

**National Drought Management Authority**  
**NAROK COUNTY**  
**DROUGHT EARLY WARNING BULLETIN FOR FEBRUARY 2019**



A Vision 2030 Flagship Project



**FEBRUARY EW PHASE**

**Drought Situation & EW Phase Classification**

**Biophysical Indicators**

**Rainfall**

- The county experienced off season rains during the third decad of the month in all the livelihood zones.

**Vegetation condition:**

- The vegetation greenness as depicted by the vegetation condition index (VCI) is normal across the county.

**Socio Economic Indicators (Impact Indicators)**

**Production indicators:**

- Most crops which were planted early experienced moisture stress that led to poor yield in the county with most farmers engaging in Land preparation for the long rains season.
- Livestock body condition ranged from fair to good in the pastoral livelihood zone. In mixed farming and agro pastoral livelihood zones, the body condition is good.
- Milk production is stable and within the normal range compared to the long term average.

**Access indicators:**

- Terms of trade remained stable in the county especially for pastoralists.
- Milk consumption ranged from fair to good in all the livelihood zones.
- Water access for both human and livestock consumption was generally good in the county.
- Distances to water sources were within the normal range.

**Utilization Indicators:**

- Cases of malnutrition are stable and below the normal range as indicated by percent of mid upper arm circumference (MUAC).
- Most households had 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
<b>COUNTY</b>	<b>NORMAL</b>	<b>STABLE</b>
Biophysical Indicators	Value	Normal Range/Value
VCI-3Month	54.15	>35
Forage condition	Fair-Good	Good
Production indicators	Value	Normal
Crop Condition (Maize)	Fair	Normal
Livestock Body Condition	Good	Good
Milk Production in litres	2.4	>5
Livestock Migration Pattern	Normal	Normal
Livestock deaths (Drought related)	No death	No death
Access Indicators	Value	Normal
Terms of Trade (ToT)	84.5	>100
Milk Consumption in litres	1.6	>4
Return distance to water sources in km	5	<5
Cost of water at source in Kshs (20 litres)	2-5	<5
Utilization indicators	Value	Normal
Nutrition Status, MUAC (% at risk of malnutrition)	4.1	<10

<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>▪ 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> </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> </ul>	<ul style="list-style-type: none"> <li>▪ Short rains</li> <li>▪ Planting/weeding</li> </ul>								
Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec

# 1. CLIMATIC CONDITIONS

## 1.1 RAINFALL PERFORMANCE

- Most parts of the county witnessed rainfall onset for the short rains season from the first decad of December 2018 depicting a late onset. The rains ceased towards the end of the second decad of December.
- For the month under review, the county received off season showers lasting for one to two days in the third decad. The county remained relatively dry during the first and second decads of the month coupled with high temperatures throughout the day.

## 1.2 AMOUNT OF RAINFALL AND SPATIAL DISTRIBUTION

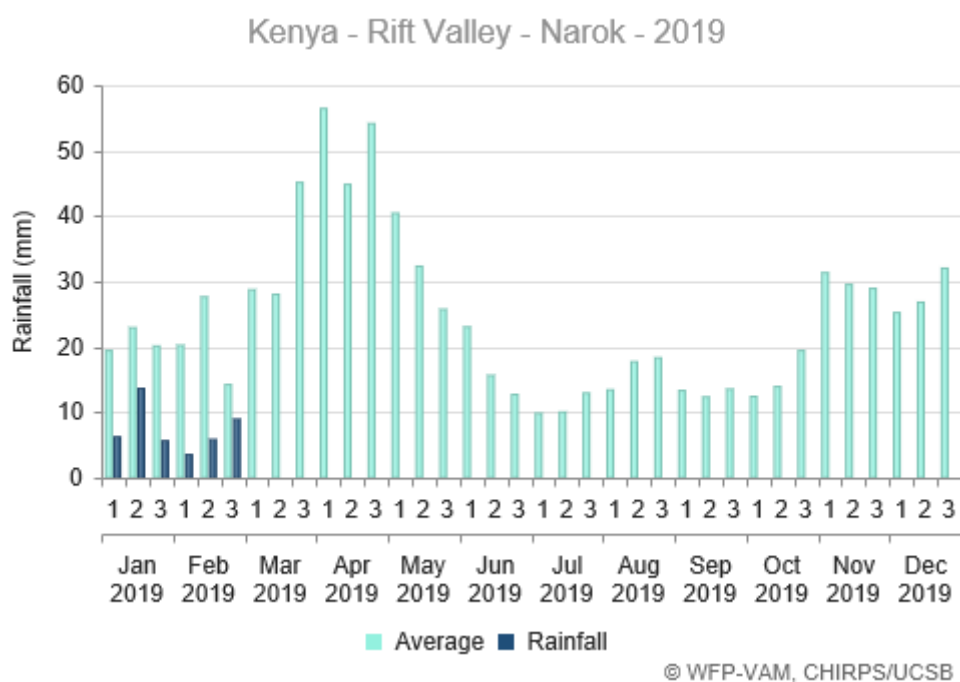


Figure 1: Rainfall performance-Narok County

- The above satellite image (Figure 1) highlights the general performance of the rains in the county for the month of February, 2019 in comparison with the long term averages. Rainfall performance was generally poor during the month as shown in Figure 1.
- The current rainfall performance is below the expected seasonal range.

## 2.0 IMPACTS ON VEGETATION AND WATER

### 2.1 VEGETATION CONDITION

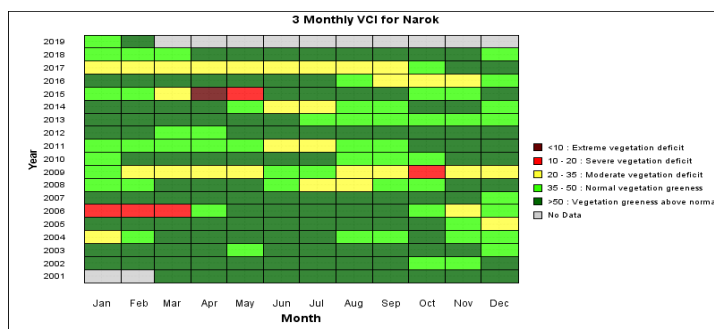


Figure 2: Vegetation condition index

The vegetation greenness as depicted by the vegetation condition index (VCI) shows normal vegetation greenness across the county (Figure 2). This is due to off season showers received in January which enhanced forage conditions.

#### 2.1.1 Field observations

##### 2.1.1.1 Pasture

- The pasture quantity and quality in mixed farming and agro-pastoral livelihood zones remained good. In the pastoral livelihood zone, pasture conditions ranged from fair to poor. The delayed onset of the short rains season had affected pasture conditions in Mosiro ward in Narok East sub county, Koyiaki ward in Narok West Sub County and Naroosura ward in Narok south sub county. During the month of December 2018 and January 2019, the county received enhanced rainfall which led to pastures regeneration.
- The available pasture is likely to last for more than two months in mixed farming and agro-pastoral livelihood zones and a month in the pastoral livelihood zone. The current pasture situation is below the normal range.

##### 2.1.1.2 Browse

- The quality and quantity of browse in all the livelihood zones ranged from fair to good. The available browse is expected to last for three months in mixed farming livelihood zone while in pastoral livelihood zone, it is likely to last for two months. The current browse situation is within the normal range.

#### 2.2 Water resources

##### 2.2.1 Sources

- The main sources of water for livestock and human consumption in the county were rivers, pans/dams, boreholes, traditional river wells and shallow wells as shown by Figure 3.
- The quantity and quality of water was good in the mixed farming and agro-pastoral livelihood zones with rivers, pans and dams being the most used.
- In pastoral livelihood zone, water quality decreased slightly owing to poor sanitation and

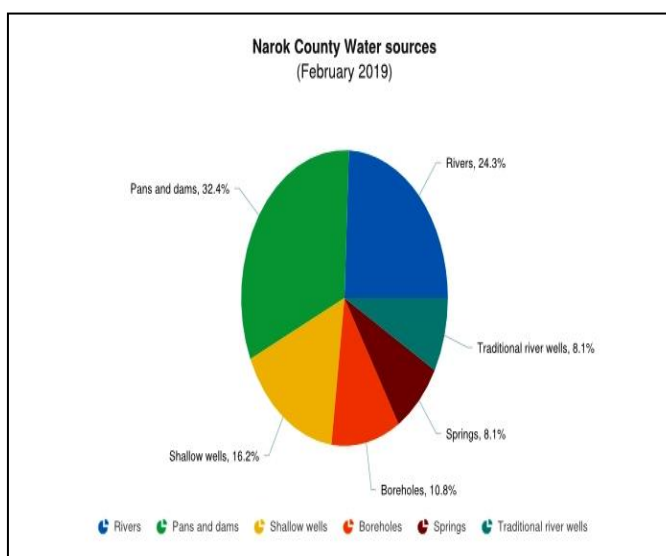


Figure 3: Water sources

congestion at the water points. This was mainly experienced in Mosiro and Naroosura wards.

- The current water sources are expected to last for 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.
- The status of main sources of water is within the normal range at this time of the year.

### 2.2.2 Household access and Utilization

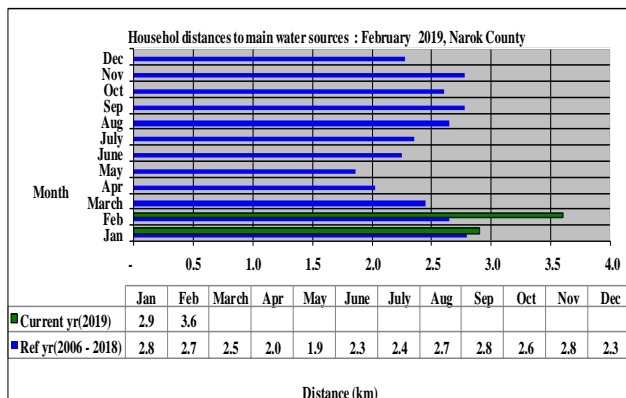


Figure 4: Water access by households

The average distance to watering points for households increased by twenty four percent compared to the previous month.

Pastoral livelihood zone recorded the longest average distance at six kilometres while the shortest average distance was recorded in mixed farming livelihood zone at 1.2 km.

The current trekking distances to water points was above the normal range compared to the long term means as shown by Figure 4.

### 2.2.3 Livestock access

The average distance to main water sources from grazing areas increased by eight percent compared to the previous month. Pastoral livelihood zone recorded the longest distance of seven km while the shortest distance was recorded in the mixed farming livelihood zone at 1.3 km. The current average trekking distance is below the normal range at this time of the year as shown in Figure 5.

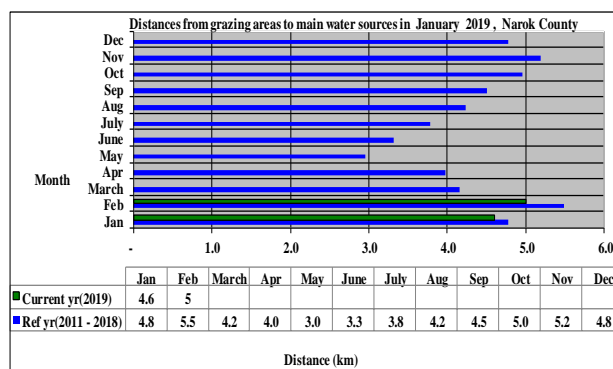


Figure 5: Water access by livestock

### 3.0 PRODUCTION INDICATORS

#### 3.1 LIVESTOCK PRODUCTION

##### 3.1.1 Livestock Body Condition

- The cattle body condition in the county ranged from fair to good. The body condition for sheep and goats remained good across all the livelihood zones.
- The stable body condition was attributed to forage availability coupled with stable water access and availability due to the rains received in the month of January.
- The current livestock body condition is normal at this time of the year.

##### 3.1.2 Livestock Diseases

- The county encountered minimal normal cases of PPR and foot & mouth diseases which are on the increase particularly in Narok West and Narok South Sub County. Other cases being reported include lumpy skin disease, blue tongue disease, CCPP and CBPP diseases.

##### 3.1.3 Milk Production

The average milk produced per household per day remained stable compared to last month as shown by Figure 6.

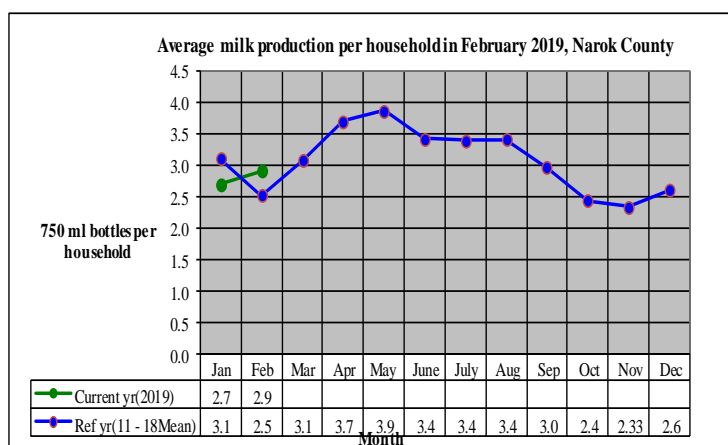


Figure 6: Milk production

#### 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.
- Farm preparation is ongoing in most parts of the county as they await the onset of the long rains season.

## 4.0 MARKET PERFORMANCE

### 4.1 LIVESTOCK MARKETING

#### 4.1.1 Cattle Prices

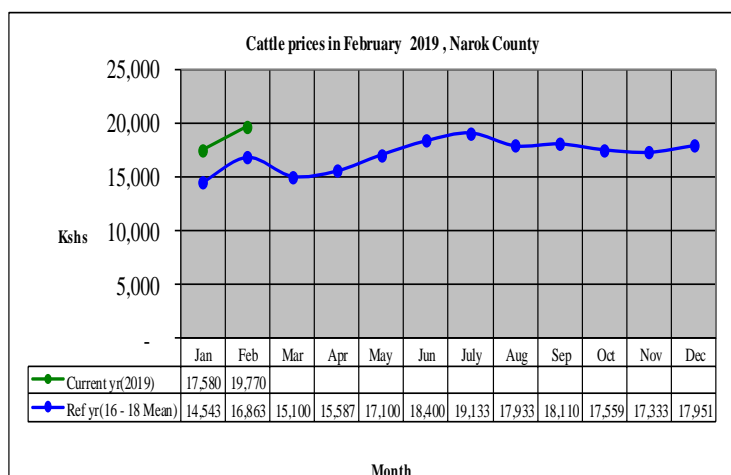


Figure 7: Cattle prices

The current cattle prices are above the normal range compared to long term means at this time of the year as shown by Figure 7.

#### 4.1.2 Goat Prices

- The average goat prices increased by five percent compared to the previous month. The increase in price is attributed to good body condition in small stocks and availability of browse in the mixed farming and agro-pastoral livelihood zones. The highest price was recorded in the mixed farming livelihood zone at Kshs 4,500 per head while the lowest price was recorded in the pastoral livelihood zone at Kshs 3,400 per head.

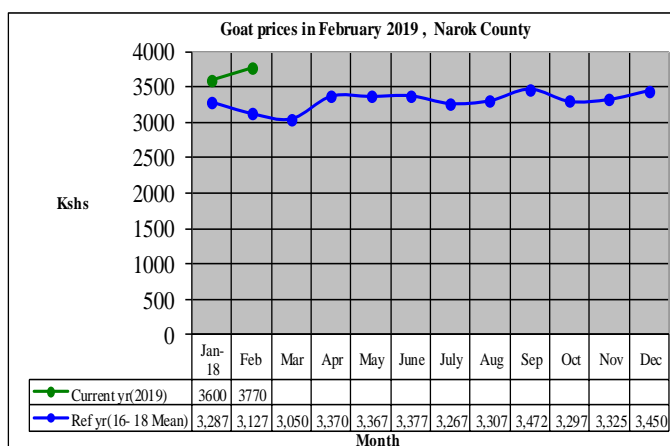


Figure 8: Goat prices

- The average goat price was above the normal range at this time of the year as shown by Figure 8.

## 4.2 CROP PRICES

### 4.2.1 Maize

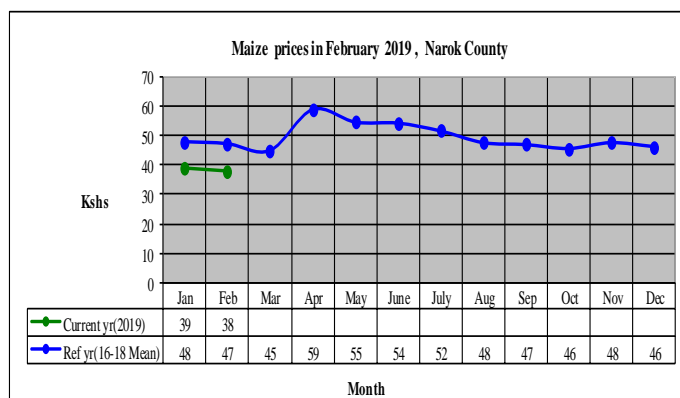


Figure 9: Maize prices

The average price for the medium sized cattle increased by twelve percent compared to last month.

The highest prices were recorded in the mixed farming livelihood zone at Kshs 22,000 per head while the lowest price was in the agro-pastoral livelihood zone at an average price of Kshs 16,000 per head. The increase in price is due to improved body condition as a result of forage availability.

The average price of maize per kilogram decreased by three percent compared to the previous month. The highest prices were recorded in pastoral livelihood zone at Kshs 50 per kg while the lowest was recorded in the agro-pastoral livelihood zone at an average price of Kshs 28 per kg. The overall price is below the normal range as shown by Figure 9.

### 4.2.2 Beans

- The average price of beans increased by three percent compared to the previous month. The highest price was recorded in the pastoral livelihood zone at Kshs. 90/kg compared to the mixed farming zone which recorded a lower price of Kshs.78 per kg.
- The current price is below the normal range at this time of the year as shown by Figure 10.

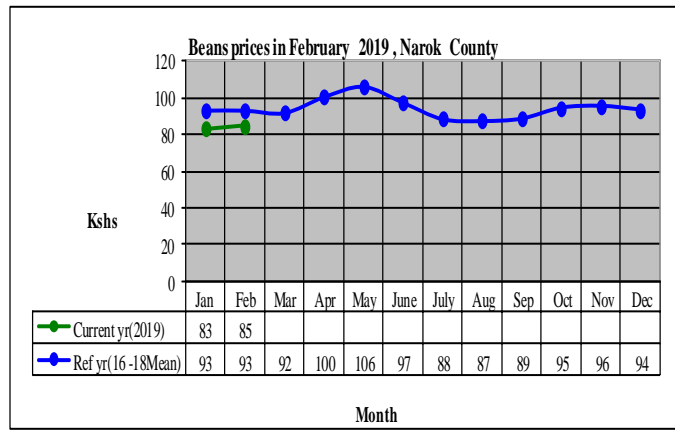


Figure 10: Beans prices

### 4.3 Livestock Price Ratio/Terms of Trade

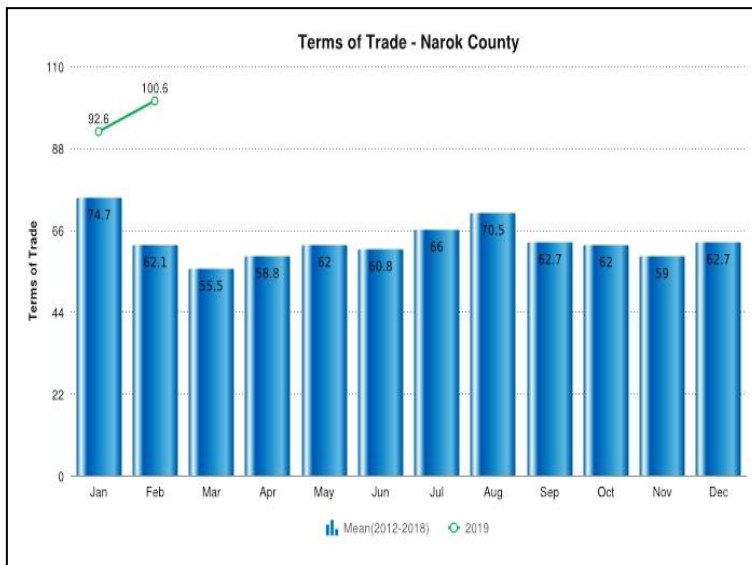


Figure 11: Terms of trade

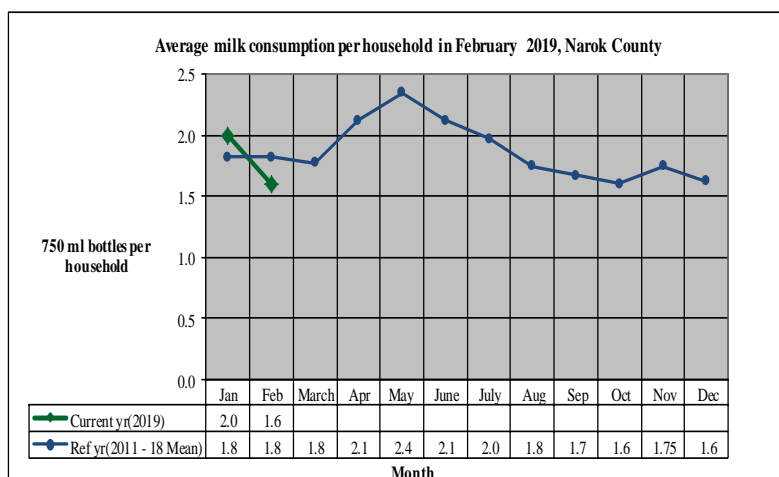
The current cereal/meat price ratio is above the normal range at this time of the year as shown in Figure 11.

The Terms of Trade (ToTs) based on the Cereal/Meat price ratio increased by eight percent compared to last month. The increase in ToTs is due to increased goat prices and stability in maize prices. This implies that a sale of one goat fetched 100.6 kg of cereals. The ToTs were less favourable in the pastoral and mixed farming livelihood zones compared to agro-pastoral livelihood zone.

The current cereal/meat

## 5.0 FOOD CONSUMPTION AND NUTRITION STATUS

### 5.1 MILK CONSUMPTION



**Figure 12: Milk consumption**

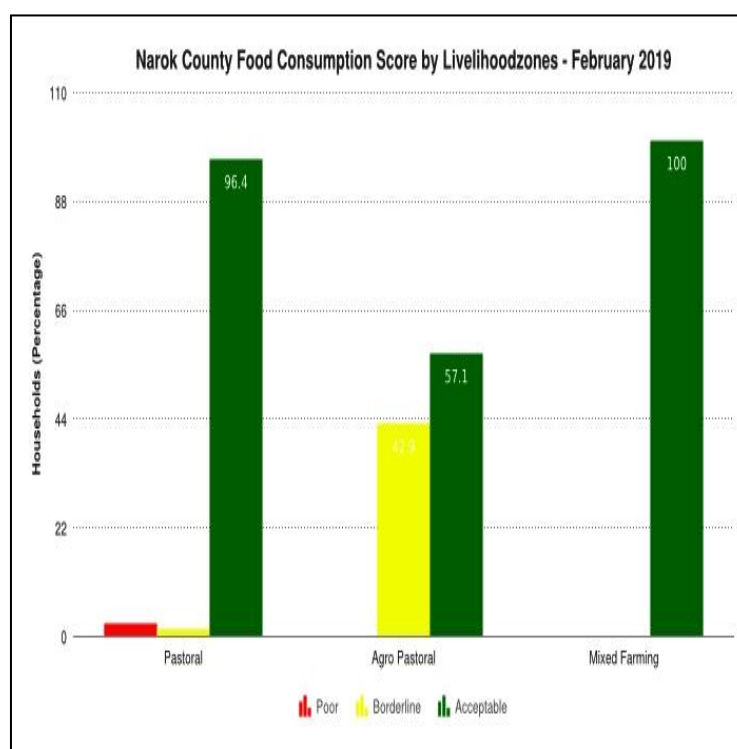
The current milk consumption rate is within normal range at this time of the year as shown by Figure 12.

Average household milk consumption per day reduced by twenty percent compared to the previous month. There was major inter-livelihood variation in milk consumption with mixed farming zone having the highest consumption rate at 3.2 litres, followed by agro-pastoral zone at 2.4 litres. The pastoral zone had the least consumption rate at 1.3 litre.

The current milk consumption

### 5.2 FOOD CONSUMPTION SCORE

- About 84.5% and 15% of the households fell within the acceptable and borderline food consumption score categories respectively in the month under review.
- The poor food consumption score implies households are not consuming a balanced diet and rarely consuming food rich in protein. Borderline implies that households are consuming staples and vegetables every day accompanied by oil and pulses a few times in a week. The acceptable implies that households are consuming staples, protein (milk and meat) and vegetables every day and frequently accompanied by pulses.



**Figure 13: Food consumption score**

- There was variation across the livelihood zones as shown in Figure 13 whereby most households in mixed and pastoral livelihood zones had acceptable food consumption scores compared to the agro-pastoral livelihoods zone having less than 60% households in the acceptable food consumption category.



### 5.3 HEALTH AND NUTRITION STATUS

#### 5.3.1 Nutrition Status

The percentage of children less than five years of age who are at risk of malnutrition as indicated by the Mid-Upper Arm Circumference (MUAC) has declined marginally compared to last month. The pastoral and the agro-pastoral livelihood zones recorded the highest number of children at risk of malnutrition at 5.5 percent compared to mixed farming livelihood zone which recorded no child under risk of malnutrition.

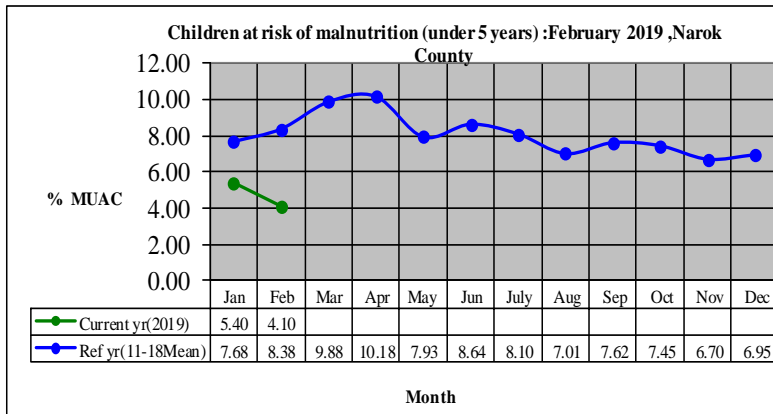


Figure 14: Children at risk of malnutrition

The dietary diversity in mixed farming livelihood zone is stable due to stability in milk consumption and availability of vegetables.

The current rate of malnutrition is below the normal range compared to the long term average as shown by Figure 14.

#### 5.3.2 Health

There were no outbreaks of human diseases in the county during the month under review.

### 5.4 COPING STRATEGIES

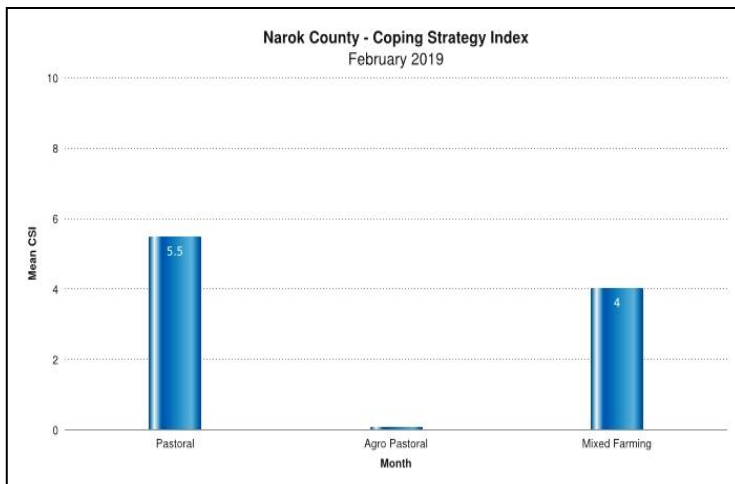


Figure 15: Coping strategies

Households employed normal coping strategies in accessing food across all the livelihood zones as shown by Figure 15. The pastoral and mixed farming livelihood zones had higher CSI compared to agro-pastoral livelihood zone. The coping strategies are normal at this time of the year.

## **6.0 CURRENT INTERVENTION MEASURES (ACTIONS)**

### **6.1 NON-FOOD INTERVENTIONS**

- No non-food aid was issued during the month.

### **6.2 FOOD AID**

- No food aid was issued during the month.

## **7.0 EMERGING ISSUES**

### **7.1 Insecurity/Conflict/Human Displacement**

- No major conflict issues that are related to drought were observed during the month under review

### **7.2 Migration**

- There was no abnormal migration experienced in the county. Most livestock had reverted back to their normal grazing areas.

### **7.3 FOOD SECURITY PROGNOSIS**

- The off season rains experienced in January and part of February have stabilised the food security situation. The rains have assisted in forage regeneration thus ensuring livestock productivity is stable, a situation that is expected to last up to the onset of the long rains season. Water access and availability will remain stable until the next rainfall season.
- Malnutrition status is expected to remain stable.

## **8.0 RECOMMENDATIONS**

- Desilting of pans and dams to improve water hygiene and sanitation standards in order to minimise chances of outbreak of water borne diseases and to prolong water retention.
- Establishment of preparedness activities especially in water and livestock sectors will boost the resilience level of the vulnerable communities to cope better in future against the effects of drought.
- Establishment of value chain activities for various crop enterprises so as to minimise wastage during times of surplus.
- Livestock disease surveillance should be enhanced across the county.