

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



A Vision 2030 Flagship Project



**AUGUST 2021 EWS PHASE**

**Drought Status: ALARM**



**Mipango ya kukabiliana na ukame**

**Drought Situation & EW Phase Classification**

**Biophysical Indicators**

- The county received no rainfall during the month and largely remains dry.
- The 3-month VCI was 25.91 indicating moderate vegetation deficits and was below the long term average for the period. subcounties of Daadab and Lagdera are in the severe vegetation deficit category.
- Pasture condition was poor in all livelihood zones with exception of Ijara sub county which had fair pasture 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 cattle and sheep was fair to poor while that of goats and camels was fair to good.
- Average milk production was 1.45 litres against the long term average of 2.31 litres.
- Milk consumption was an average of 1.2 litres which was below the long term average amount of 2.16 litres.
- Market prices for all livestock species declined drastically below the normal ranges.
- The terms of trade were 31.2 against the long term average of 48
- The mean coping strategy index (CSI) was 8.98 for the month against a long term average of 11.7

**Early Warning Phase Classification**

Livelihood Zone	Phase	Trend
Agro-pastoral	Alert	Worsening
Pastoral cattle/sheep	Alarm	Worsening
Pastoral-all species	Alarm	Worsening
County	Alert	Worsening
Biophysical Indicators	value	Normal Range/Value
Rainfall amount	6.1mm	12.9mm
VCI-3Month	21.16	47.4
Forage condition	Poor	Fair
Production indicators	Value	Normal
Livestock Body Condition	2	2
Milk Production	1.4 litres	2.17 litres
Livestock Migration Pattern	Out-migration reported	No migration
Livestock deaths (from drought)	Minimal death reported	No death
Access Indicators	Value	Normal
Terms of Trade (ToT)	31.2	48
Milk Consumption	1.1 litres	2.03 litres
Return grazing distance to water sources in km	26.1km	22.6km
Cost of water at source (20 litres)	Kshs 5	<5Kshs
Utilization indicators	Value	Normal
Nutrition Status, MUAC (% at risk of malnutrition)	12.5	11.25
Coping Strategy Index (CSI)	10.81	11.25
Food Consumption Score (mean)	38.1	40.3

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

**1. CLIMATIC CONDITIONS**

**1.1 RAINFALL PERFORMANCE**

- The county received an average of 3.1 mm of off season showers in the month of July 2021 which was below the long term average amount for the month. Ijara sub-county received the highest amount at 5.2mm.
- The temperatures ranged between 22.4 C<sup>0</sup> - 29.5 C<sup>0</sup> which was within the normal ranges.

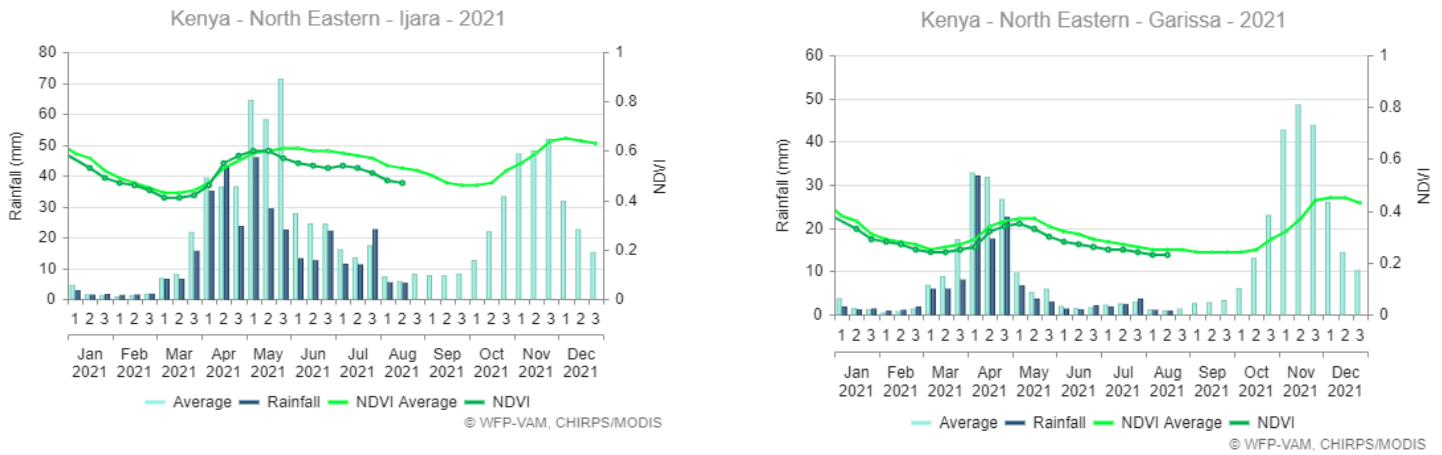


Figure 1: Rainfall and NDVI trend

## 2.0 IMPACTS ON VEGETATION AND WATER

### 2.1 VEGETATION CONDITION

#### 2.1.1 Vegetation Condition Index (VCI)

- The 3-month VCI declined from 25.91 in July 2021 to 21.16 in August 2021 indicating moderate drought conditions.
- Lagdera and Daadab sub-counties were in the severe vegetation deficit category.
- Fafi, Township, Ijara and Balambala sub counties were in the moderate vegetation deficit band
- This deterioration in vegetation condition is attributed to poor rains received, continued grazing and high temperatures experienced in the county.
- The current 3-month VCI is the lowest ever recorded this year and was below the long term average and the base year of 2017.

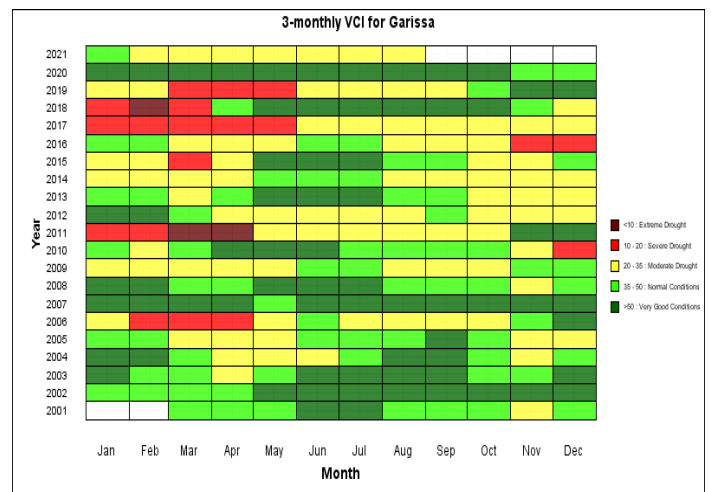
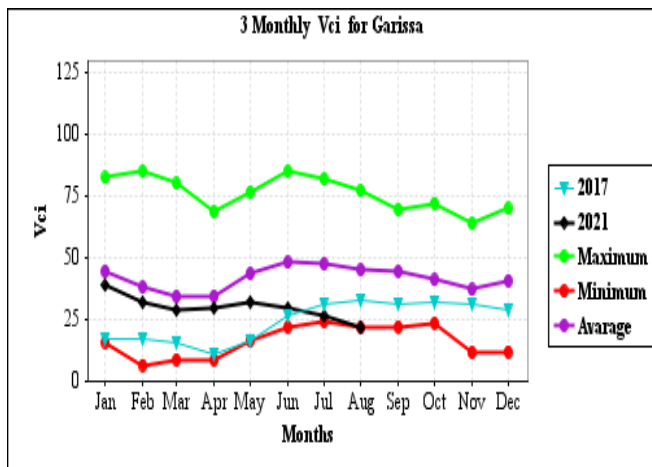


Figure 2: VCI graph and matrix

#### 2.1.2 Pasture and browse condition

- It was reported that 82.8 percent of forage condition in the county was poor while 10.3 percent fair. 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.
- The poor forage condition is worsening because of poor performance of long rains and windy dry spell in June

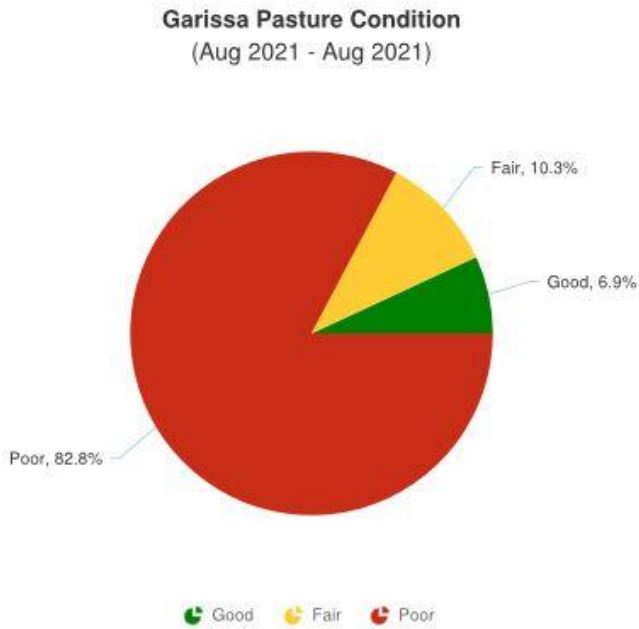


Figure 3: Pasture condition and Browse Condition

## 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 70 percent of water pans have dried up and the remaining water pans have less than 50 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.

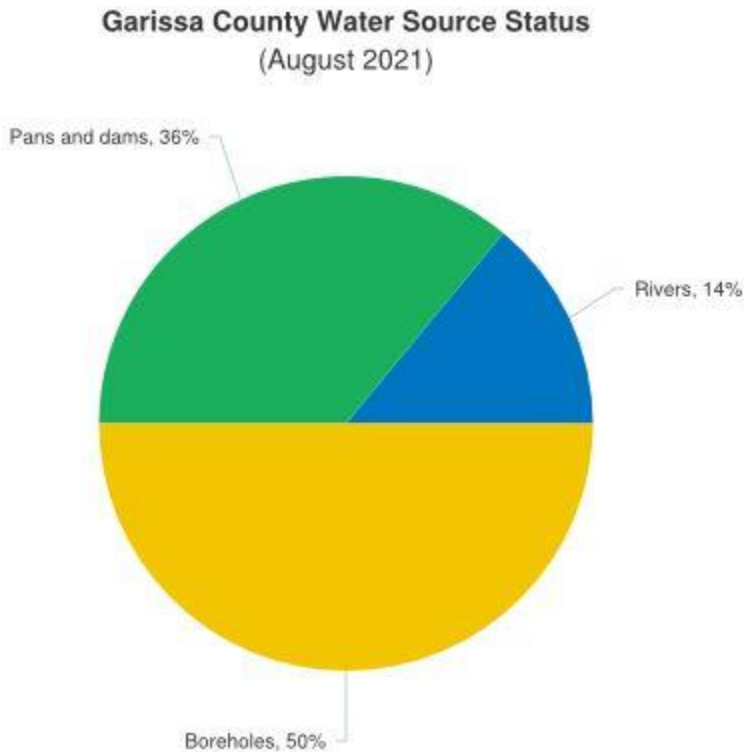


Figure 4: Water sources

### 2.2.2 Household access and Utilization

- The average return distances from households to water sources was 10.1, a slight decrease from a distance of 10.6 km. The slight decrease in distances to water sources is attributed to the start of water trucking programme which is aimed at providing water to areas where water pans and boreholes have completely dried up.
- The current distances were slightly longer than the long term mean distances.
- The average water consumption per household per day is 8liters in pastoral livelihood zones and 20liters for households in the agro-pastoral livelihood zone against a normal of 30 liters/household per day.

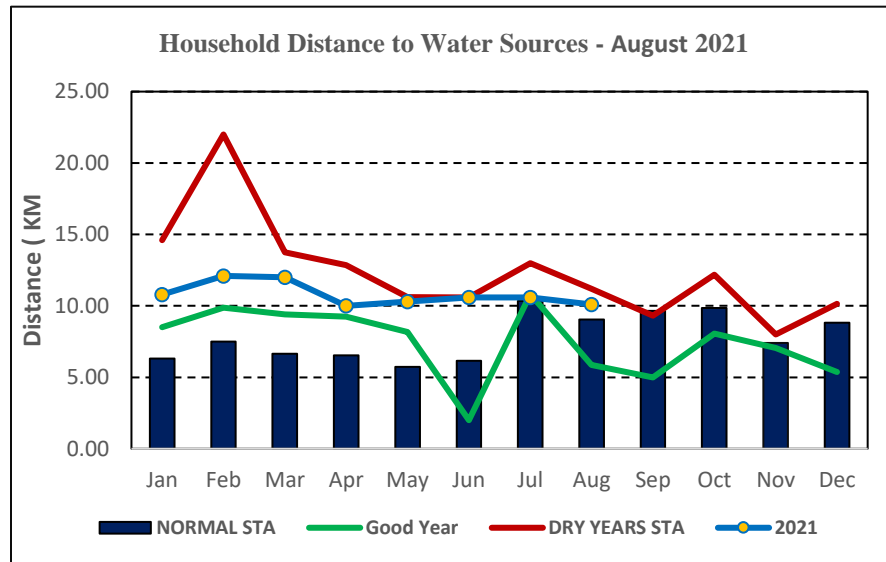


Figure 5: Household return distances to water sources

### 2.2.3 Livestock access

- The average return trekking distance from grazing areas to water sources increased from 25.2 km to 26.1km in this reporting month of August 2021.
- The pastoral all species livelihood zone recorded the longest trekking distance of 30.1km while agro-pastoral zones had the shortest distances at 22.4km.
- The current trekking distances were 15 percent longer than the long-term average distance for the month.
- The grazing distances are increasing as a result of minimal forage regeneration because of poor long rains and ongoing hot dry weather conditions since June 2021.
- Livestock watering frequencies is 2 times a week for small stocks and 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.

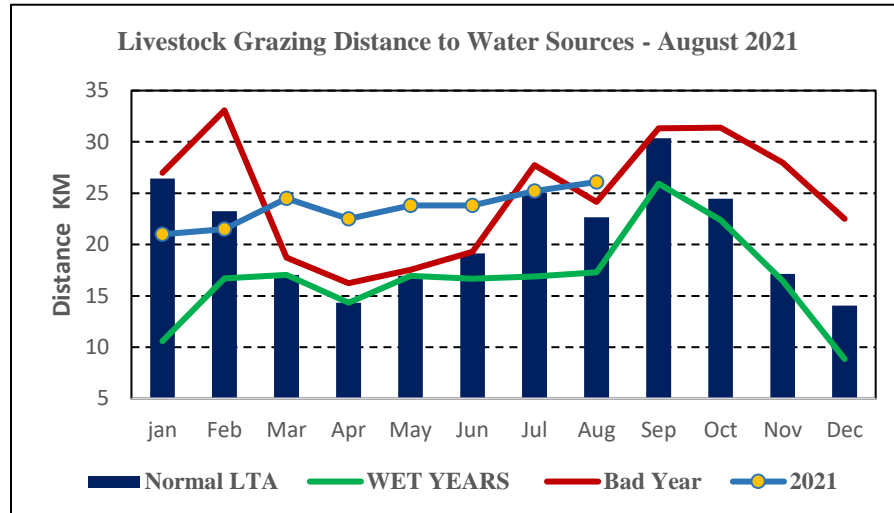


Figure 6: Livestock return distances to water sources

## 3.0 PRODUCTION INDICATORS

### 3.1 LIVESTOCK PRODUCTION

#### 3.1.1 Livestock Body Condition

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

#### 3.1.2 Livestock Diseases

- No major livestock disease outbreaks was reported. Increased cases of endemic Bovine Trypanosomiasis in areas around the Boni forest including Ijara and Sangailu wards in Ijara sub-county while pests and endemic livestock diseases have been reported in various parts. Flu and Haemorrhagic Septicaemia

disease in camels continue to be reported in shimbirey, Abdisemet . Isolated cases CCPP have been reported in Garissa Township, Lagdera sub-county and parts of sankuri ward in Blambala sub-county.

- Livestock mortalities was reported in areas of dadaab sub county but are within the 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 decreased from 1.45 litres to 1.41 litres in this reporting month of August 2021.
- The worsening milk production trend was attributed to poor forage condition and longer-than-normal trekking distances to water sources and grazing areas.
- The current milk production levels were 36.8 percent lower than the long term average amount for the month.
- The production of milk is likely to continue declining further as livestock have are migrating to Boni forest and some crossing the border to Somalia looking for better pasture.
- The cost of milk ranges between Kshs 80 and 90 in agro pastoral and pastoral livelihood zones respectively.

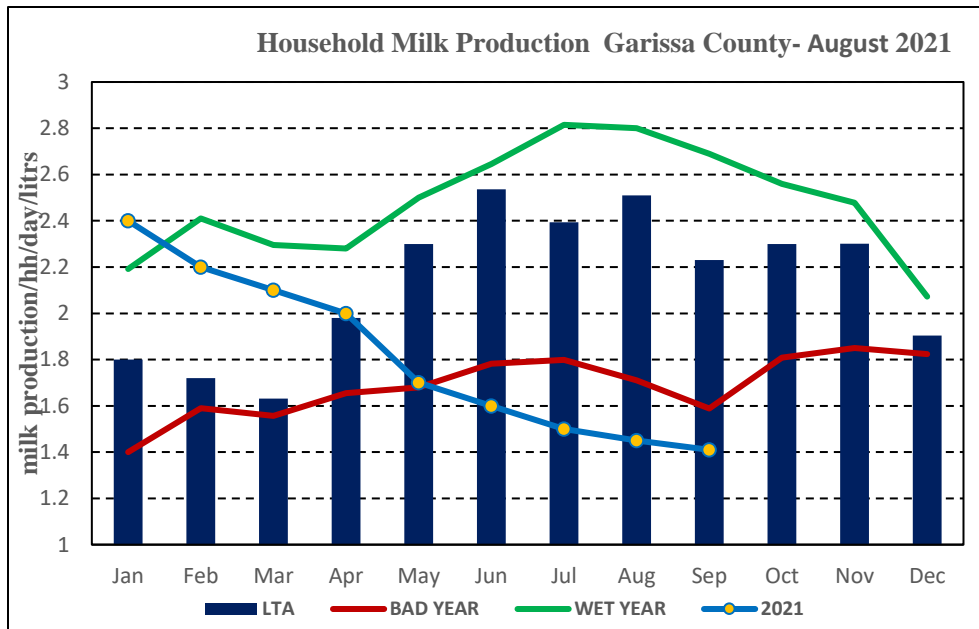


Figure 7: Current milk production against long term averages

## 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 have commenced 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 decreased from Kshs. 17,500 to Kshs. 15200 recorded in this month of August 2021.
- The current selling prices were 5 percent lower than the short term average prices.
- The markets in Agro pastoral livelihood zone recorded the highest price of Kshs 17500 while Kshs. 14300 was recorded in agro pastoral livelihood zones.
- Volumes of cattle traded in the livestock markets was similar compared with the previous month.

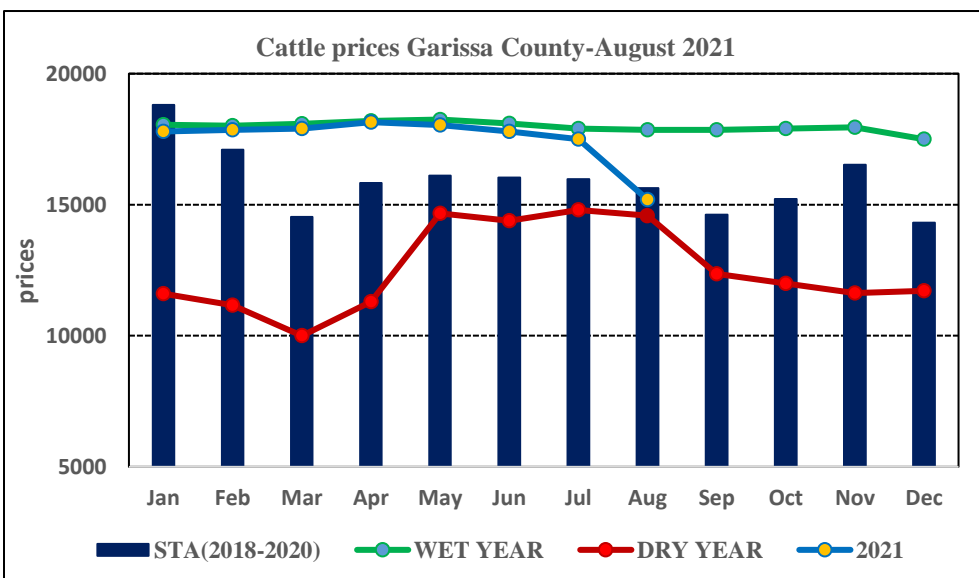


Figure 8: Current cattle prices against the mean

#### 4.1.2 Small Ruminants Prices (Goats)

- The average trading price of a medium-sized three-year old goat reduced from ksh 3,200 to Ksh2670 in this reporting month.
- The current goat prices were 15 percent lower than the short term average prices.
- The trend was attributed to declining goats body condition reduced demand from the local markets coupled with long distances to markets
- As compared to the same period of a bad years, the current price was above by 10 percent.
- The pastoral livelihood zone recorded the lowest price of ksh 2500
- The prices may continue to go down as dry weather conditions worsens affecting the purchasing powers of communities.

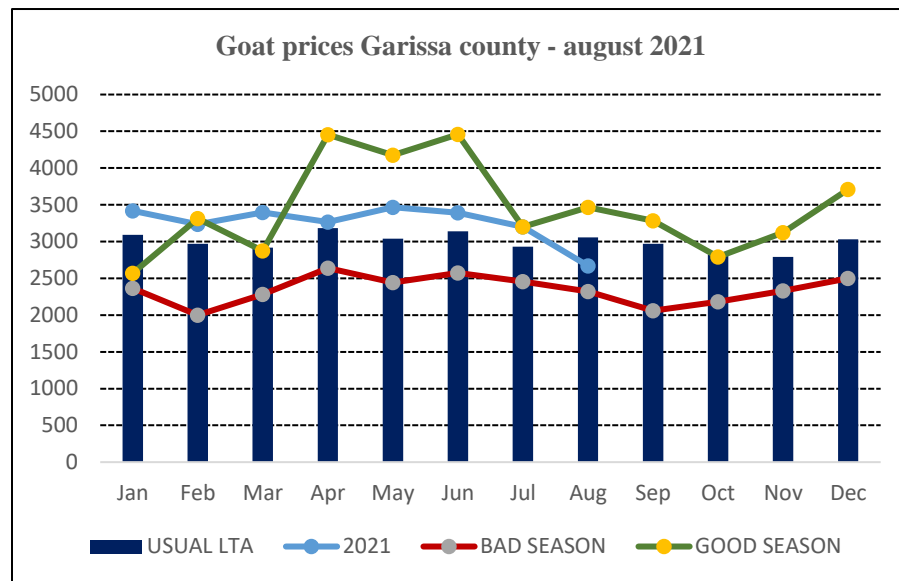


Figure 9: Trend in goat's price

### 4.2 CROP PRICES

#### 4.2.1 Maize

- The average maize price of a kilogram of maize increased and was traded at Kshs. 85 during this reporting month.
- The current price was 30 percent above the short term average price. This was attributed to high demand for maize and other cereal product in the markets for use as livestock feed supplements.
- 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.

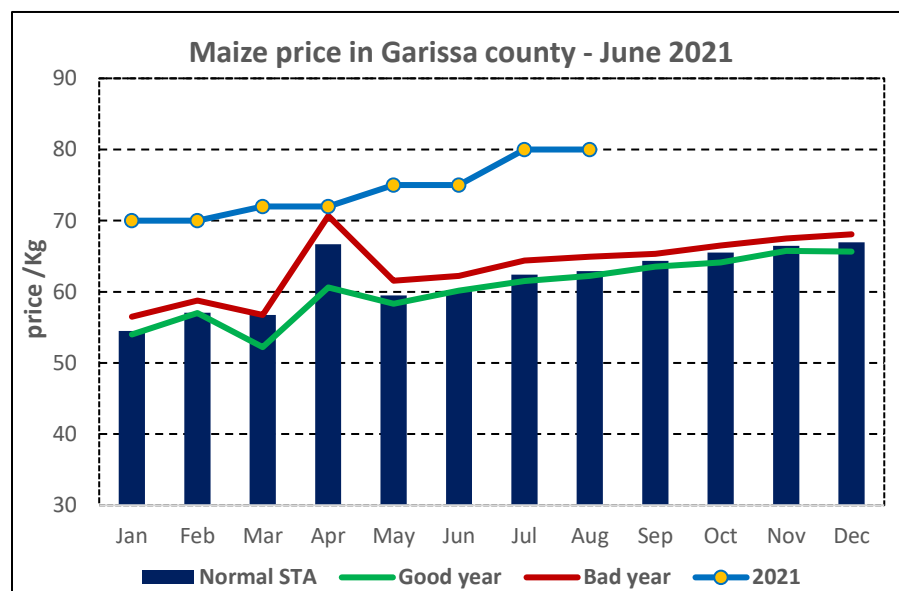


Figure 10: Trend in maize prices

#### 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.

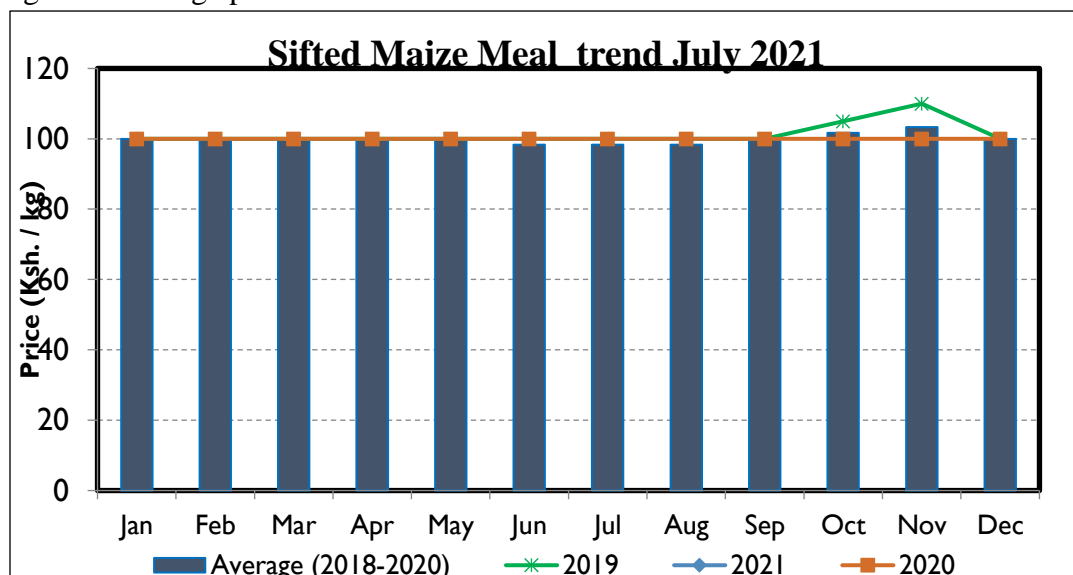


Figure 11: Trend in sifted maize meal

### 4.2.3 Terms of Trade ( Goat prices vs Maize prices)

- The terms of trade decreased slightly from 37.2 to 31.3 in this reporting month of August 2021.
- The current terms of trade was 19 percent below the short term average for the month but was slightly above the same period of bad years.
- The drop may be attributed to reduction in prices of goat implying that communities are struggling to purchase some basic essential food stuffs from the sale of goats.
- The terms of trade may continue to decline till the start of short rains season.

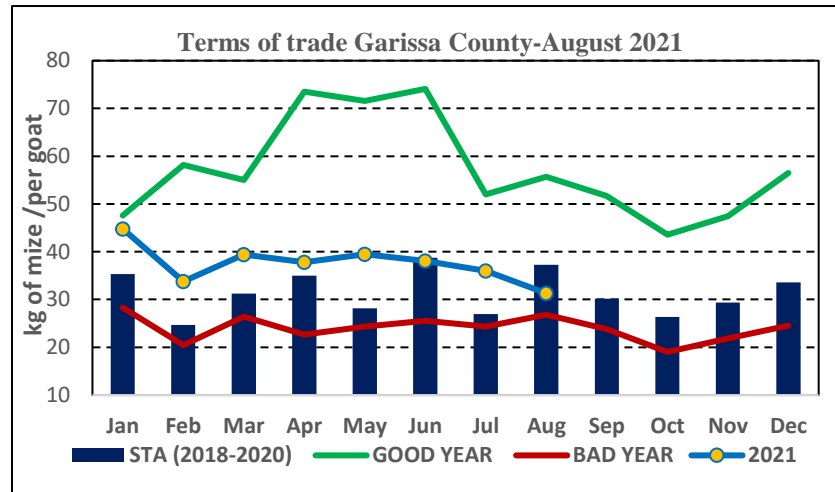


Figure 12: Terms of trade

## 5.0 FOOD CONSUMPTION AND NUTRITION STATUS

### 5.1 MILK CONSUMPTION

- The average milk consumption at household level was 1.1 litres compared to 1.2 litres reported the previous month.
- The average milk consumption was 44.4 percent less than the long term average amount.
- Milk consumption continue to decline due to reduced milk production resulting from low feed intake due to depleted pastures and longer-than-normal trekking distances to water sources.
- The pastoral households are affected most as they basically rely on powdered milk sourced from the markets

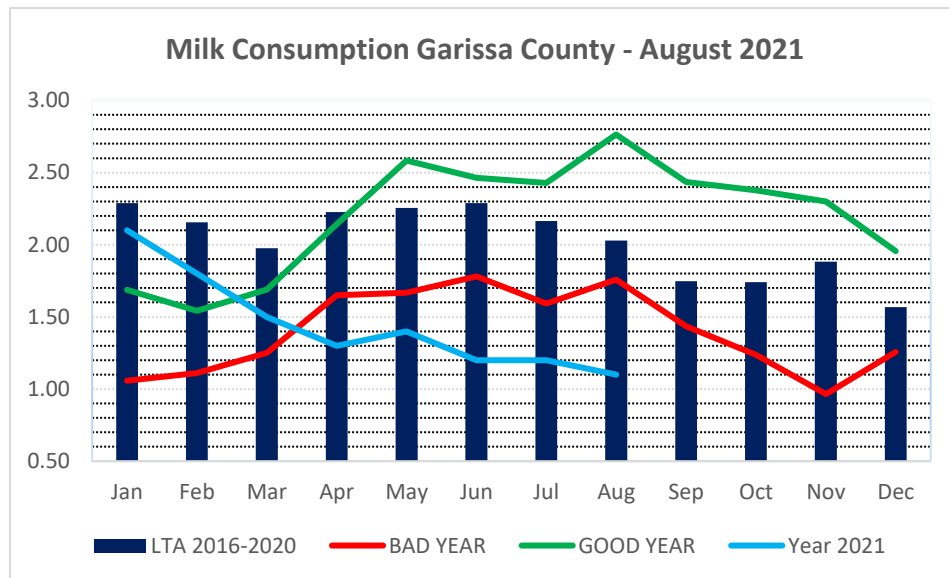


Figure 13: Milk consumption trend

### 5.2 FOOD CONSUMPTION SCORE

- The proportion of households categorized as having poor, borderline and acceptable food consumption scores was 7 percent, 27 percent and 66 percent respectively.
- 14.6 percent of households in pastoral livelihood zones had poor food consumption score.
- 84.2 percent and 88 percent of households in agro pastoral and urban centres respectively were observed to have acceptable food consumption score.
- Majority of households in the county (66 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 38.3

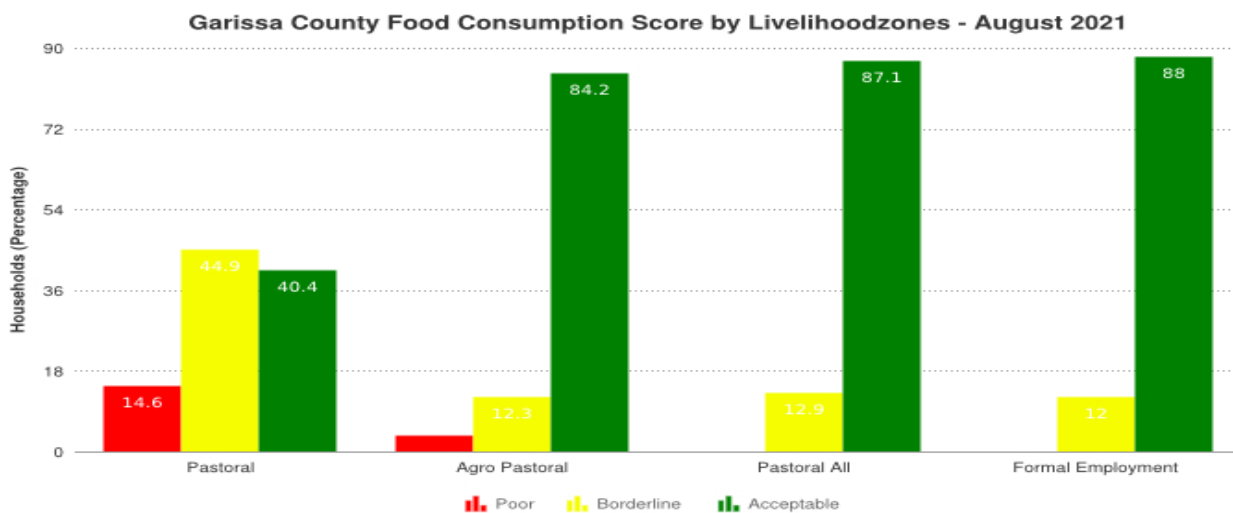


Figure 14: Food consumption score by livelihood zone

### 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 12.5 percent, as compared to 7.3percent recorded previous month.
- The proportion of moderately malnourished of children 6-59 month slightly increased from 6.1 to 8.9.
- This month’s proportion of children at risk of malnutrition was 10 percent above the long term mean. For the month
- 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.

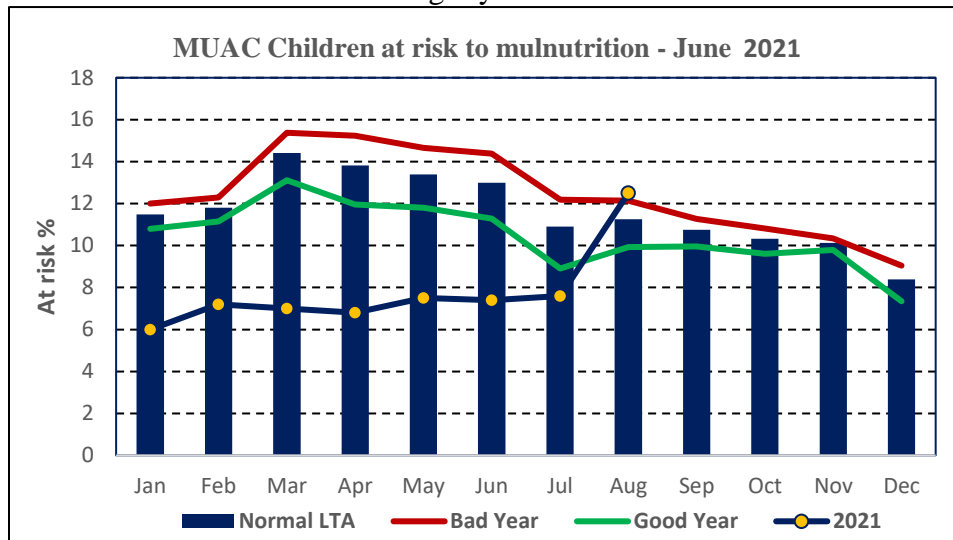


Figure 15: proportion of children at risk to malnutrition

#### 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 10.81, compared to 8.89 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 7.4
- 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.

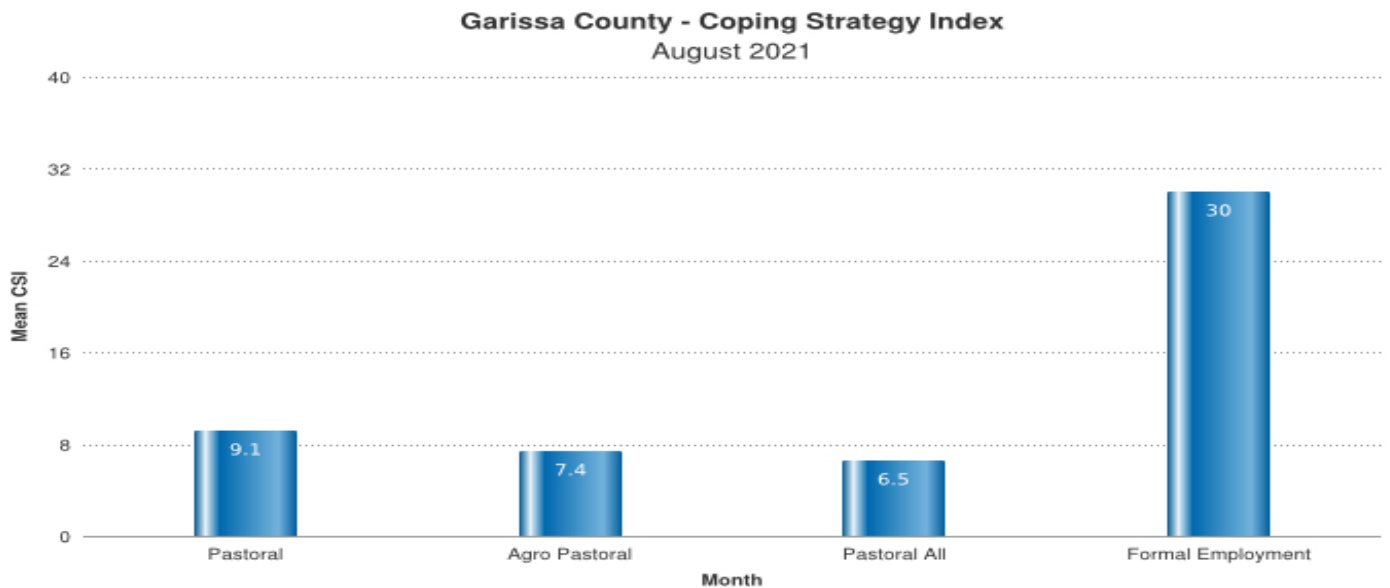


Figure 16:Coping strategy index

## 6. CURRENT INTERVENTION MEASURES (ACTION)

### 6.1 NON-FOOD INTERVENTION

Table 1 Non-food interventions

Activity	Beneficiaries	Implementers
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Livestock vaccination and treatments	20,000 households	NDMA, Save the children and veterinary department
Registration of households for cash transfer	Masalani ward in	NDMA through the Hunger Safety Net Programme(HSNP)
Livestock disease surveillance	County wide	NDMA,veterinary department
Water trucking to 106 sites and schools on-going	25,000 persons	NDMA, Water department, CDF and other partners
Activation of rapid response teams for water	12 boreholes	NDMA, water department
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

Approximately around 75 percent of cattle and camels have moved to Boni forest and some to neighbouring Republic of Somalia. This is attributed to scarcity of pastures and water in many areas of Ladgera, Dadaab and Fafi sub-counties.

### 7.3 FOOD SECURITY PROGNOSIS

- According to Kenya metrology forecast, During OND 2021, it is expected that the county will experience depressed (below average) rainfall that will 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.
- The county received depressed rains the previous season and has experienced dry weather conditions from the month of June to present.
- Pasture and browse is almost completely depleted in the pastoral zones of Lagdera and Balambala sub-counties while in most pastoral areas of Balambala and Fafi the forage is poor leading to livestock outmigration.
- 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
- 90 percent of water pans/ dams 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.
- Forage and water resources reduced and remained below the seasonal level, livestock body condition reduced and is expected to deteriorate further negatively impacting on milk production and availability.
- 16 and 27 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.

## 8. RECOMMENDATIONS

*Table 2. Recommended interventions*

Sector	Sub County	Recommended Intervention
Livestock	All sub-counties	Disease surveillance, vaccination and control of vectors.
	All sub-counties	Livestock feed supplementation

	Lagdera, Balambala, Dadaab and Fafi	Water for livestock.
	All sub-counties	Up scaling of livestock insurance programme
Agriculture	Balambala, Township, Fafi and Ijara	Provision of assorted certified seeds
	Balambala, Township, Fafi and Ijara	Support expansion of area under irrigation for fodder production
Health	All sub-counties	Provision of water treatment chemicals to areas prone to water borne diseases
	All sub-counties	Scale up integrated health nutritional outreaches
Water	Lagdera, Balambala, Dadaab and Fafi	Repair and maintenance of strategic boreholes in specific areas
	Lagdera/Fafi/Dadaab	Provide fast moving spare parts for strategic boreholes
		Upscale water trucking as the need increase
		Activation of rapid response teams
Education	All sub-counties	Provision of water through water trucking
Coordination	Lagdera and .Balambala	Conduct community peace meetings and dialogues