

LAMU COUNTY

DROUGHT EARLY WARNING BULLETIN FOR SEPTEMBER 2021



A Vision 2030 Flagship Project



Drought Situation & EW Phase Classification

Biophysical Indicators

- The County received no off-season rainfall during the Month of September.
- The vegetation condition Index (VCI-3Month) showed decrease of 11 percent when compared to previous month of August.
- The VCI indicated moderate vegetation greenness. The overall drought phase in the county was at Alarm stage of the drought phase.
- Forage condition was poor across all livelihood zones during the month.

Socio Economic Indicators

Production indicators

- All livestock species exhibited fair to poor body condition.
- Crops farmers are currently at land preparation stages.
- Milk production was below the LTA compared to previous month of August.

Access indicators

- Terms of trade were favorable to livestock farmers when compared to crop farmers.
- Water access for both human and livestock was fair to poor depending on the water sources available in the livelihood zone.
- Milk consumption decreased and at par with the long-term Average.

Utilization indicators

- The proportion of children at risk of malnutrition was currently stable when compared to previous month and at par when compared to normal ranges.
- The average coping strategy increased by 24 percent when compared to previous month of August.

Early Warning (EW) Phase Classification

Livelihood Zone	Phase	Trend
Agro pastoral	Alarm	Worsening
Mixed farming	Alarm	Worsening
Fishing	Alert	Worsening
Formal/Skilled/unskilled/Trade	Alert	Worsening
County	Alarm	Worsening
Biophysical Indicators	Value	Normal Range/Value
Rainfall (% of Normal)	0	80 -120
VCI-3Month	28.8	<50
Forage condition	poor	Good
Production indicators	Value	Normal
Crop Condition (specify crop) Maize	poor	Good
Livestock Body Condition	Fair to poor	Good
Milk Production	1 litre	>3 Litres
Livestock Migration Pattern	Not Normal	Normal
Livestock deaths (from drought)	Death	No death
Access Indicators	Value	Normal
Terms of Trade (ToT)	104	84
Milk Consumption	0.9 litre	>3litres
Return distance to water sources (HH).	5.8	<2 Km
Cost of water at source (20 litres)	5-10	<5Kshs
Utilization indicators	Value	Normal
Nutrition Status, MUAC colour	Green-99.4 Yellow-0.4 Red -0.2	>90%
Coping Strategy Index (CSI)	10.26	<0.95

Seasonal Calendar

<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

1.0 CLIMATIC CONDITIONS

Rainfall performance

- No off seasonal rainfall received during the month of September when compared to the previous months of August as recorded in the two decades of August as in figure 1 below.
- The current NDVI value is below average when compared to the historical long-term values as shown in figure 1.

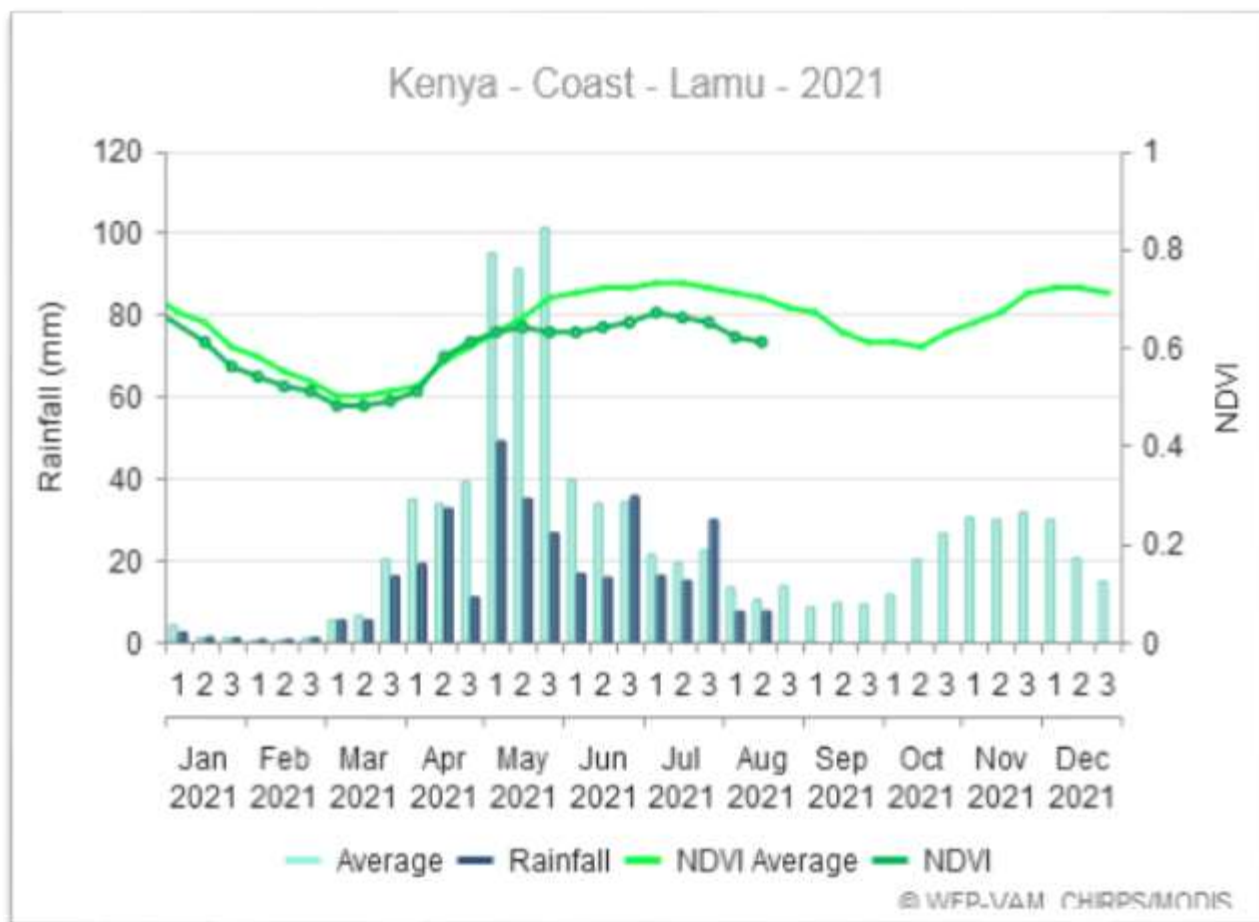


Figure 1: Rainfall and NDVI Satellite data

1.2 Amount of rainfall and spatial distribution

- According to VAM WFP rainfall and vegetation data, the County received no rains during the month September.
- This was a decrease of 100 percent rainfall when compared to previous month of August as in the figure 1 above.
- The rainfall was below by 100 percent when compared to 23.8mm received in the same period during the previous year 2020.
- The off seasonal rainfall was poor, both in spatial and temporal and was unevenly distribution in all parts of the livelihood zones of the county during the month of September.

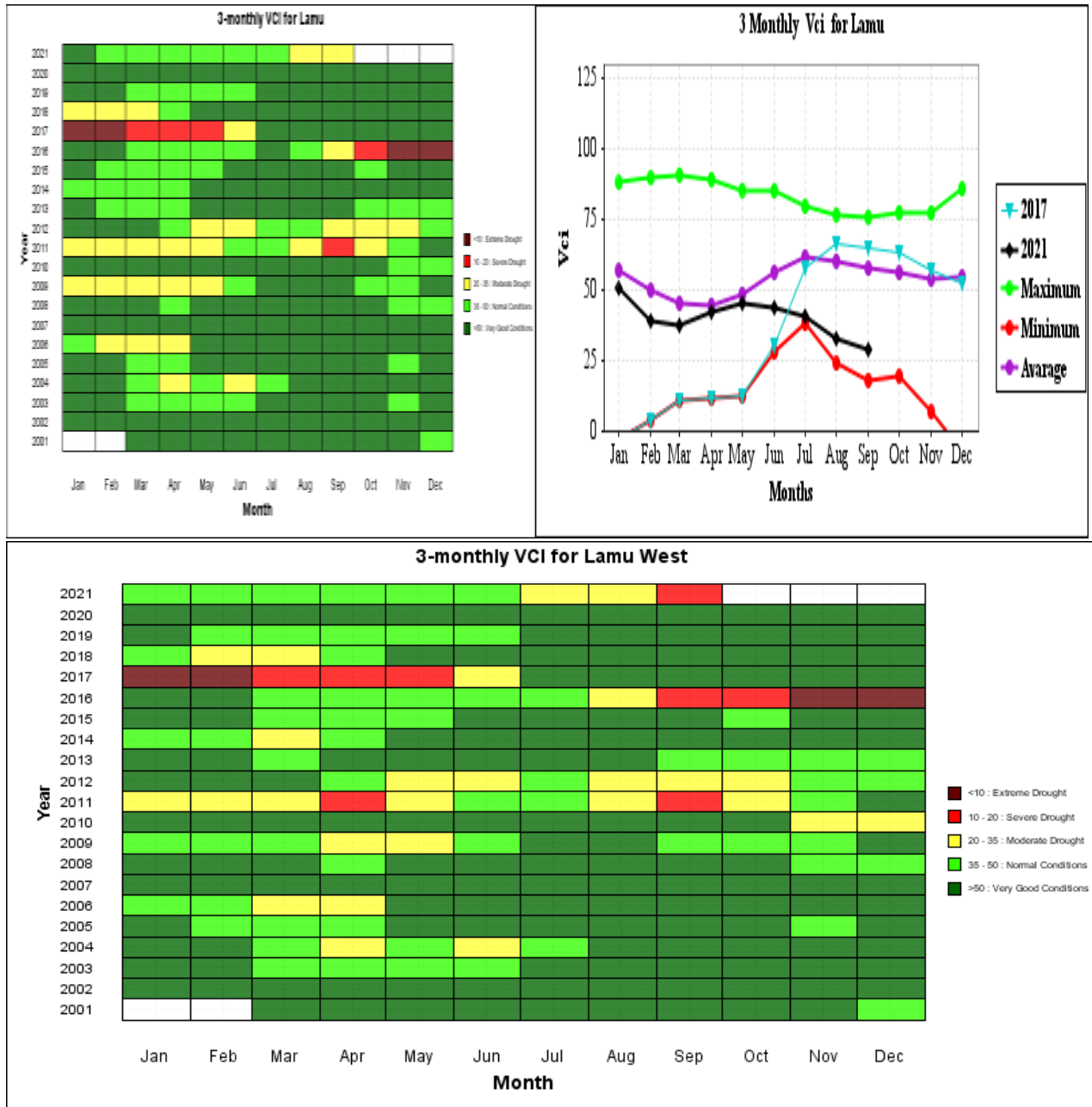
1.3 Other hazards.

- There were no hazards reported across the entire county during the Month of September.

2.0 VEGETATION CONDITION

2.1 Vegetation Condition Index (VCI)

- The vegetation condition index for the month of September decreased by 11 percent compared to the previous month of August. This was due to low precipitation rate received during the previous month of August.
- The vegetation condition index for the month of September was 28.8 compared to 32.41 in the previous month.
- However, Lamu East Sub-County had above normal vegetation greenness at three months VCI of 47.13, while Lamu West Sub County recorded severe vegetation of 18.2 respectively.
- VCI-3Months is below the long-term average and the previous year as shown in the figures 2 below. {Source: Boku University, Austria}



**Figure 2: Vegetation condition index
OBSERVATIONS-PASTURE AND BROWSE CONDITION**

2.1.2 Pasture conditions

- Pasture condition was poor to fair in all livelihood zones in the county but on worsening trend in fishing and Agro pastoral zones both in quality and quantity.
- 93 percent of community members interviewed stated that pasture was poor while seven percent stated that it was fair as in figure 3.
- Pasture condition by livelihood zones was as follows; Agro pastoral was poor, mixed farming was good to poor while fishing/ mangrove was fair to poor and on worsening trend.
- The available pasture is expected to last less than a month due influx.
- The current pasture is not within the normal range.

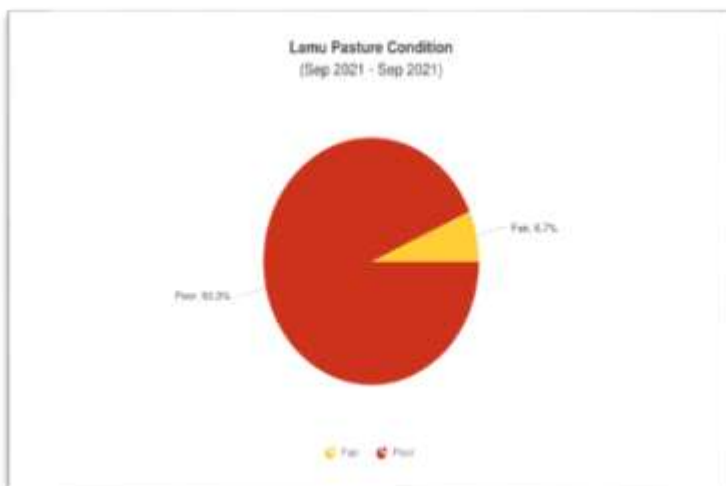


Figure 3: Pasture condition

2.1.3 Browse conditions

- The quantity and quality of browse was poor to fair across all livelihood zones.
- Community members interviewed indicated that 73 percent of the respondents stated that browse was poor while 27 percent stated that it was fair and on worsening trend due to below average off seasonal rains and high rate of transpiration as in figure 4.
- Browse condition by livelihood zones was as follows; Agro pastoral, mixed farming was fair to poor and fishing/ mangrove was fair.
- The browse is expected to last less than a month.
- The current browse condition is below the normal range compare to previous year.

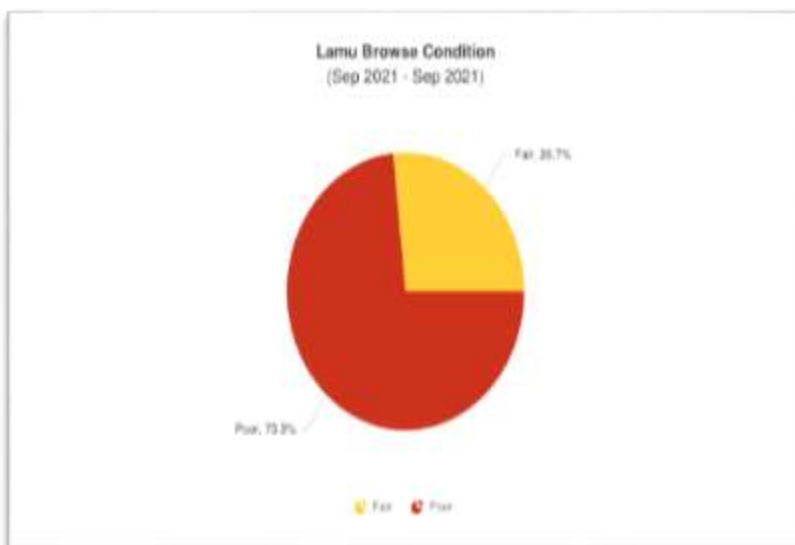


Figure 4: Browse conditions

2.2.0 HYDROLOGICAL DROUGHT

2.2.1 Water Sources and Availability

- The state and condition of water sources in the County was fair to poor across all the livelihood zones, however most of the Djabias and water pans have dried up and the shallow wells have been turning totally saline, this attributed to low water levels due poor recharge during the long rains period.
- The two major water sources in the county during month were shallow-wells which was recorded at 67 percent, river at 20 percent of the total.

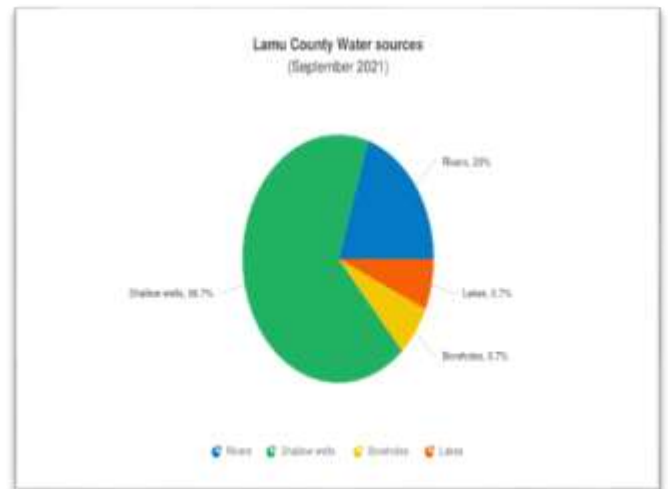


Figure 5: Main sources of water

- The other remaining sources are below seven percent as shown in the figure 5.
- The current water situation is on decline compared to previous months due to pressure from the influx, however, this is not normal at this time of the year.

2.2.2 Household access and Utilization

- Average household watering return distance remained stable to 5.8 Kilometers in September, when compared to previous month of August at 5.8 kilometers. This Stability in household water distance was attributed to the water trucking and the null rainfall. Household return water distances per livelihood zones were as follows; the Agro pastoral 4.7 Kilometers, Fishing & Mangrove Harvesting 3.7 Kilometers and Mixed Farming Zone it was two Kilometers respectively.
- The null precipitation led to decrease in the level of water sources such as Shallow wells and Boreholes.
- The average household water distance for September was 5.8 Kilometers which is above the long-term average of 2.6 Kilometers as shown in figure 6 below.
- The average household water consumption per person per day is at 10 – 15 liters in all livelihood zones except in fishing and mixed farming zones at 5 - 10 litres per person per day.
- Water costs at source are 5 - 10 Kshs in town/village centers for 20 liters while the cost in fishing and mixed farming ranging between Kshs 20 - 50.

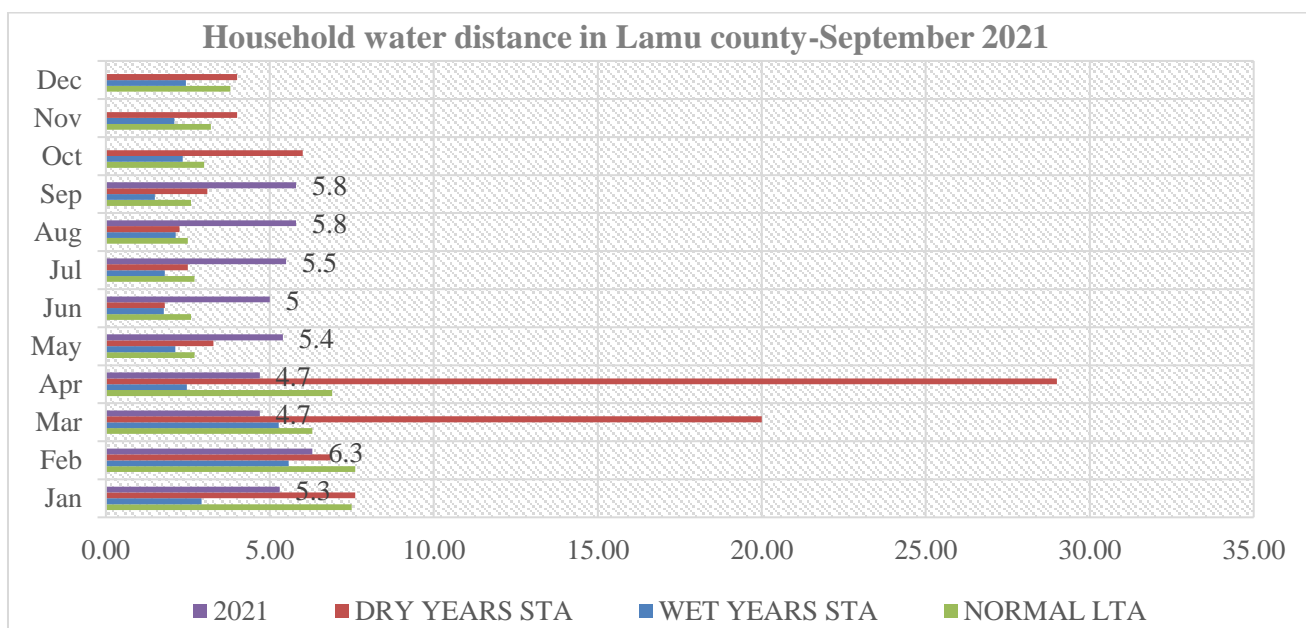


Figure 6: Households water distance

2.3 Livestock access to Water

- Livestock average distance to water source from grazing areas increased to 13.5 kilometres when compared to 11.5 kilometres during the previous months as shown in figure 7.
- Grazing return water distances per livelihood zone were as follows: the Agro pastoral 7.7 Kilometres, Fishing & Mangrove Harvesting two Kilometres and for Mixed Farming zone recorded 8.3 Kilometres respectively.
- The increase of grazing water distance was as a result of null precipitation and the below normal during the long rains.
- Watering frequencies for livestock species was 5-7 days times per week.
- The current average grazing distance for September was 13.5 Kilometers was higher when compared to the short-term average of 4.8 Kilometres.

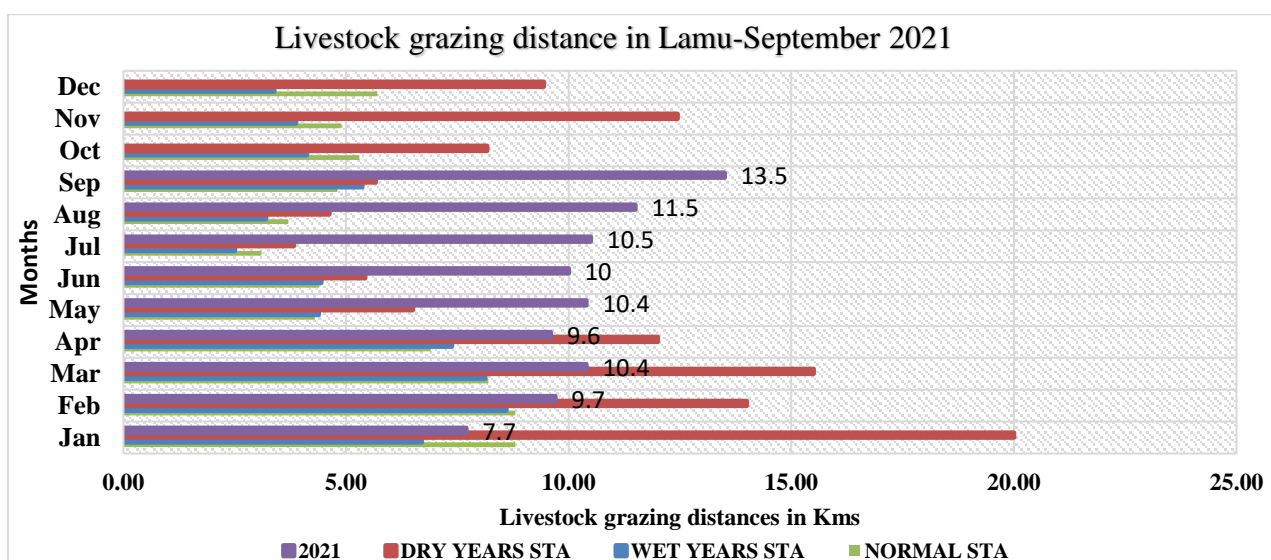


Figure 7: Livestock grazing water distances

2.2.4 Household Income Sources

- The main households income for the month of September in the County was distributed as follows: Casual labour 58 percent, employment 14 percent, sale of livestock 9.3 percent and trade 18 percent in figure 8 alongside.
- However, casual labour and sale of livestock increased by two percent respectively and employment remained stable with 14 percent when compared to the previous month of August while trade decreased by two percent.
- Sale of crops during the month recorded zero, this was attributed due to crop failure during the long rains period.

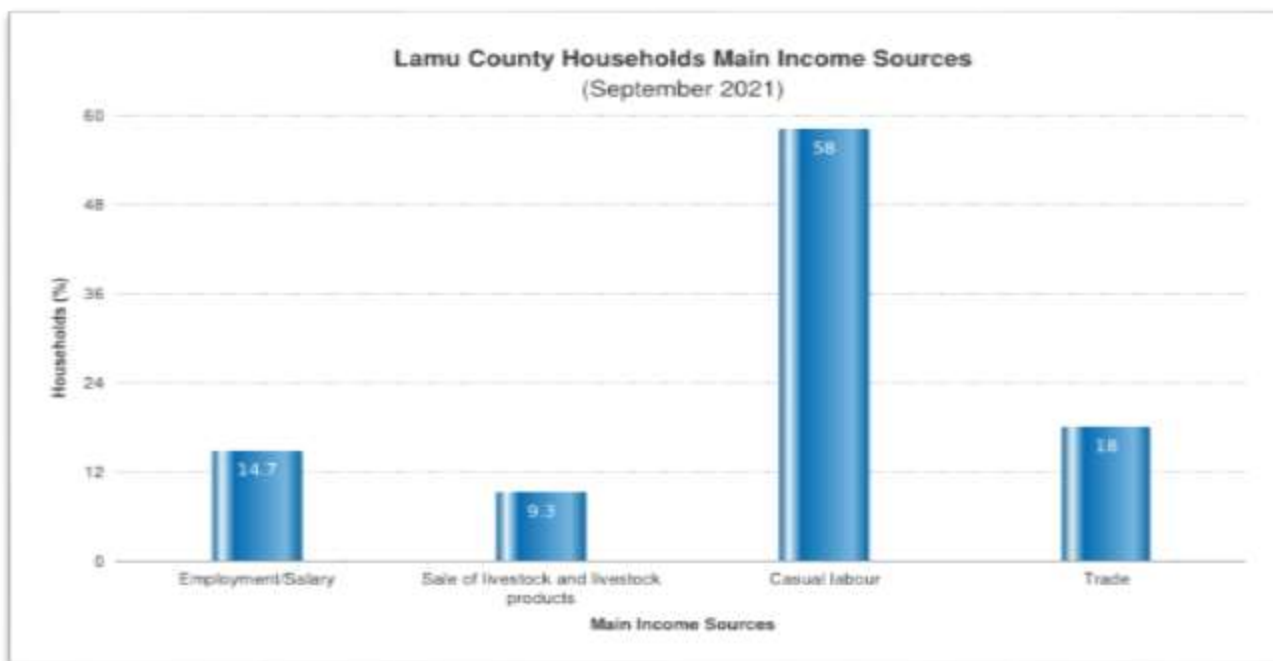


Figure 8: Households sources of Income

2.4 Implication to Food Security

- All livelihood zones will experience increased water salinity due to low level of water table of the Boreholes and shallow wells.
- Diseases such as Lumpy skin disease; Trypanosomiasis, New castle, foot and mouth have had a negative impact on the livestock body condition and production of animals and household hygiene standards.
- Curfew and stay home orders issued by the government because of the fourth wave of the COVID-19 outbreak and increased number of HIV-positive cases according to the health department and this had undermined the general normal operation in all livelihood zones hence impacted on food security and household incomes.

3.0 PRODUCTION INDICATORS

3.1.0 Livestock Production

3.1.1 Livestock Migration Patterns

- In-migration of livestock from neighbouring counties to Agro pastoral, mixed farming zones were reported during the month.
- This in-migration is not normal during this period of the year.

3.1.2 Livestock Body Condition

- The livestock body condition was fair to poor for cattle and fair to good for small ruminants.
- This was attributed to low quality and quantity of pasture and browse due to the null precipitations received during this month.
- However, due to influx and pasture depletion the body conditions are expected to deteriorate further.

3.1.3 Livestock Diseases

- There were no outbreak of diseases in livestock reported during this Month of September.

3.1.4 Milk Production

- Milk production in September decreased to one litre when compared to previous month, with decrease in households' milk production. The one litres of milk were from one percent of total household interviewed as in figure 9.
- Milk productions were distributed as follows: Mixed farming produced 1.2litres, Fishing is nil, while the Agro pastoral Zone produced average of 1litres. The trend of milk production was on decline since the month of June due low calving and depleted pasture.
- Milk prices are retailing at an average price of Kshs.100-120 per Litre across the livelihood zones which are not normal at this period of the year.

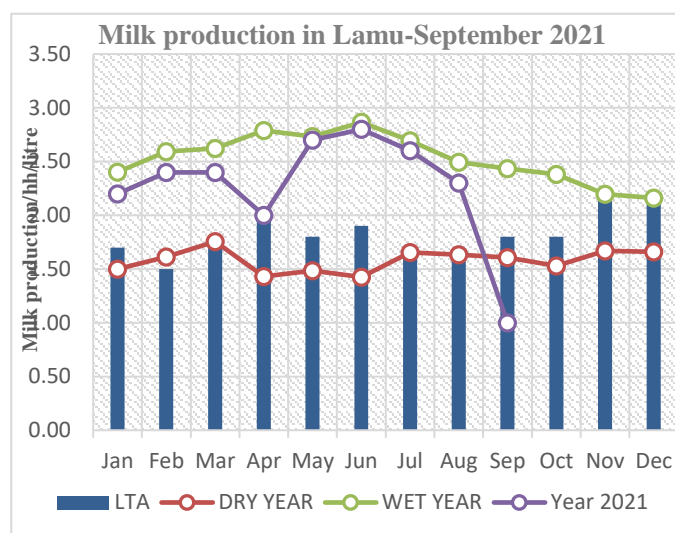


Figure 9: Milk production

3.2.0 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 farmers are currently at Land preparation stages.

Crop Harvest

- Currently there are no reports of any harvesting.

3.2.2 Implications on Food Security

- The poor body condition of livestock body condition across the livelihood zones has decreased the prices resulting to decreased income for livestock herders. The crop failure was due to low precipitation, hence reduced food stocks at household level hence impact on food security.

4.0 MARKET PERFORMANCE

4.1 Livestock marketing

4.1.1 Cattle Prices

- Average cattle market price in the month of September remained stable to Kshs 26,400 compared to previous month (Kshs26, 400) as in figure 10 below.
- This Stability in price could be attributed to low demand and high supply in different markets.
- The cattle average market prices were highest in Patte at 32,000 and lowest at Witu at Kshs 22,000.
- The average market cattle price for the month of September was Kshs.26, 400, thus was lower when compared to normal short-term average of Kshs.26, 600.
- The current price was also lower when compared to dry and wet seasons.

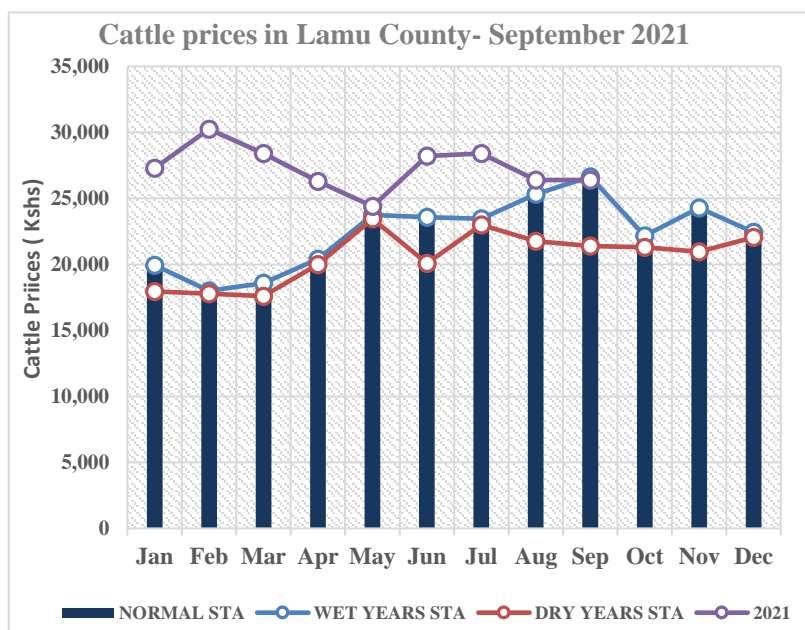


Figure 10: Cattle prices

4.1.2 Small Ruminants Prices

4.1.3 Goat Prices

- Goat price decreased in September (Kshs 4,400) when compared to previous month of August (Kshs 4,800).
- The current goat price decreased by nine percent when compared to the previous month and higher than the short term price recorded in previous year at a similar period and following seasonal trends as shown in figure11.
- This decrease in price of goats could be attributed to low market demand and below average body condition.
- The goat average market price for September was highest in Kiunga at Kshs 5,600 and the lowest was in Mpeketoni market at Kshs 3,500.
- The current price was also lower when compared to bad seasons.

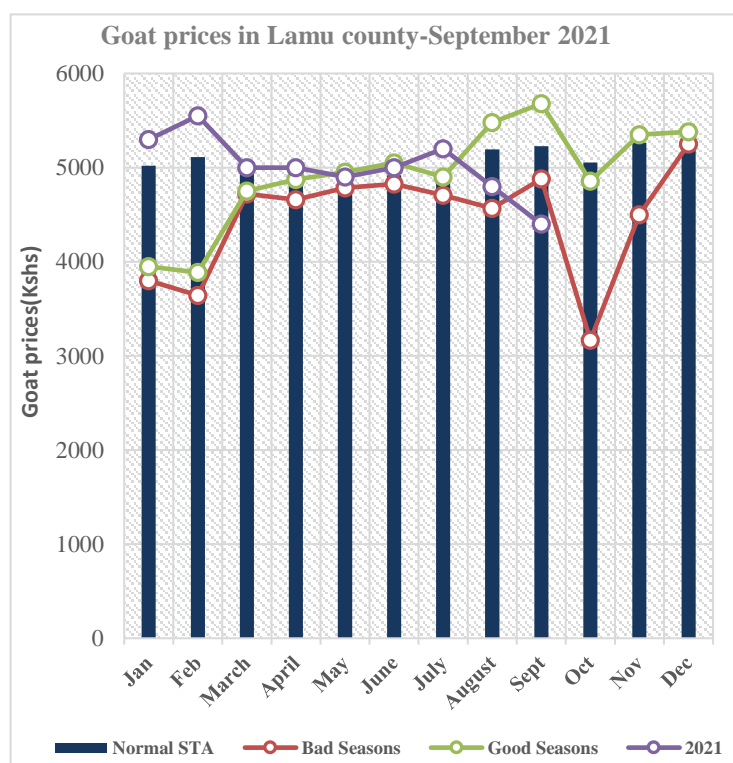


Figure 11: Goat prices

4.2: Crop prices

4.2.1 Maize price

- The maize prices decreased to Kshs 43 when compared to previous month of August at Kshs 46 as shown in the figure 12.
- The average price for September was Kshs 43, which was above the normal short term and the wet season's averages.
- The decrease of price was due to low demand of the product coupled with poor harvest of the product during the long rains.
- The maize market prices were highest in Mokowe at Kshs 50 and lowest in Patte at Kshs 30. However, price ranges are determined by commodity supply in different markets.
- The price is likely to follow seasonal trends.

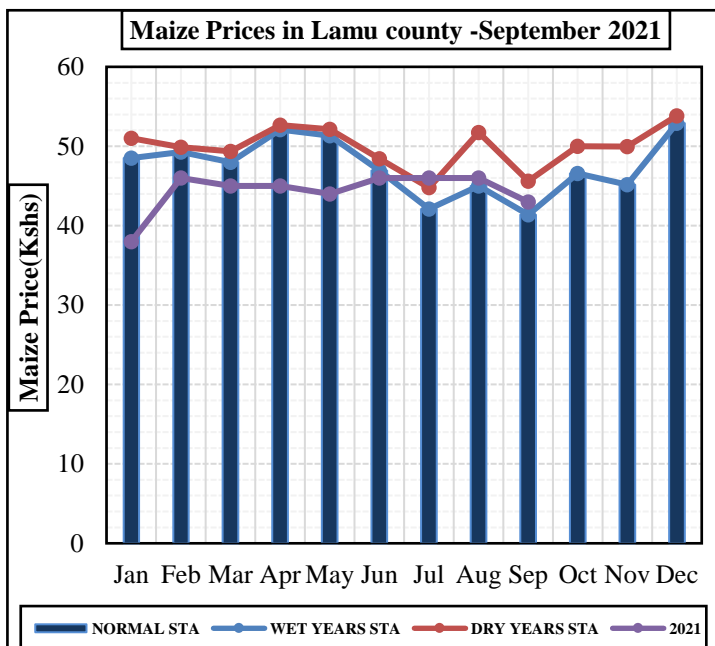


Figure 12: Maize prices

4.2.2 Beans prices

- Average price of Kilogram of beans was Kshs 126 in September, which was a slight increase when compared to the previous month of August at Kshs 124 as shown in the figure 13 alongside.
- The increase in price was attributed to high demand and low supply of the commodity in the market.
- The beans price was highest in Witu at Kshs 140 and lowest in Baharini at Kshs 110.

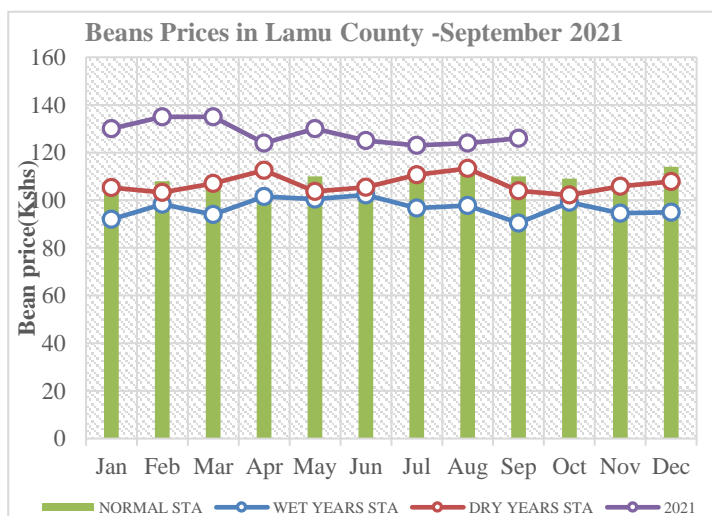


Figure 13: Beans prices

- However, price ranges is determined by commodity supply in the different markets and the purchasing power since COVID-19 has affected most of the bussiness enterprises.
- The short-term average price of beans was Kshs 110 which is lower when compared to the current beans price for the month of September and the wet and dry seasons.
- The price is likely to follow seasonal trends.

4.3 Livestock Price ratio/Terms of Trade

- The terms of trade (ToT) for the month of September (104 Kilograms) which was a stable when compared to previous month of August (105 Kilograms) as in figure 14 below.
- This TOT of 104 Kilograms was lower when compared to the short-term average by 15 percent.
- Sale of a medium goat in September would cost a household about 104 kilograms of maize.
- This showed the exchange ratio favour of goat sellers when compared to crop sellers. However, this was determined by supply in different markets.
- The ToT was highest in fishing at 134 kilograms and lowest at mixed farming zone at 84 kilograms.
- The Terms of trade for September was lower when compared to the short-term average of 122 Kilograms and the good season.

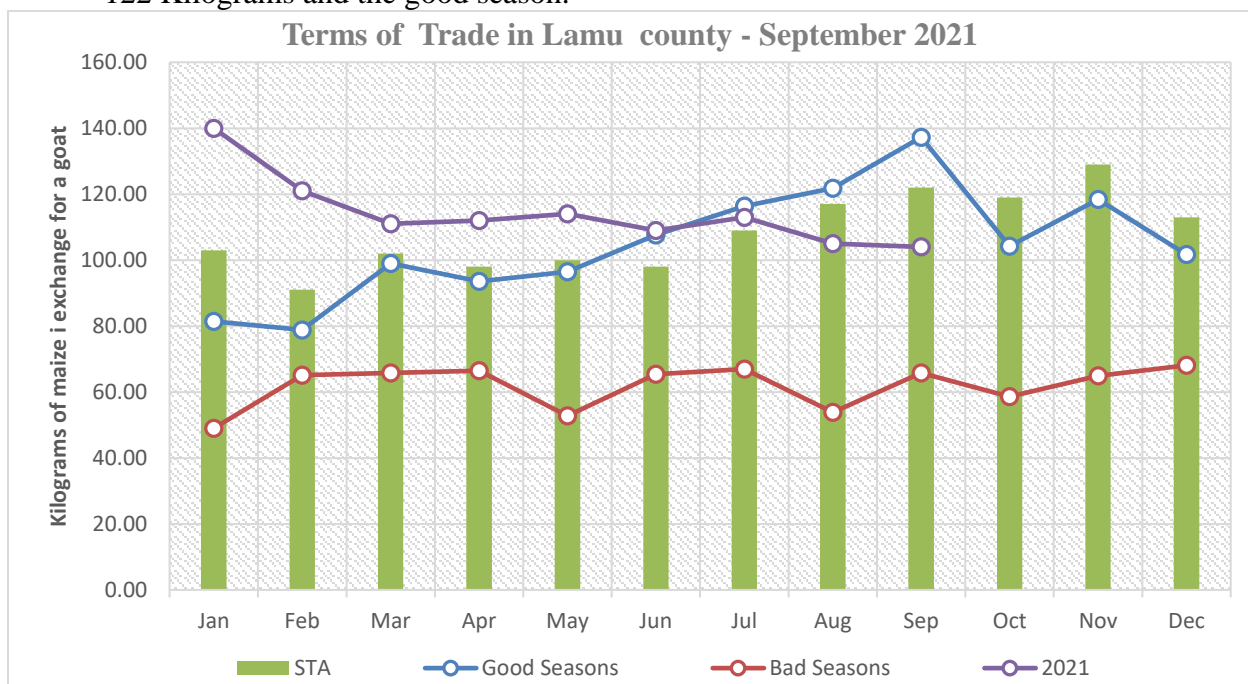


Figure 14: Terms of trade

4.4 Implication on food security

- Farmers are able to sell livestock at fair prices, hence improved food security at household level, especially for small stocks.
- The Curfew and stay home orders issued by the government because of the third wave of the COVID-19 outbreak had under mined the general normal operation in all livelihood zones hence negative impact on food security.

5.0 FOOD CONSUMPTION AND NUTRITION STATUS

5.1 Milk for Household Consumption

- Average milk Consumption was below one litre in the month of September, remained stable when compared to previous month as in figure 15. This 0.9 litre of milk was consumed by one percent of the total households interviewed.
- Milk consumption was highest in mixed farming at one litre and the lowest in fishing zones.
- The low milk consumption level was as a result of low production by households coupled with low purchasing power of the commodity.
- The average consumption of the product was lower when compared to the dry and wet periods while it was at par when compared to long term average.

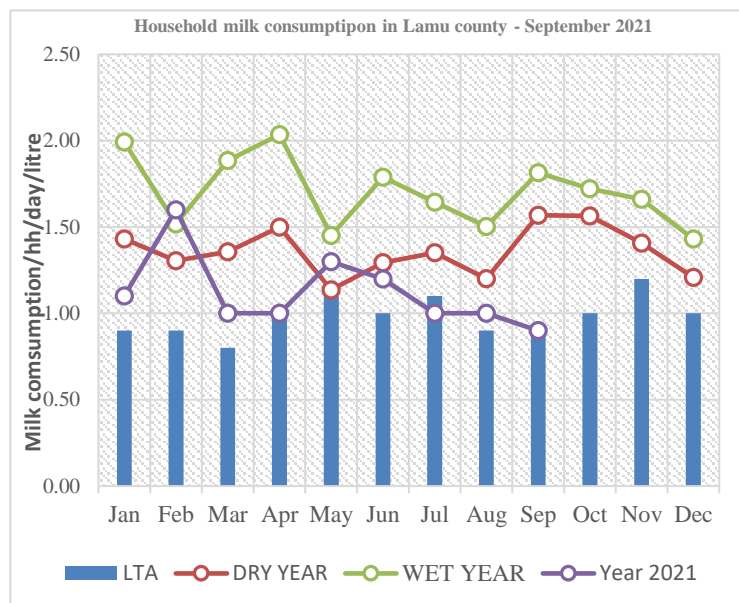


Figure 15: Milk consumption

5.2 Health and Nutrition status

5.2.1 MUAC

- Proportion of the under-fives categorized as being moderately malnourished was 0.4 percent (Figure 16). This is stable when compared to last month of August.
- The reported proportion of children categorized as being severely malnourished during the month of September was 0.2 percent when compared to the previous month of August. And 99.4 percent which indicated stable condition.
- The observed trend in September was as a result of milk consumption by households through purchase.
- Poor child care practices, poor dietary diversity, reduced number of integrated health outreaches delivering essential nutrition services to the malnutrition hotspots area.

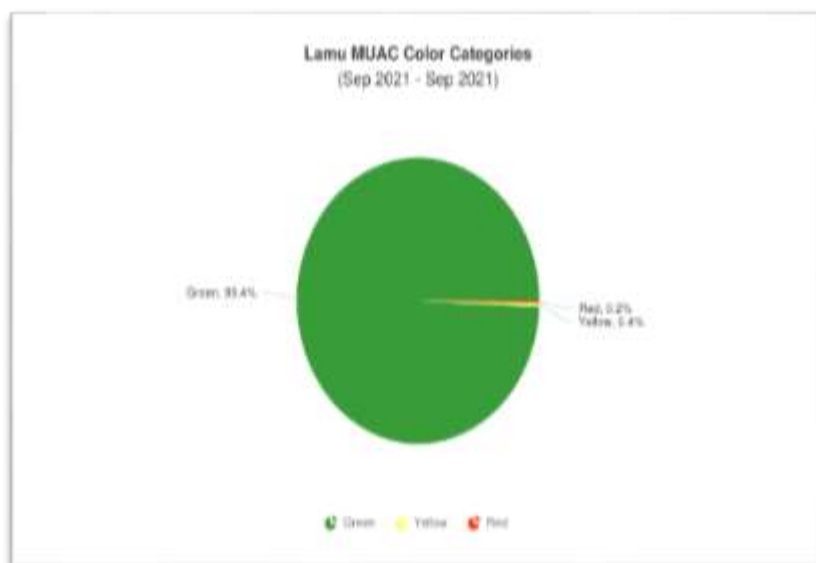


Figure 16: MUAC colour categories

5.2.2 Health

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

5.3 Food consumption score

- The Proportion of households with poor, borderline and acceptable in the county was at 40, 59 and one percent respectively during the month of September.
- There was an increase in poor food consumption by three percent when compared previous month of August. The population with the highest poor food consumption in the county was mixed farming with 90 percent while fishing had the highest borderline food consumption of 90 percent, owing to reduced availability of food at households' level.
- Households have low purchasing power, thus consuming two to three meals per day with two to three food groups as in figure 17.
- Food commodity prices are on the increase in all livelihood zones. However, food prices are highest in Fishing zones.

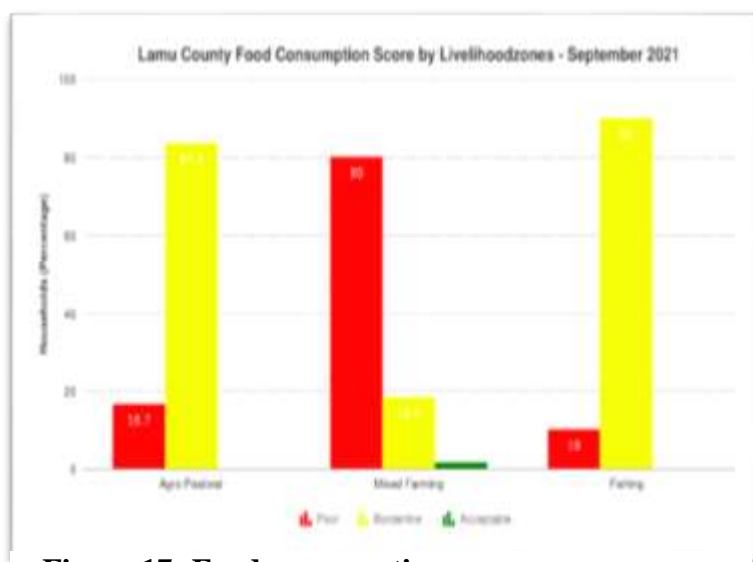


Figure 17: Food consumption scores

5.4 Coping strategy index

- The mean coping strategy Index in the Month of September (10.26) an increase 24 percent when compared with the previous month of August (8.3) indicating increased in coping strategies at household level.
- Agro pastoral Zone had CSI of 6.9 Mixed Farming livelihood zone had 8.5 while Fishing Livelihood zone had the highest copying strategy of 20.5.
- Common coping strategies employed by food insecure households in the month of September 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.

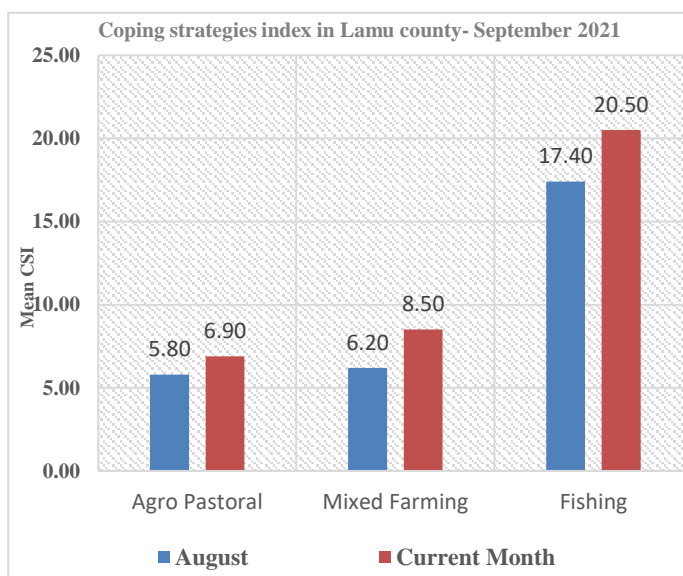


Figure 18: Coping strategy index

5.5 Implication on Food Security

- The decline in milk consumption at household levels in all Livelihood zones could lead to poor dietary diversity and hence negative impact on food security and the under-fives.

6.0 CURRENT INTERVENTION MEASURES (ACTION)

6.1 Food aid

- The county Government distributed relief food to hot spot areas in the county, especially the vulnerable households.

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.
- Provision of water trucking to hot spot areas was on going during the month of September implemented by County government of Lamu.

EMERGING ISSUES

7.2 Coronavirus out break

- The announcement of the emergence of the conorovirus in the country has destabilized the socioeconomic activities in all livelihoods zones in the county, specially when orders of stay at home and curfew were imposed, this impacted on household income.

7.3 Insecurity/Conflicts

- There were no cases of insecurity and conflict reported during the Month.

7.4 Migration

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

7.5 Food security prognosis.

- According to the Greater Horn of Africa (GHACOF) the forecast of October to December short rains is expected to be below average due to decreased probability for warmer than normal sea surface temperatures.
- Tsetse flies and ticks' infestation are expected to impact on Livestock body conditions, leading to unstable in livestock retail prices.
- Food and milk intake are expected to decline hence possibility of acute malnutrition levels increasing and likely to remain high due to below-average milk production and consumption and poor child-care practices.
- The distance to water sources for both human and livestock is expected to increase further due decline in water levels hence affecting both quality and quantity of water.
- The overall food security situation remains in the stressed phase (IPC 2), however due the looming drought the county will slide in to crisis phase (IPC phase 3) and on a worsening trend due poor long rains performance, coupled with COVID 19 restrictions.

8.0 RECOMMENDATIONS BY SECTORS;

Immediate/Short Term: Partners to collaborate on;

8.1 Water

- Water trucking to hot spot areas in the County.
- Desalting of open water sources Lamu West Sub- County.
- Installation of solar powered water systems e.g., desalination plants.
- Promotion of rain water harvesting, repair of Djabias, roof catchment areas, installation of gutters and tanks in Villages and Institutions. Before the onset of the short rains.

8.2 Livestock

- Provision of livestock feeds to hot spot areas.
- Livestock disease surveillance and control through vaccinations against notifiable diseases such as CCPP, FMD, in the county.
- Promote livestock insurance services.
- Construction of vaccination crushes and cattle dips which are currently dilapidated.

8.3 Agriculture

- Build Capacity of crop farmers to plant drought resistance food crops.
- Mobilization and sensitization of farmers on crop insurance.

8.4 Health and Nutrition

- Sensitize the community on the safety precaution measures against coronavirus.
- Strengthen malnutrition screening and active case search as well as strengthen integrated management of acute malnutrition in the community.

8.5 Peace and Security Sector (Co-ordination)

- Peace and security meetings should be enhanced in the County
- Provision of relief food or cash transfer to vulnerable household during this period of COVID - 19.

8.6 Information Communication Technology

- Promote use of ICT on drought information (Forums) sharing and development programmes.