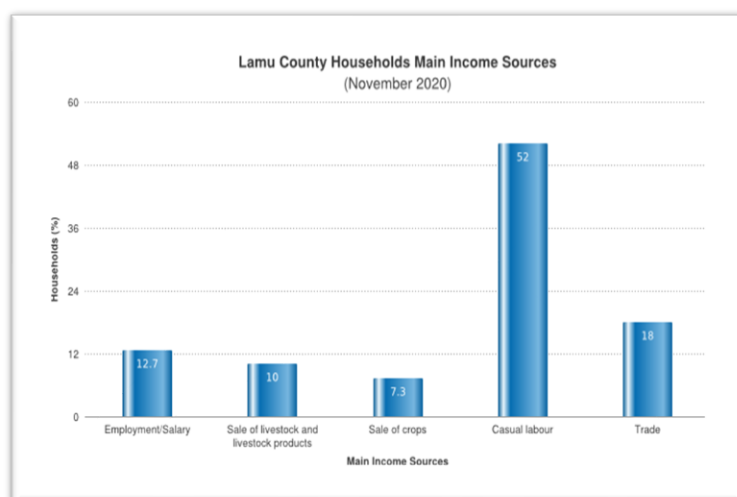


Figure 8: Household sources of income

2.4 Implication to Food Security

- Trypanosomiasis have had a negative impact on the livestock body condition of animals and household hygiene standards.
- The seasonal rainfall will enable improve forage condition and recharge into open water sources. These

will ensure there is a conducive environment in terms of water and forage to boost animal and crop production for the next two months.

- Curfew and stay home orders issued by the government because of the COVID-19 outbreak and increased number of HIV-positive cases had undermined the general normal operation in all livelihood zones hence negative on food security.

3.0 PRODUCTION INDICATORS

3.1.0 Livestock Production

3.1.1 Livestock Migration Patterns

- In-migration of livestock from Bahari ward towards Agro pastoral areas of Witu
- This in-migration is not normal during this period.

3.1.2 Livestock Body Condition

- The livestock body condition was fair to moderately good for all species.
- This attributed to quality and quantity of pasture and browse due to precipitations received.

3.1.3 Livestock Diseases

- No Diseases was reported during the month of November.

3.1.4 Milk Production

- Milk production in November increased to 1.5 litres when compared to previous month. The 1.5 litres was from 13 percent of total household interviewed.
- The increase attributed due to improvement of the forage condition and rainfall received.

- Milk productions distributed as follows: Mixed farming Produced 1.5litres, Fishing 1.4litres, and Irrigated 1.3litres while the Agro pastoral Zone produced average of 1.4litres. Milk prices are retailing at an average price of Kshs.40-100 per Liter across the livelihood zones that is the normal milk price at this period of the year.

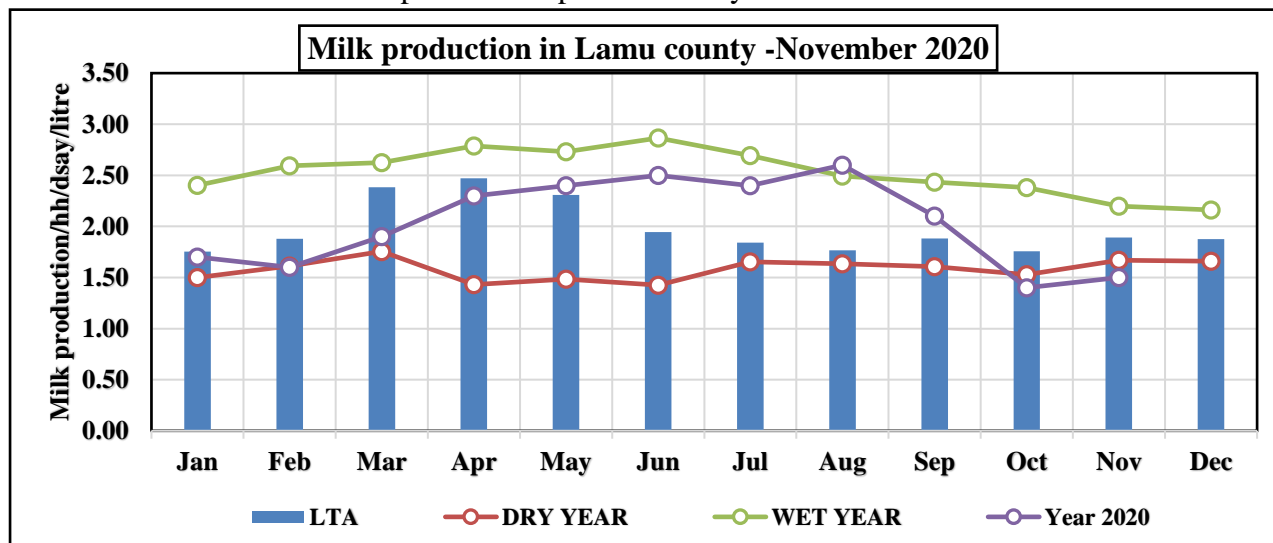


Figure 9: Milk production

3.2 Rain fed crop production

3.2.1 Stage and condition of food crop

- The main crops grown are Maize, Cowpeas, Green grams and Simsim in the County.
- Crops were in different stages e.g. Germination, harvesting and land preparation in all livelihood zones.

3.2.2. Crop Harvest

- Green grams are been harvested planted during the off-season rains.

3.2.3 Implications on Food Security

- The fair to good body condition of livestock across the livelihood zones stabilized the prices resulting to average income for livestock herders.

4.0 MARKET PERFORMANCE

4.1 Livestock marketing

4.1.1 Cattle Prices

- Average cattle market price in the month of November increased to Kshs 27,500 when compared to previous month (Kshs20, 300) as in figure 10 below.
- This increase in price attributed to high demand and low supply of cattle by local herds owing to improving water and pasture conditions.
- The cattle average market prices distributed as follows: Hindi Kshs 22,500, Witu Kshs 30,000, Kiunga Kshs 28,000, Mswakini 22,000 and Mokowe Kshs 22,000.
- The average market, cattle price for the month of November was Kshs.27, 500 that was higher when compared to short-term average price of Kshs.21, 896.

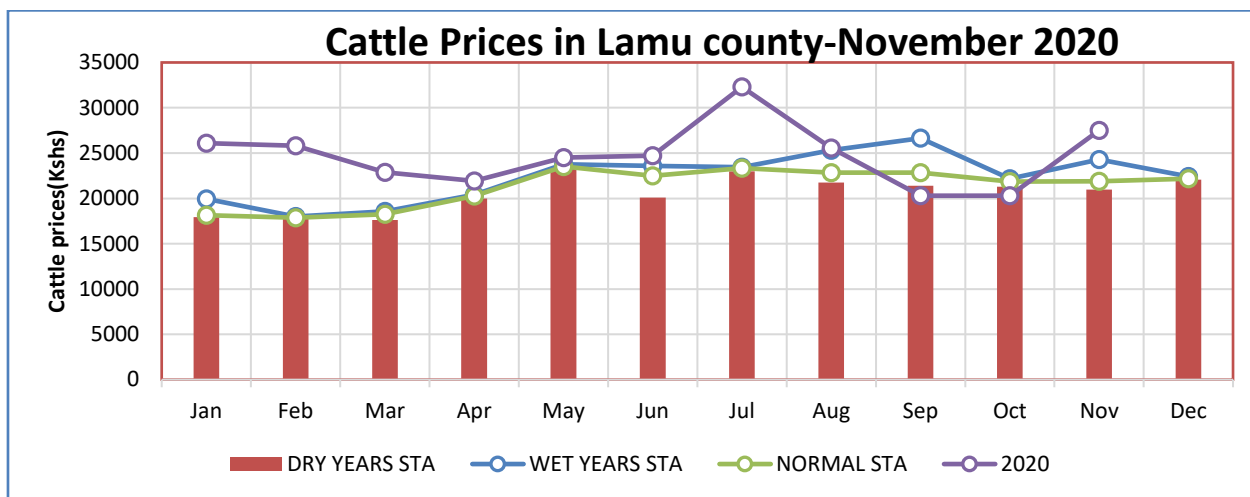


Figure 10: Cattle prices

4.1.2 Small Ruminants Prices

4.1.3 Goat Prices

- Goat price increased in November (Kshs 5,300) when compared to previous month of October (Kshs5,000). There were no much difference but the market demand slightly changed owing to low supply.
- The current goat price was lower when compared to the short term average by 1.4 percent and the price recorded in previous year at a similar period and following seasonal trends as shown in figure 11.
- This increase in price of goats attributed to high market demand and low supply in different markets.
- The goat average market prices distributed as follows: Mpeketoni Kshs 4,500, Witu Kshs 6,000, Kiunga Kshs 6,000 and Mokowe Kshs 4,500.

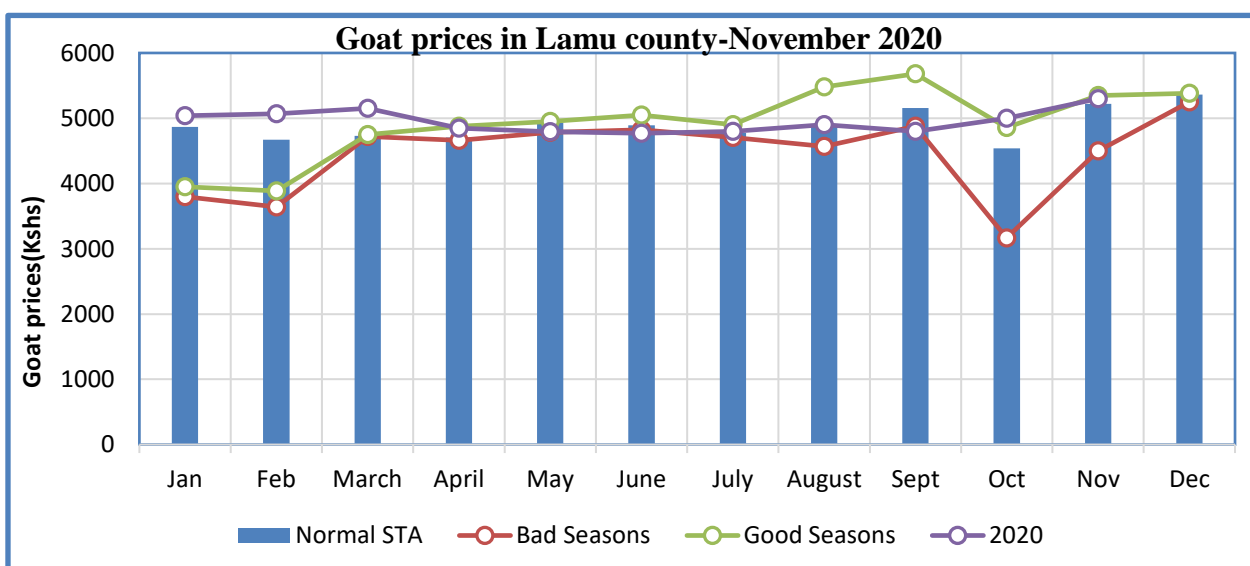


Figure 11: Goat prices

4.2 Crop prices

4.2.1 Maize price

- The maize prices remained stable when compared to previous month, as shown in the figure 12. The average price of one kilogram of maize for November was Kshs 35.

- The Stability of price was due to harvest of the product received during the off seasonal period.
- The market prices distributed as follows; Hindi centre Kshs 50, Patte Kshs 25, Witu Kshs 40, Mpeketoni Kshs 20 and Kiunga Kshs 40. However, price ranges determined by commodity supply in different markets.

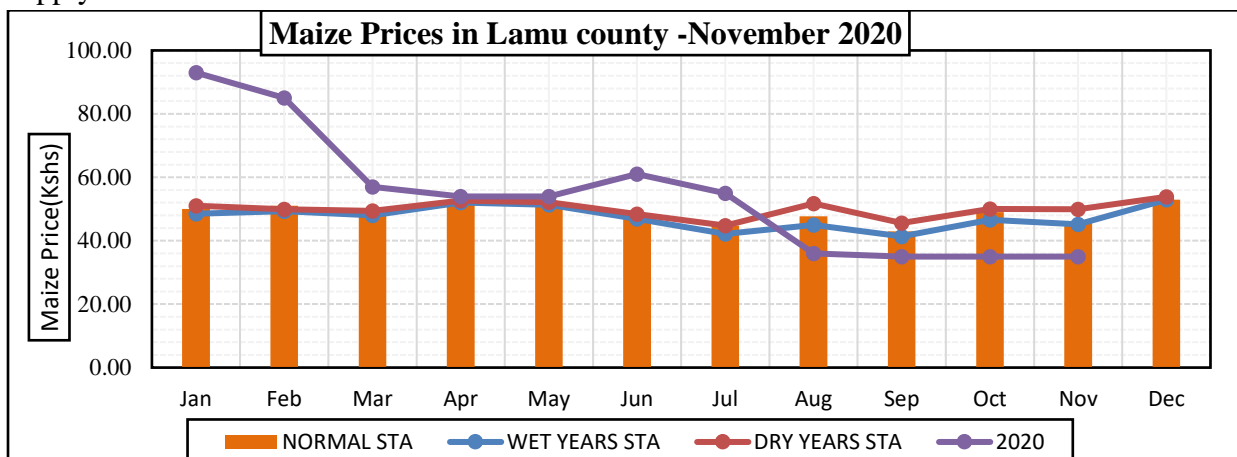


Figure12: Maize prices

4.2.2 Beans prices

- Average price of Kilogram of beans was Kshs 111 in November, which was a decrease when compared to the previous month of October at Kshs 123 as shown in the figure 13 below.
- The decrease in price was attributed to low demand and high supply of the commodity in the market. The beans price was distributed as follows: Mswakini /Hindi centre Kshs 80, Patte Kshs 130, Witu Kshs 120, Mpeketoni Kshs 90 and Kiunga Kshs 130.
- However, price ranges is determined by commodity supply in the different markets. The short-term average price of beans was Kshs 100 which is lower compared to the current beans price for the month of September.

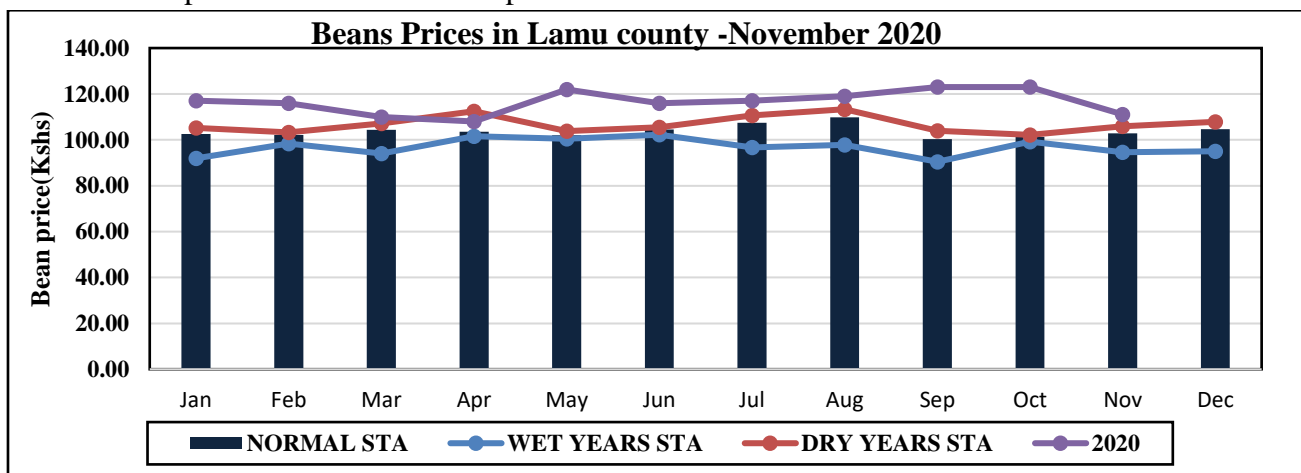


Figure 13: Beans prices

4.3 Livestock Price ratio/Terms of Trade

- The terms of trade (ToT) of November (155 Kilograms) increased when compared to previous month of October (139 Kilograms) as in figure 14 below.
- This TOT of 155 Kilograms was higher when compared to the short-term average by 42 percent. Sale of a medium goat in November would cost a household about 155 kilograms of maize.

- This showed the exchange ratio increased in favour of goat sellers when compared to crop farmers. However, this determined the supply in the different markets.
- The ToT was 156.8 Kilograms in Lamu West and 155.3 Kilograms in Lamu East.
- The ToT for November was higher when compared to the short-term average of 89.4 Kilograms.

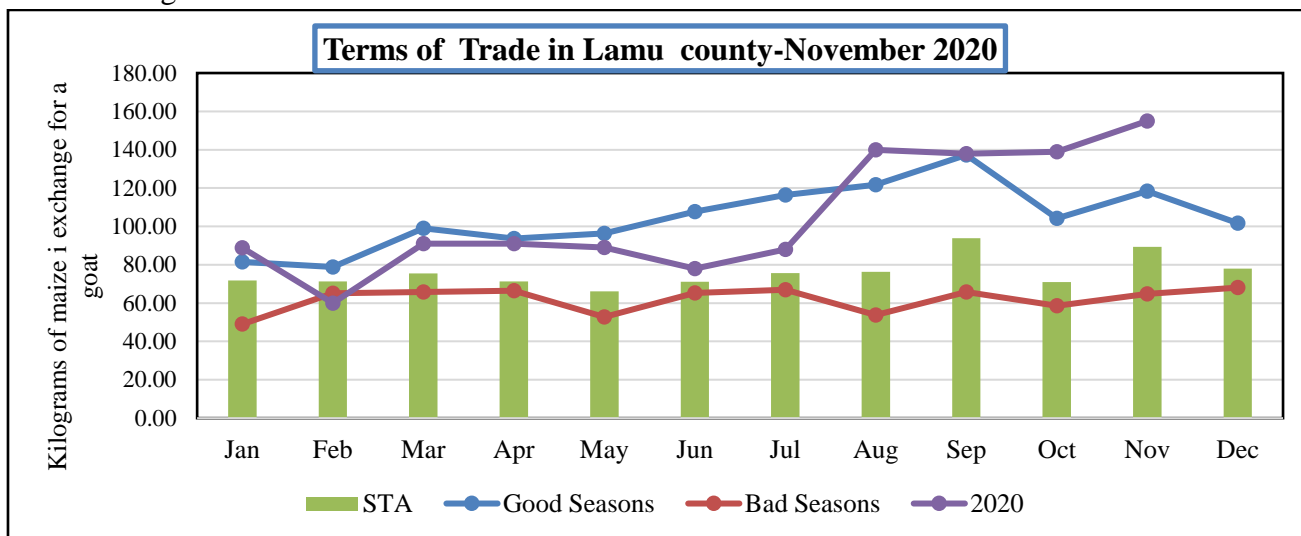


Figure 14: Terms of trade

4.4 Implication on food security

- Maize prices remained stable due to low demand and high supply in different markets.
- Farmers are able to sell livestock at fair prices, hence improved food security at household level.

5.0 FOOD CONSUMPTION AND NUTRITION STATUS

5.1 Milk for Household Consumption

- Average milk Consumption was 1.4litres in the month of November, which increased slightly when compared to previous month as in figure 15. This 1.4litres of milk consumed by 13 percent of the total households interviewed.
- Milk consumption distributed as follows; Agro pastoral 1.7 litres, Mixed farming 1.4, irrigated cropping 1.5 litres and fishing 1.5litres.
- The increase in milk consumption level is because of improvement of pasture condition and household purchase power of the commodity.
- The long-term average milk consumption was higher than the current consumption.

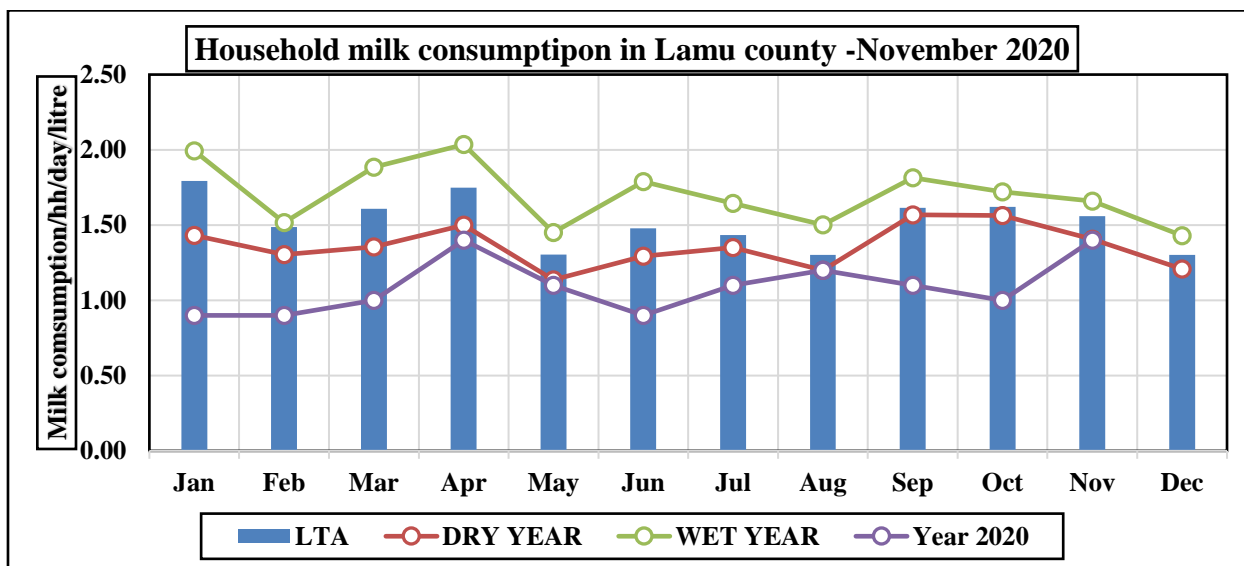


Figure 15: Milk consumption

5.2 Health and Nutrition status

5.2.1 MUAC

- The proportion of children under five at risk of malnutrition with Mid Upper Arm Circumference below 135mm remained stable at 6.5 percent when compared to previous month of October.
- The proportion of children under five with severe category was zero percent during the month under review, indicating decrease in the number of children with severe category.
- This was attributed to increase in production of milk and consumption at household level. The rates of malnutrition cases reduced in Agro pastoral and Mixed farming Zones of Witu, Hindi and Mpeketoni areas.
- The figure of 6.5 percent was higher when compared to the long term average as in figure 16 a.
- In the month of October, 0.2 (yellow) and 0.2 (Red) percent of children were severely malnourished and moderately malnourished respectively as shown in figure 16 b.

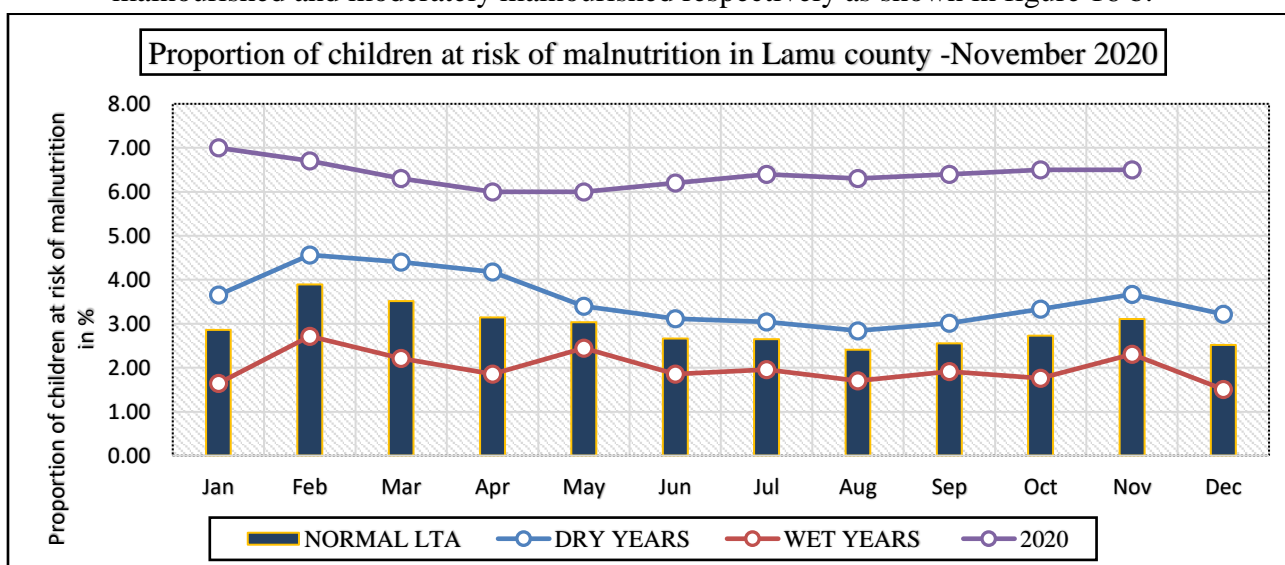


Figure 16 a: MUAC

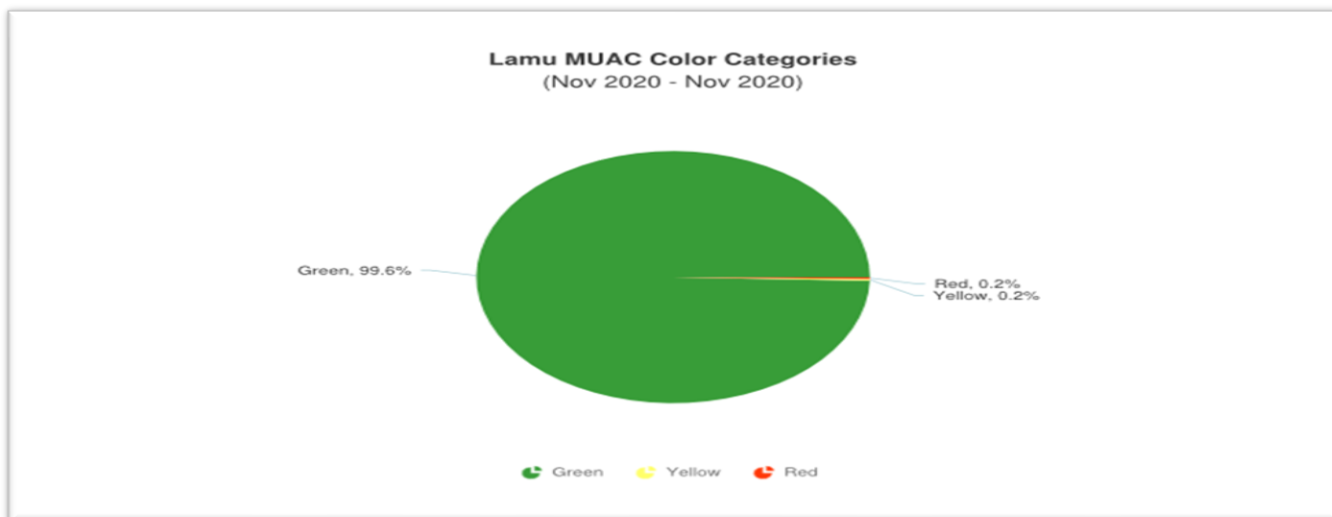


Figure 16 b: MUAC Colour category

5.2.2 Health

- There were no cases of major disease outbreak for both children and general population in the County.

5.3 Food consumption score

- The Proportion of households with poor, borderline and acceptable in the county were at 12, 51 and 39 percent respectively during the month of November. This is an increase in poor and borderline food consumption by two and four percent respectively while acceptable decrease by six percent.
- The population with the highest Borderline food consumption in the county was fishing with 97 percent and Agro pastoral with 50 percent respectively.
- Poor food consumption was noted in Mixed farming, Fishing & mangrove and Agro pastoral at 25, three and two percent respectively, owing to reduced availability of food at households’ level; however, households have low purchasing power, thus consuming two to three meals per day with three to four food groups as in figure 17 below.

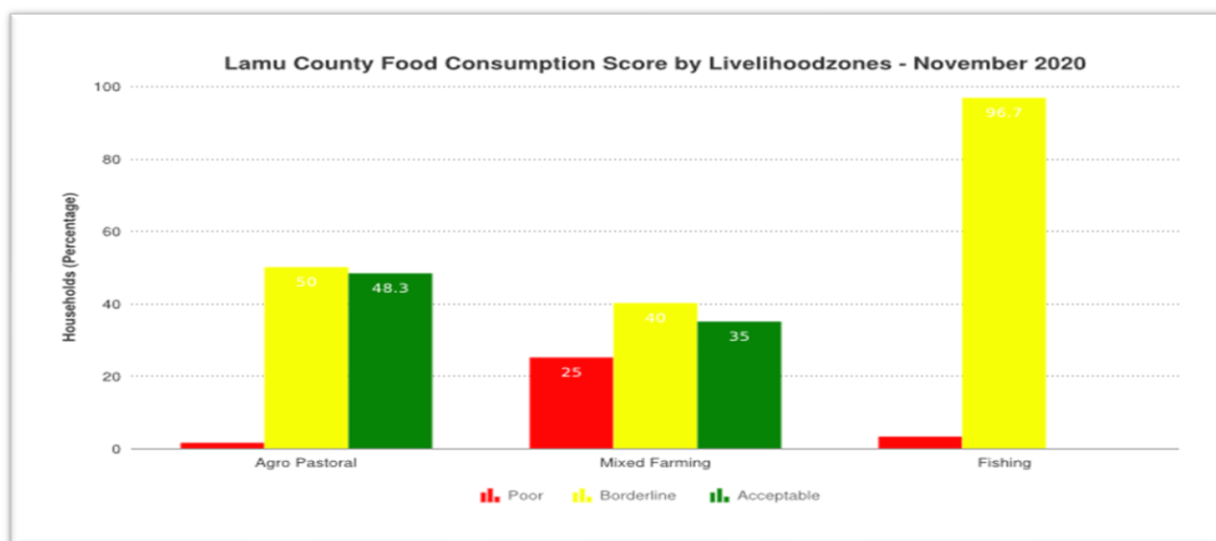


Figure 17: Food consumption score

5.4 Coping strategy index

- The mean coping strategy Index in the Month of November (7.79) decreased when compared with the previous month of October (9.57) indicating decreased in coping strategies at household level.
- Agro pastoral Zone had CSI of 6.4; Mixed Farming livelihood zone had 3.7 while Fishing Livelihood zone had the highest coping strategy index of 18.7.
- Common coping strategies employed by food insecure households in the month of November were; Reduction in the number of meals, Purchase on credit/remittances from relatives, Borrow food from friends or relatives, adopting for less preferred or less expensive food.

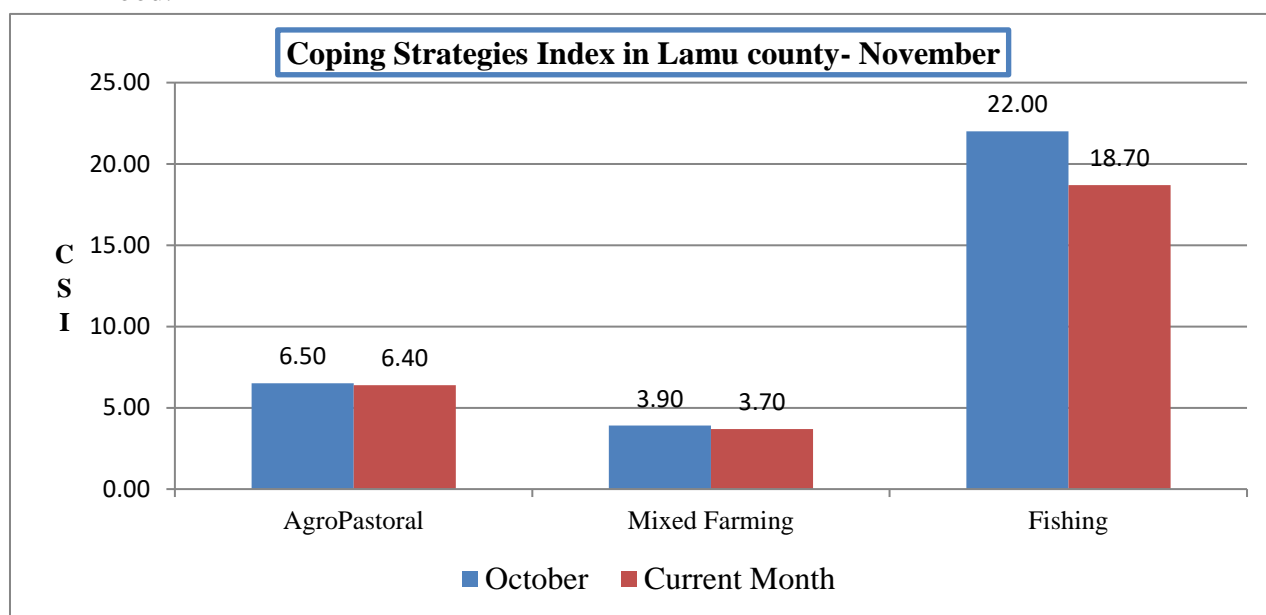


Figure 18: coping strategy index

5.5 Implication on Food Security

- The Increase of milk consumption at household levels in Agro pastoral and mixed farming Livelihood zones could lead to improved dietary diversity and hence positive impact on food security.

6.0 CURRENT INTERVENTION MEASURES (ACTION)

6.1 Food aid

- There were no reports of any food aid distribution in the county during the Month of November.

6.2 Non-food interventions

- Cash transfer by the Social protection department to 3,500 households for older persons, Orphans and people with disabilities respectively for the entire county.
- The cash transfer will improve the purchasing power of the households to access food of their preferences during the current curfew and stay at home period.

7.1 EMERGING ISSUES

7.2 CORONAVIRUS OUT BREAK

- The announcement of the emergence of the coronavirus in the country has destabilized the equilibrium of all livelihoods in the county, specially when orders of stay at home and curfew were imposed.

7.2 Insecurity

- There were no cases of insecurity reported during the month of November.

7.3 Migration

- There were no abnormal cases of human migration during the month under review.

7.4 Food security prognosis

- Food and milk intake expected to improve, acute malnutrition levels expected to decline, but are still likely to remain high due to below-average milk production, consumption, and poor child-care practices.
- The distance to water sources for both human and livestock expected to decrease with the continued rainfall season.
- Water salinity expected to decrease due the increase in water levels in fishing zones.
- The overall food security situation remains in the stressed phase (IPC 2) and on a worsening trend due to the effects of COVID 19.
- Major factors affecting the livelihoods of the people are insecurity and pests that make productive land and livestock inaccessible.
- The invasion of the desert locust will greatly affect forage condition hence impact on food security in the county.
- Pasture and browse likely depleted by the invasion of desert locust, hence the body conditions expected to deteriorate.

8.0 RECOMMENDATIONS BY SECTORS;

8.1 Water.

- Conducting of hydro geological survey and drilling of boreholes.
- Promotion of rain water harvesting, repair of Djabias, roof catchment areas, installation of gutters and tanks in Villages and Institutions.
- Provision of water treatment tabs to households mainly in rain fed areas.
- Installation of solar powered water systems e.g. desalination plants in hot spot areas in the Island.

8.2 Livestock

- Livestock disease surveillance and control through vaccinations against notifiable diseases such as CCPP, FMD, in the county.
- Construction of vaccination crushes and cattle dips.

8.3 Agriculture

- Build Capacity of crop farmers to combat with the desert locust invasion.
- Provision of drought tolerance seeds to crop farmers under irrigation and farmers in preparation to short rains.

8.3 Health and Nutrition

- Sensitize the community on the safety precaution measures against corona.
- Strengthen malnutrition screening and active case search as well as strengthen integrated management of acute malnutrition in the community.
- Enhance household level water treatment.

8.4 Peace and Security Sector (Co-ordination)

- Provision of relief food or cash transfer to vulnerable household during this period of COVID 19.