

National Drought Management Authority
GARISSA COUNTY
DROUGHT EARLY WARNING BULLETIN FOR SEPTEMBER 2021



A Vision 2030 Flagship Project



SEPTEMBER 2021 EWS PHASE

Drought Status: ALARM



Mipango ya kukabiliana na ukame

Biophysical Indicators

- The county didn't receive rain in the month of September 2021
- The 3-month VCI was 28.58 indicating moderate vegetation deficits and was below the long term average for the period.
- Pasture condition was very poor in all livelihood zones with exception of some part of pastoral with poor condition.
- Both household and livestock trekking distances to water sources increased and were above the long term average.

Socio Economic Indicators (Impact Indicators)

- Livestock body condition for the month was very poor to poor for all livelihood zone except for some parts of pastoral livelihood zone. Livestock mortality rate of 4 percent was reported.
- Average milk production was 1.4 litres against the long term average of 2.1 litres.
- Milk consumption was an average of 1.1 litres which was below the long term average amount of 2.03 litres.
- Market prices for all livestock species remained within the normal ranges.
- The terms of trade were 28 which was below the long term average of 48
- The mean coping strategy index (CSI) was 12.1 for the month against a long term average of 10.7
- Proportion of children below five years at risk of malnutrition was 12.7 percent which was above the long term mean
- The mean food consumption score was 37.2 which was below the long term average of 40.1.

Early Warning Phase Classification

Livelihood Zone	Phase	Trend
Agro-pastoral	Alert	Worsening
Pastoral cattle/sheep	Alarm	Worsening
Pastoral-all species	Alarm	Worsening
County	Alarm	Worsening
Biophysical Indicators	Value	Normal Range/Value
Rainfall amount	0mm	5mm
VCI-3Month	28.73	45.67
Forage condition	Very Poor	Fair
Production indicators	Value	Normal
Livestock Body Condition	4-5	1-2
Milk Production	1.4 litres	2.1 litres
Livestock Migration Pattern	Out-migration reported	No migration
Livestock deaths (from drought)	4 percent	No death
Access Indicators	Value	Normal
Terms of Trade (ToT)	30	48
Milk Consumption	1.1 litres	2.03 litres
Return grazing distance to water sources in km	28km	27.5km
Cost of water at source (20 litres)	Kshs 5	<5Kshs
Utilization indicators	Value	Normal
Nutrition Status, MUAC (% at risk of malnutrition)	12.7	10.6
Coping Strategy Index (CSI)	12.1	10.7
Food Consumption Score(mean)	37.2	40.1

<ul style="list-style-type: none"> ▪ Short rains harvests ▪ Short dry spell ▪ Reduced milk yields ▪ Increased HH Food Stocks ▪ migrations ▪ Land preparation 	<ul style="list-style-type: none"> ▪ Planting/Weeding ▪ Long rains ▪ High Calving Rate ▪ Milk Yields Increase ▪ Breeding period 	<ul style="list-style-type: none"> ▪ Long rains harvests ▪ A long dry spell ▪ Land preparation ▪ Increased HH Food Stocks ▪ Kidding (Sept) ▪ Migrations ▪ Herd separations 	<ul style="list-style-type: none"> ▪ Short rains ▪ Planting/weeding ▪ High birth rates ▪ Wedding 								
Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec

1. CLIMATIC CONDITIONS

1.1 RAINFALL PERFORMANCE

- No rainfall was received in the county in the month of September 2021
- The temperatures ranged between 23.5 C⁰ - 30.5 C⁰ which was slightly above the normal ranges.

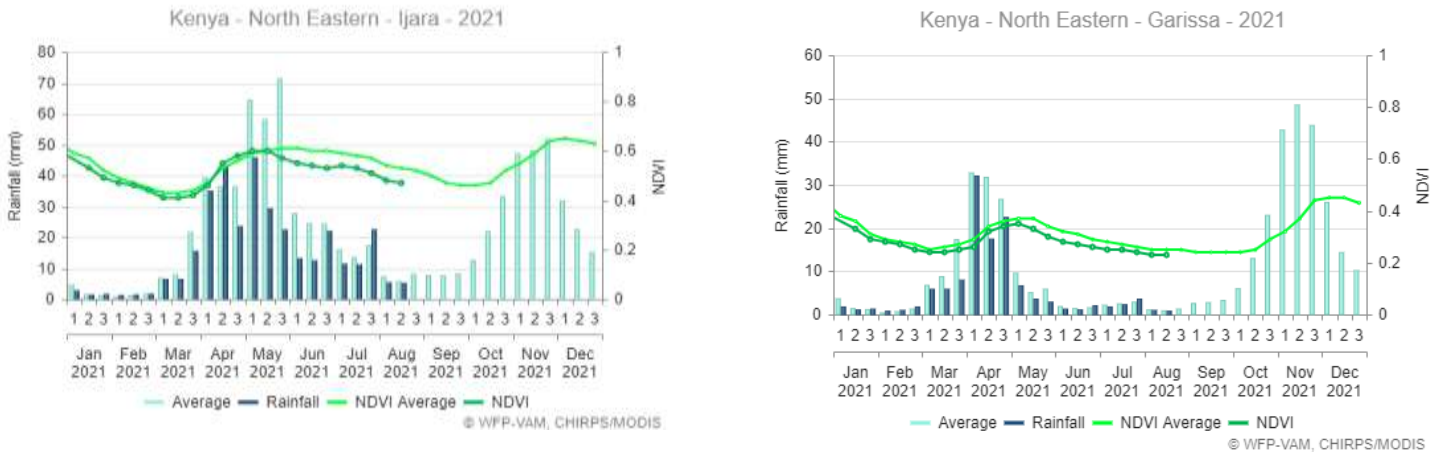


Figure 1: Rainfall and NDVI trend

2.0 IMPACTS ON VEGETATION AND WATER

2.1 VEGETATION CONDITION

2.1.1 Vegetation Condition Index (VCI)

- The 3-month VCI was 28.73 indicating moderate drought conditions.
- All sub counties were classified in the moderate vegetation deficit band and the situation may deteriorate if the short rains season starts late.
- The current VCI values were below the base year of 2017
- The current 3-month VCI was 37 percent lower than the long term average for the month.

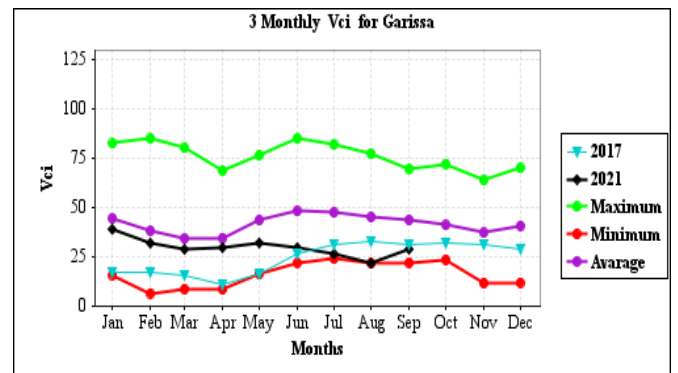
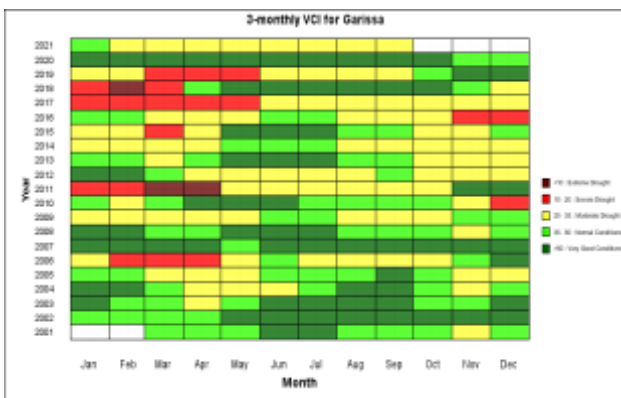


Figure 2: VCI graph and matrix

2.1.2 Pasture and browse condition

- Around 90 percent of forage condition in the county was reported to be poor a situation worsened by biting hot and dry climatic conditions. It is only in Boni forest in Ijara and Hulugho sub-counties which has pasture and browse in good condition where most of the livestock is concentrated.

Garissa Pasture Condition (Sep 2021 - Sep 2021)

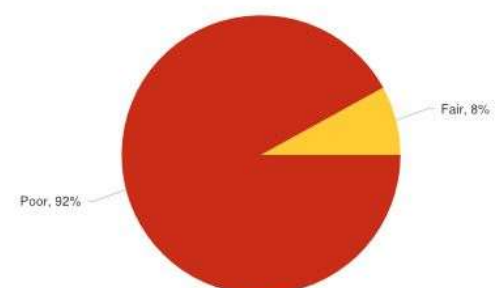


Figure 3: Pasture and browse condition

2.2 WATER RESOURCE

2.2.1 Sources

- Main sources of water currently are boreholes, River Tana and water-pans as shown in the pie chart.
- About 85 percent of water pans have dried up and the remaining water pans have less than 30 percent of their capacity and will supply water for domestic and livestock consumption for less than a month.
- The water sources were not fully recharged because of poor performance of the long rains and currently high temperatures have increased the evaporation rate.

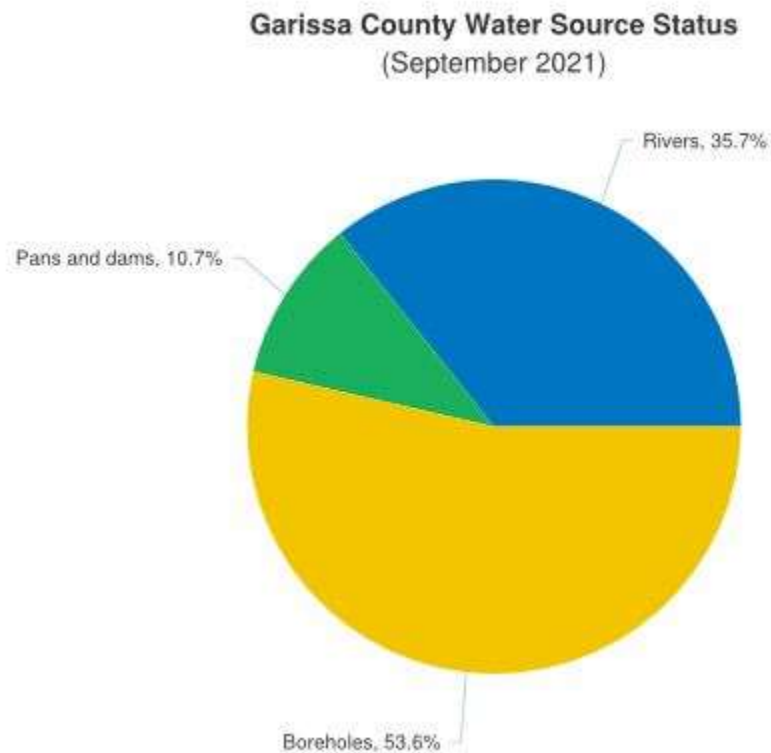


Figure 4: water sources

2.2.2 Household access and Utilization

- The average return distances from households to water sources was increased from 10.1km to 12.4 km in this reporting month. This situation is attributed to drying of water pans and boreholes because of the worsening hot and dry weather conditions.
- The current distances were 33 percent longer than the long term mean distances.
- The average water consumption per household per day is 8liters in pastoral livelihood zones and 15liters for households in the agro-pastoral livelihood zone against a normal of 25 liters/household per day.

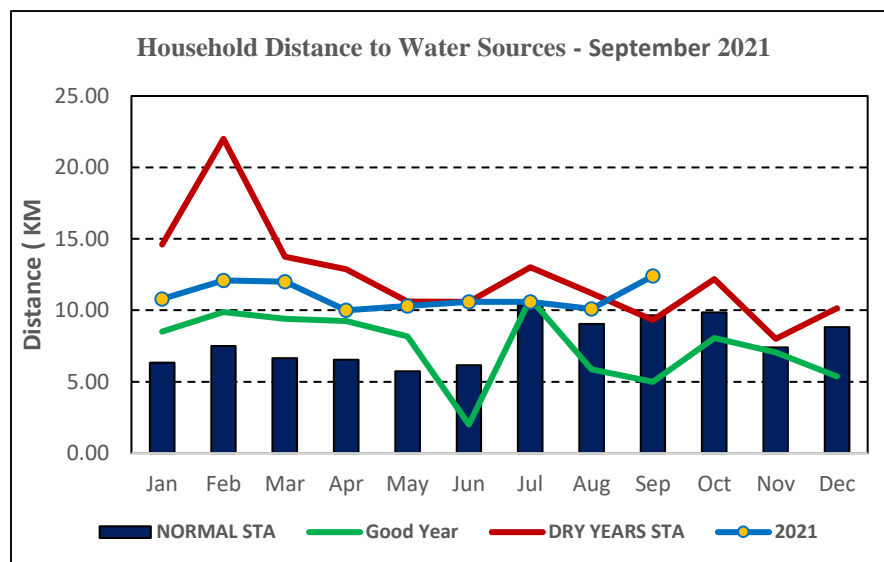


Figure 5: Households return distances to water sources

2.2.3 Livestock access

- The average return trekking distance from grazing areas to water sources increased from 26.1km to 28.0km in this reporting month of September 2021.
- The pastoral livelihood zone recorded the longest trekking distance of 33.7km while agro-pastoral zones had the shortest distances at 24.6km.
- The current trekking distances were seven percent shorter than the long-term average distance for the month.
- The grazing distances are increasing as a result of minimal forage regeneration because of two previous poor rains season and ongoing hot dry weather conditions experienced since June 2021 in the county.
- Livestock watering frequencies is 2 times a week for small stocks and 4 times for cattle in many watering points.
- The waiting time for water in pastoral and agro pastoral livelihood zones increased significantly due to drying up of water pans, high concentration at water points for both humans and livestock.

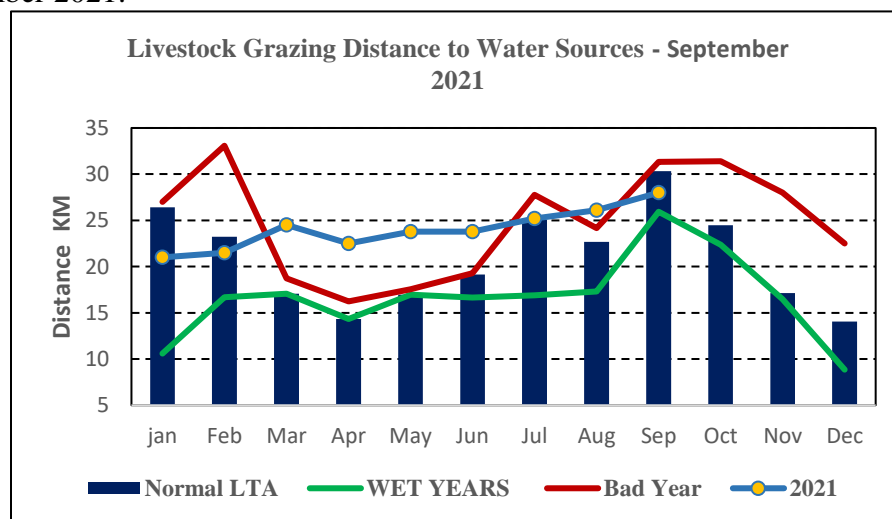


Figure 6: Livestock trekking distances to water sources

3.0 PRODUCTION INDICATORS

3.1 LIVESTOCK PRODUCTION

3.1.1 Livestock Body Condition

- Body condition for cattle ranged from fair to poor in the pastoral livelihood zones and fair in the agro-pastoral livelihood zones. Sheep, goats and camels had fair body conditions in most parts of the county.
- The worsening trend in livestock body condition is attributed to lack of pasture and increased cases of vector borne related diseases in the county.

3.1.2 Livestock Diseases

- No major livestock disease outbreaks was reported. However, outbreaks of *Bovine Trypanosomiasis* in areas around the Boni forest including Ijara and Sangailu wards in Ijara sub-county. Outbreak of CBPP was reported in Hulugho is attributed to livestock migration to the Boni forest from other parts of the county. Isolated cases CCPP have been reported in Garissa Township, Lagdera sub-county and Labasigale, Dertu and Liboi ward in Dadaab sub-county.
- Cases of tick-borne have been reported in Labasigale, Dertu and Liboi ward Dadaab sub-county while cases of PPR in shoats in Garissa Township sub-county. Flu and Haemorrhagic Septicemia in camels have been reported in Shimbirey, Abdisemet and Sankuri.
- Livestock mortalities remain within normal ranges, predation was the highest contributor.

3.1.3 Milk Production

- Cows were the main producers of milk in this reporting month similar to the previous month.
- Average milk production per household per day was 1.41 litres, and remained stable as compared to the month of August.
- The poor milk production trend was attributed to poor forage condition and longer-than-normal trekking distances to water sources and grazing areas and depletion of forage in the rangelands.
- The current milk production levels were 37 percent lower than the long term average amount for the month.
- The cost of milk ranges between Kshs 80 and 90 in agro pastoral and pastoral livelihood zones respectively.

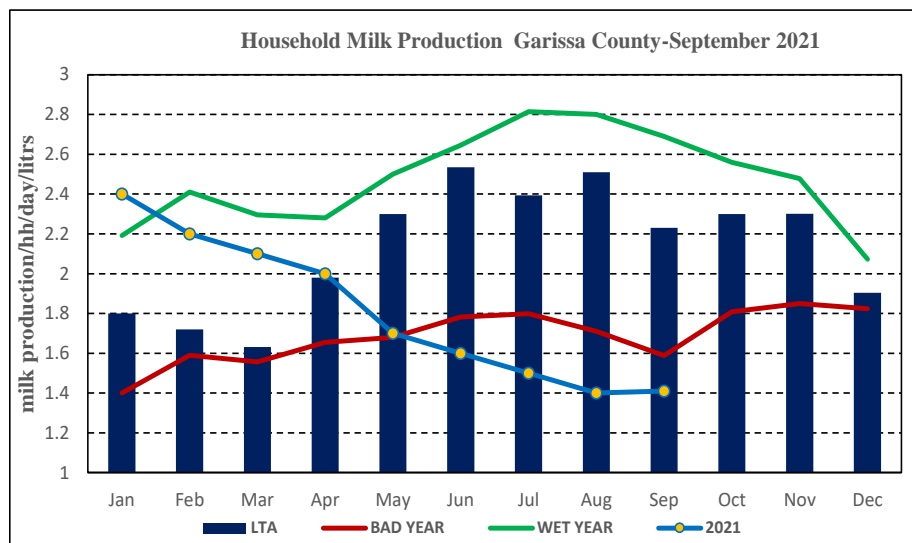


Figure 7: Current milk production against long term averages

3.1 RAIN-FED CROP PRODUCTION

3.2.1 Stage and Condition of food Crops

The three main crops grown under rain fed production include maize, cowpeas and green grams but currently no farming activities is taking place. However land preparation activities is ongoing in some farms in readiness for planting during the short rains season.

4.0 MARKET PERFORMANCE

4.1 LIVESTOCK MARKETING

4.1.1 Cattle Prices

- The average market price of a 4-year medium sized bull was Kshs. 15200, as compared to the previous month the price decreased by 4 percent.
- The current selling prices were 3 percent higher than the short term average prices.

- The markets in pastoral livelihood zone recorded the highest price of Kshs 20,300 while Kshs. 15,400 was recorded in agro pastoral livelihood zones.
- Volumes of cattle traded in the livestock markets was similar compared with the previous month.

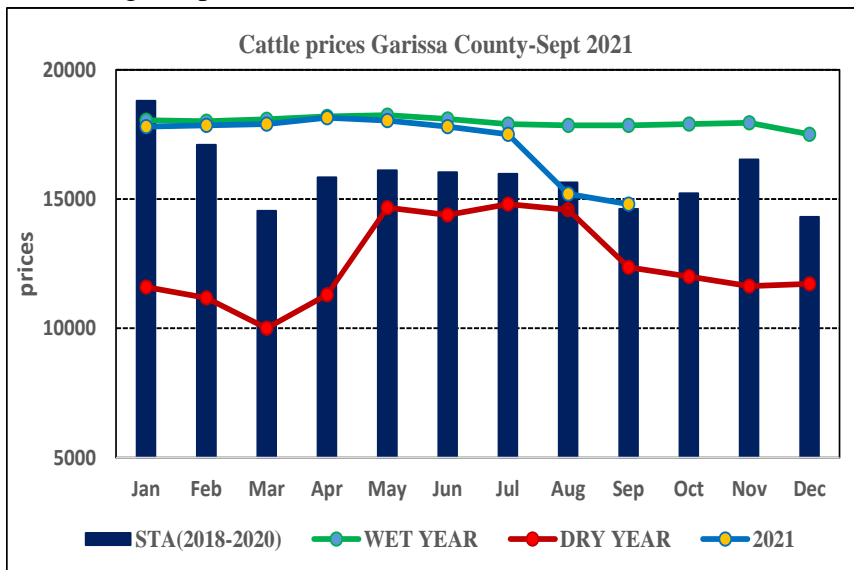


Figure 8: Current livestock price against short term averages

4.1.2 Small Ruminants Prices (Goats)

- The average trading price of a medium-sized three-year old goat reduced from Ksh. 2670 to Kshs. 2610 in this reporting month.
- The current goat prices were 10.9 percent higher than the short term average prices. The prices may continue to decrease as dry weather conditions worsens affecting the purchasing powers of communities.

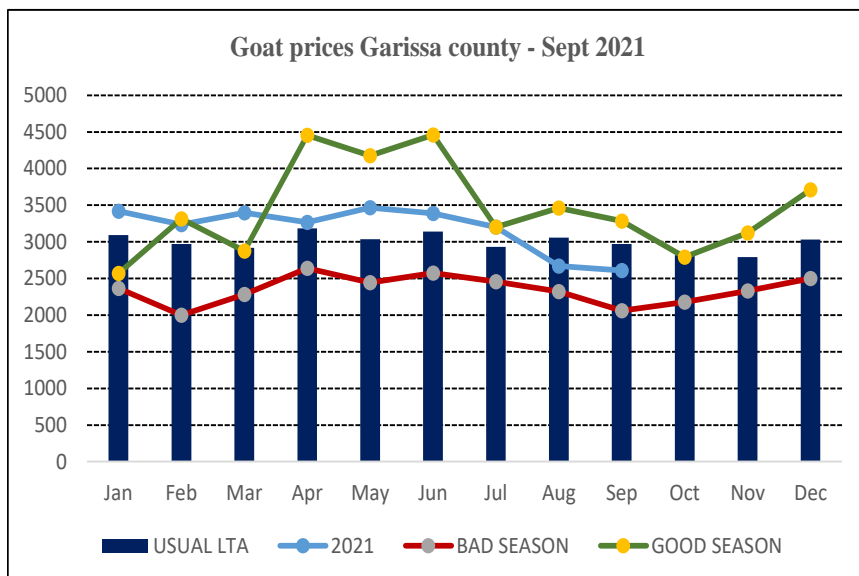


Figure 9: Trend in goat price

4.2 CROP PRICES

4.2.1 Maize

- The average maize price of a kilogram of maize was Kshs 85 similar to the previous month.
- The current price was 20 percent above the short term average price.
- The price is expected to remain stable with the availability of other substitute cereals in the market and at cheaper prices.
- The agro pastoral livelihood zone reported the lowest price of Ksh.65 per kilogram and highest at Ksh. 80 in pastoral livelihood zones.

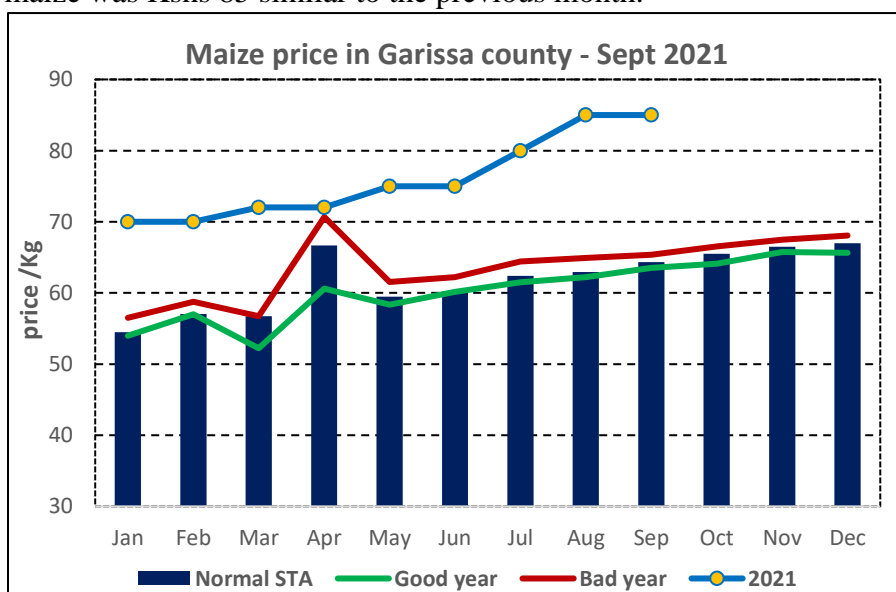


Figure 10: Trend in Maize prices

4.2.2 Sifted Maize Meal

- The average selling price of a kilogram of sifted maize flour was Kshs 100 similar to the previous month.
- The price was within the long term average price
- The highest prices were recorded at pastoral livelihood zones at Kshs. 110 and lowest at agro-pastoral zones at Kshs. 95
- In pastoral communities sifted maize meal is a staple food due to its ease of preparation
- It is expected that the price will remain stable for long until when cost of production and transportation changes.

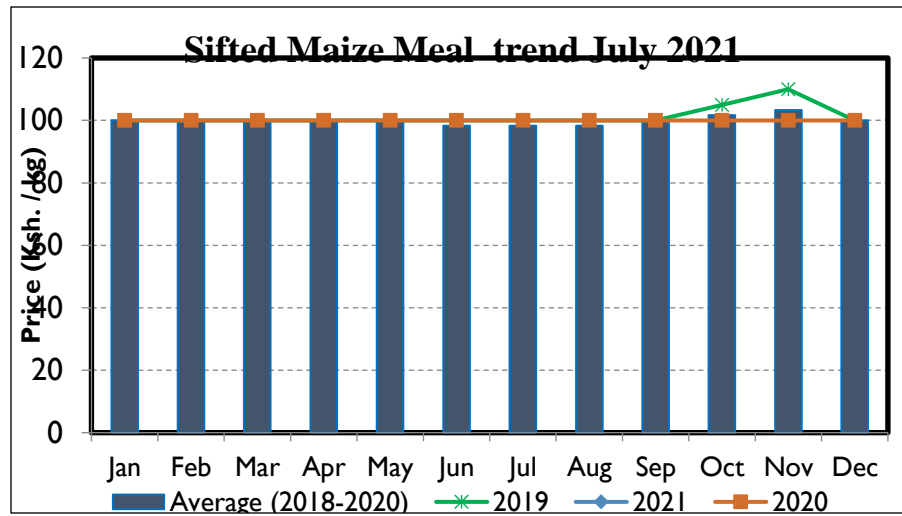


Figure 11: Trend of sifted maize meal

4.2.3 Terms of Trade (Goat prices vs Maize prices)

- The terms of trade was 30 compared to 31.3 recorded in the previous month.
- The terms of trade were 16 percent above the short term average implying the communities are able to purchase some basic essential food stuffs from the sale of goats.
- The terms of trade may decline till the start of short rains season.

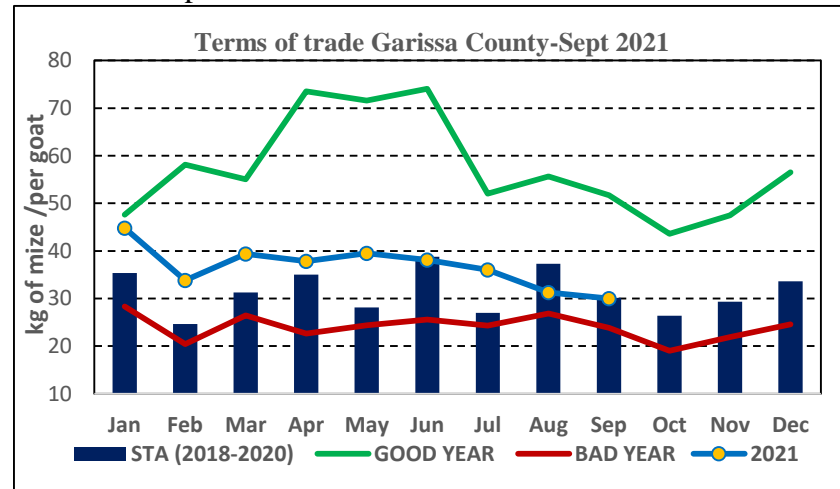


Figure 12: Terms of trade

5.0 FOOD CONSUMPTION AND NUTRITION STATUS

5.1 MILK CONSUMPTION

- The average milk consumption at household level was 1.1 litres similar to the previous month.
- The average milk consumption was 37.1 percent lower than the long term average amount.
- Milk consumption is declining due to reduced milk production as a result of depleted pastures and longer-than-normal trekking distances to water sources.

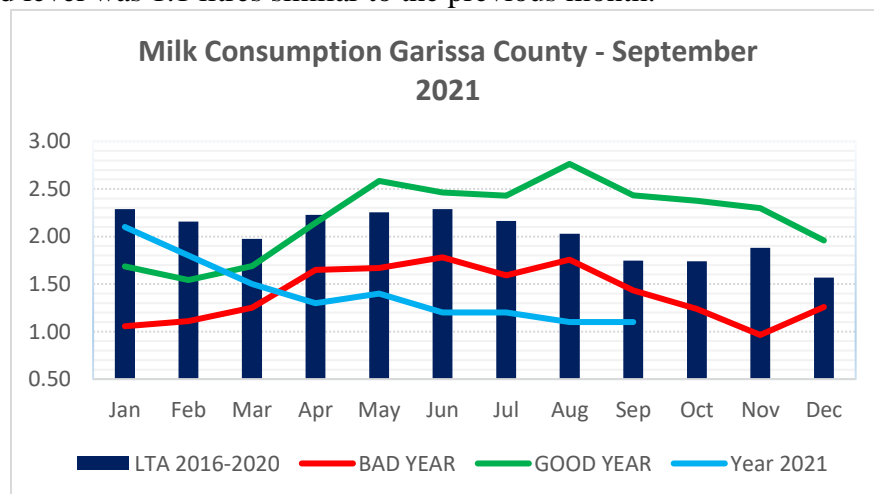


Figure 13: Milk consumption trend

5.2 FOOD CONSUMPTION SCORE

- The proportion of households categorized as having poor, borderline and acceptable food consumption scores was 8.8 percent, 26.9 percent and 64.3 percent respectively.
- 94.9 percent, 63.8 percent and 40 percent of households in agro pastoral, pastoral and unskilled labour/ formal employment livelihood zones respectively were observed to have acceptable food consumption score. 15.9 percent of households in pastoral livelihood zones had poor food consumption score.
- Majority of households (64.8 percent) were observed to have acceptable food consumption indicating they were consuming at least staples and vegetables every day, accompanied by oil and pulses a few days per week.
- The mean food consumption score for the month was of 37.1

Garissa County Food Consumption Score by Livelihoodzones - September 2021

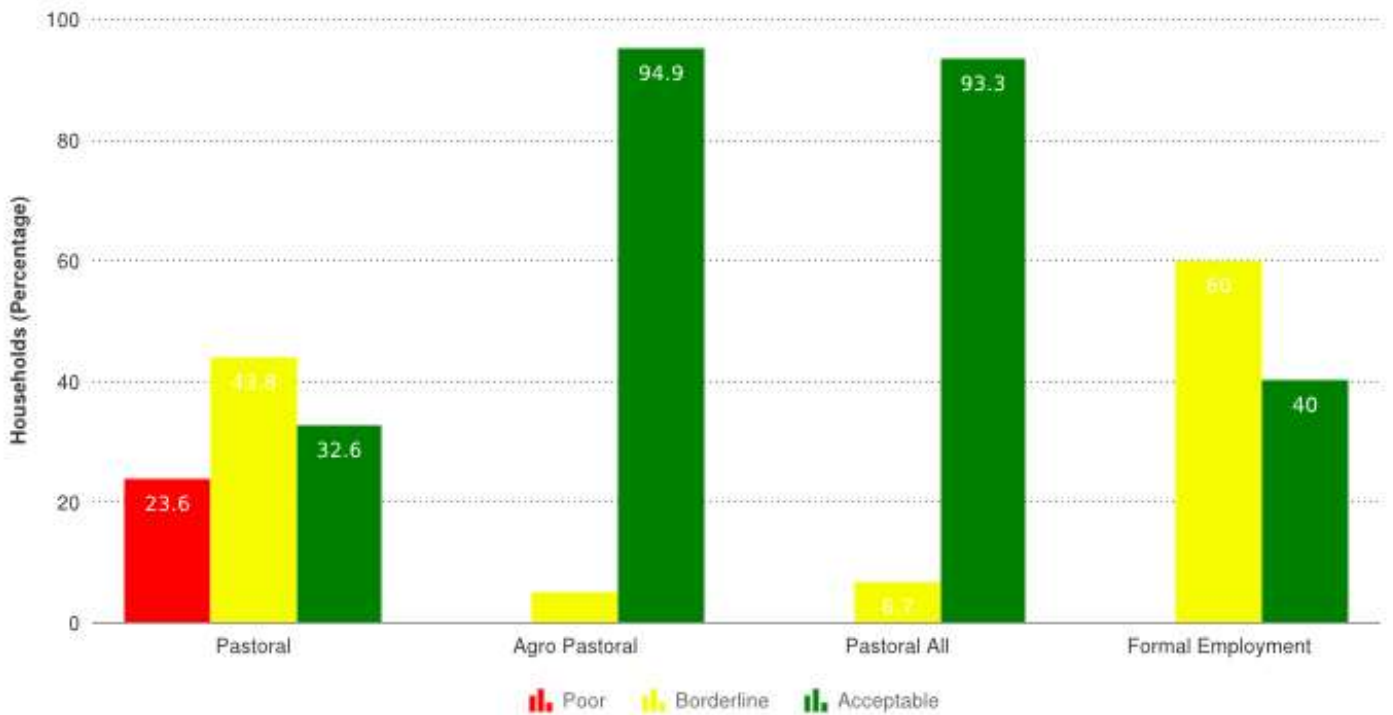


Figure 14: Food consumption score

5.3 HEALTH AND NUTRITION

5.3.1 Nutrition Status

- The proportion of children at risk of malnutrition during this month of July 2021 was 12.7 percent, quite comparable to the previous month.
- The proportion of moderately malnourished of children 6-59 month slightly increase from 3.7 recorded the previous month to 5.7 percent based on family MUAC.
- This month’s proportion of children at risk of malnutrition was 29.2 percent lower than the long term mean. This implies that the nutrition status of children under the five years of age is better the long term mean.
- The number of meals consumed in the pastoral and agro pastoral livelihood zone was 1-2 meals per day that was normal at this time of the year.

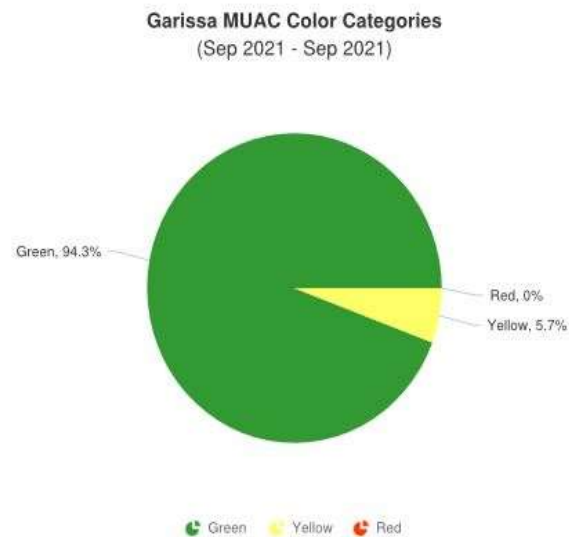
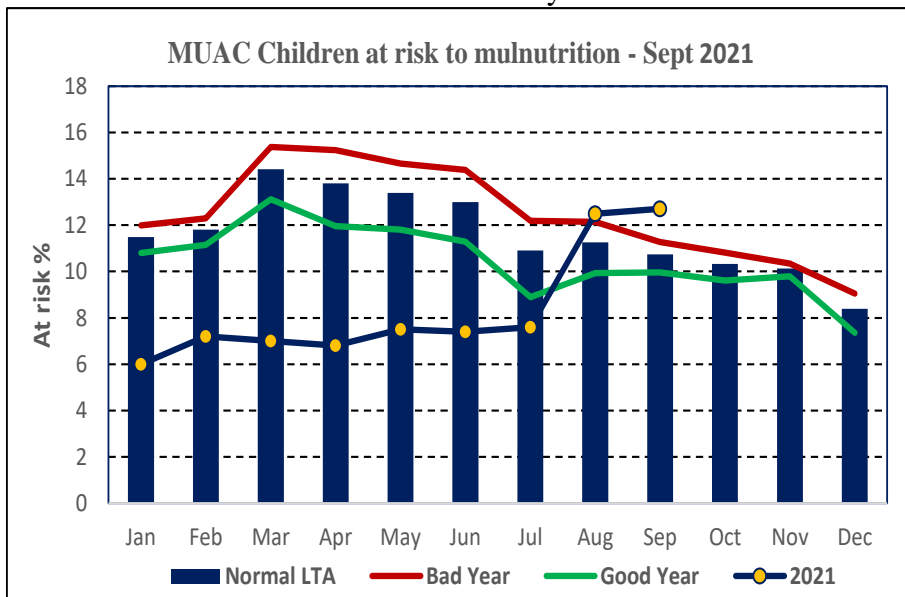


Figure 15: Proportion of children at risk to malnutrition

5.3.2 Health

- The most common diseases in the both under-fives and general population were Upper Respiratory Tract Infection (URTIs), diarrhea and malaria.
- Other diseases reported were water quality related such as scabies and typhoid.
- Cases of Covid-19 infections continue to be reported in the county.

5.4 COPING STRATEGIES INDEX

- The mean coping strategy index (CSI) for the month was 12 .1 compared to 10.81 recorded in the previous month.
- Formal employment/waged labour livelihood zone recorded the highest CSI at 30 while agro pastoral livelihood zone recorded the lowest at 7
- The most strategies employed by households include reduced number of meals eaten per day and reliance on less preferred or less expensive food.
- The trend implies that households are increasing the frequency or severity of applying consumption based coping strategies used to mitigate food deficits.

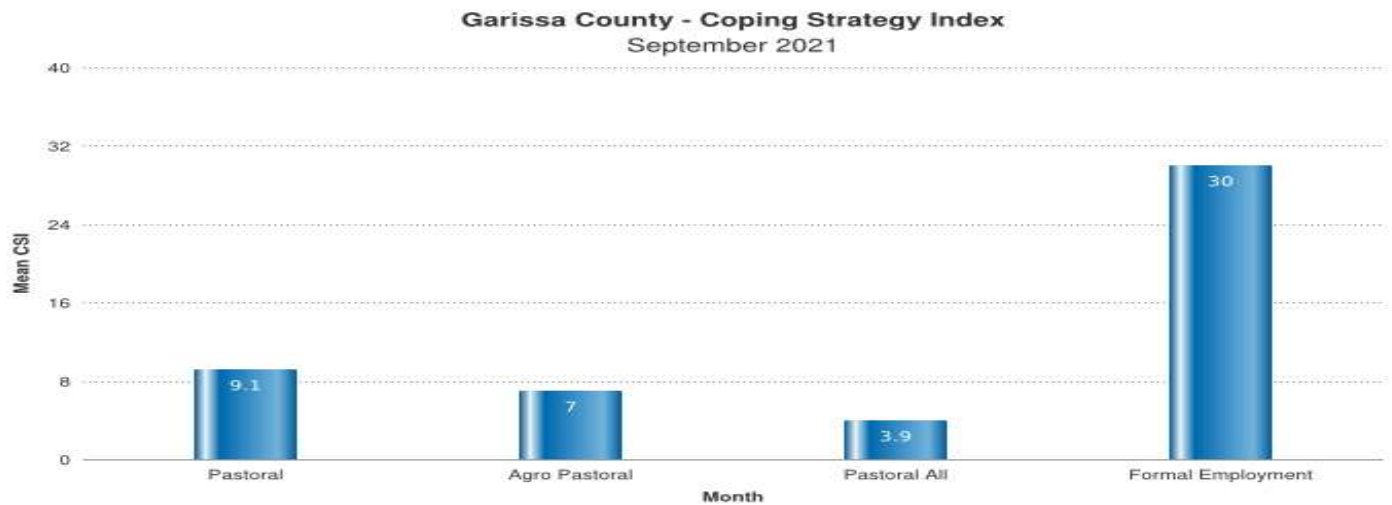


Figure 16: Coping strategy index

6. CURRENT INTERVENTION MEASURES (ACTION)

6.1 NON-FOOD INTERVENTION

Table 1 Non-food interventions

Activity	No. of Beneficiaries	Implementers
Livestock feed supplementation	1000 livestock keepers	FAO and County Government of Garissa
Cash assistance to vulnerable households in Ijara sub-county	2710 households	World Vision Kenya,FAO ,KRCS
Water trucking to 210 sites and schools on-going	87,000 persons	NDMA, Water department, CDF and other partners
Repair and maintenance of 6 boreholes	54,000 persons	Water department

7. EMERGING ISSUES

7.1 Insecurity/Conflict/Human Displacement

- No resource-based conflicts were reported during the month, though there was some tension between communities living along Garissa-Isiolo border between Benane and Modogashe.
- Terror related threats continued to be experienced in areas bordering the Republic of Somalia resulting to limited livelihood activities.

7.2 Migration

No outmigration was reported during the month, however most of the livestock that have migrated earlier remain outside the county.

7.3 FOOD SECURITY PROGNOSIS

- According to Kenya metrology forecast, During OND 2021, the county is expected to experience depressed (below average) rainfall that will likely be poorly distributed in both time and space. However, isolated incidences of storms that could cause flash floods are still likely to occur despite the expected depressed rains.
- Pasture and browse is almost completely depleted in most pastoral zones of Lagdera, Dadaab and Balambala sub-counties. The only area with pasture remaining is Boni forest in Ijara and Hulugho sub-counties where most of the remaining herds of livestock is concentrated.
- Trekking distances to water sources have increased to 28km, the watering interval is 1-2 days for small stock, 2-3 days for cattle and 6-8 days for camel. Which is expected to worsen the drought progress.
- Households within the pastoral zone have no food stocks left and entirely relying on market purchases where food and commodity prices are higher than normal and are expected to remain the same till the next season.

- 95 percent of water pans across the county have dried up due to insufficient recharge during the long rains season. Most boreholes within the grazing areas are recording higher concentration of both human and livestock.
- 8.8 percent and 26.9 percent of households were in poor and borderline food consumption and the situation may deteriorate further due to high food prices coupled with low purchasing power.
- COVID-19 pandemic is likely to continue disrupting businesses and livelihoods.
- High livestock mortality rate of 4 percent due to starvation was reported which is expected to increase with continued depletion of forage coupled with high trekking distances, emergency of opportunistic disease expected to accelerate the situation .
- Liboi , abakaile and baraki ward had the highest livestock mortalities and need to be monitored.

8. RECOMMENDATIONS

Table 2. Recommended interventions

Sector	Sub County	Recommended Intervention
Livestock	All sub-counties	Scale up disease surveillance, vaccination and control of vectors.
	All sub-counties	Provision of livestock feed supplementation
	Lagdera, Balambala, Dadaab and Fafi	Provision of water for livestock.
	All sub-counties	Up scaling of livestock insurance programme
Health	All sub-counties	Provision of water treatment chemicals to areas prone to water borne diseases
	All sub-counties	Scale up integrated health and nutritional outreaches
Water	Lagdera, Balambala, Dadaab and Fafi	Repair and maintenance of strategic boreholes
	Lagdera/Fafi/Dadaab	Provide fast moving spare parts for strategic boreholes
	Lagdera, Balambala, Dadaab and Fafi	Scale up provision of water to villages experiencing severe water stress.
Education	All sub-counties	Provision of water through water trucking
Coordination	Lagdera and .Balambala	Conduct community peace meetings and dialogues