

# National Drought Management Authority

## NAROK COUNTY

### DROUGHT EARLY WARNING BULLETIN FOR DECEMBER 2019



A Vision 2030 Flagship Project



#### DECEMBER EW PHASE

#### Drought Situation & EW Phase Classification

##### Biophysical Indicators

###### Rainfall

- During the month under review, the county registered above normal rains across all the livelihood zones.
- The short rains started in the second deced of October with fair to good spatial and temporal distribution across the livelihood zones.

###### Vegetation condition:

- The county is experiencing above normal vegetation greenness as depicted by the vegetation condition index (VCI) this month.

##### Socio Economic Indicators (Impact Indicators)

###### Production indicators:

- Most farmers started harvesting green maize and beans for the short rains season.
- Livestock body condition was generally good across the livelihood zones.
- Milk production ranged from fair to good and is within the normal range compared to the long-term average.

###### Access indicators:

- Terms of trade remained stable across all the livelihood zones.
- Milk consumption remained stable in all the livelihood zones.
- Water access for both human and livestock consumption ranged from fair to good across the livelihood zones.
- Distances to water sources have reduced and are below the normal range.

###### Utilization Indicators:

- Cases of malnutrition increased slightly compared to normal as indicated by percent of mid upper arm circumference (MUAC).

#### 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	72.12	>35
Forage condition	Fair-good	Good
Production indicators	Value	Normal
Crop Condition (Maize)	Fair-good	Normal
Livestock Body Condition	Good	Good
Milk Production in litres	2.6	>2
Livestock Migration Pattern	Normal	Normal
Livestock deaths (Drought related)	No death	No death
Access Indicators	Value	Normal
Terms of Trade (ToT)	86.1	>62
Milk Consumption in litres	1.8	>1
Return distance to water sources in km	2.0	<5
Cost of water at source in Kshs (20 litres)	0-3	<5
Utilization indicators	Value	Normal
Nutrition Status, MUAC (% at risk of malnutrition)	5.8	<10

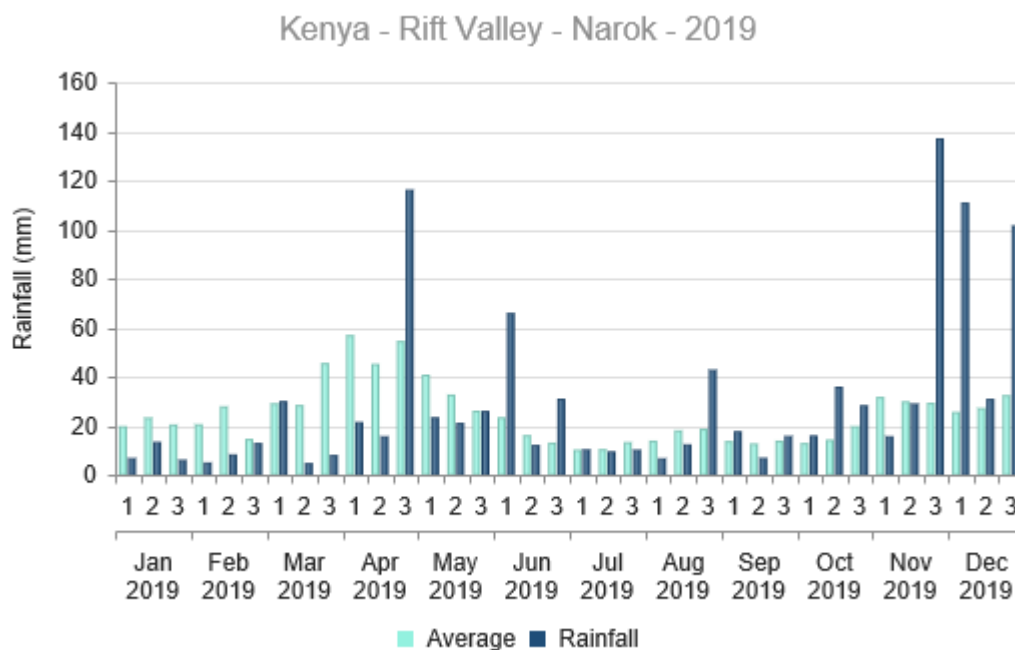
<ul style="list-style-type: none"> <li>Short rains harvests</li> <li>Short dry spell</li> <li>Reduced milk yields</li> <li>Increased HH Food Stocks</li> <li>Land preparation</li> </ul>	<ul style="list-style-type: none"> <li>Planting/Weeding</li> <li>Long rains</li> <li>High Calving Rate</li> <li>Milk 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

# 1.0 CLIMATIC CONDITIONS

## 1.1 RAINFALL PERFORMANCE

- The onset of the short rains season was reported in the second decad of October in most parts of the county. The onset was normal compared to the previous seasons.
- The county recorded above normal rains during the month under review. There was no significant inter-livelihood variation in terms of amounts recorded during the month.
- The temporal and spatial distribution was good across the livelihood zones and above the normal range.

## 1.2 AMOUNT OF RAINFALL AND SPATIAL DISTRIBUTION



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**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 December, 2019 in comparison with the long-term averages.
- The county registered above normal rains during the month under review, particularly during the first and third decad.
- The performance of the rains was above the normal seasonal average.

## 2.0 IMPACTS ON VEGETATION AND WATER

### 2.1 VEGETATION CONDITION

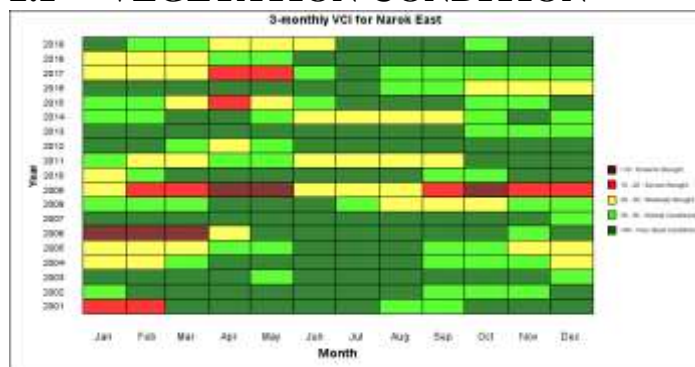


Figure 2: VCI: Narok County

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 improved vegetation condition is as a result of the enhanced rainfall performance during the short rains season.

#### 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 condition had improved significantly compared to the previous month.
- The available pasture is likely to last for four to five months in mixed farming and agro-pastoral livelihood zones and two to three months in the pastoral livelihood zone. This is attributed to above normal rains being received in the county.
- The current pasture situation is within the normal range.

##### 2.1.1.2 Browse

- The quantity and quality of browse in mixed farming and agro-pastoral livelihood zones was good. In the pastoral livelihood zone, browse conditions are equally good. The available browse is expected to last for more than four months in mixed farming livelihood zone while in pastoral livelihood zone, it is likely to last for more than three 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 ranged from fair to good in the mixed farming and agro-pastoral livelihood zones with the pastoral livelihood zone having fair quality. Pans and dams were the most used sources in the pastoral and agro-pastoral livelihood zones.
- The current water sources are expected to last for five to six months in mixed farming and agro-pastoral livelihood zones. In pastoral livelihood zone, the water is likely to last for three to four months. The current water situation is above the normal range at this time of the year.

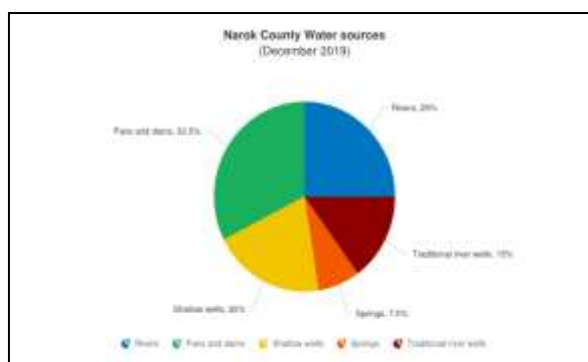


Figure 3: Water sources

## 2.2.2 Household access and Utilization

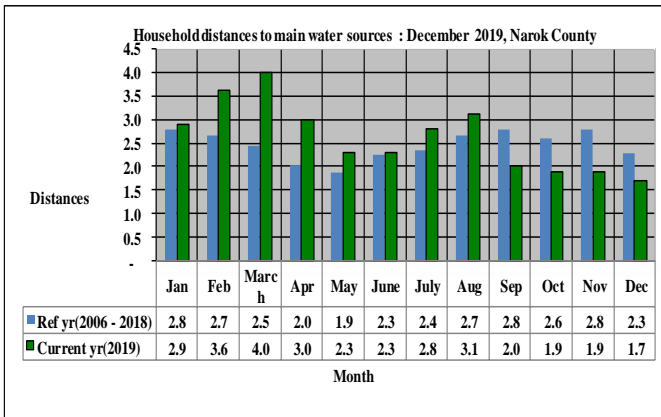


Figure 4: Water access by households

The average distance to watering points for households reduced by eleven percent compared to the previous month.

Pastoral livelihood zone recorded the longest average distance at 2.8 kilometres while the shortest average distance was recorded in mixed farming livelihood zone at less than half a kilometre. The stable distance was owed to enhanced rains being received in the county during the month under review.

The current trekking distances to water points are below normal compared to the

long term means as shown by Figure 4, indicating an improved situation.

## 2.2.3 Livestock access

2.2.4 The average distance to main water sources from grazing areas remained almost the same compared to the previous month at less than two kilometres. The Pastoral livelihood zone recorded the longest distance of three kilometres while the shortest distance was recorded in the mixed farming livelihood zone at less than a kilometre. The current average trekking distance is below the normal range at this time of the year as shown in Figure 5, translating to an improved situation.

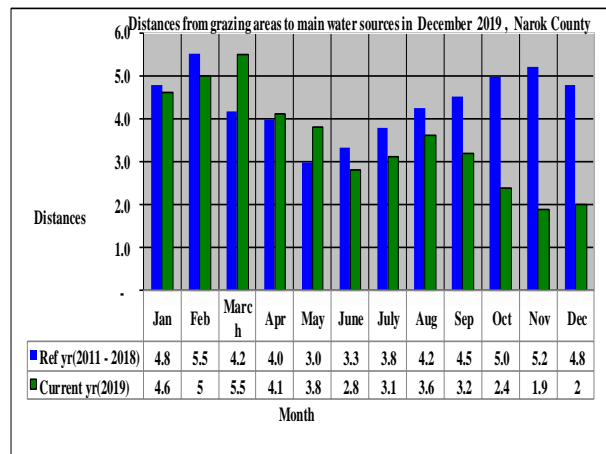


Figure 5: Water access by livestock

## 3.0 PRODUCTION INDICATORS

### 3.1 LIVESTOCK PRODUCTION

#### 3.1.1 Livestock Body Condition

- The cattle body condition in the mixed farming and agro-pastoral livelihood zones remained good while those in the pastoral livelihood zone ranged from fair to good body condition. The body condition for sheep and goats remained good across all the livelihood zones.
- The body condition is anticipated to improve further as forage conditions continue improving across the livelihood zones owing to significant improvement in rainfall performance.
- The current livestock body condition is within normal range at this time of the year.

#### 3.1.2 Livestock Diseases

- The county encountered confirmed cases of foot & mouth and PPR diseases mostly in Narok East, Narok West and Narok South Sub Counties.
- Rising cases of blue tongue disease, CCPP and CBPP diseases were also reported in pastoral and agro-pastoral livelihood zones.

#### 3.1.3 Milk Production

- The average milk produced per household per day marginally increased by four percent compared to the previous month as shown by Figure 6.
- Milk production is 0- 3 litres in the pastoral areas, 1-8 litres in agro-pastoral areas and 1-12 litres in the mixed farming livelihood zone.
- The improved milk production is attributed to forage and water availability coupled with reduced trekking distances to water sources.
- The current milk production levels are within the normal range.

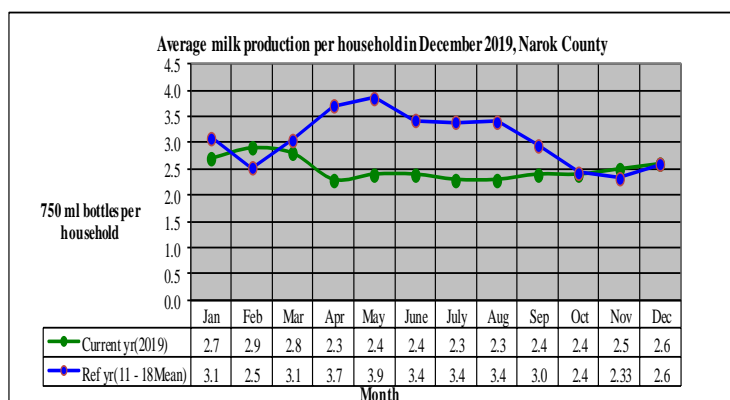


Figure 6: Milk production

## 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.
- Regions of Mau and Melili in Narok North, Sogoo and Oloolulunga in Narok South, Elenerai and Mulot in Narok West, Emurua Dikirr and Kilgoris have started harvesting green maize and beans.
- Generally, crops are in good condition.

## 4.0 MARKET PERFORMANCE

### 4.1 LIVESTOCK MARKETING

#### 4.1.1 Cattle Prices

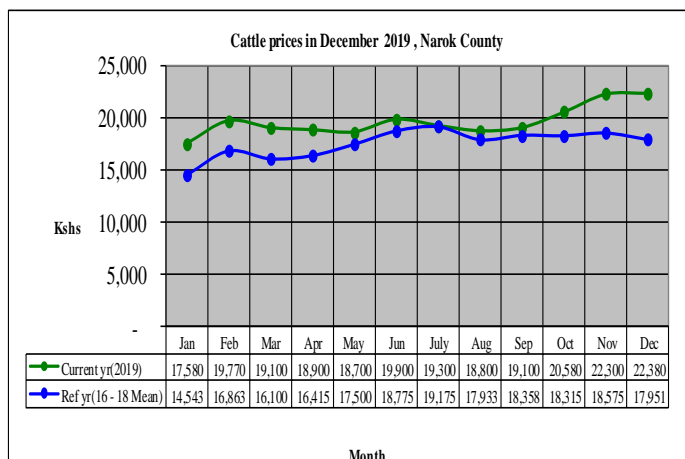


Figure 7: Cattle prices

The average price for the medium sized cattle increased slightly compared to the previous month. Those in the agro-pastoral zone fetched more prices at Kshs 26,000 per head while the lowest price was in the pastoral livelihood zones at an average price of Kshs 21,000 per head. The stability was attributed to improvement in livestock body condition. The current cattle price is above normal 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 seven percent compared to the previous month.
- The highest price was recorded in the mixed farming livelihood zone at Kshs 4,800 per head while the lowest price was recorded in the pastoral livelihood zone at Kshs 3,800 per head.
- The increase in price is due to high demand during the festive season coupled with improved body condition.
- The average goat price was above the normal range at this time of the year as shown in Figure 8.

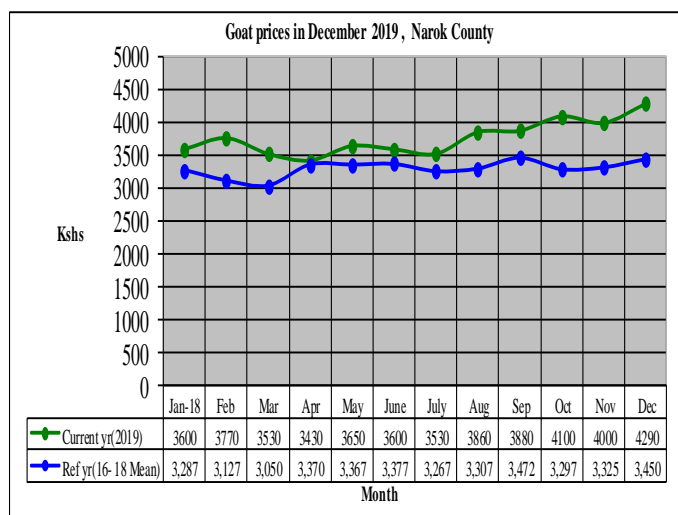


Figure 8: Goat prices

## 4.2 CROP PRICES

### 4.2.1 Maize

- The average price of maize per kilogram increased by six percent compared to the previous month. There was no price variation across the livelihood zones. The price decrease is attributed to diminishing stocks at household level and increased transport expenses and poor accessibility to the market occasioned by the heavy rains during the month under review.
- The overall price is within the expected range as shown by Figure 9.

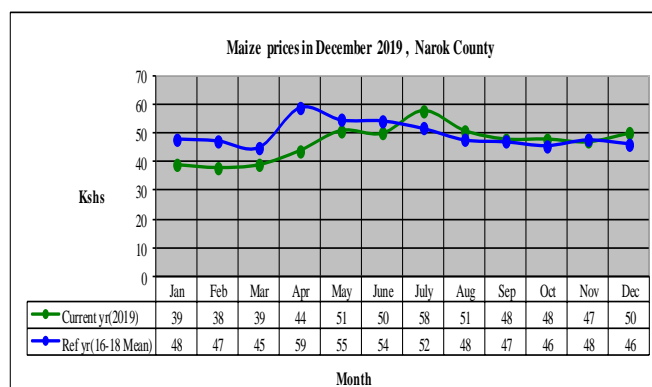


Figure 9: Maize prices

#### 4.2.2 Beans

- The average price of beans reduced slightly by two percent compared to the previous month. There was no significant price variation across the livelihood zones
- The current price is within the normal range at this time of the year as shown by Figure 10.

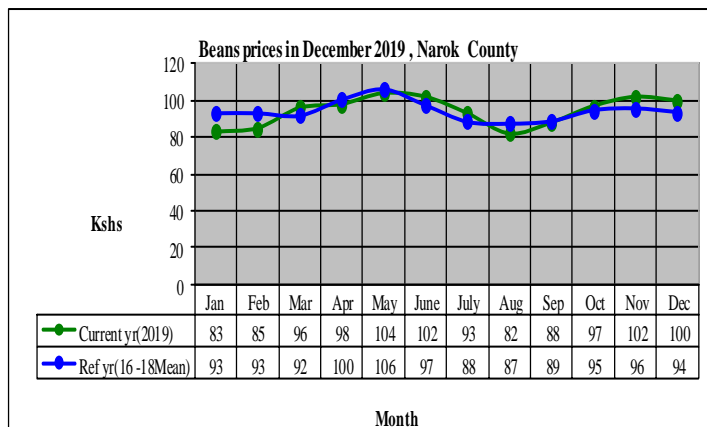


Figure 10: Beans prices

#### 4.3 Livestock Price Ratio/Terms of Trade

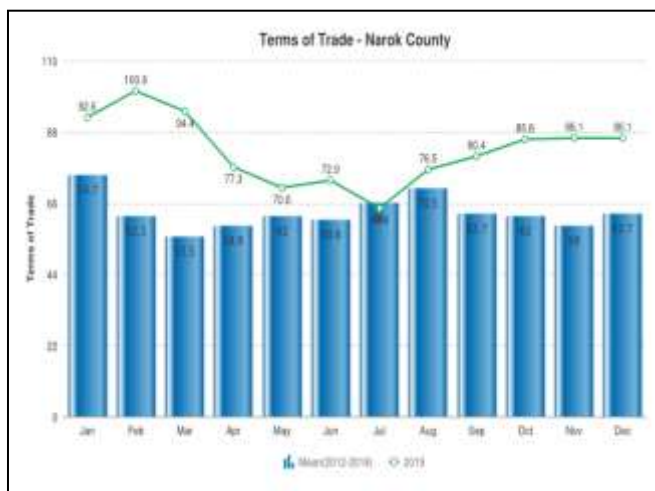


Figure 11: Terms of trade

The Terms of Trade (ToTs) based on the cereal/meat prices remained the same compared to the previous month. The stability in ToTs is due to stable livestock and maize prices.

This implies that a sale of one goat fetched 86.1 kgs of cereals. The ToTs were less favourable in the agro-pastoral and mixed farming livelihood zones compared to pastoral livelihood zone.

The current cereal/meat price ratio is above normal range as shown in Figure 11.

### 5.0 FOOD CONSUMPTION AND NUTRITION STATUS

#### 5.1 MILK CONSUMPTION

Average household milk consumption per day increased by fourteen percent compared to the previous month. There were inter-livelihood variations in milk consumption with mixed farming livelihood zone having the highest consumption rate at 1-4 litres, followed by agro-pastoral livelihood zone at 0.5-4 litres. The pastoral livelihood zone had the least consumption rate at 0-1.5 litres. The current milk consumption rate is within the normal range at this time of the year as shown by Figure 12.

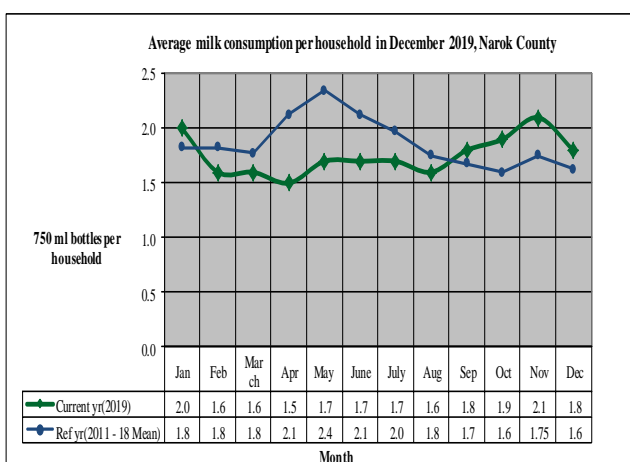


Figure 12: Milk consumption

## 5.2 HEALTH AND NUTRITION STATUS

### 5.2.1 Nutrition Status

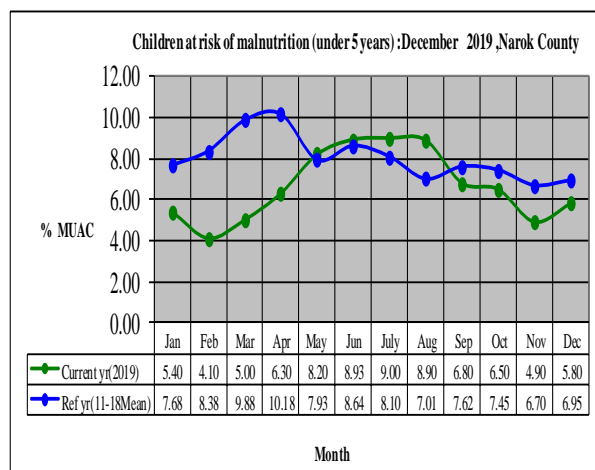


Figure 13: Children at risk of malnutrition

The children less than five years of age who are at risk of malnutrition as indicated by the Mid-Upper Arm Circumference (MUAC) increased by eighteen percent compared to the previous month as shown by Figure 13. Despite improved food security, areas of Mosiro ward and Ntuka in Naroosura ward in the pastoral livelihood zone still had some children with moderate malnutrition cases owing to increased cereal prices and fever condition owing to chilly weather conditions.

The current rate of malnutrition is below the normal range compared to the long-term average as shown by Figure 13.

### 5.2.2 Health

Fewer cases of fever and diarrhoea were recorded in the pastoral and the agro-pastoral livelihood zones during the month under review owing to change in weather patterns and poor sanitation.

## 5.3 COPING STRATEGIES

The CSI for the County in December was at 3.1 depicting a decrease compared to 3.4 in the previous month. Households employed normal coping strategies in accessing food across all the livelihood zones as shown by Figure 14. The pastoral livelihood zone had higher CSI compared to mixed farming and agro-pastoral livelihood zones.

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

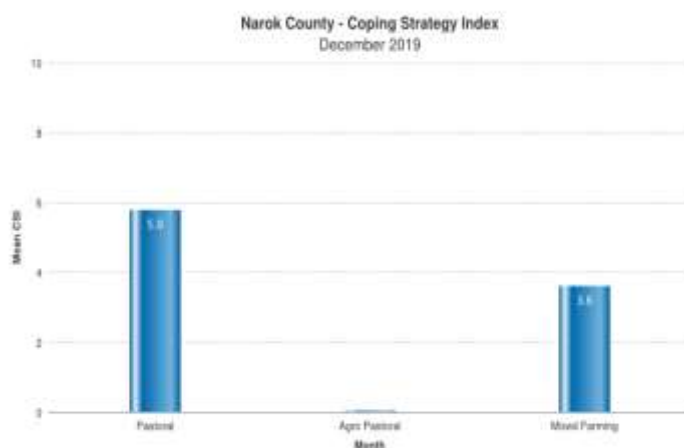


Figure 14: Coping strategies



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

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

- The County government is implementing the National Agricultural and Rural Inclusive Growth project (NARIGP). The project is funded by the World Bank covering 20 wards in the county and aims at increasing agricultural productivity and profitability of targeted beneficiaries.
- Construction of 4 water projects (Sogoo, Pinyiny, Olopikidongoe and Entasekera) in four Wards of Sogoo, Lolgorian, Loita and Mosiro at a cost of Kshs 176M. The projects are being funded by Water Services Trust Fund.
- Epidemic diseases surveillance in Narok West Sub County is ongoing. The program is being funded and implemented by KRCS in collaboration with Ministry of Health and Veterinary department.

### **6.2 FOOD AID**

- There was no food aid during the month under view.

## **7.0 EMERGING ISSUES**

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

- No major conflict issues that are related to drought were observed during the month under review.
- Floods were reported following heavy downpours during the month in Suswa, Mara and Ntuka regions.

### **7.2 Migration**

- Most livestock had reverted back to their normal grazing grounds owing to improved forage conditions and water availability.

### **7.3 FOOD SECURITY PROGNOSIS**

- The ongoing rains will have a positive impact on crop, water and livestock sectors. Crop conditions particularly for maize crop will improve and therefore resulting into better yield. Forage conditions are continuing to improve and therefore livestock productivity is expected to perform well. Surface water sources are almost full thus trekking distances are expected to significantly reduce.
- However, nutrition and health component might be affected negatively due to contamination of water sources by flood waters mostly in pastoral areas.

## **8.0 RECOMMENDATIONS**

- Livestock disease surveillance should be enhanced across the county. This is due to the persistence of foot and mouth disease in the county and PPR cases in the Pastoral livelihood zone.
- Sensitization of farmers on post-harvest handling practices in the county.
- Surveillance of water sources to be enhanced due to possibility of contamination by flood waters.
- Regular weather advisories should be enhanced to avoid of lives and livelihood owing to the above normal rains in the county.
- 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.