

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



A Vision 2030 Flagship Project



JANUARY 2021 EWS PHASE



Drought Situation & EW Phase Classification

Biophysical Indicators

- In the month of January the county received an average of 1.6mm of off season rainfall against a long term average 2.6mm
- The 3-month VCI was 38.47 indicating normal vegetation greenness but was below the long term average for the month.
- Pasture condition was fair to poor across all livelihood zones
- Both household distances and livestock trekking distances to water sources increased and were above the long term average.

Socio Economic Indicators (Impact Indicators)

- Livestock body condition of all species was fair condition in all the livelihood zones
- Average milk production was 2.3 litres against the long term average of 2.65 litres.
- Milk consumption was at an average of 2.1 litres against the long term average amount of 2.29 litres
- Market prices for all livestock species remained within the normal ranges.
- The terms of trade were 44.8 against the long term average of 52.
- The mean coping strategy index (CSI) was 12.11 for the month
- Proportion of children below five years at risk of malnutrition was 6.0 percent. The proportion was 46 percent below the long term average for the month
- The mean food consumption score was 44.3 compared to long-term average of 40.2

Early Warning Phase Classification

Livelihood Zone	Phase	Trend
Agro-pastoral	Normal	Worsening
Pastoral cattle/sheep	Normal	Worsening
Pastoral-all species	Normal	Worsening
County	Normal	Worsening
Biophysical Indicators	value	Normal Range/Value
Rainfall (% of Normal)	10%	40%
VCI-3Month	38.47	39.6
Forage condition	Fair	Fair
Production indicators	Value	Normal
Livestock Body Condition	2	2
Milk Production	2.3	2.65 litres
Livestock Migration Pattern	No migration	No migration
Livestock deaths (from drought)	No death	No death
Access Indicators	Value	Normal
Terms of Trade (ToT)	44.8	52
Milk Consumption	2.1	2.29litres
Return grazing distance to water sources in km	21	15.4 km
Cost of water at source (20 litres)	Kshs 5	<5Kshs
Utilization indicators	Value	Normal
Nutrition Status, MUAC (% at risk of malnutrition)	6.0	13.4
Coping Strategy Index (CSI)	12.11	<15
Food Consumption Score(mean)	44.3	40.2

<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

- In the month of January the county received an average of 1.6mm of off season rainfall against a long term average 2.6mm.
- The rains received was too little to have any impact on forage and water sources

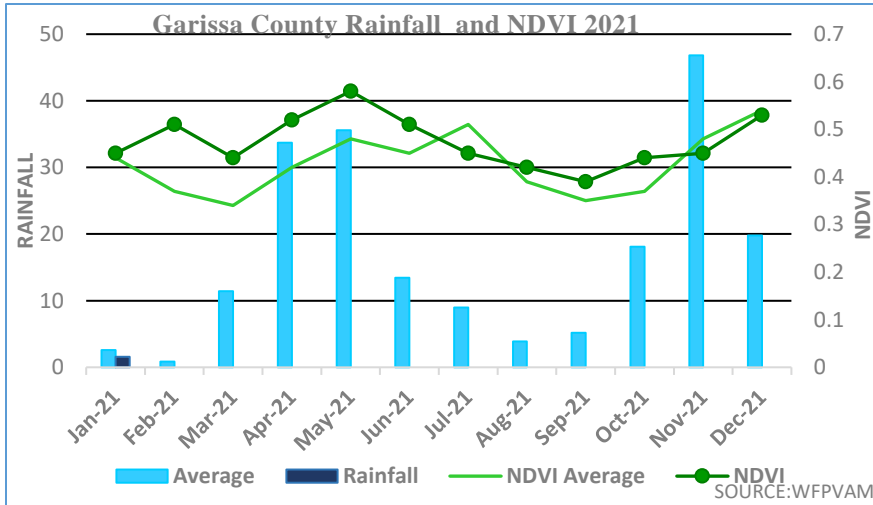


Figure 1: Rainfall and NDVI trend

2.0 IMPACTS ON VEGETATION AND WATER

2.1 VEGETATION CONDITION

2.1.1 Vegetation Condition Index (VCI)

- The 3-month VCI for the month of January was 38.47 indicating normal vegetation greenness compared to 41.82 recorded the previous month. This worsening trend has been contributed by lack of rainfall and rising temperatures.
- Four sub-counties: Daadab, Lagdera, Fafi, and Ijara had normal vegetation greenness while Township and Balambala sub-counties had moderate vegetation deficit.
- The current 3-month VCI was slightly below the long term average and much higher than the base year of 2017.

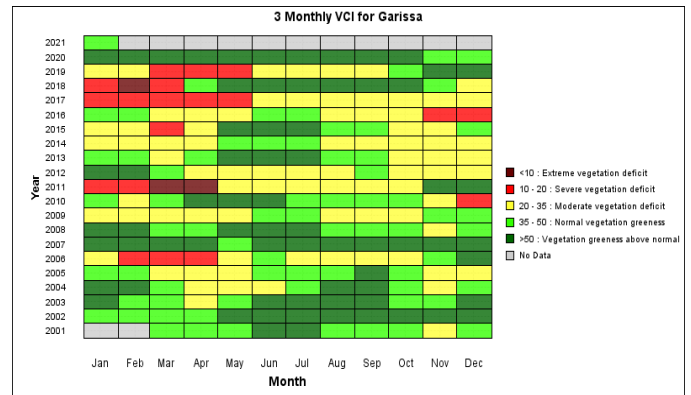
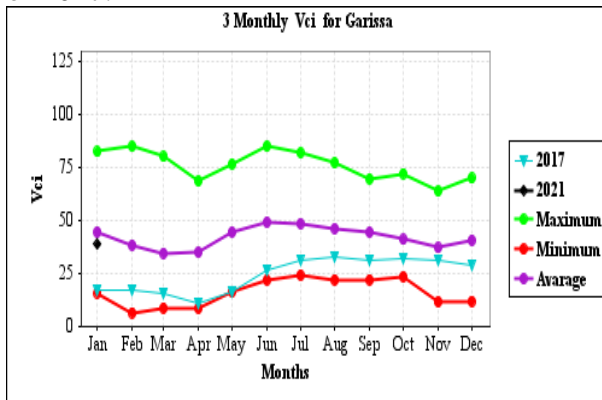
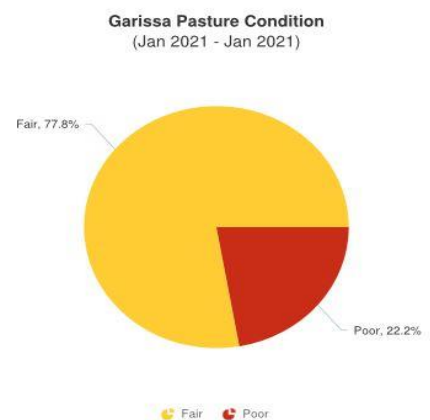


Figure 2: VCI matrix and graph

2.1.2 Pasture and browse condition

- It was reported 77.8 percent of sampled communities reported fair pasture and browse condition, however, 22.2 percent of sampled communities reported poor pasture and browse condition..
- The poor status of forage was observed in Balambala and Lagdera sub counties which received the least amount of rainfall in the short rains season. The situation is expected to deteriorate further during this dry spell period.
- Pasture and browse may last for one month before depletion is realised



Figure

3: Pasture & condition

2.2 WATER RESOURCE

2.2.1 Sources

- Main sources of water currently are pans and dams, River Tana and boreholes as shown in the pie chart.
- Water pans and boreholes are mojerly in use by both households and livestock.
- With the continued dry spell period, some water pans may dry up faster than anticipated. Boreholes are expected to reduce in yeald and experience breakdowns.

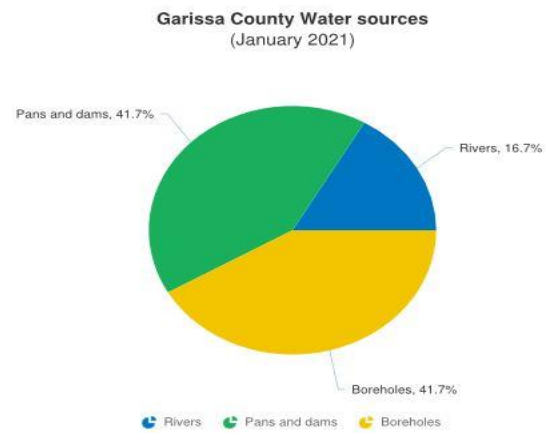


Figure 4: water sources

2.2.2 Household access and Utilization

- The average return distances from household to water sources increased from 7.7 km to 10.8km in this reporting month. This is attributed to continuing dry spell period which has been characterized by increased temperatures which have heightened evaporation rate in water sources.
- The current distance is 70percent longer than the normal distance of 6.33 km.
- The average water consumption per household per day reduced to 15 litres in pastoral livelihood zones and 35 litres for households in the agro pastoral livelihood zone.

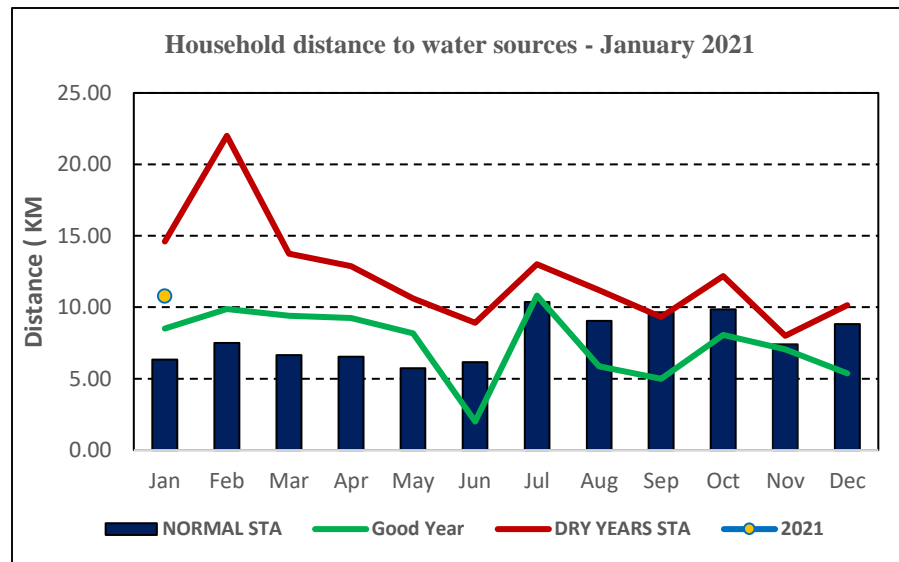


Figure 5: household return distances to water sources

2.2.3 Livestock access

- The average trekking distance from grazing areas to water sources increased slightly from 20.8 km to 21km reported in January 2021.
- The pastoral all species livelihood zone recorded the longest trekking distance of 24.2km while agro-pastoral zones had the shortest distances at 17.8km.
- The current trekking distance was 22 percent shorter than the normal distances and equivalent to the distance recorded in the bad year.
- This situation maybe attributed to depletion of pasture in areas closer to villages and pastoralists are moving their livestock further away from their homes. The situation may worsen with the onset of dry spell period.
- Livestock watering frequencies is 3-4 times a week due compared to a normal of 7 days a week.

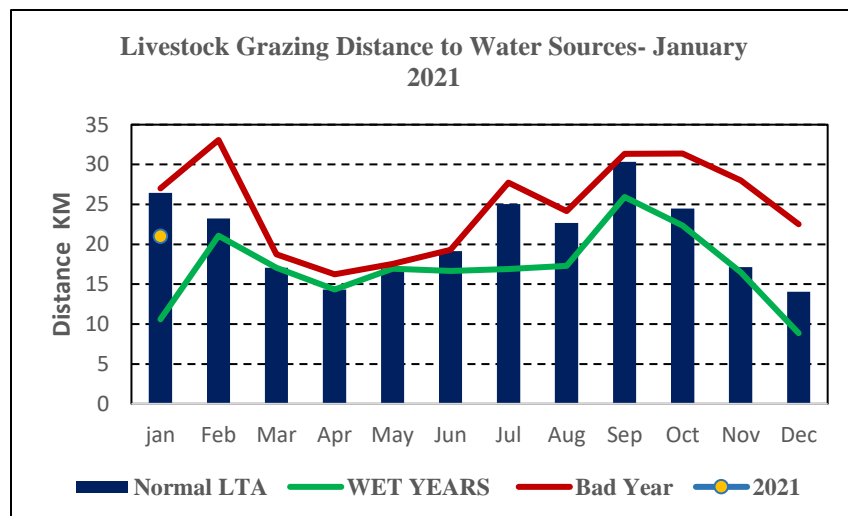


Figure 6: Livestock return trekking distance to water sources

3.0 PRODUCTION INDICATORS

3.1 LIVESTOCK PRODUCTION

3.1.1 Livestock Body Condition

- Livestock body condition of all species was generally moderate neither fat nor thin across all livelihood zones. The body condition of cattle in pastoral and agro livelihood zones was good to fair compared to good at this time of the year. Sheep, Goat and camel had good body condition across the livelihood zones, which was normal.
- The body condition of livestock was mainly due to fair pasture and browse available, however, the condition is likely to worsen with the onset of dry seasons, increased distances to water and pasture and increased cases of vector borne related diseases.

3.1.2 Livestock Diseases

- Rift valley fever disease was reported in Danyere ward in Balambala Sub County and Masalani ward in Ijara Sub County, however the veterinary services department continue to undertaking disease surveillance, tracing the affected stock owners through shared information with the One Health Committee.
- A camel disease has also been reported across all the livelihood zones in the county.
- Endemic livestock diseases such as Contagious Caprine Pleuropneumonia (CCPP) and Contagious Bovine Pleuropneumonia (CBPP) has been reported across the livelihood zones. Other diseases reported were Peste des Petits Ruminants (PPR).
- Vectors borne diseases including Trypanosomiasis continued to be reported but treatment and control measures are being undertaken by the Veterinary Services.
- There are minimal livestock mortalities across the livestock species..

3.1.3 Milk Production

- Cows were the main producers of milk in this reporting month similar to the previous month.

- Milk production was recorded at 2.3 litres, a slight decrease from 2.4 litres realised last month. Milk production in the both livelihood zones was above normal. In pastoral livelihood zone, production of milk ranged between 2.1 litres compared to 1.8 litres normally.

- The milk production is expected to continue to decrease with the expected depletion of pasture and waters sources because of the continuing dry spell period

- The average prices of milk was Kshs 50-60 per litre in all the livelihood zones compared to Kshs 30-35 per litre

normally which is 35 percent above the normal price attributed to low milk production.

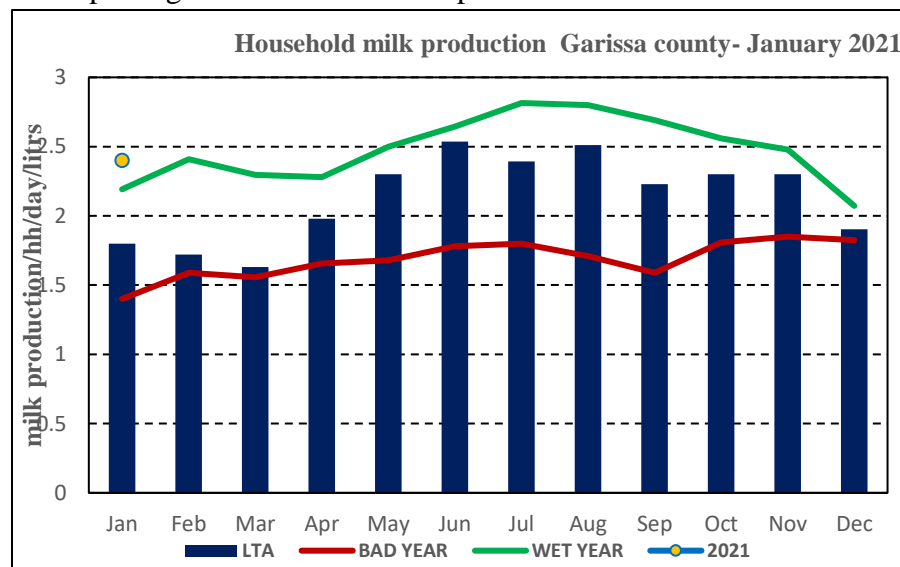


Figure 7: Current milk production against long term averages

3.2 RAIN-FED CROP PRODUCTION

3.2.1 Stage and Condition of food Crops

The main crops grown in the agro pastoral livelihood zone were maize, cowpeas and sorghum. During the short rains season the crops planted failed to grow and no harvests were made though short rains season is more dependable in the County for crop production but currently no crops are in the field.

4.0 MARKET PERFORMANCE

4.1 LIVESTOCK MARKETING

4.1.1 Cattle Prices

- The average market price of a 4-year medium sized bull increased from Kshs. 16,693 to Kshs. 18,000 reported in January.
- The current selling prices were normal compared to similar periods in the previous years.
- The markets in pastoral livelihood zone recorded the highest price of Kshs23,500 while Kshs. 16,700 was recorded in agro pastoral livelihood zones.
- Volumes of cattle traded in the livestock markets slightly increased as compared with the previous month.

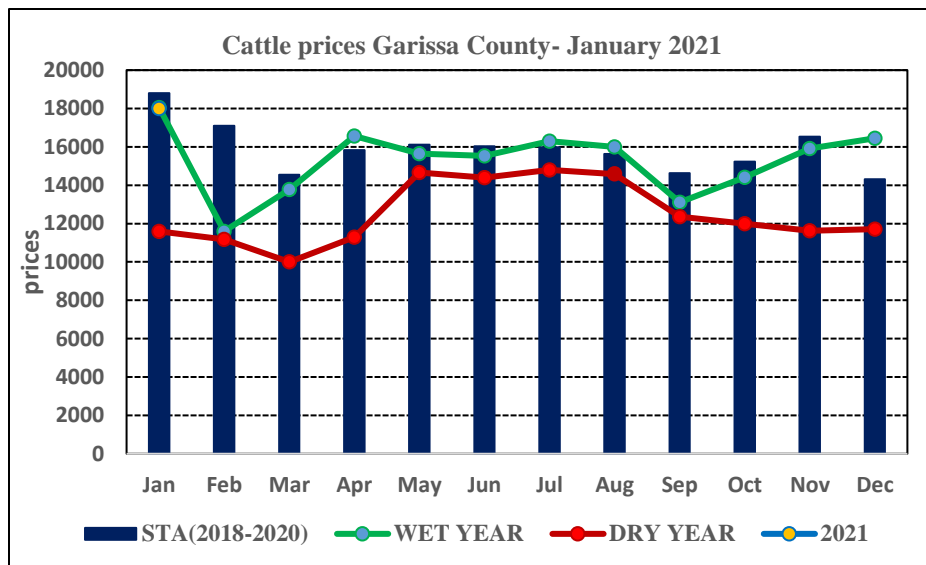


Figure 8: Trend in cattle prices

4.1.2 Small Ruminants Prices (Goats)

- The average trading price of a medium-sized three-year old goat was Kshs. 3,418 compared to Kshs. 3,438 reported in December
- The current goat prices were 33 percent higher than the 2018-2020 STA price of Kshs. 2,570
- The higher than normal goat prices were attributed to their fair to good body condition which would fetch better prices in markets.
- Current traded volumes of goats in the livestock markets were quite similar compared as compared to same period of previous seasons. However, the prices is expected to decline due to increased volumes in the market and movement of small stocks away from households in search of pastures and water in the previous month.

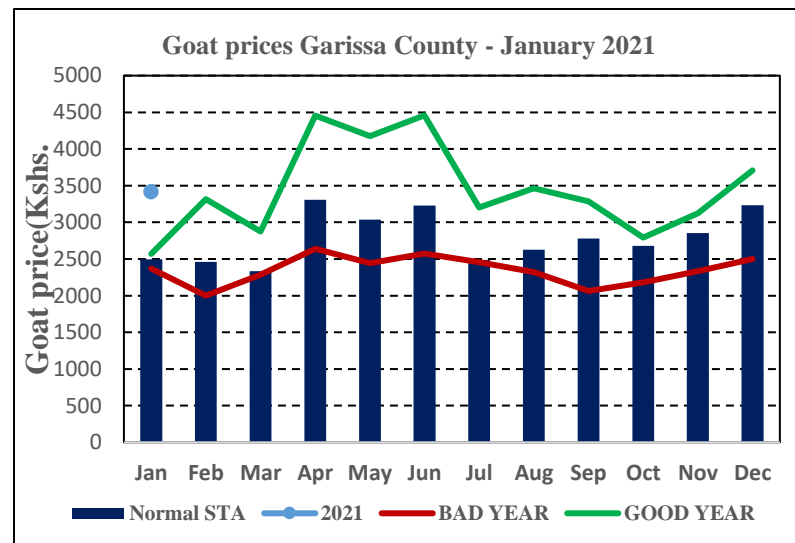


Figure 9: Trend in goat prices

4.2 CROP PRICES

4.2.1 Maize

- In January 2021, the average maize prices was Ksh.70 per kilogram, which was 17 percent above the long term averages of Ksh.60 per kilogram (Figure 10). Between January 2021 and December 2020, the prices of maize was stable at Ksh. 70 per kilogram.
- The prices were higher than the normal short term average for the month and the same period of a bad years by 23 and 20 percent respectively.
- These high prices of maize are attributed to poor roads and increased transportation costs. The increase in prices of maize was also attributed to reduced production especially in the agro pastoral livelihood zones. Maize prices remained consistently above the long term averages and are expected to follow the seasonal trends as it remains.
- Distribution of relief food by government agencies and non-governmental organisations has helped to cushion pastoralists against high food prices.

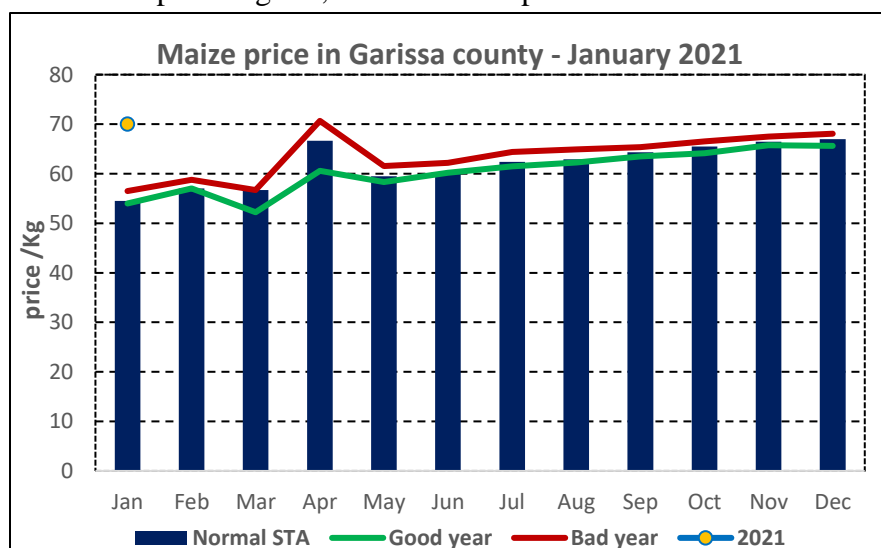


Figure 10: Trend in maize grain prices

4.2.2 Sifted Maize Meal

- A kilogram of sifted maize flour was selling at an average price of 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.

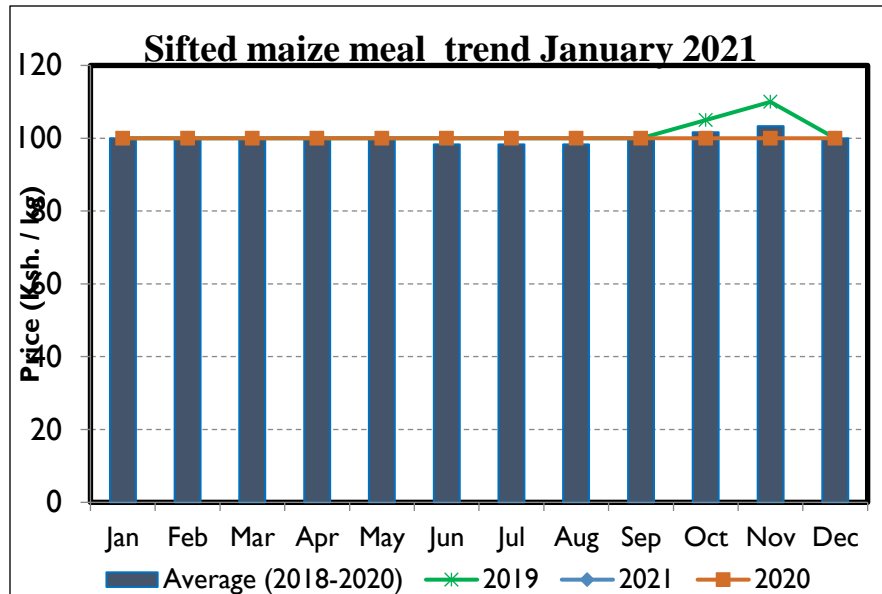


Figure 11: Trend of sifted maize meal prices

4.2.3 Terms of Trade (Goat prices vs Maize prices)

- The terms of trade was record at 44.8 compared to 43.9 kilograms of maize upon sale of a goat reported in the previous month?
- The current reported terms of trade were 28 percent above the short term average of 35.
- ToT was attributed to declining goat prices and stable maize prices. The terms of trade are becoming unfavourable to the livestock keepers, This implies that the purchasing power of communities reduced and pastoralists are able to purchase less basic essential food stuffs.
- The terms of trade are expected to decrease with the continuing of the dry weather period as goats prices are expected to decline and maize prices remain stable or increase. The Terms of Trade are expected to decline further with declining goat prices and increasing maize prices.

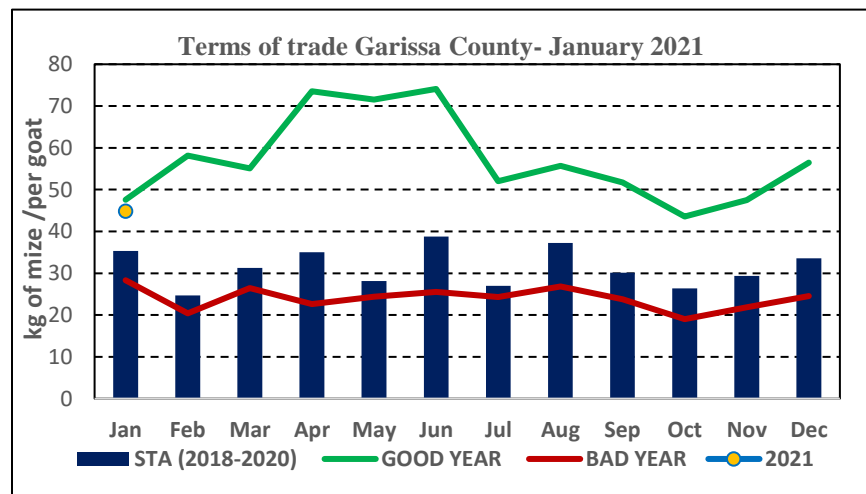


Figure 12: Terms of trade

5.0 FOOD CONSUMPTION AND NUTRITION STATUS

5.1 MILK CONSUMPTION

- The average milk consumption at household level increased from 1.8 litres to 2.1 litres reporting during this month under review.
- The average milk consumption was below the normal long term average for month by 8 percent but slightly above same period of good years.
- This trend was attributed to some kidding and calving realised during the season which will likely have a positive impact on the nutritional status of children less than 5 years of age.
- Milk consumption is expected to decline as production reduces due to expected livestock movement to dry period grazing areas.

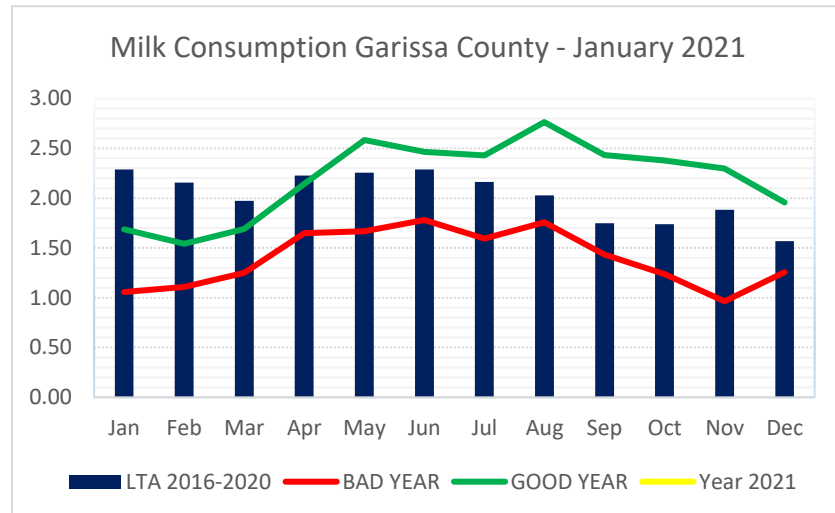


Figure 13: Milk consumption trend

5.2 FOOD CONSUMPTION SCORE

- The proportion of households categorized as having borderline and acceptable food consumption scores was 23 percent and 74 percent respectively. 3 percent of household were categorized to be in the poor consumption band.
- In the pastoral all species livelihood zone, the proportion with poor and borderline food consumption score was 17, and 83.3 percent respectively. While in agro pastoral livelihood zone, 2, 13 and 85 percent of the households respectively had poor, borderline and acceptable food consumption scores respectively. In formal employment livelihood zone, 100 percent of the households respectively had acceptable food consumption scores while in pastoral livelihood zone, 16 and 84 percent of the households had borderline and acceptable food consumption scores respectively
- This shows a worsening trend in food consumption as the proportion of the population having an acceptable food consumption score reduces from 95 percent the previous month to just 74 percent this reporting month.
- Majority of households were consuming 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 44.3

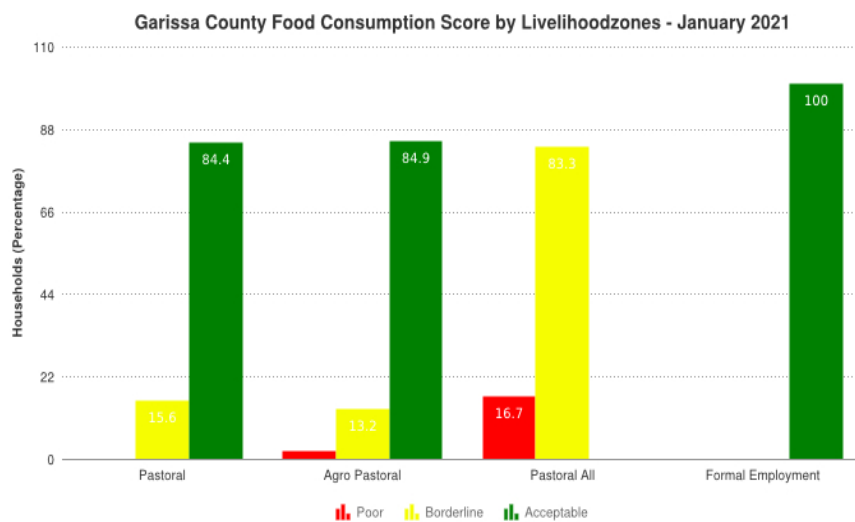


Figure 14: food consumption by livelihood zone

5.3 HEALTH AND NUTRITION

5.3.1 Nutrition Status

- The proportion of children at risk of malnutrition decreased from 7.1 percent to 6 percent recorded during this reporting month.
- The improvement in nutritional status was attributed to improved food and milk consumption as well as decreased incidences of water borne diseases and malaria among the under-fives.
- The proportion was 46 percent below the long term average for the month and likewise below the same period of a good and bad years by 45 and 50 percent indicating improvement in nutrition for children who were at risk of malnutrition.
- The admissions to supplementary feeding programs (SFP) in January to December 2020 increased compared to the same period in 2019 while Outpatient Therapeutic Programme (OTP) remained stable in the same period between 2020 and 2019 indicated no change in children with moderate severe malnutrition.
- 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.

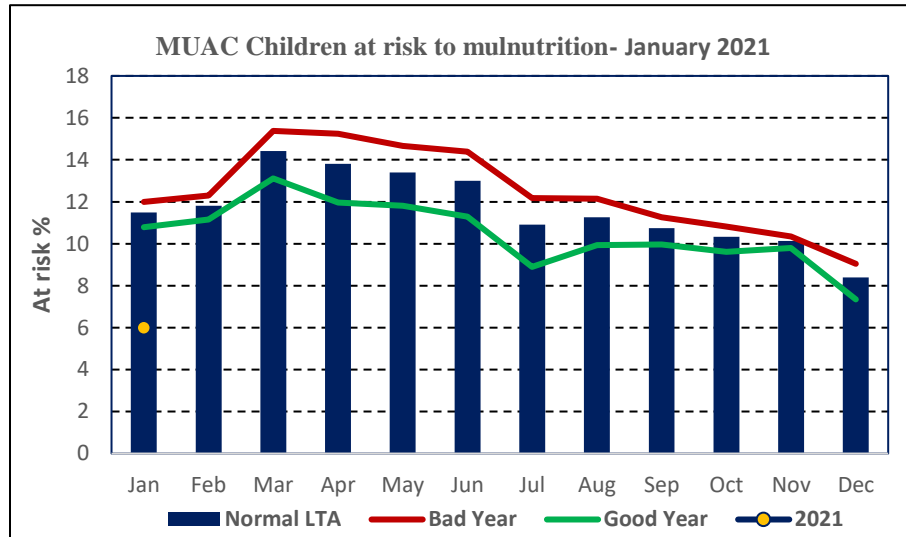


Figure 15: Nutrition status of children under five

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 Typhoid which increased due to contaminated food, limited access to safe drinking as well as increase cases of open defecation after destruction of latrines by flooding in the previous season.
- Cases of Covid 19 infections were also reported.

5.4 COPING STRATEGIES INDEX

- The mean coping strategy index (CSI) for the month of was increased from 10.54 to 12.11 in this reporting month.
- Formal employment/waged labour livelihood zone recorded the highest of 30.1 while pastoral all livelihood zone recorded the lowest at 6.4
- The most strategies employed were reduced number of meals eaten per day and reliance on less preferred or less expensive food
- The trend implied that households had not significantly increased or decreased the frequency or severity of consumption based coping strategies used to mitigate food deficits between current year and similar period.
- As the dry spell progress it is anticipated that more consumption based coping strategies will be employed by households.

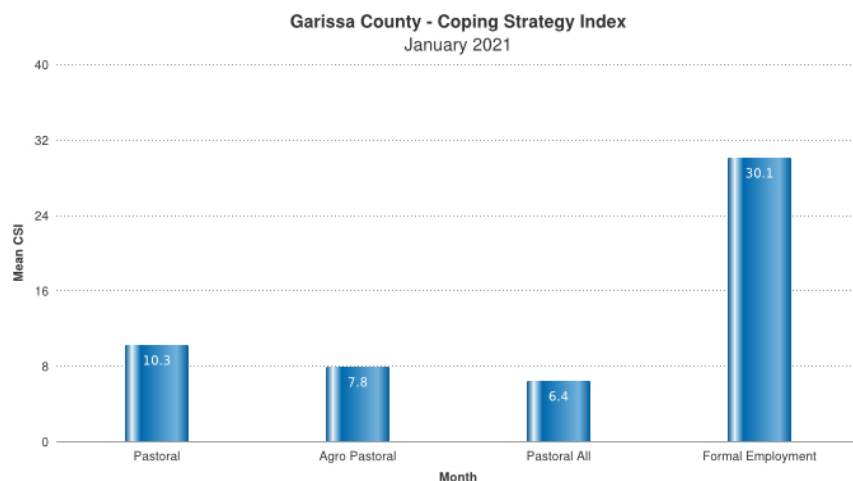


Figure 16: Coping strategies index

6. CURRENT INTERVENTION MEASURES (ACTION)

6.1 NON-FOOD INTERVENTION

Table 1 Non-food interventions

Activity	Beneficiaries	Implementers
Desert locusts surveillance and control	5000 households	GoK, County Govt of Garissa and FAO
Provision of Extension Services and capacity building on safe use of Agrochemicals and Good Agronomic practices	5,000 households	GoK, County Govt of Garissa
Disease surveillance, vaccination and control of vectors	Livestock owners	Veterinary Department
Water trekking to 23 sites on-going	20,000 persons	Water department
Vitamin A Supplementation	105,888 children	Health/Partners
Management of Acute Malnutrition (IMAM)	850 children	Health/Partners

7. EMERGING ISSUES

7.1 Insecurity/Conflict/Human Displacement

- Resource based conflicts were reported between communities in Lagdera as well as the areas neighbouring Isiolo South resulting to loss of lives for both human and livestock.
- Terror related threats continued to be experienced in areas bordering the Republic of Somalia resulting to limited livelihood activities such as trading and leading to closure of health facilities

7.2 Migration

- There were no livestock migrations across the county, however only livestock movements were observed across the livelihood zones in search of forage and water resources. Livestock migration is expected to increase in next 1-2 months with the depletion of forage and water.

7.3 FOOD SECURITY PROGNOSIS

- According to international forecasts and the Kenya Meteorological Department (KMD), La Niña conditions are likely to persist through April 2021 in the northern hemisphere. As a result, the March-May 2021 long rains in Kenya are likely to be below average in northern Kenya coupled with above-average temperatures.
- Deteriorating forage and water resources will typically drive livestock to dry season grazing areas thereby decreasing livestock productivity leading to reduced household milk consumption.
- According to the Desert Locust Global Forecast by FAO, the second wave and re-invasion from Somalia through Wajir is likely to remain a threat to crop and rangeland resources through February to March.
- RVF outbreak and spread is likely to disrupt livestock markets and marketing depleting future generations of affected herds thereby providing threat to socio economic and food security of vulnerable households.
- Maize prices are expected to remain above five-year averages as well as likely to rise further above average in March 2021.
- Livestock prices driven by near-average rangeland resources and prevalence of endemic diseases are likely to follow seasonal trends and but would likely be below-average due to unfavourable body conditions and increased supply to markets as livestock owners seek to dispose their herds.
- Resource based conflicts is likely to increase especially with limit access to rangeland resources.
- Flagged areas that will likely realize faster depletion of forage and scarcity of water will be in Lagdera and Balambala sub counties.

8. RECOMMENDATIONS

Table 2. Recommended interventions

Sector	Sub County	Recommended Intervention
Livestock	Lagdera /Balambala/Dadaab /Fafi	Disease surveillance, vaccination and control of vectors
	Lagdera /Balambala/Dadaab /Fafi	Livestock feed supplementation
Agriculture	Garissa/Fafi/Balambala	Procurement and distribution of assorted farm inputs (certified seeds, seedlings and agro-chemicals) for irrigated farms in order to increase production.
	Garissa/Fafi/Balambala	Desert Locust monitoring and surveillance, scout training and purchase of assorted chemicals and equipments as well as awareness creation
	All sub counties	
	Lagdera /Balambala/Dadaab /Fafi /Ijara	Strengthen extension service provision to farmers
Health	Township/Balambala /fafi /Ijara Dadaab/Lagdera	providing water treatment chemicals to areas prone to water borne diseases
	All subcounties	Nutrition and disease surveillance through integrated outreaches
Water	Lagdera /Balambala/Dadaab /Fafi	Water trucking especially for Lagdera and Fafi
	Lagdera/fafi/Dadaab	Provide fast moving spare parts for strategic boreholes
		Support to rapid response teams
Coordination	Lagderaand .Balambala	Intensify inter-county and cross border peace dialogue and awareness creation meetings to minimize resource based conflicts