

**National Drought Management Authority
LAMU COUNTY
DROUGHT EARLY WARNING BULLETING FOR AUGUST 2020**



A Vision 2030 Flagship Project



AUGUST 2020: EW PHASE



Shughull za kawaida

Drought Situation & EW Phase Classification

Biophysical Indicators

- The County received normal average off seasonal rainfall in August.
- The vegetation condition Index (VCI-3Month) was showing decrease of 18.2 percent compared to previous month.
- The VCI indicated above normal vegetation greenness. The overall drought phase in the county was at Normal in August.
- 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 increased and is below the LTA compared to previous month of July.

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 is lower than the long term Average.

Utilization indicators

- The proportion of children at risk of malnutrition cases remained stable and above the normal range as indicated by the percentage of mid upper arm Circumference (MUAC).
- The average coping strategy increased by 9.07 percent when compared to previous month of July.

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)	24	80 -120
VCI-3Month	59.38	<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	2.6litres	>3 Litres
Livestock Migration Pattern	Not Normal	Normal
Livestock deaths (from drought)	No death	No death
Access Indicators	Value	Normal
Terms of Trade (ToT)	140	84
Milk Consumption	1.2litres	>2litres
Return distance to water sources (HH).	2.9	<5 Km
Cost of water at source (20 litres)	5-10	<5Kshs
Utilization indicators	Value	Normal
Nutrition Status, MUAC (% at risk of malnutrition)	6.3%	>5%
Coping Strategy Index (CSI)	9.07	<0.95

Seasonal Calendar

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

1.0 CLIMATIC CONDITIONS

1.1 Rainfall performance

- Off seasonal rainfall received in August was of low intensity when compared to the previous months as recorded in the first and second dekad of August as in figure 1a below.
- The current NDVI value is slightly above when compared to the historical long term values as shown in figure 1b.

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

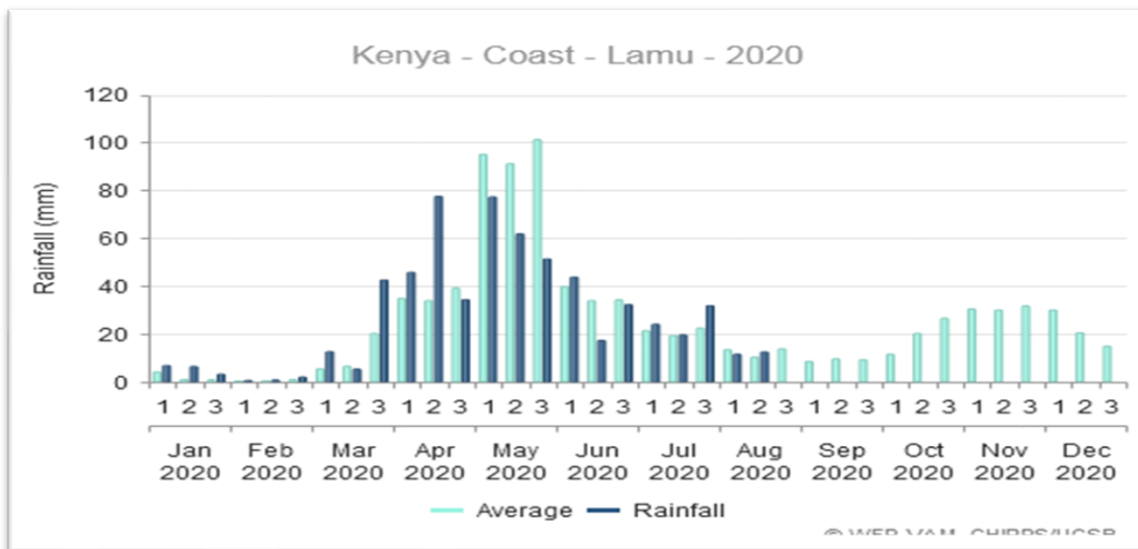


Figure 1a: Rainfall Satellite data. (Source: WFP-VAM, CHIRPS/UCSB)

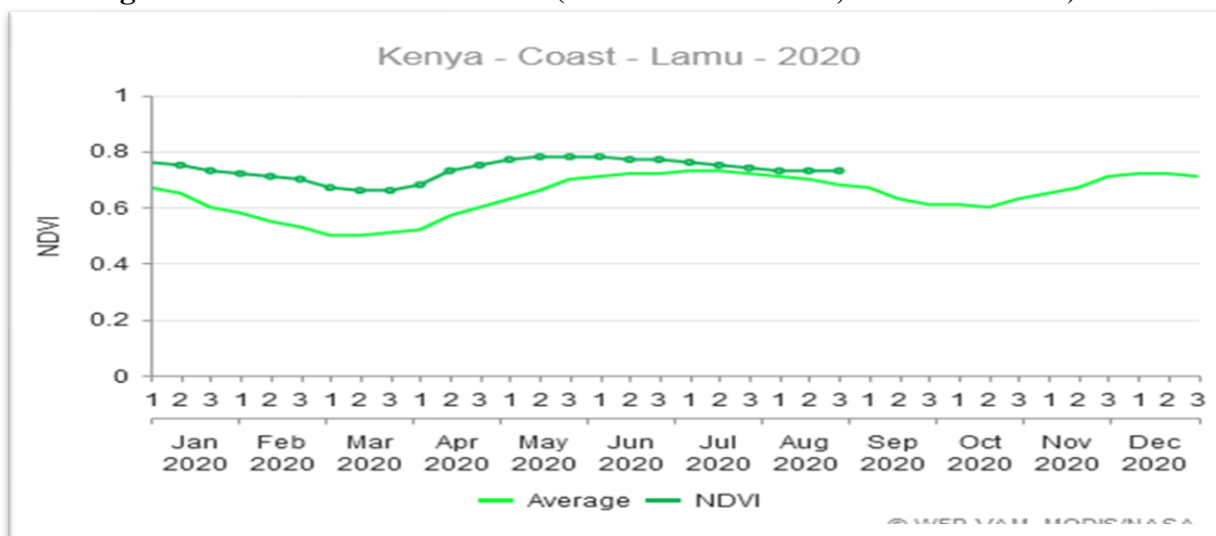


Figure 1b: NDVI data. {Source: wfp-Vam}

1.2 Amount of rainfall and spatial distribution

- According to VAM WFP rainfall and vegetation data, the County received a total of 23.8 mm of rainfall in August during the first and second dekad.
- This was a decrease of 45 percent rainfall when compared to previous month of July; however, this (23.8mm) was slightly higher when compared to long-term average of 23.5 mm as in the figure 1a above.
- This 23.8 mm of rainfall was lower by 32 percent when compared to 34.9 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.

Other hazards.

- No Hazards were reported during the assessment period.

2.0 VEGETATION CONDITION

2.1Vegetation Condition Index (VCI)

- The vegetation condition index decreased by 18.2percent compared to the previous month. This was due to high precipitation rate received in July.
- The vegetation condition index for the month of August was 59.38 compared to 72.59 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}

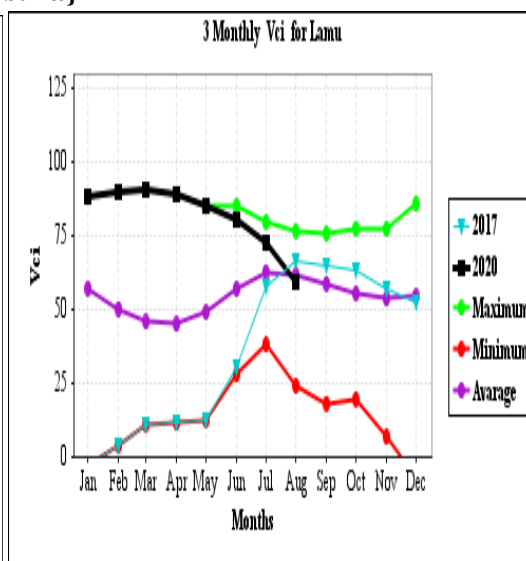
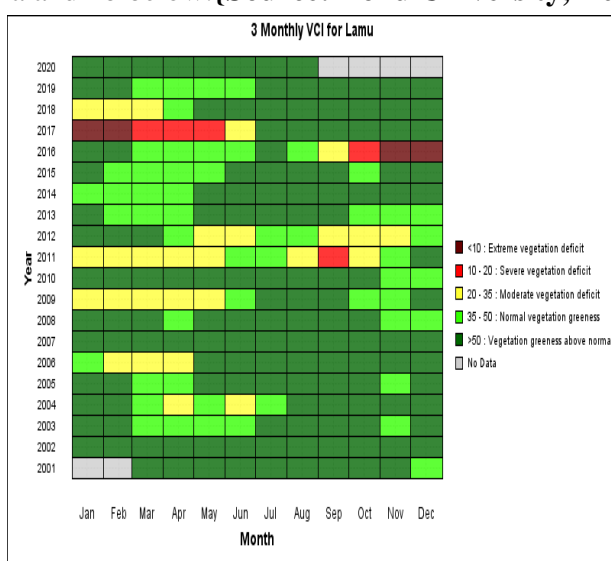


Figure 2a: VCI-Lamu County

Figure 2 b: VCI-Lamu County

OBSERVATIONS-PASTURE AND BROWSE CONDITION

2.1.2 Pasture

- Pasture condition was fair across all livelihood zones both in quality and quantity.
- 80 percent of community members interviewed stated that pasture was good, 15percent 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 is expected to last three month. The current pasture is within the normal range.

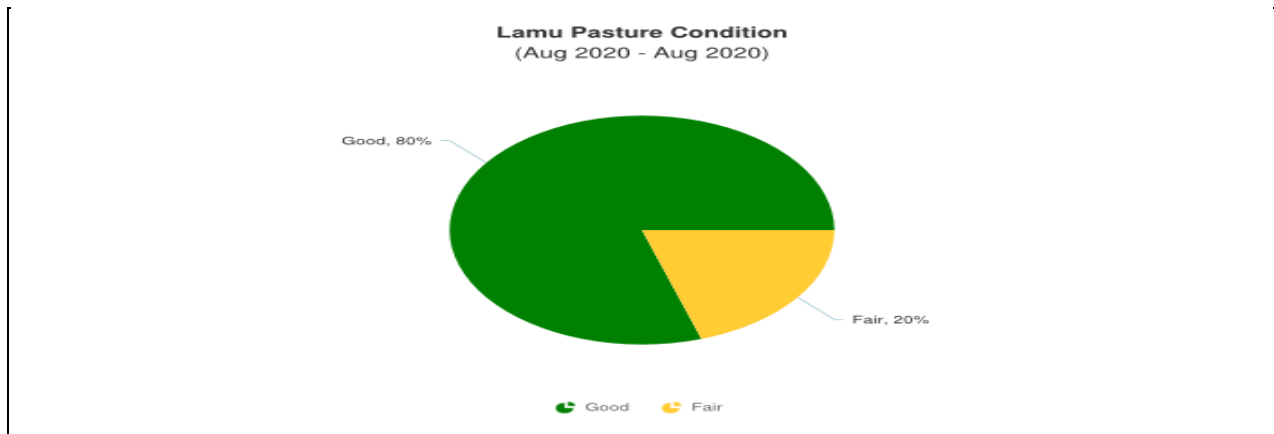


Figure 3: Pasture condition

2.1.3 Browse conditions

- The quantity and quality of browse was good across all livelihood zones.
- Community members interviewed indicated as follows; 80percent of the respondents stated that browse was good, 10 percent stated it was fair while 10 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 is expected to last more than four months. The current browse condition is within the normal range compare to previous year.

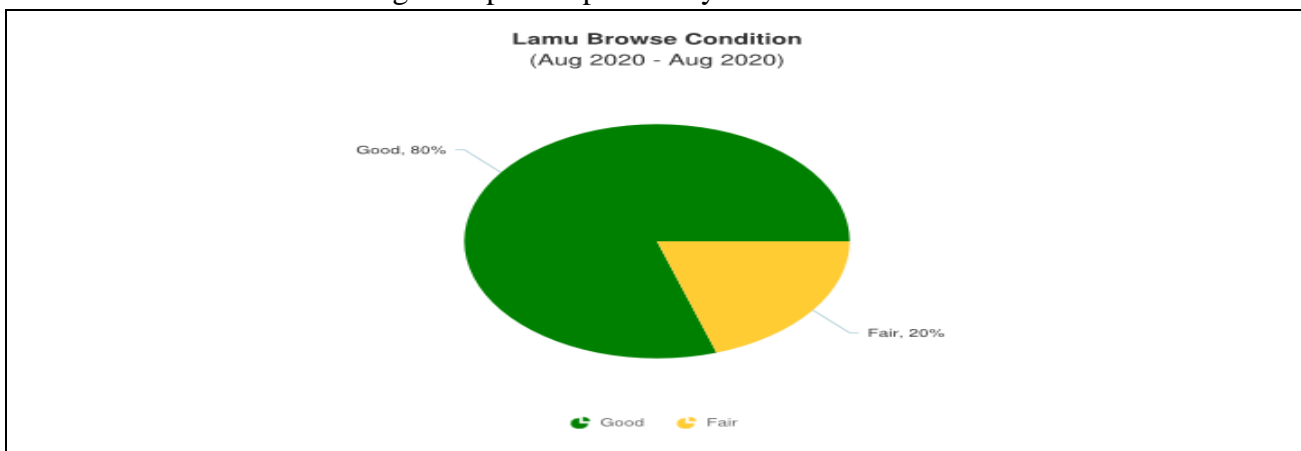


Figure 4: Browse conditions

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 August; Pans and dams 15 percent,shallow wells 50 percent,Boreholes 20 percent,Lakes 5 percent,Rivers 5 percent and Traditional river wells 5 percent, as shown in the figure 5.
- The status of main sources of water are on decline at this period of the Month.

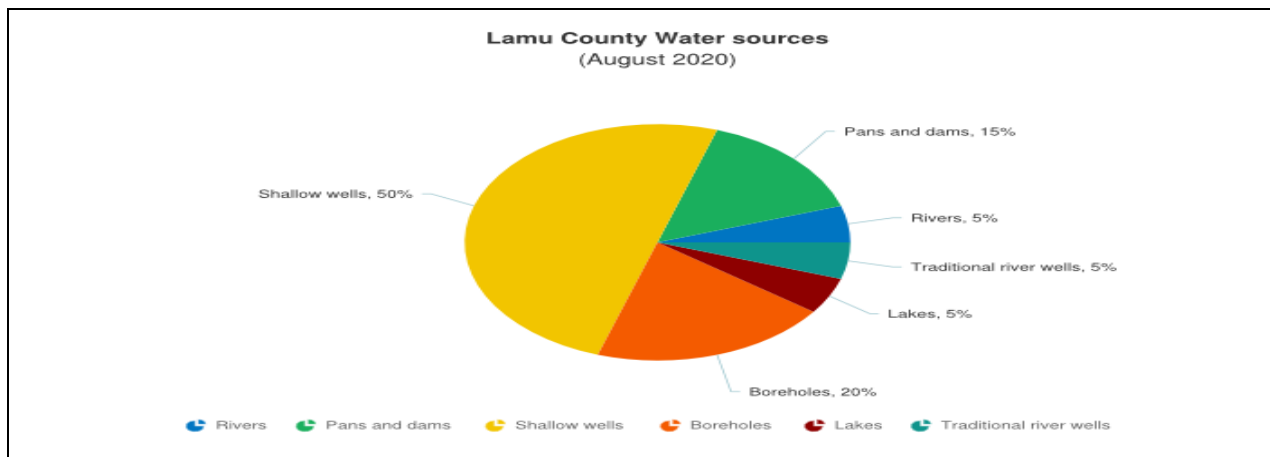


Figure 5: Main sources of water

2.2.2 Household access and Utilization

- Average household watering return distance was 2.9 Kilometres, which was a slight decrease when compared to previous month of 3.1 Kilometers. Household return water distances per livelihood zones were as follows; the Agro pastoral 3.1 Kilometers, Fishing & Mangrove Harvesting 1.3 Kilometers and for Mixed Farming Zone it was 1.7 Kilometers respectively.
- The normal average precipitation received led to increase in open water sources of between 68-75 percent of their capacity.
- The average household water distance for August was 2.9 Kilometres which is above LTA of 2.2 Kilometers as shown in figure 6 below.
- The average household water consumption per person per day is at 20-25 liters in all livelihood zones. Water costs at source are 5-10 Kshs in town/village centers for 20 liters.

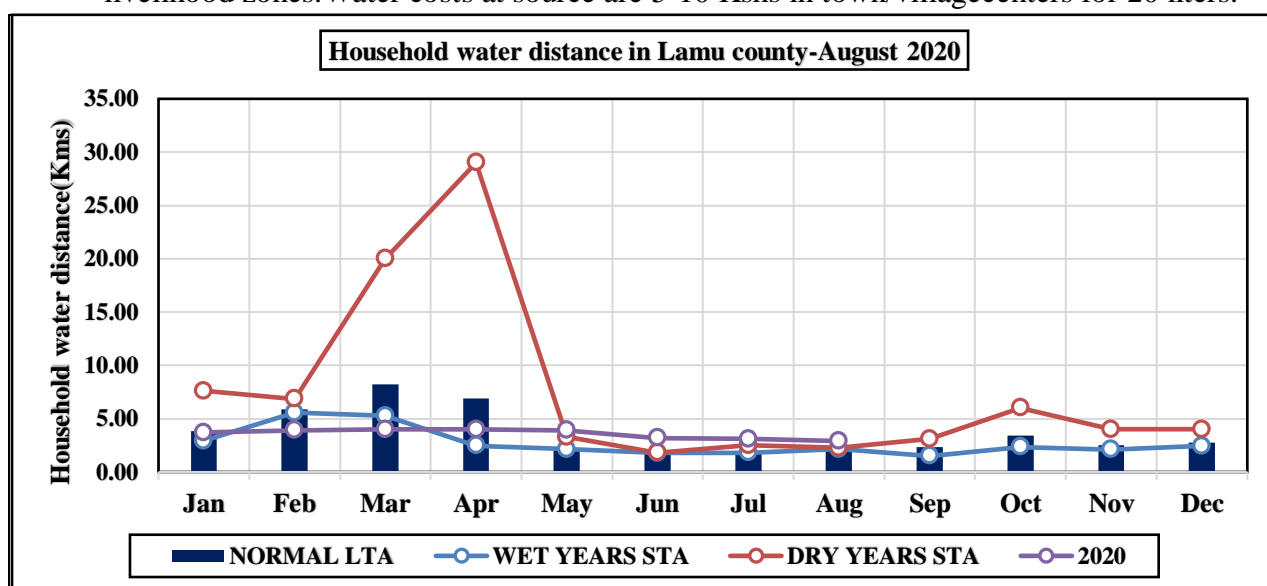


Figure 6: Household water Distance-Kms

2.3 Livestock access to Water

- Livestock average distance to water source from grazing areas increased to 4.6 Kilometres when compared to the previous month of 3.5 Kilometers as in figure 7.

- Grazing return water distances per livelihood zone were as follows: the Agro pastoral 2.7 Kilometres, Fishing & Mangrove Harvesting 2 Kilometres and for Mixed Farming zone it was 2.1 Kilometres and irrigated farming 1.3 Kilometres.
- The increase of grazing water distance when compared to last month was due to an decreased of water availability in grazing areas/locations.
- Watering frequencies for livestock species was seven times per week.
- The current average grazing distance for August was 4.6 Kilometers which was higher than the long-term average of 4.2 Kilometres.

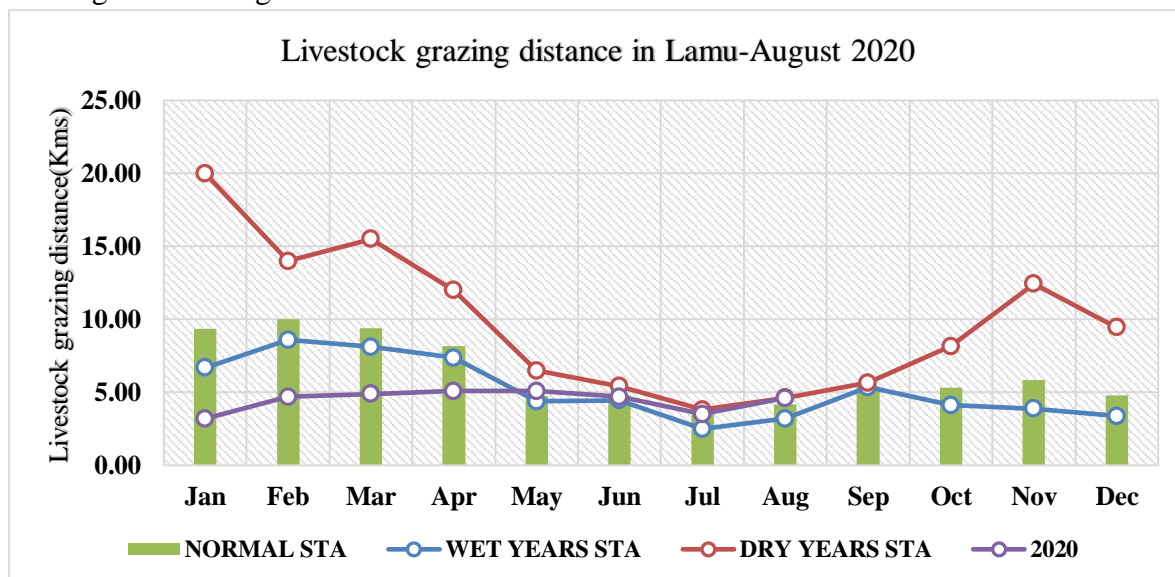


Figure7:Grazing water Distance-Kms.

- **2.2.4 Household Income Sources**
- The main household income was distributed as follows: Casual labour 59%, trade 17 %, self employment 10 %, sale of livestock 10% and sale of crop 4 % in figure8 below.
- However,trade increased when compared to July while Sale of livestock remained stable and Casual labour reduced by five percent.

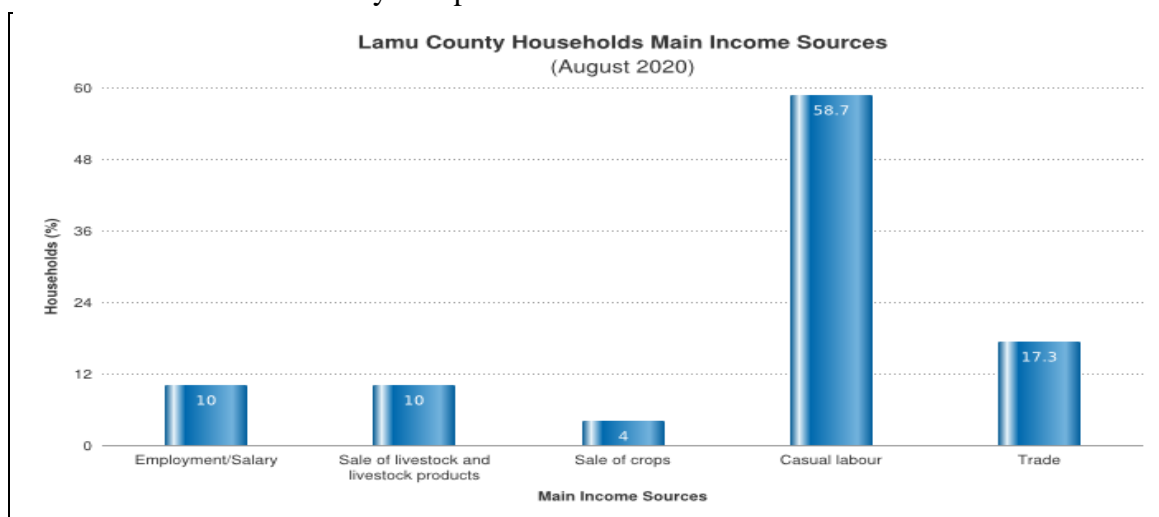


Figure 8: Household sources of income

2.4

Implication to Food Security

- Fishing and Mangrove livelihood zones have decreased water salinity due to recharge coupled with high level of water table of the shallow wells in the Islands.
- Diseases such as Lumpy skin disease; Trypanosomiasis, foot and mouth have had a negative impact on the livestock body condition of animals and household hygiene standards.
- The off season 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 one month.
- Curfew and stay home orders issued by the government because of the COVID-19 outbreak 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

- Influx of livestock from Tana River County to Agro pastoral areas of Witu was observed.
- This in-migration is not normal during this off season period.

3.1.2 Livestock Body Condition

- The livestock body condition was fair to moderately good for all species.
- This was attributed to quality and quantity of pasture and browse due to improved off seasonal precipitations.
- However, due to pasture depletion the body conditions are expected to deteriorate.

3.1.3 Livestock Diseases

- No Diseases was reported during the month of August.

3.1.4 Milk Production

- Milk production in August increased to 2.6litres when compared to previous month. The 2.6litres was from 20 percent of total household interviewed.
- The increase was attributed due to improvement of the forage condition and the normal average rainfall.
- Milk productions were distributed as follows: Mixed farming Produced 1.7litres, Fishing 1.6litres, and Irrigated 1.6litres while the Agro pastoral Zone produced average of 1.8litres. Milk prices are retailing at an average price of Kshs.40-100 per Liter across the livelihood zones which is the normal milk price at this period of the year.

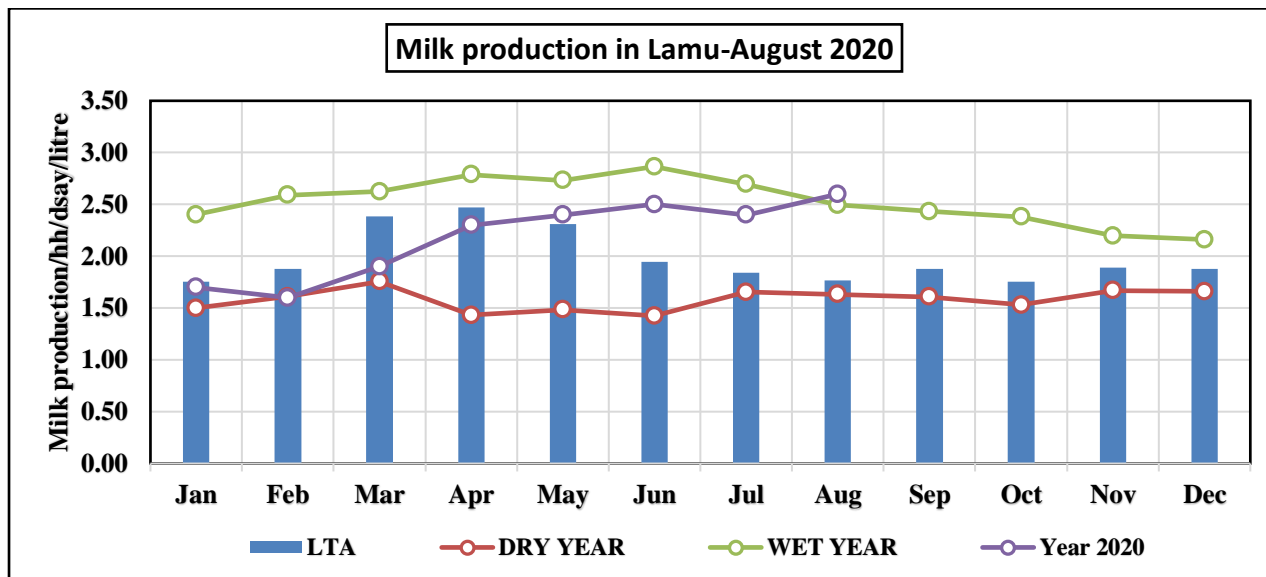


Figure 9: Milk production

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 harvesting and land preparation in all livelihood zones.

3.2.2. Crop Harvest

- Green gram and cow peas are been harvested.

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

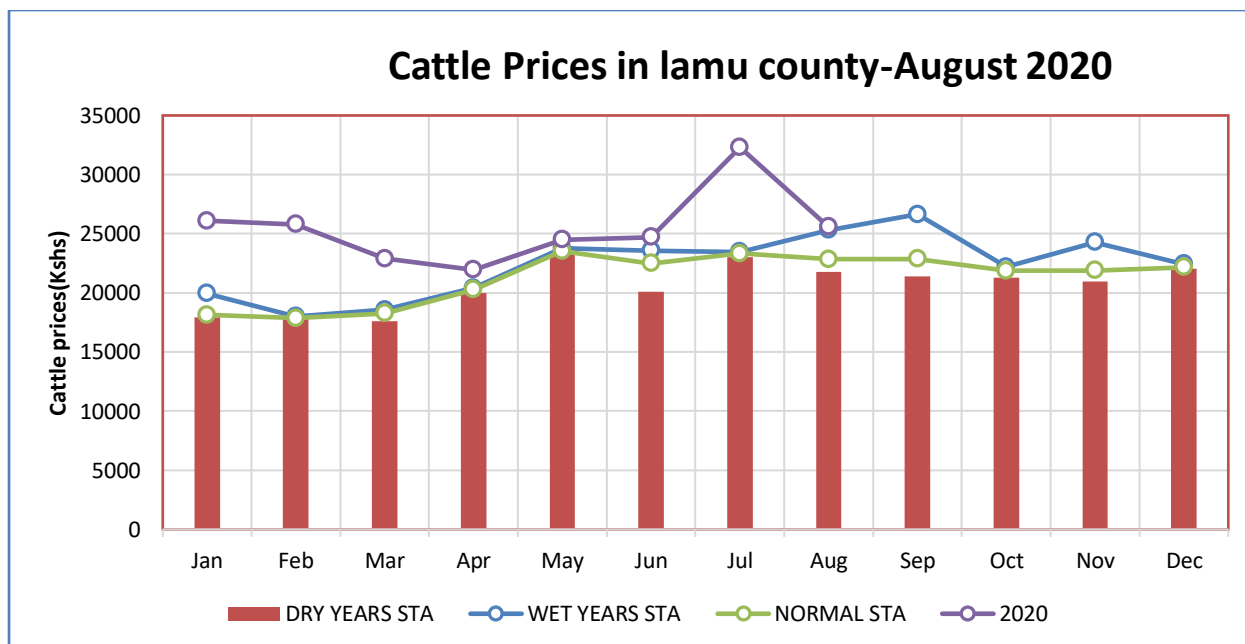


Figure 10: Cattle prices

4.1 Livestock marketing

4.1.1 Cattle Prices

- Average cattle market price in August decreased to Kshs 25,583 compared to July (Kshs32,300) as in figure 10 below.
- This decrease in price could be attributed to low demand and high supply of cattle by local herds owing to improved water and pasture conditions.
- The cattle average market prices were distributed as follows: Hindi Kshs 21,000, Witu Kshs 17,000, Kiunga Kshs 40,000, Mswakini 19,000 and Mokowe Kshs 20,000.
- The average market cattle price for the month of July was Kshs.25, 583 which was higher when compared to short-term average price of Kshs.22, 850.

4.1.2 Small Ruminants Prices

4.1.3 Goat Prices

- Goat prices slightly increased in August (Ksh 4,900) when compared to previous month of July (Ksh 4,800). There were no much difference but the market demand slightly changed owing to high supply.
- The current goat price was higher when compared to the short term average by 0.4 percent and the price recorded in previous year at a similar period and following seasonal trends as shown in figure 11.
- This decrease in price of goats could be attributed to low market demand and high supply in different markets.
- The goat average market prices were distributed as follows: Mpeketoni Kshs 4,000, Witu Kshs 5,000, Kiunga Kshs 6,000 and Mokowe Kshs 5,000.

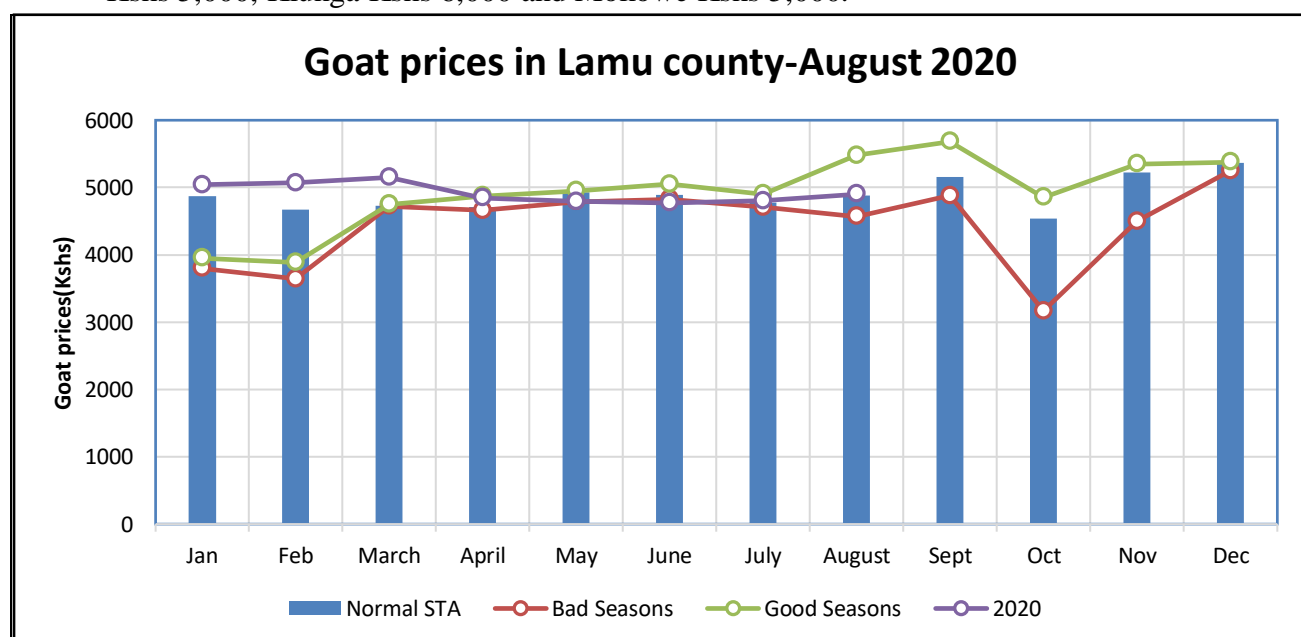


Figure 11: Goat prices

4.2: Crop prices

4.2.1 Maize price

- The maize prices decreased when compared to previous month of July (Kshs 55) as shown in the figure 12. The average price for July was Kshs 36.
- The decrease of price was due to good harvest of the product received during this off seasonal period and at the end of the previous season coupled with high supply in different markets.
- The market prices were distributed as follows; Hindi centre Kshs 25, Patte Kshs 25, Witu Kshs 40, Mpeketoni Kshs 40 and Kiunga Kshs 40. However, price ranges is determined by commodity supply in different markets.

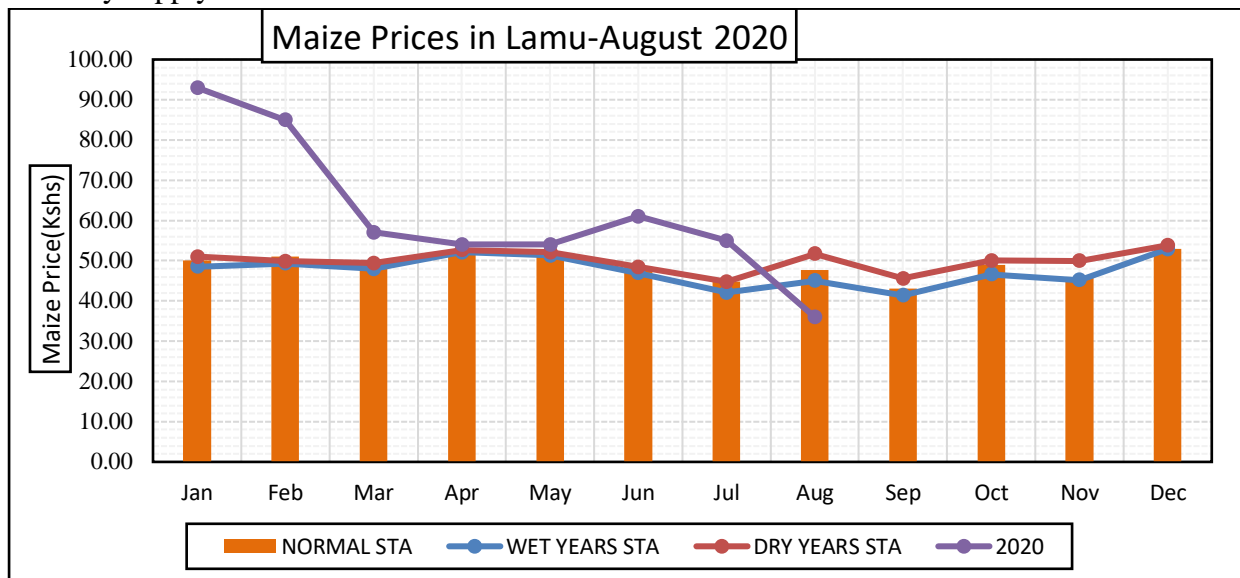


Figure12: Maize prices

4.2.2 Beans prices

- Average price of Kilogram of beans was Kshs 119 in August, which was a slight increase when compared to the previous month of July at Kshs 117 as shown in the figure 13 below.
- The increase in price was attributed to high demand and low supply of the commodity in the market. The beans price was distributed as follows: Mswakini /Hindi centre Kshs 120, Patte Kshs 130, Witu Kshs 140, Mpeketoni Kshs 100 and Kiunga Kshs 140.
- However, price ranges is determined by commodity supply in the different markets. The short-term average price of beans was Kshs 110 which is lower compared to the current beans price for the month of August.

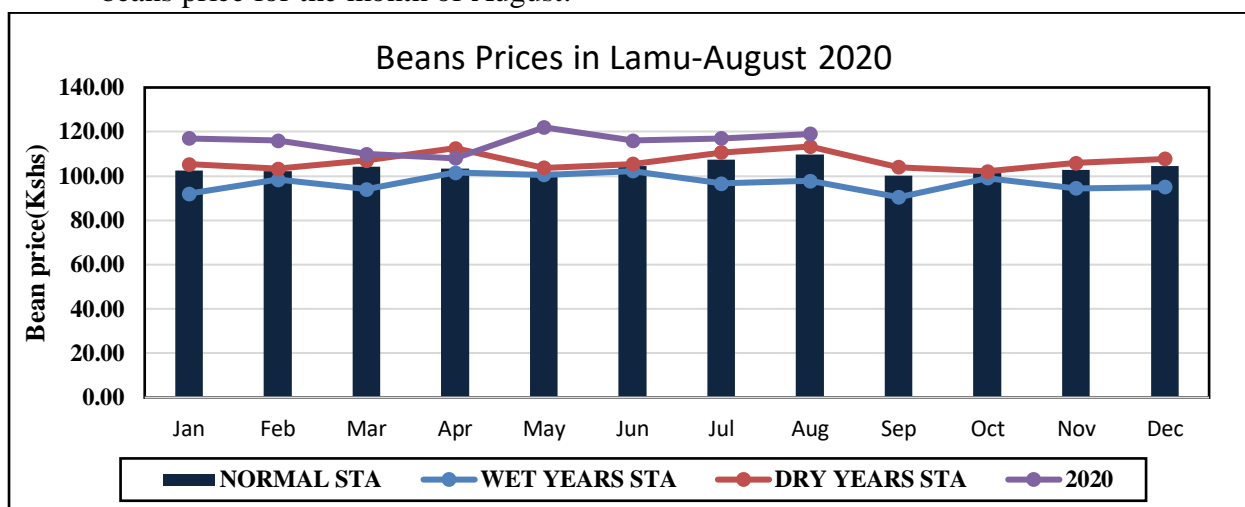


Figure 13: Beans prices

4.3 Livestock Price ratio/Terms of Trade

- The terms of trade (ToT) of August (140 Kilograms) increased when compared to previous month of July (88 Kilograms) as in figure 14 below.
- This TOT of 140 Kilograms was higher when compared to the short term average by 46 percent. Sale of a medium goat in August would cost a household about 140 kilograms of maize.
- This showed the exchange ratio increased in favour of goat sellers when compared to crop farmers. However, this was determined by supply in the different markets.
- The ToT was 121 Kilograms in Lamu West and 159 Kilograms in Lamu East.
- The ToT for August was higher when compared to the short term average of 76 Kilograms.

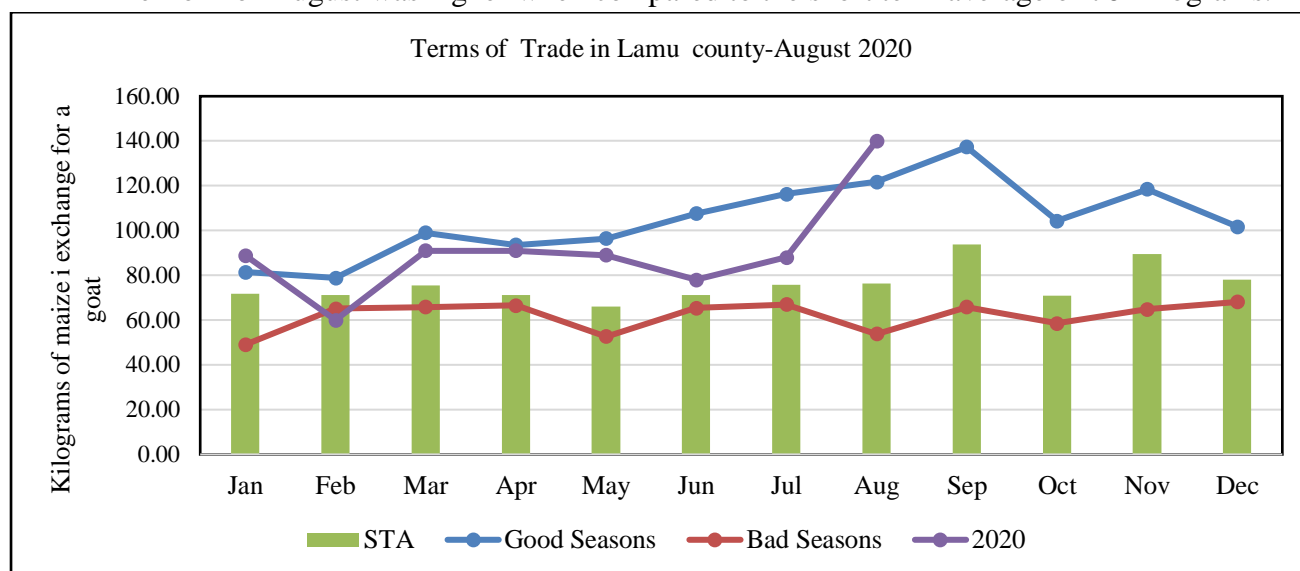


Figure 14: Terms of trade

4.4 Implication on food security

- Maize prices decreased 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.
- The Curfew and stay home orders issued by the government because 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 1.2litres, which increased slightly when compared to previous month as in figure 15. This 1.2litres of milk is consumed by 20 percent of the total households interviewed.
- Milk consumption was distributed as follows; Agro pastoral 1.6 litres, Mixed farming 1.3, irrigated cropping 1.5 litres and fishing 1.4litres.
- The Increase in milk consumption level is as a result of improved in pasture and household purchase power of the commodity.
- The long term average milk consumption was higher than the current consumption.

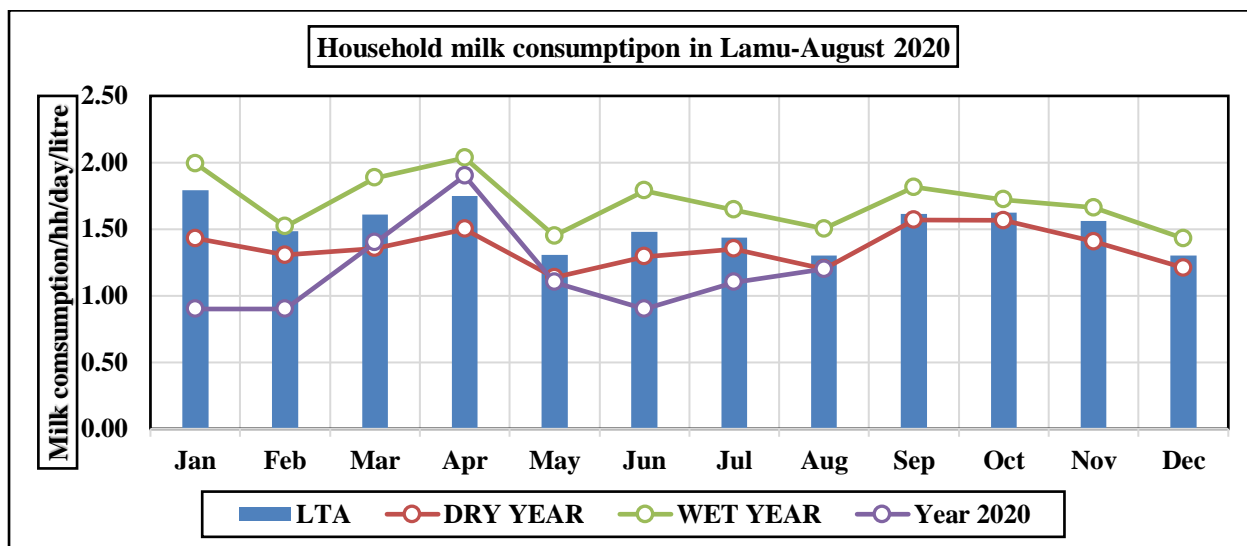


Figure 15: Milk consumption

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 6.3 percent same as previous month of July.
- 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 improved 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 6.3 percent was higher when compared to the long term average as in figure 16a.
- The MUAC color category indicates; Green-100%, Red-zero percent and Yellow-zero% as shown in figure 16b.

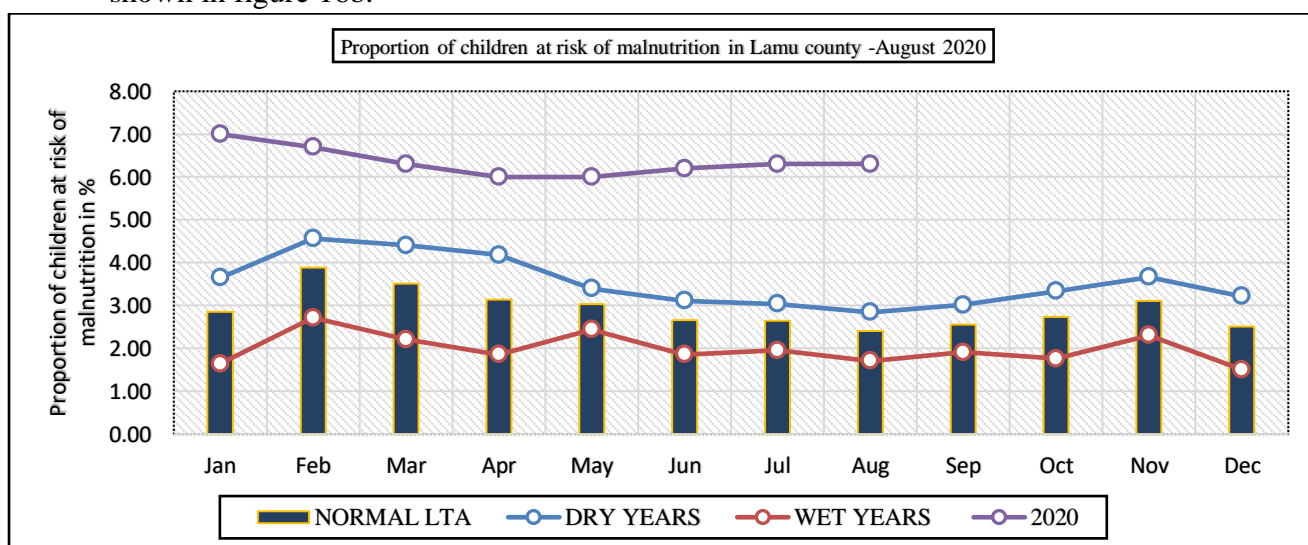


Figure 16a: MUAC

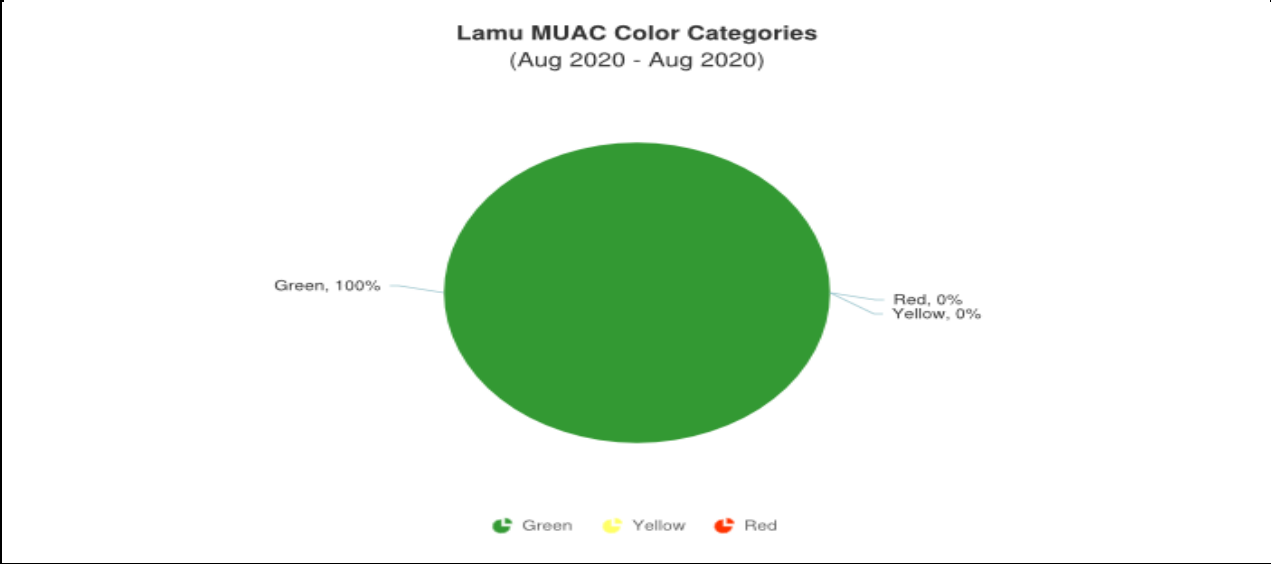


Figure 16b: MUAC

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 food consumption scores were 21.7 percent, those with borderline food consumption scores were 87percent while those with acceptable food consumption scores were 53 percent, in August, owing to reduced availability of food at households’ level indicating deterioration in food consumption.
- The population with the highest Borderline and Acceptable food consumption in the county were fishing with 87 percent and Agro pastoral with 53 percent respectively.
- Acceptable food consumption was noted in Fishing & mangrove harvesting livelihood and mixed farming with 13 percent and 32 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.
- Households’ percentage with poor food consumption increased from 12 to 22 percent at mixed farming livelihood zones.

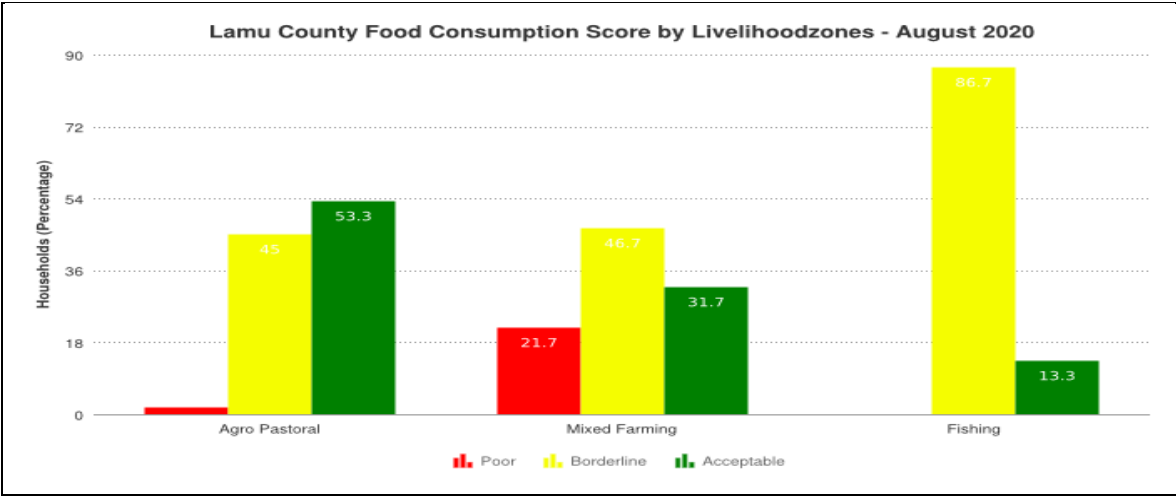


Figure 17: Food consumption score

5.4 Coping strategy index

- The mean coping strategy Index in August (9.07) increased when compared with the previous month (8.55) indicating increased in coping strategies at household level.
- Agro pastoral Zone had CSI of 6.8; Mixed Farming livelihood zone had 4.6 while Fishing Livelihood zone had the highest copying strategy index of 22.6; however there was slight increase from the previous month which was at index 22 in fishing zone as figure 18 below.
- Common coping strategies employed by food insecure households 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.

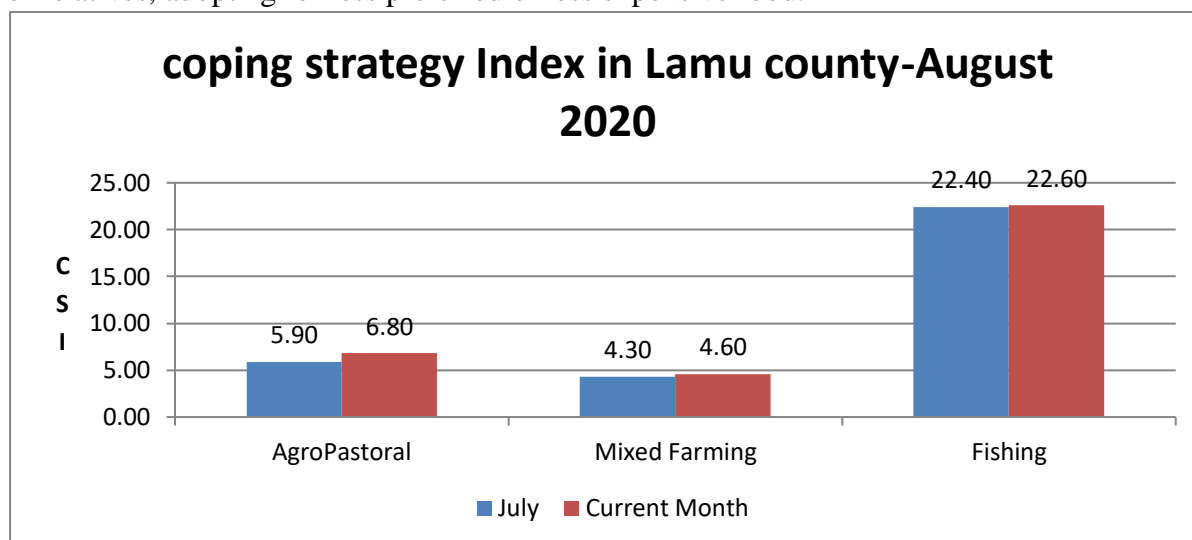


Figure 18: coping strategy index

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.
- Coping strategy index slightly increased in fishing livelihood hence negative impact on food security at household levels.

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 August.

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 disturbed the equilibrium of all livelihoods in the county, especially when orders of stay at home and curfew were imposed.
- There were two coronavirus positive reported in the county and fear of spread (COVID-19) in to the county among the population, following the global and nationwide disease outbreak.

7.2 Insecurity

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

7.3 Migration

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

7.4 Food security prognosis

- Markets will continue to operate normally despite poor infrastructure and insecurity.
- Livestock body conditions are likely to be stable, leading to seasonal increases in livestock retail prices.
- Food and milk intake are expected to improve, acute malnutrition levels are expected to decline, but are still 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 decrease further with the continued off rainfall season.
- Water salinity is expected to increase due the decrease 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.
- Due to the effects of Trypanosomiasis, Lumpy skin disease, worms, foot and mouth diseases, the body conditions of livestock are expected to deteriorate in coming Months.

8.0 RECOMMENDATIONS BY SECTORS;

8.1 Water

- Constructions/rehabilitation of waterpans for preparedness.
- 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.
- Desilting of open water sources Lamu West Sub-county.
- Provision of water treatment tabs to households mainly in rain fed areas.
- Installation of solar powered water systems e.g. desalination plants.

8.2 Livestock

- Livestock disease surveillance and control through vaccinations against notifiable diseases such as CCPP, FMD, in the county.
- Upscale efforts aimed at stock piling livestock feeds in strategic hay reserves for use during the dry season by providing farmer groups with pasture seeds so as to maximize production over the short rains period.
- Promote livestock insurance services.

- Construction of vaccination crushes and cattle dips.

8.3 Agriculture

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

- 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.

8.7 Information Communication Technology

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