

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



A Vision 2030 Flagship Project



FEBRUARY 2021 EWS PHASE



Drought Situation & EW Phase Classification

Biophysical Indicators

- No rainfall was received in the county in the month of February 2021
- The 3-month VCI was 31.39 indicating moderate vegetation greenness and 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 cattle was fair to poor while that of sheep, goats and camels was fair to good.
- Average milk production was 2.16 litres against the long term average of 2.5 litres.
- Milk consumption was at an average of 1.8 litres against the long term average amount of 2.16 litres
- Market prices for all livestock species remained within the normal ranges.
- The terms of trade were 33.8 against the long term average of 49.
- The mean coping strategy index (CSI) was 9.78 for the month
- Proportion of children below five years at risk of malnutrition was 7.2 percent against the longterm mean of 15.46
- The mean food consumption score was 42.4 compared to long-term average of 43.1

Early Warning Phase Classification

Livelihood Zone	Phase	Trend
Agro-pastoral	Alert	Worsening
Pastoral cattle/sheep	Alert	Worsening
Pastoral-all species	Alert	Worsening
County	Alert	Worsening
Biophysical Indicators	value	Normal Range/Value
Rainfall (% of Normal)	0%	20%
VCI-3Month	31.39	32.6
Forage condition	Fair to poor	Fair
Production indicators	Value	Normal
Livestock Body Condition	2	2
Milk Production	2.2 litres	2.5 litres
Livestock Migration Pattern	Out-migration reported	No migration
Livestock deaths (from drought)	No death	No death
Access Indicators	Value	Normal
Terms of Trade (ToT)	33.8	49
Milk Consumption	1.8 litres	2.16
Return grazing distance to water sources in km	20.2km	18.5km
Cost of water at source (20 litres)	Kshs 5	<5Kshs
Utilization indicators	Value	Normal
Nutrition Status, MUAC (% at risk of malnutrition)	7.2	15.5
Coping Strategy Index (CSI)	9.78	14.12
Food Consumption Score(mean)	42.4	43.1

<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 during the reporting period.

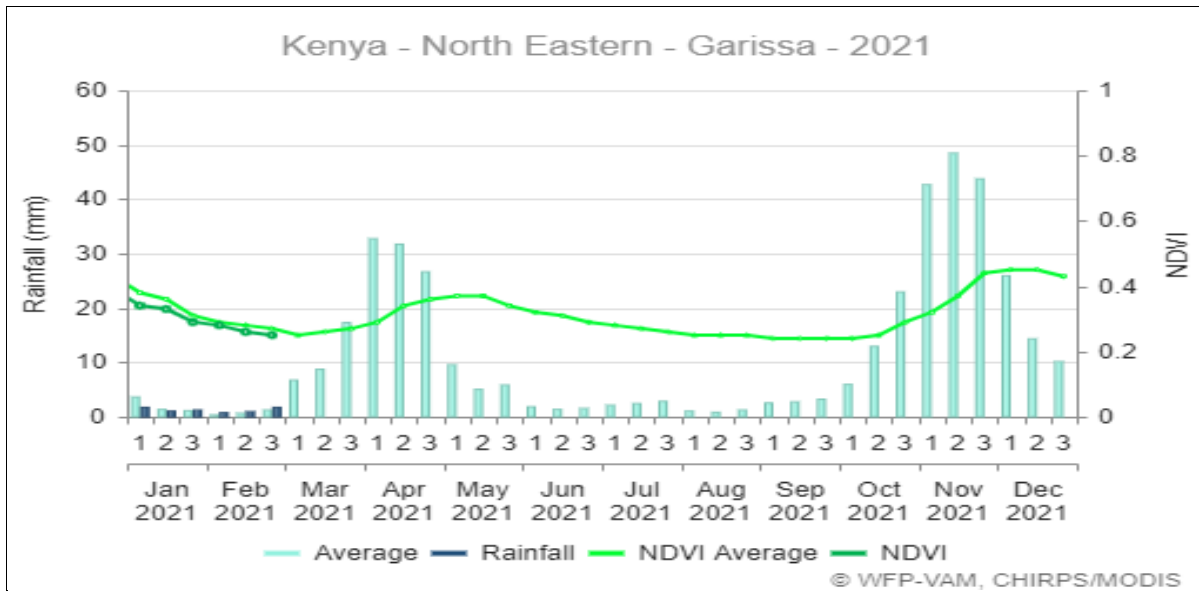


Figure 1: Rainfall and NDVI trend

2.0 IMPACTS ON VEGETATION AND WATER

2.1 VEGETATION CONDITION

2.1.1 Vegetation Condition Index (VCI)

- The 3-month VCI decreased drastically from 38.47 to 31.39 in this reporting month indicating moderate vegetation deficit. This worsening trend has been contributed by lack of rainfall and rising temperatures.
- Five sub-counties: Daadab, Lagdera, Fafi, Township and Balambala and normal vegetation greenness while 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.

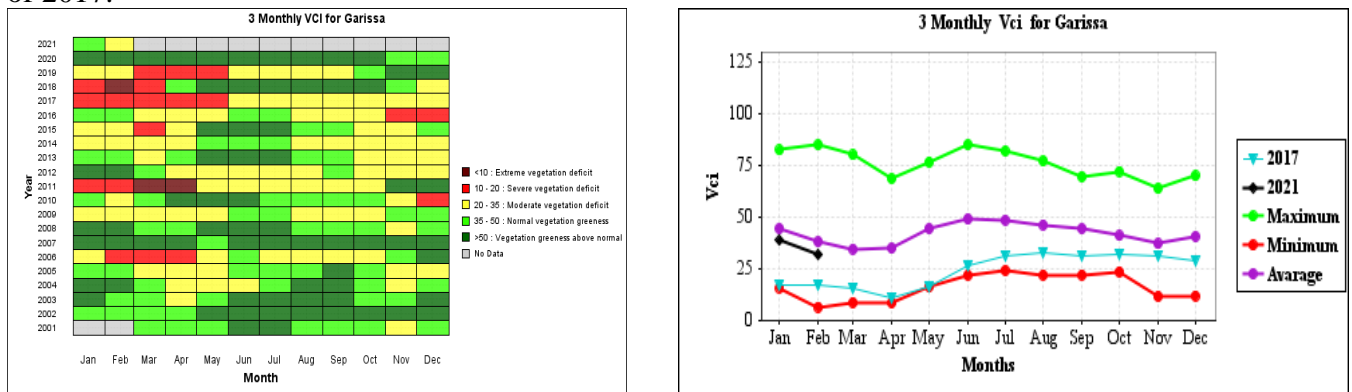
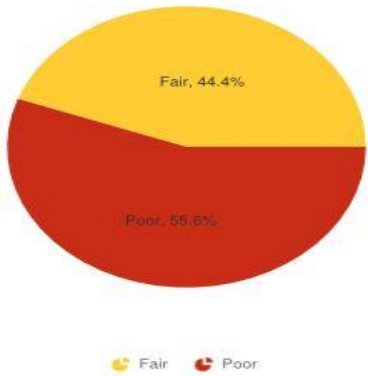


Figure 2: VCI matrix and graph

2.1.2 Pasture and browse condition

- It was reported that 55.6 percent of the browse and pasture condition is poor while the remaining 44.4 percent was in fair condition.
- The poor status of forage was observed nearly all sub-counties which is worsened by the dry weather conditions experienced.
- The available pasture and browse is projected to last for one and half months before it is depleted.

Garissa Pasture Condition
(Feb 2021 - Feb 2021)



Garissa Browse Condition
(Feb 2021 - Feb 2021)

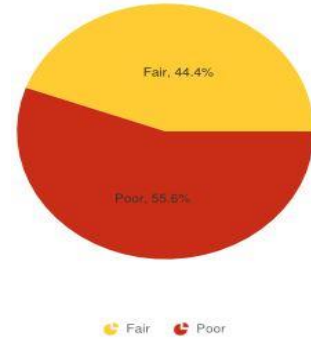


Figure 3: Pasture & condition

2.2 WATER RESOURCE

2.2.1 Sources

- Main sources of water currently are pans and dams, River Tana, boreholes and shallow wells as shown in the pie chart.
- Water pans, boreholes and River Tana were the main sources of water for both households and livestock.
- With worsening of the dry spell period, some key water pans and boreholes have dried up and communities are depending on water trankers to supply water for humans and livestock.

Garissa County Water Source Status
(February 2021)

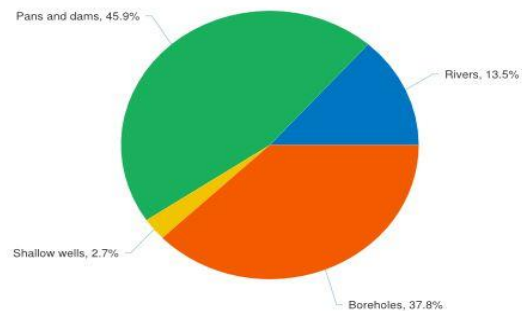


Figure 4: Water source

2.2.2 Household access and Utilization

- The average return distances from household to water sources increased from 10.8km to 12.1km 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 distances are 61.3 percent longer than normal distances of 7.5 km.
- The average water consumption per household per is 12litres in pastoral livelihood zones and 30 litres for households in the agro-pastoral livelihood zone.

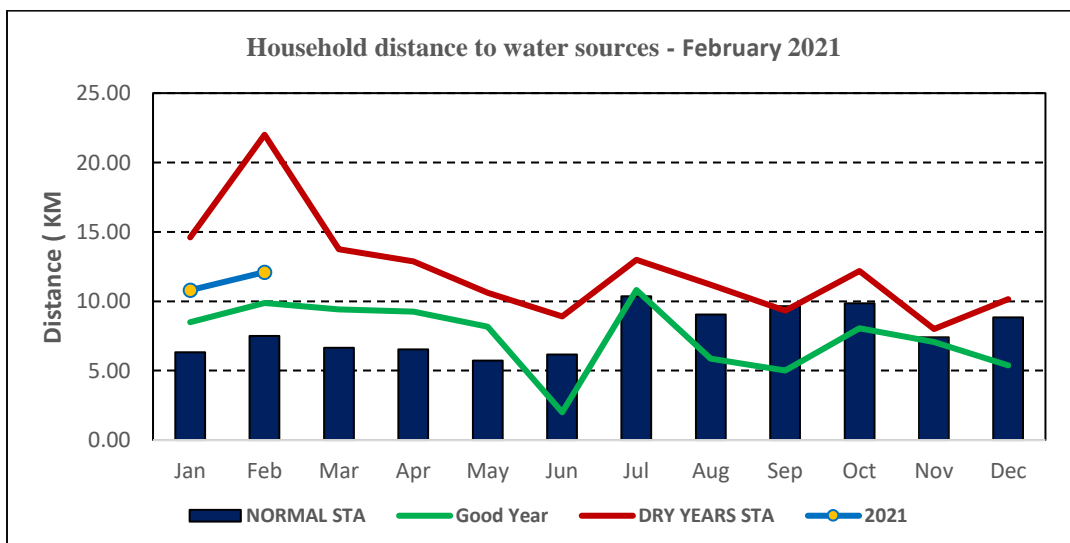


Figure 5: household return distances to water sources

2.2.3 Livestock access

- The average trekking distance from grazing areas to water sources increased slightly from 21 km to 21.5 km reported in February 2021.
- The pastoral all species livelihood zone recorded the longest trekking distance of 25.3km while agro-pastoral zones had the shortest distances at 17.9km.
- The current trekking distances were slightly shorter than the long-term distances
- This increase in grazing distances is attributed to depletion of pasture in areas closer to villages and pastoralists are moving their livestock further away from their homes. The situation is worsening due to ongoing dry spell period.
- Livestock watering frequencies is less than 4 times a week in many watering points.

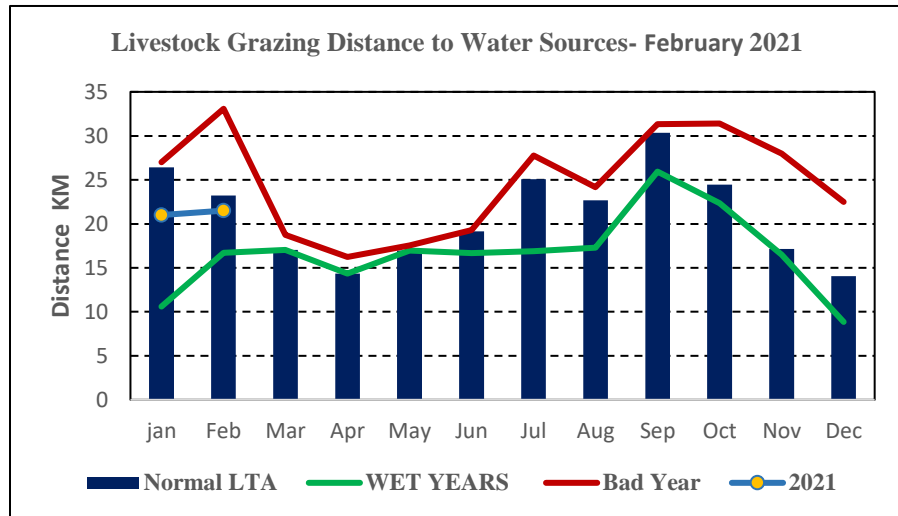


Figure 6: Livestock return trekking distance to water sources

3.0 PRODUCTION INDICATORS

3.1 LIVESTOCK PRODUCTION

3.1.1 Livestock Body Condition

- Most of the livestock in the county were observed to have moderate body condition, neither fat nor thin. The body condition of cattle may deteriorate because of diminishing pasture resources, while that of sheep, goats and camels is ranging from fair to good across the livelihood zones.

3.1.2 Livestock Diseases

- 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 in the southern parts of the county.
- 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.
- Average milk production per household per day dropped slightly from 2.4litres to 2.2 litres recorded during this month. Milk production in the both livelihood zones was above normal compared to similar period the previous years.
- The milk production may to continue to decrease because of depletion of pasture and waters sources and outbreak of livestock diseases.
- The average prices of milk was Kshs 60-70 per litre in all the livelihood zones compared to Kshs 35-45 per litre normally which is 35 percent above the normal price attributed to low milk production.

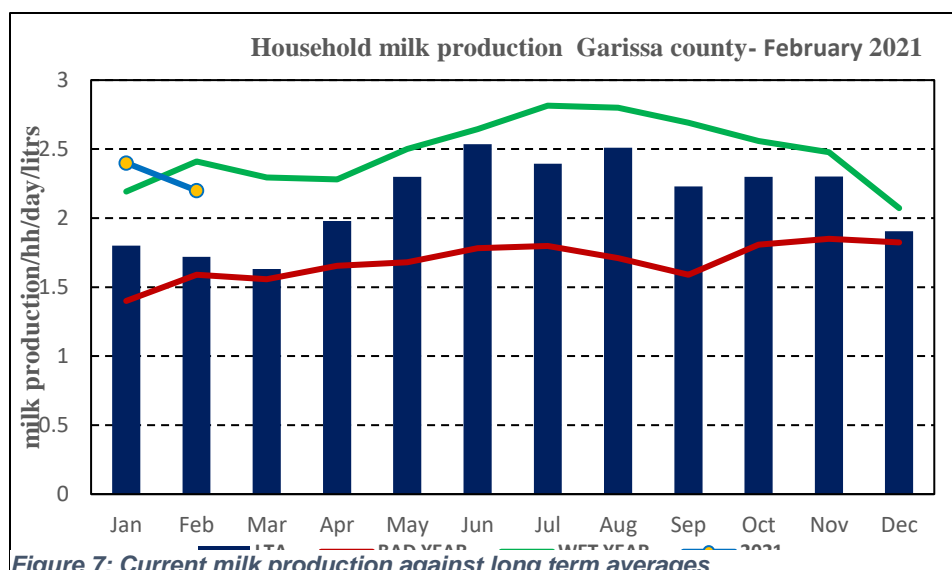


Figure 7: Current milk production against long term averages

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 there are no crops in the farms.

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. 18,000 to Kshs. 17,850 recorded in February 2021.
- The current selling prices were slightly higher than the short term average prices.
- The markets in pastoral livelihood zone recorded the highest price of Kshs21,400 while Kshs. 15,200 was recorded in agro pastoral livelihood zones.
- Volumes of cattle traded in the livestock markets slightly decreased as compared with the previous month.

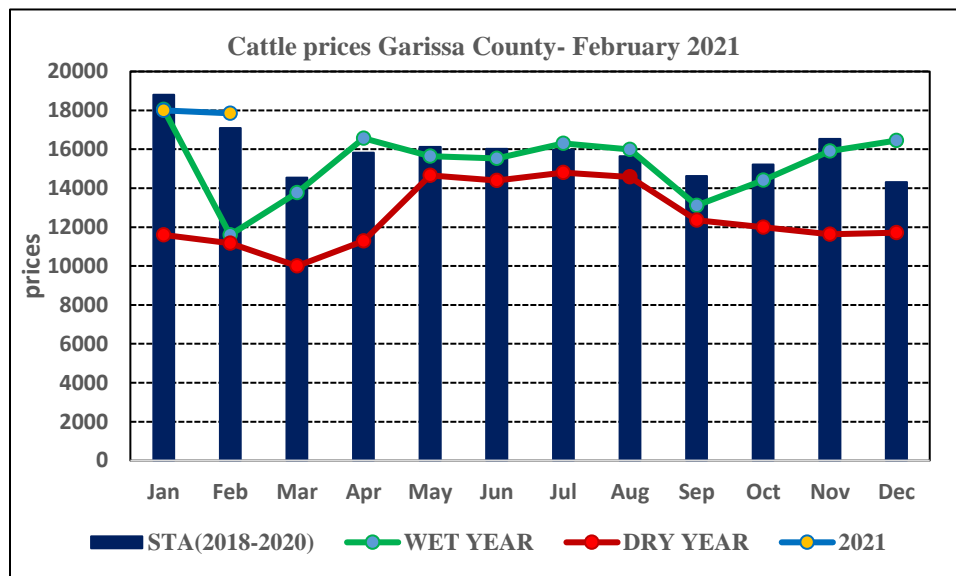


Figure 8: Trend in cattle prices

4.1.2 Small Ruminants Prices (Goats)

- The average trading price of a medium-sized three-year old goat decreased from Kshs. 3,418 to Kshs. 3,237 reporting during this reporting month.
- The current goat prices were 31.6 percent higher than the 2018-2020 STA price of Kshs. 2,460
- Current traded volumes of goats in the livestock markets were quite similar compared as compared to same period of previous seasons. However, the prices are expected to decline due to increased volumes in the market and movement of small stocks away from households in search of pastures and water.

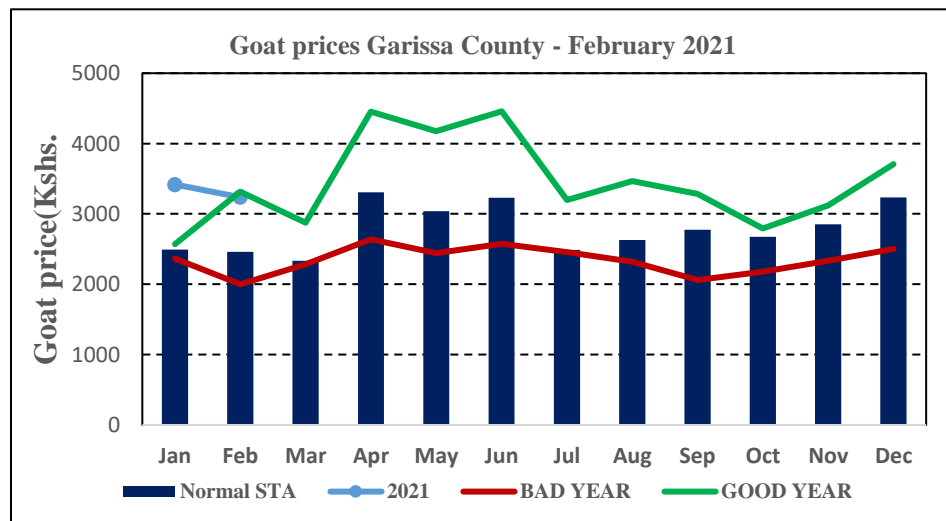


Figure 9: Trend in Goat prices

4.2 CROP PRICES

4.2.1 Maize

- The average maize prices was Ksh.70 per kilogram similar to the previous month.
- These increased prices of maize may be 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.

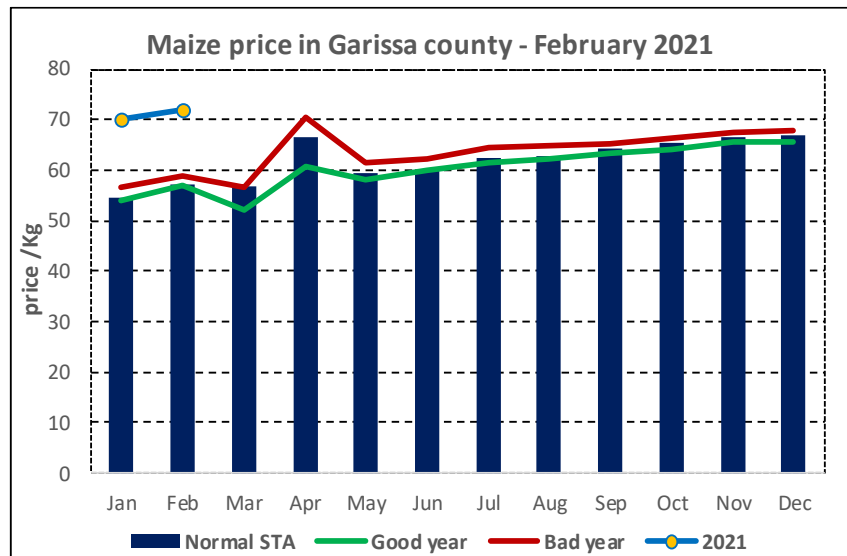


Figure 10: Trend in Maize prices

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.

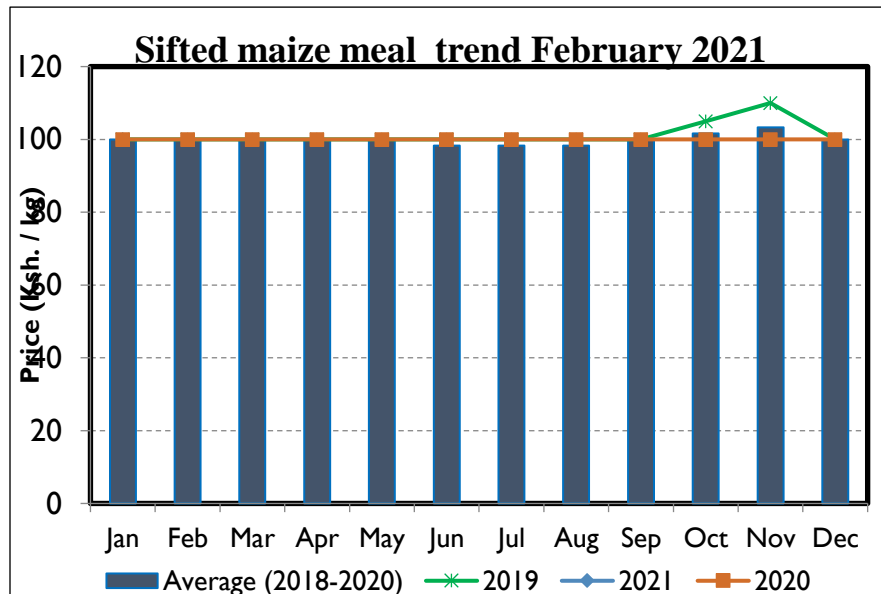


Figure 11: Trend of sifted maize meal prices

4.2.3 Terms of Trade (Goat prices vs Maize prices)

- The terms of trade decreased from 44.8 to 33.8 recorded during this reporting month. This drastic drop is attributed to decline in goat prices in the markets.
- This implies that the purchasing power of communities is reducing and pastoralists are able to purchase less basic essential food stuffs.
- The terms of trade are expected to decrease with increased risk of goats prices dropping further and higher food prices.

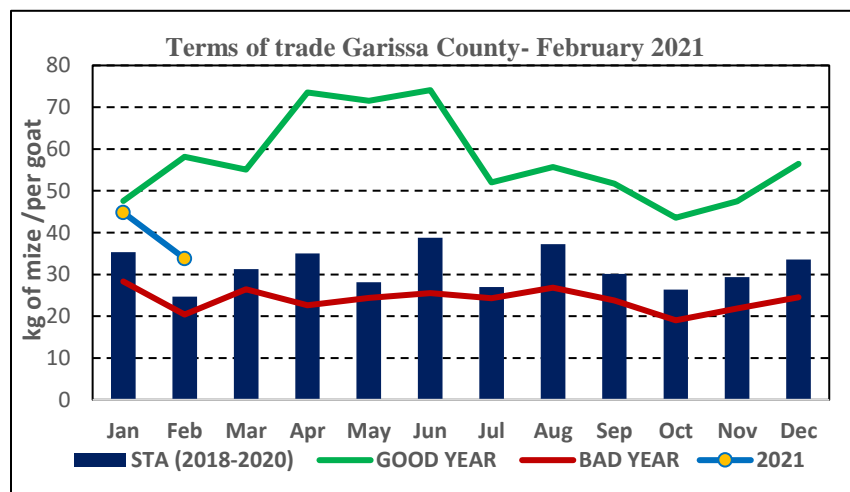


Figure 12: Terms of trade

5.0 FOOD CONSUMPTION AND NUTRITION STATUS

5.1 MILK CONSUMPTION

- The average milk consumption at household dropped from 2.1 litres to 1.8 litres recorded during this month under review.
- The average milk consumption was 16.7 percent lower than the long term average amount.
- The decline in milk consumption is attributed to reduction in production due to most livestock moving to grazing areas further from homesteads.

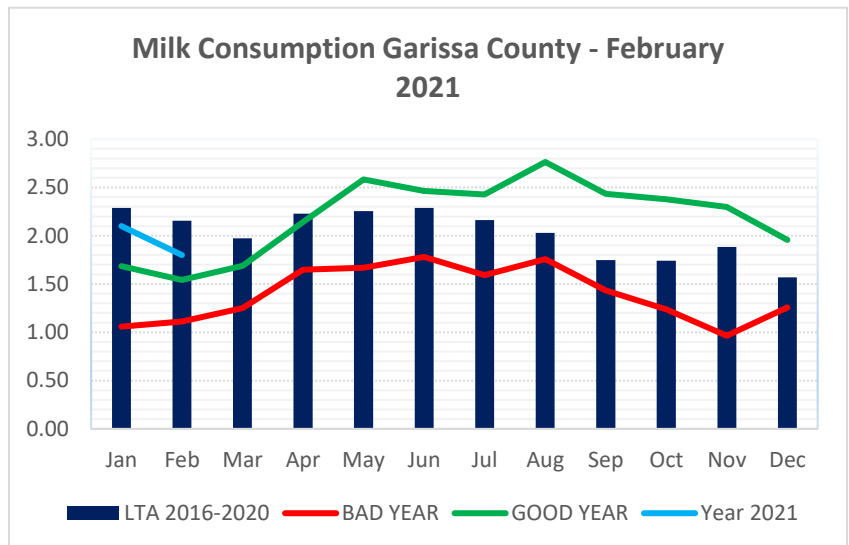


Figure 13: Milk consumption trend

5.2 FOOD CONSUMPTION SCORE

- The proportion of households categorized as having poor, borderline and acceptable food consumption scores was 7 percent, 20 percent and 73 percent respectively.
- 100 percent of households in agro pastoral and urban areas were observed to have acceptable food consumption score while households having poor food consumption score were all in pastoral livelihood zones.
- This shows a worsening trend in food consumption as the proportion of the population having an acceptable food consumption score slightly reduces 74 to 73 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 42.4.

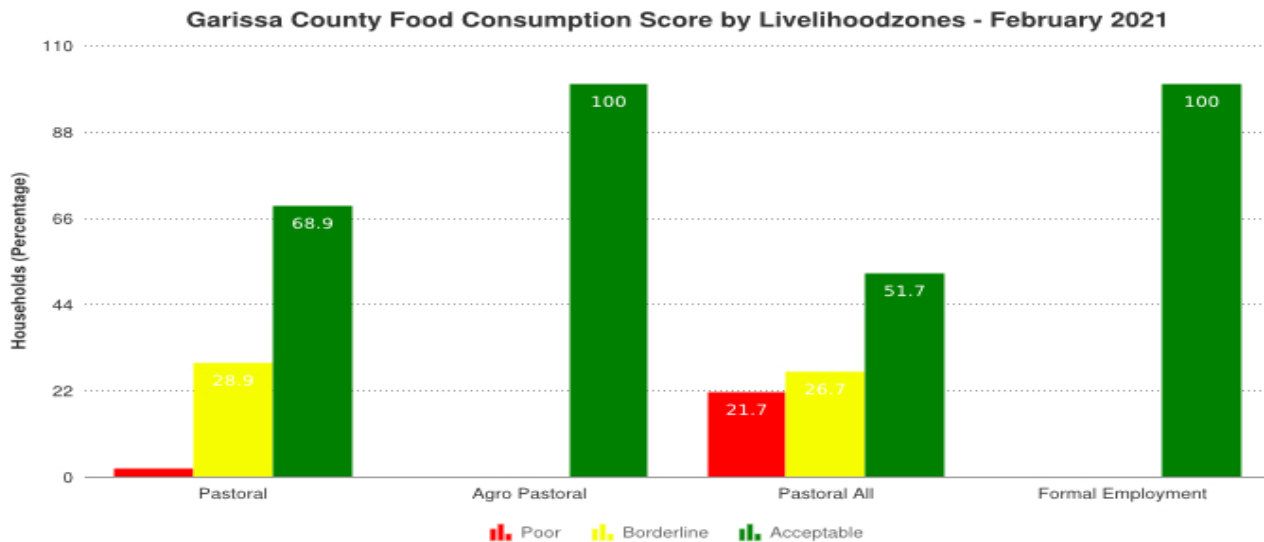


Figure 14: food consumption by livelihood zone

5.3 HEALTH AND NUTRITION

5.3.1 Nutrition Status

- The proportion of children at risk of malnutrition increased from 6 percent to 7.2 percent recorded during this reporting month.
- The proportion of moderately malnourished of children 6-59 month slightly increased from 5.7 to 6.2 as per family MUAC
- The worsening nutritional status was attributed to decline food and milk consumption as well as increased incidences of water borne diseases and malaria among the under-fives.
- The admissions to supplementary feeding programs (SFP) continue to increase as Outpatient Therapeutic Programme (OTP) remained stable.
- 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.

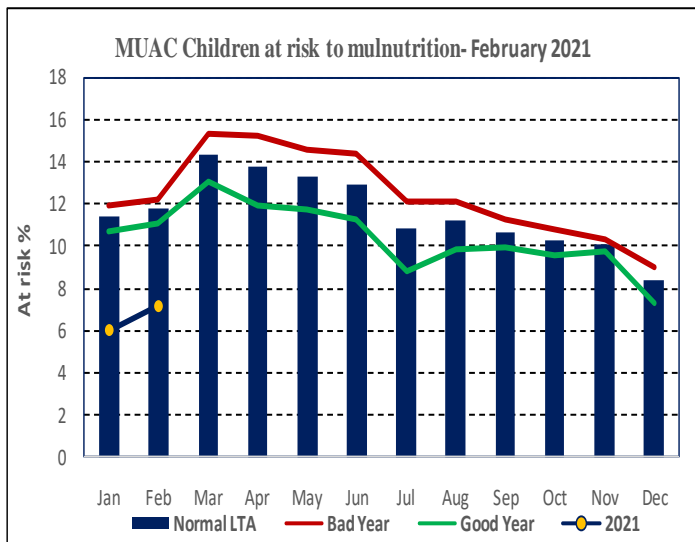
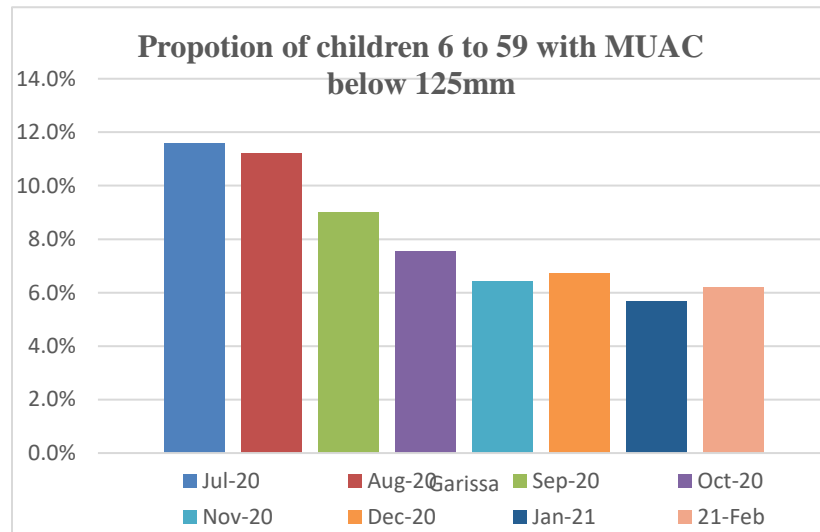


Figure 15: Proportion of at risk and moderately malnourished children

5.3.2 Health

- Upper Respiratory Tract Infection (URTIs), diarrhea and malaria remained the most common diseases for both under five and general population.
- 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 continue to be reported.

5.4 COPING STRATEGIES INDEX

- The mean Coping Strategy Index (CSI) for the month of was decreased from 12.11 from 9.78 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 3.0
- 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.

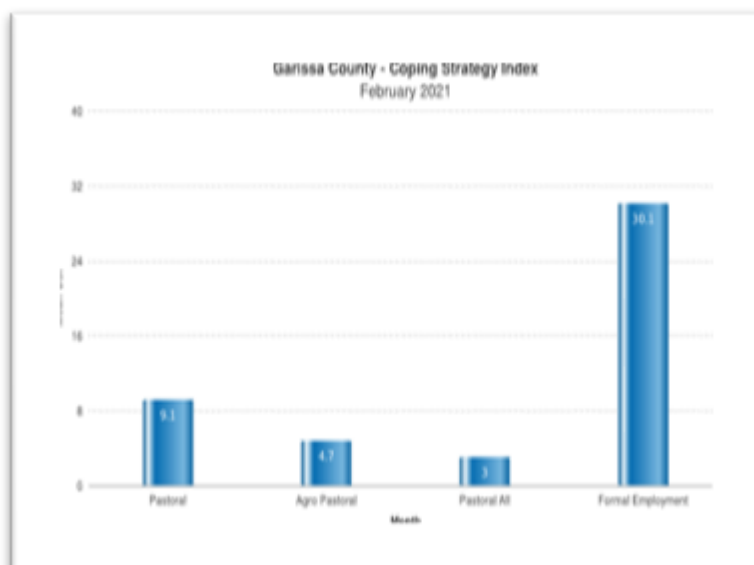


Figure 16: Coping strategies index

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 86 sites on-going	43,000 persons	Water department
Repair and maintenance of 7 boreholes	75000 persons	Water department
Vitamin A Supplementation	105888 children	Health/Partners
Management of Acute Malnutrition (IMAM)	850 children	Health/Partners

7. EMERGING ISSUES

7.1 Insecurity/Conflict/Human Displacement

- During the month no resource based conflicts were reported
- 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

- Livestock out migrations was reported during the month across the county towards Lamu and tana river counties. Within the county 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 the Kenya Meteorological Department (KMD), The onset of the long rains season is expected to be on 4th week of march with most parts of the county expected to receive below normal rains with tendency to near normal rains coupled with high temperatures.
- In the next three weeks forage and water resources Deterioration will continue to move livestock outside the county thereby continue decreasing livestock productivity leading to reduced household milk consumption.

- 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 below-average rangeland resources and prevalence of endemic diseases are likely to follow seasonal trends will likely remain within the long term averages due to unfavourable body conditions and increased supply to markets as livestock owners seek to dispose their herds.
- Household's food consumption score is expected to deteriorate with more households falling under the poor food consumption category. The same households are expected to employ crisis based coping strategies
- 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 and parts of Ijara and Fafi 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 and water for livestock
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	Opening up of more land for crop production
	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, Balambala, Fafi and parts of ijara subcounty
	Lagdera/fafi/Dadaab	Provide fast moving spare parts for strategic boreholes
		Support to rapid response teams
Coordination	Lagdera and .Balambala	Intensify inter-county and cross border peace dialogue and awareness creation meetings to minimize resource based conflicts