

**National Drought Management Authority
NAROK COUNTY
DROUGHT EARLY WARNING BULLETIN FOR DECEMBER 2020**



A vision 2030 flagship Project



DECEMBER EW PHASE

Drought Situation & EW Phase Classification

Biophysical Indicators

Rainfall:

- The onset of short rains was late with poor to fair spatial and temporal distribution across the county.
- Moderate rains was recorded in the month under review. Amounts received were unevenly distributed in time and space.

Vegetation condition:

- The county vegetation greenness was above normal across all the livelihood zones during the month under review. Pasture and browse condition were fair to good across all the livelihood zones.

Socio Economic Indicators (Impact Indicators)

Production indicators:

- Weeding and harvesting were the main activities ongoing during the month under review.
- Livestock body condition ranged from fair to good across all the livelihood zones.
- Milk production ranged from fair to good and within the normal range compared to the long-term average.

Access indicators:

- Terms of trade was favorable across all the livelihood zones.
- Household milk consumption was within the normal threshold.
- Household and livestock water access ranged from fair to good across the livelihood zones.
- Returned distances to water sources have increased but remained below the normal range.

Utilization Indicators:

- There was an increase in the number of children who were 'at risk' as measured by mid upper arm circumference (MUAC).
- Most households were within acceptable food consumption scores and employed normal coping strategies in accessing food.

Early Warning (EW) Phase Classification

Livelihood Zone	Phase	Trend
AGRO PASTORAL	NORMAL	STABLE
MIXED FARMING)	NORMAL	STABLE
PASTORAL	NORMAL	STABLE
COUNTY	NORMAL	STABLE
Biophysical Indicators	Value	Normal Range/Value
VCI-3Month	70.83	>35
Forage condition	Fair-good	Good
Production indicators	Value	Normal
Crop Condition (Maize)	Fair-good	Normal
Livestock Body Condition	Fair-good	Good
Milk Production in litres	2.5	>2
Livestock Migration Pattern	No migration	Normal
Livestock deaths (Drought related))	No death	No death
Access Indicators	Value	Normal
Terms of Trade (ToT)	84	>64.7
Milk Consumption in litres	1.7	>1
Return distance to water sources in km	3.4	<5
Cost of water at source in Kshs (20 litres)	0-5	<5
Utilization indicators	Value	Normal
Nutrition Status, MUAC (% at risk of malnutrition)	3.3%	<10

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

1.0 CLIMATIC CONDITIONS

1.1 RAINFALL PERFORMANCE

- The county registered late onset of the short rain season. Moderate showers was recorded during the month under review. Amounts received were unevenly distributed in time and space across the county.
- Notably, the mixed farming and agro-pastoral livelihood zones areas of Ilkerin ward in Transmara East, Trans-Mara West and Mau Ward in Narok North sub counties received more rains than the pastoral areas of Mosiro, Suswa and Naroosura wards recording below normal rainfall amounts during the month under review.

1.2 AMOUNT OF RAINFALL AND SPATIAL DISTRIBUTION

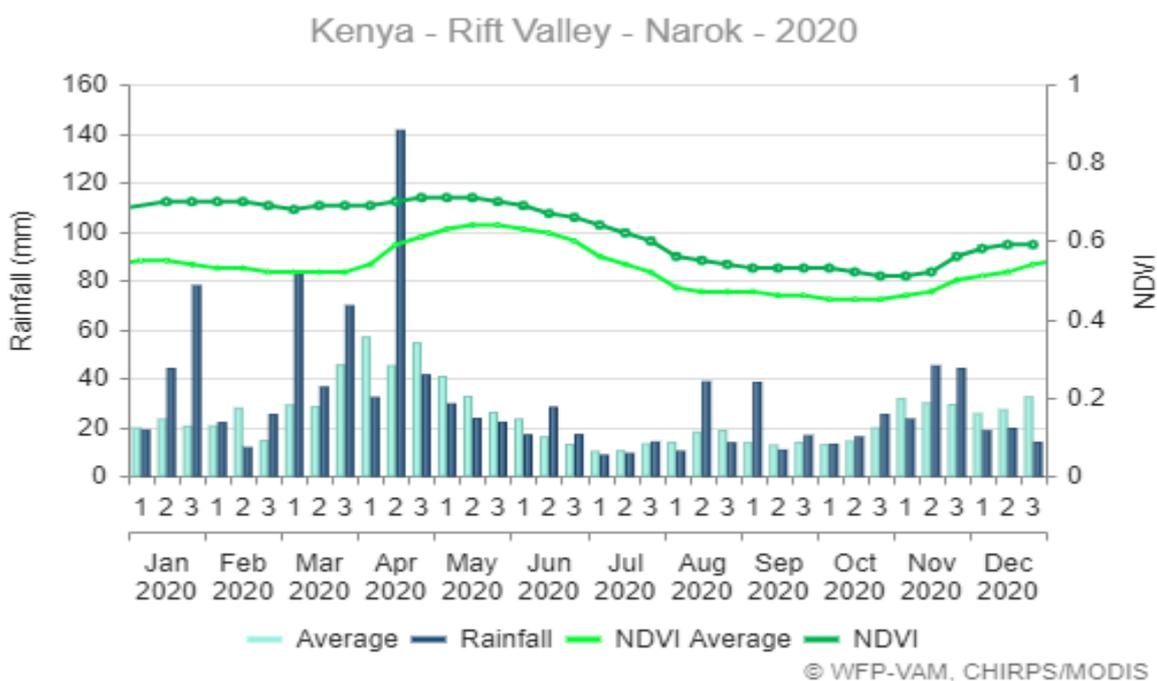


Figure 1 Rainfall Estimates (RFE) trends for Narok County (Source WFP-VAM, CHIRPS/UCSB)

- From the figure 1 shown above, dekad rainfall for estimate (RFE) amounts for the first and second dekad were below normal rainfall amounts.
- On average, the county recorded 18.0 , 19.2 and 13.5 milimetres of rainfall for the first second and third dekad of December as compared to 25.2, 26.8 and 32 milimetres normally, respectively.
- The rainfall recorded was 39.64 percent below the normal.
- Normalized Difference Vegetation Index (NDVI) for the dekads were above normal when compared to their respective long term dekad values.

2.0 IMPACTS ON VEGETATION AND WATER

2.1 VEGETATION CONDITION

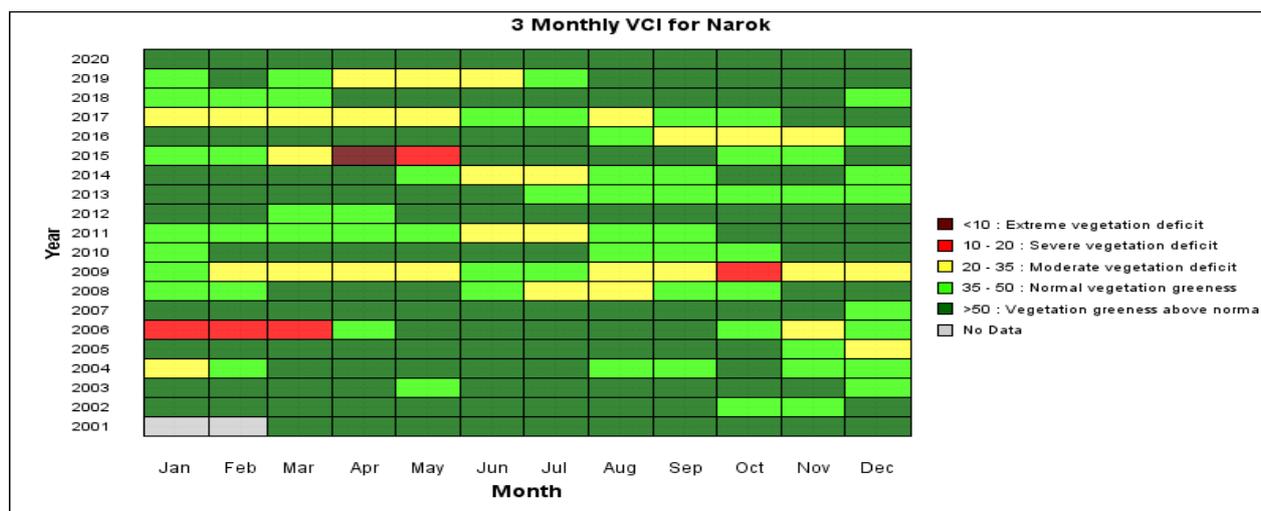


Figure 2 : Vegetation Condition Index across the County

- The vegetation greenness as depicted by the vegetation condition index (VCI) shows above normal vegetation greenness across the county (Figure 2) in respect to historical minimum and maximum VCI values. The above normal vegetation condition is attributed to the cumulative precipitation experienced during the short rains season. However, the situation is likely to deteriorate due to below normal rains recorded during the season.

2.1.1 Field observations

2.1.1.1 Pasture

- The quantity and quality of pasture in the mixed farming zone and agro-pastoral livelihood zone ranged from fair to good with pastoral livelihoods recording fair to poor conditions during the month under review.
- In the pastoral areas of Naroosura, Mosiro, Suswa and Koyaki wards pasture is likely to deteriorate more due to overgrazing coupled with rain caseation.
- The available pasture is likely to last for 2 months in mixed farming and agro-pastoral livelihood zones and a month in the pastoral livelihood zone.
- The current pasture situation is within the normal range.

2.1.1.2 Browse

- The quantity and quality of browse in the mixed farming zone remained good with pastoral and agro-pastoral livelihoods recording fair to good conditions.
- The available browse is expected to last for 2 months in mixed farming livelihood zone while in pastoral livelihood zone, it is likely to last for 1-2 months.
- The current browse situation is within the normal range.

2.2 Water resources

2.2.1 Sources of Waters

- The main sources of water for livestock and human consumption in the county were rivers, pans/dams, boreholes, traditional river wells and shallow wells (Figure 3.)
- The quantity and quality of water ranged from fair to good in the mixed farming and agro-pastoral livelihood zones with the pastoral livelihood zone ranging from poor to fair quality this is because of siltation of open water sources and poor sanitation. Pans and dams were the most used sources in the pastoral and agro-pastoral livelihood zones.
- The current water sources were expected to last for about three months in mixed farming and agro-pastoral livelihood zones. In pastoral livelihood zone, the water is likely to last for less than two months.

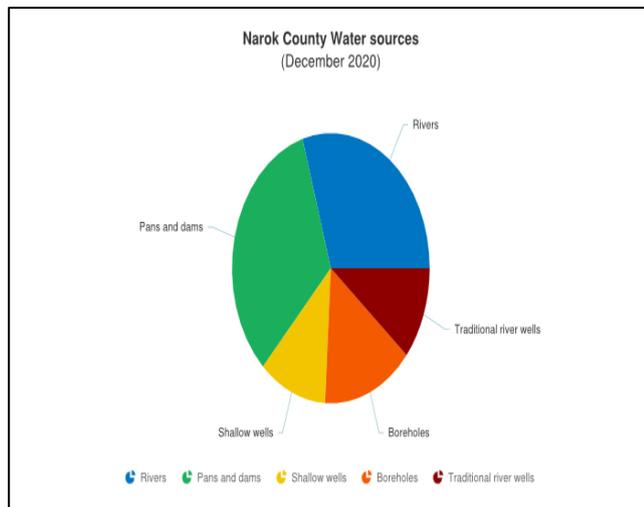


Figure 3: Water Sources in Narok County

The current water situation is above the normal range at this time of the year.

2.2.2 Household access and Utilization

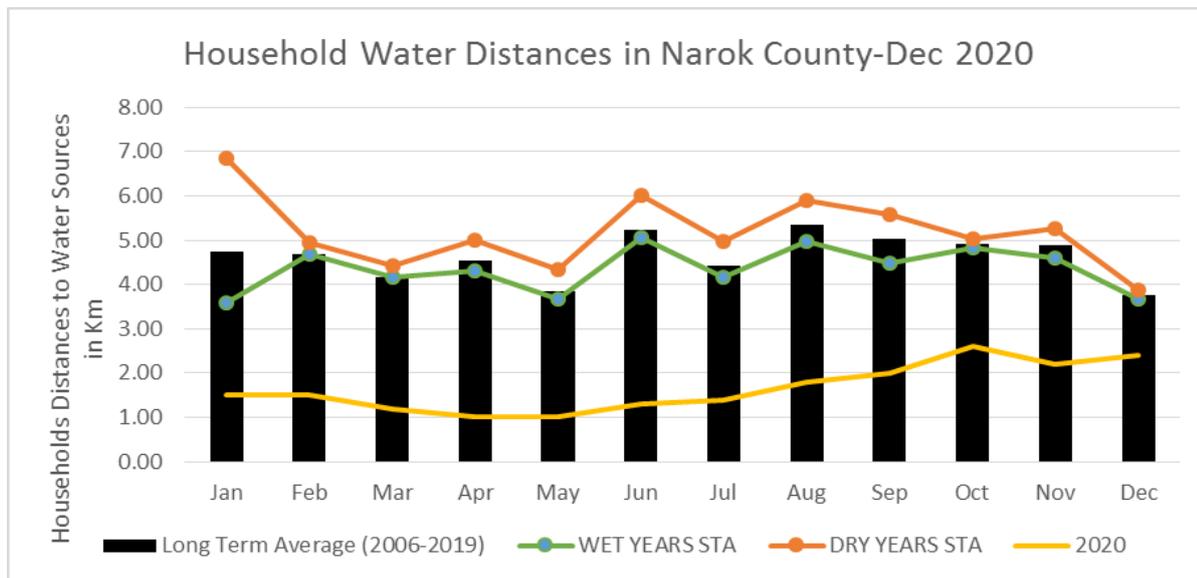


Figure 4: Household Water Distances in Km as compared to LTA

- The average distance to watering points for households increased to 2.6 kilometres from 2.4 kilometres (km) recorded in November.
- Pastoral livelihood zone recorded the longest average distance at 3.3 km while the shortest average distance was recorded in the mixed farming livelihood zone at one km.
- The current trekking distances to water points are below normal compared to the long-term averages as shown by Figure 4.

2.2.3 Livestock Water Access

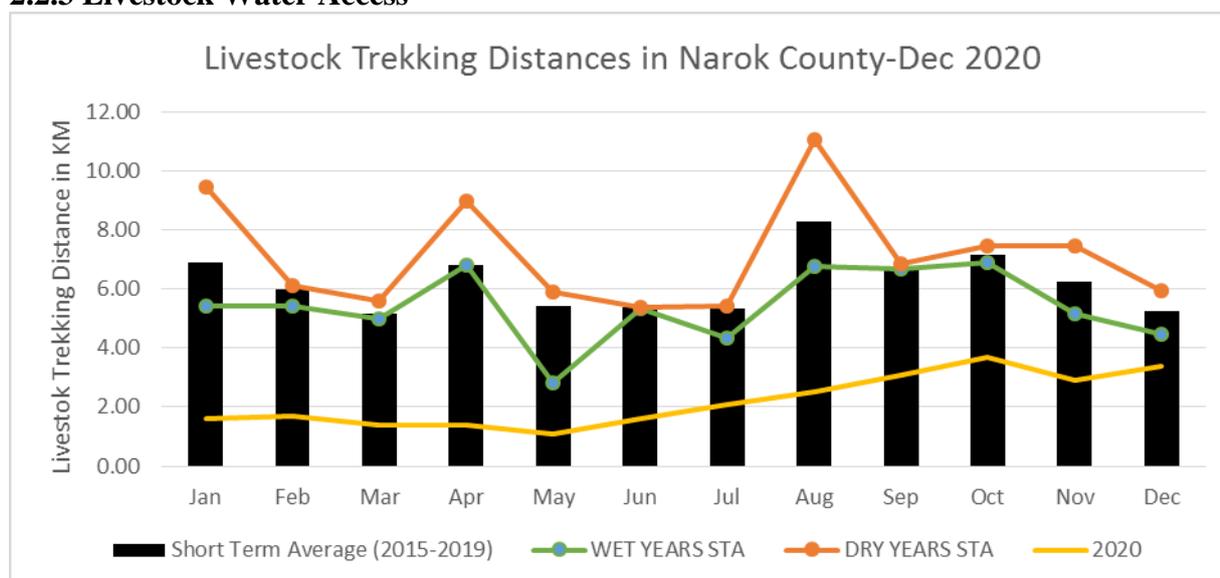


Figure 5: Current Livestock trekking distances as compared to short term averages

- The average distance to main water sources from grazing areas was 3.4km which exhibits an increase by 17 percent as compared to the previous month. The increase in the trekking distances is attributed to cessation of the short rains.
- The pastoral livelihood zone recorded the longest distance of 5 kilometres while the shortest distance was recorded in the mixed farming livelihood zone at 1km.
- The current average trekking distance is below the normal range at this time of the year as shown in Figure 5.

3.0 PRODUCTION INDICATORS

3.1 LIVESTOCK PRODUCTION

3.1.1 Livestock Body Condition

- The body condition for cattle, sheep and goats ranged from fair to good across all the livelihood zones. This is attributed to availability of forage and below normal trekking distances to water sources. However, the body condition for cattle in the pastoral livelihood zones are on a deteriorating trend owing to reduced forage.
- Owing to below normal performance of the current short rains, the situation is expected to deteriorate in the coming months.
- The current livestock body condition is within the normal range at this time of the year.

3.1.2 Livestock Diseases

- Suspected cases of bluetongue disease in sheep, contagious caprine pleuro-pneumonia (CCPP) in goats and contagious bovine pleuro-pneumonia (CBPP) in cattle were reported in Trans Mara West, Trans Mara East, Narok East and Narok South sub counties.
- Treatment and vaccinations measures were done upon request by farmers and own arrangements with animal practitioners.

3.1.3 Milk Production

- From figure 6 below, the average milk produced per household per day was 2.6 litres, representing 4 percent decrease compared to the previous month.
- Milk production is 1.6 litres/day/household in the pastoral areas, 3.5 litres/day/household in mixed farming zone and 2.9 litres/day/household in the agro-pastoral livelihood zone livelihood zone.
- The current milk production is below the normal range.

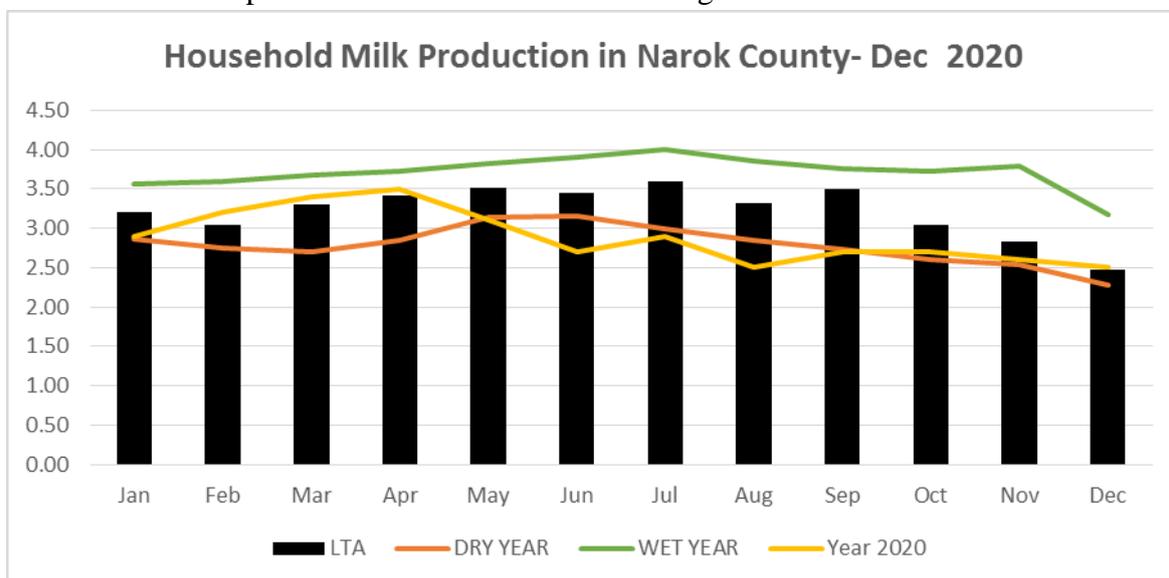


Figure 6: Milk Production

3.2 RAIN-FED CROP PRODUCTION

3.2.1 Stage and Condition of food Crops

- The crops planted in the County include beans, sorghum, maize, wheat and potatoes in Narok North, Kilgoris and Emurua Dikirr sub-counties.
- The crops were at grain filling and milking stage in regions of Ilkerin and Mogondo wards in Trans Mara East Sub County and Mau and Melili wards in Narok North Sub County.
- Additionally, Planting and weeding for the season was on going across the livelihood zones and this is normal at this time of the year.

4.0 MARKET PERFORMANCE

4.1 LIVESTOCK MARKETING

4.1.1 Cattle Prices

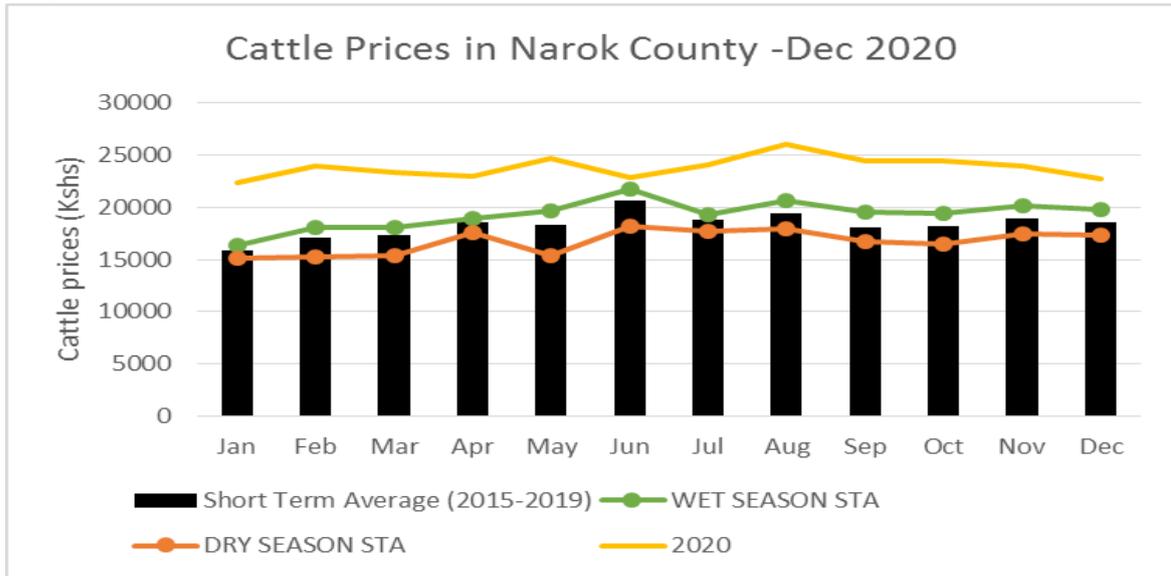


Figure 7 Cattle prices

- From the figure 7 shown above, the average price for a medium-sized cattle in December was Kshs 22768.
- The current price is 5 percent lower than in the previous month. Those in the pastoral zone fetched more prices at Kshs 24,714 per head while the lowest price was in the agro-pastoral livelihood zone at an average price of Kshs 16,500 per head.
- The current cattle price is above normal compared to long-term average as shown by (Figure 7).

4.1.2 Goat Prices

The average goat prices was Kshs 4171 which represents 3 percent decrease percent compared to the previous month.

- The highest price was posted in the mixed farming and agro-pastoral livelihood zones at Kshs 4,500 per head while the lowest price was recorded in the pastoral livelihood zone at Kshs 3,700 per head.
- The average goat price was above the normal range at this time of the year as shown in figure 8

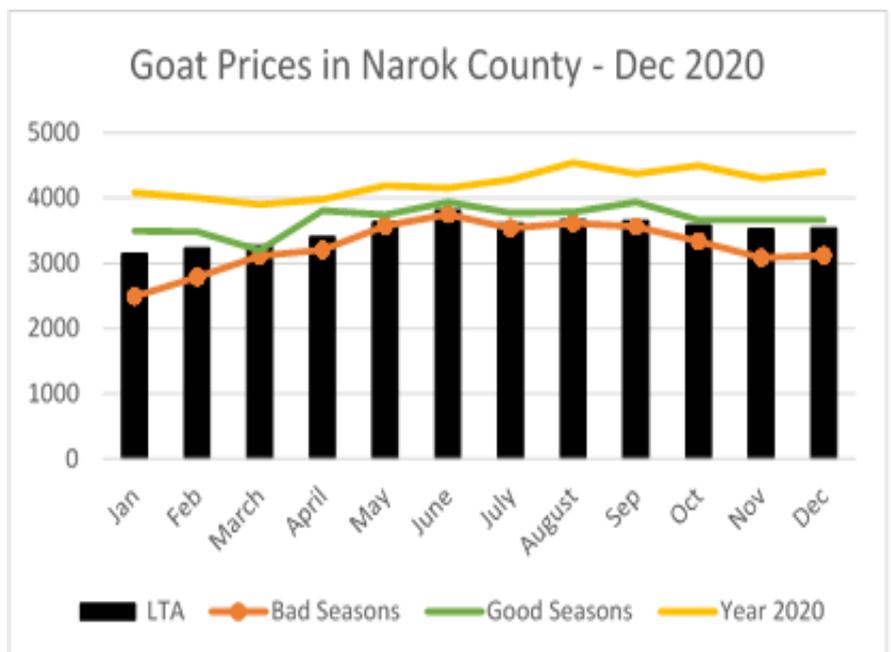


Figure 8: Goat Prices

4.1 CROP PRICES

4.2.1 Maize Prices

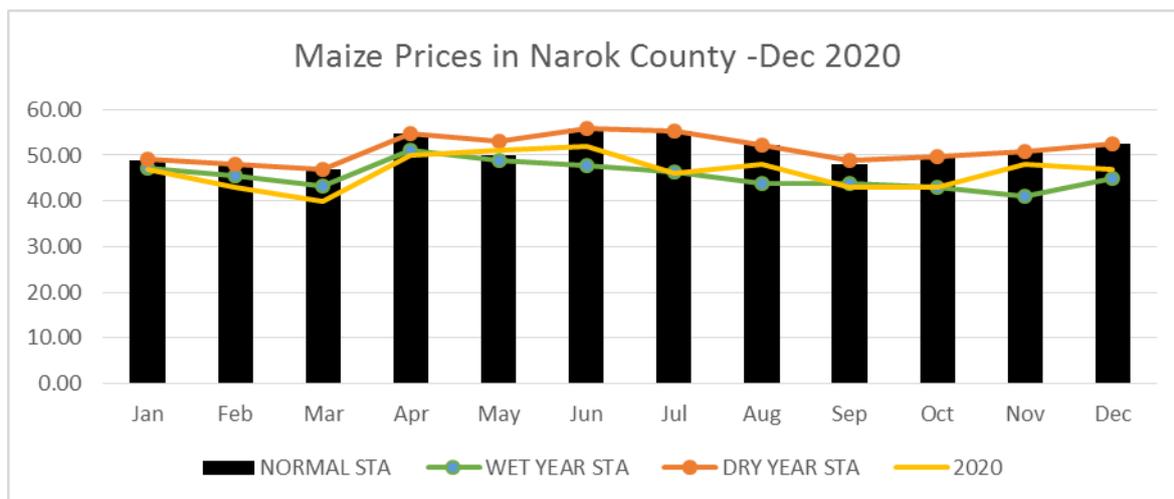


Figure 9: Maize prices

- The average price of maize per kilogram was Kshs 47.01, a reduction by 2 percent compared to the previous month.
- The highest price was recorded in the pastoral livelihood zone at Kshs. 55/Kg while the lowest price was recorded in the mixed farming zone at Kshs. 37/Kg.
- The current price is within the long-term average as shown by Figure 9.

4.2.2 Beans

- The average price of beans remained at Ksh.107/kg compared to the previous month. The highest price was recorded in the agro-pastoral livelihood zone at Kshs. 125/kg while the lowest was recorded in the mixed farming livelihood zone at Kshs.107.
- The current price is above the normal range at this time of the year as shown by Figure 10.

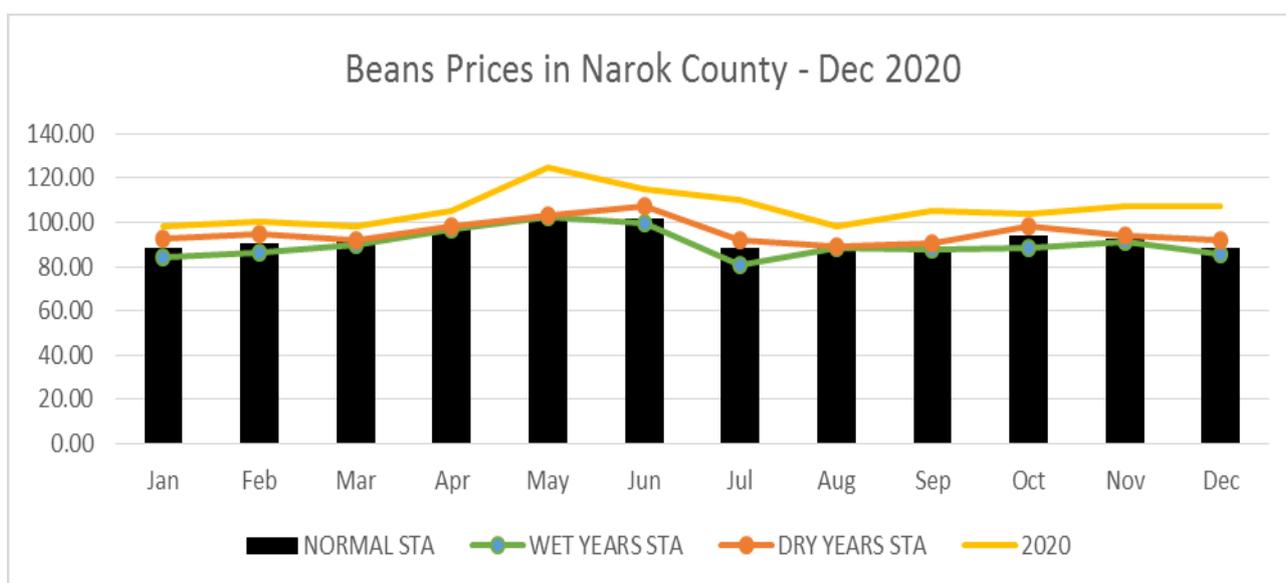


Figure 10 Bean prices

4.3 Terms of Trade

- From figure 11 below, The Terms of Trade (ToTs) based on the cereal/meat prices was 84 Kgs which is 6% decline from the previous month ToT of 87.5kg.
- This implies that a sale of one goat fetched 84 kgs of cereals. The ToTs were less favourable in the agro-pastoral and mixed farming livelihood zones compared to pastoral livelihood zone.
- The decrease in ToTs is attributed to reduction in goat prices as well as maize prices
- The current cereal/goat price ratio is above normal range as shown in Figure 11.

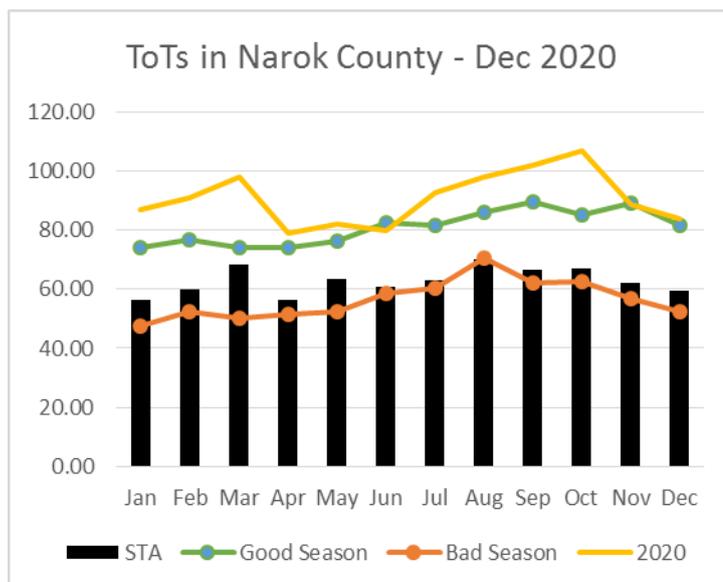


Figure 11: ToTs in December compared with LTA

5.0 FOOD CONSUMPTION AND NUTRITION STATUS

5.1 MILK CONSUMPTION

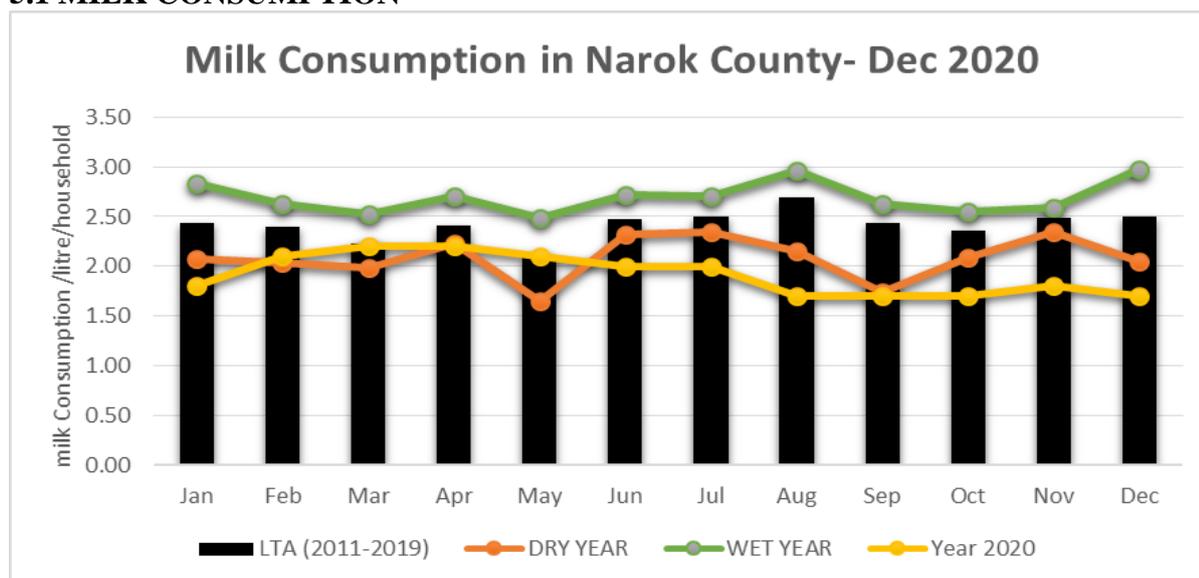


Figure 12: Milk consumption in December

- The current average household milk consumption was 1.7 litres/household per day which is a decrease by 6 percent compared to the previous month of 1.8 litres/household. There were inter-livelihood variations in milk consumption with agro-pastoral livelihood zone having the highest consumption rate at 2 litres followed by mixed farming and pastoral livelihood zones having the least at consumption rate at 1.6 litres. The current milk consumption rate is below normal range at this time of the year as shown by Figure 12.

5.2 FOOD CONSUMPTION SCORE

- Food consumption patterns across the livelihood zones were stable with majority of households remaining in acceptable band. The largest proportion of about 94.43 percent of the households had acceptable food consumption score. This implies that majority of households were able to take diverse food groups more frequently thus able to meet their essential food needs.
- In pastoral livelihood zone, 83.3 percent had acceptable, 13.9 percent within borderline consumption and 2.8 percent had poor consumption. In the agro-pastoral and mixed farming zone, 100 percent of the respondents had acceptable food consumption score (Fig 13).

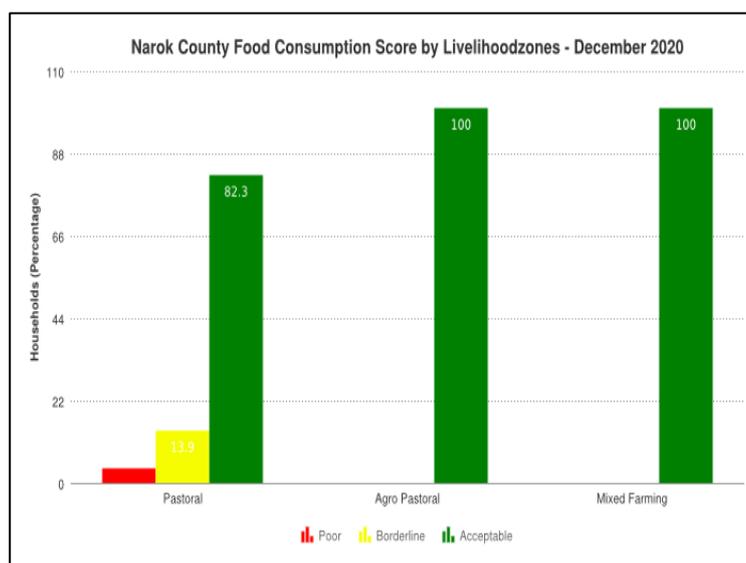


Figure 13: Food consumption score

5.3 HEALTH AND NUTRITION STATUS

5.3.1 Nutrition Status

- Six hundred and fifty-four children below the age of five years were sampled for family MUAC measurement.
- The proportion of children under the age of five years who were ‘at risk’ of malnutrition increased to 3.3 percent from 1.7 percent in previous month (Fig 14). Mosiro, Naroosura and Koyiaki wards in the pastoral livelihood zone had 5.1 percent of children with moderate malnutrition cases attributed to high cereal prices due to poor accessibility to market, fever condition owing to chilly weather conditions and diarrhoea due to poor sanitation in the pastoral livelihood zone.
- The current rate of malnutrition is below the normal range compared to the long-term average as shown by Figure 14.

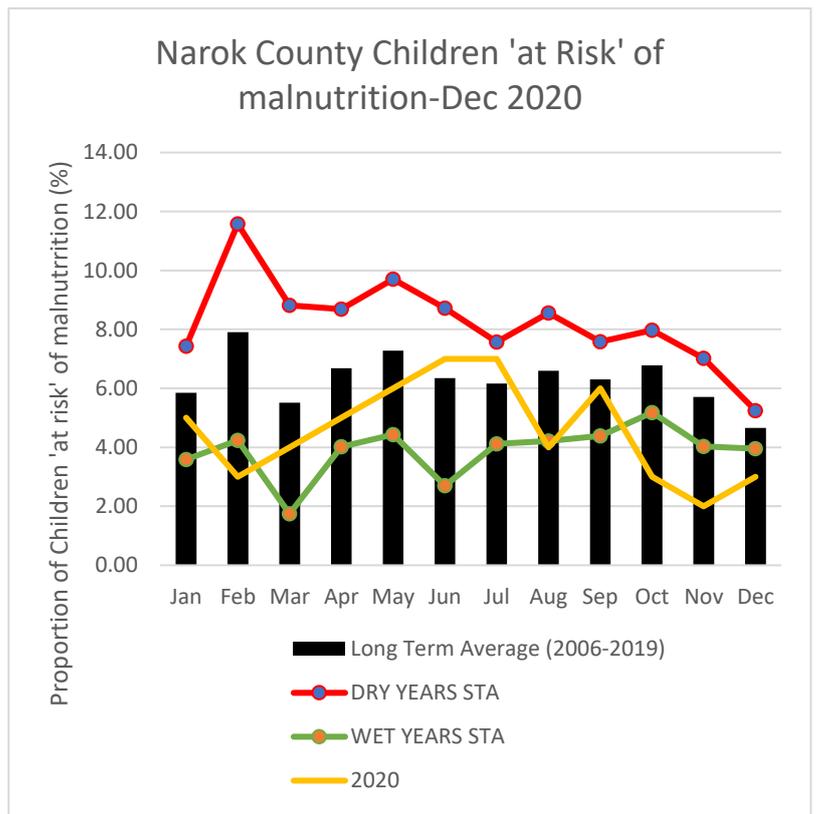


Figure 14: Proportion of Children ‘at risk ‘of malnutrition

5.3.2 Health

- A few cases of fever were reported across the livelihood zones during the month under review due to climate change and poor sanitation.

5.3 COPING STRATEGIES

The CSI for the County in December was at 1.9. Households employed normal coping strategies in accessing food across all the livelihood zones as shown by Figure 15. The pastoral livelihood zone had higher CSI at 5.6 compared to Agro-pastoral and mixed farming zone which did not employ any coping strategy.

The coping strategies are below the normal at this time of the year.

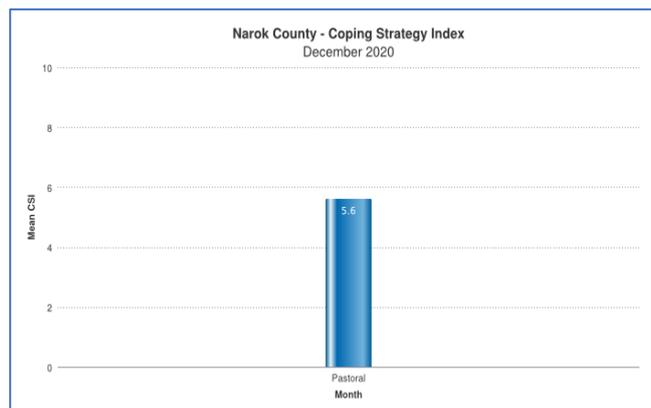


Figure 15: Coping strategies

6.0 CURRENT INTERVENTION MEASURES (ACTIONS)

6.1 NON-FOOD INTERVENTIONS

- Construction Olesere Community Water Pipeline in Siana ward in Narok west Sub -County by NDMA funded by European Union.
- Regular Covid-19 surveillance and sensitization by Ministry of Health and KRCS.

6.2 FOOD AID

- No food aid

7.0 EMERGING ISSUES

7.1 Insecurity/Conflict/Human Displacement/Floods.

- No major emerging issues related to drought were reported during the month under review.

7.2 FOOD SECURITY PROGNOSIS

- According to the Kenya Meteorology Department forecast the onset of October-December short rains was late with poor to fair spatial and temporal distribution and a below average performance.
- Accessibility and availability of water is likely to increase in next one month. The current water sources are expected to last for 1-2 months owing to below normal rainfall and slow onset of the short rain season.
- The livestock body condition and productivity is expected to remain stable for the next one month due to availability of forage and water.
- Household milk consumption is projected to reduce in the next two months.
- Malnutrition rates are expected to remain low below long term means due to favorable terms of trade leading to availability of diversified diets coupled with better health seeking behaviors among the pastoralist and improved hygiene at the household level.
- Crop production is expected to be below normal owing to be below normal rains.

8.0 RECOMMENDATIONS

- Enhanced livestock Vaccination and surveillance of notifiable diseases and vector control by Livestock department.
- Continued awareness campaigns on COVID-19 and support hygiene education promotion including installation of hand washing facilities in public facilities and learning institution by KRCS, MOH and NG.
- Scale up coverage of High Impact Nutrition Interventions in Narok County to reach at least 80% of the target population, Conduct routine hygiene promotion activities by MOH.
- Development of market infrastructure- sale yards, holding grounds, market information and linkages to markets by department of livestock.