

# National Drought Management Authority

## NAROK COUNTY

### DROUGHT EARLY WARNING BULLETIN FOR NOVEMBER 2019



A Vision 2030 Flagship Project



Drought Status: **NORMAL**



#### NOVEMBER EW PHASE

##### Drought Situation & EW Phase Classification

###### Biophysical Indicators

###### Rainfall

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

###### Vegetation condition:

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

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

###### Production indicators:

- Most farmers have planted maize, beans and wheat 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 ranged from fair to good across all the livelihood zones.
- Milk consumption ranged from fair to good in all the livelihood zones.
- Water access for both human and livestock consumption ranged from fair to good across all the livelihood zones.
- Distances to water sources have reduced and are below the normal range.

###### Utilization Indicators:

- Cases of malnutrition remained stable compared to normal as indicated by percent of 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	62.19	>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	>5
Livestock Migration Pattern	Normal	Normal
Livestock deaths (Drought related)	No death	No death
Access Indicators	Value	Normal
Terms of Trade (ToT)	86.1	>100
Milk Consumption in litres	2.1	>4
Return distance to water sources in km	1.9	<5
Cost of water at source in Kshs (20 litres)	2-5	<5
Utilization indicators	Value	Normal
Nutrition Status, MUAC (% at risk of malnutrition)	4.9	<10

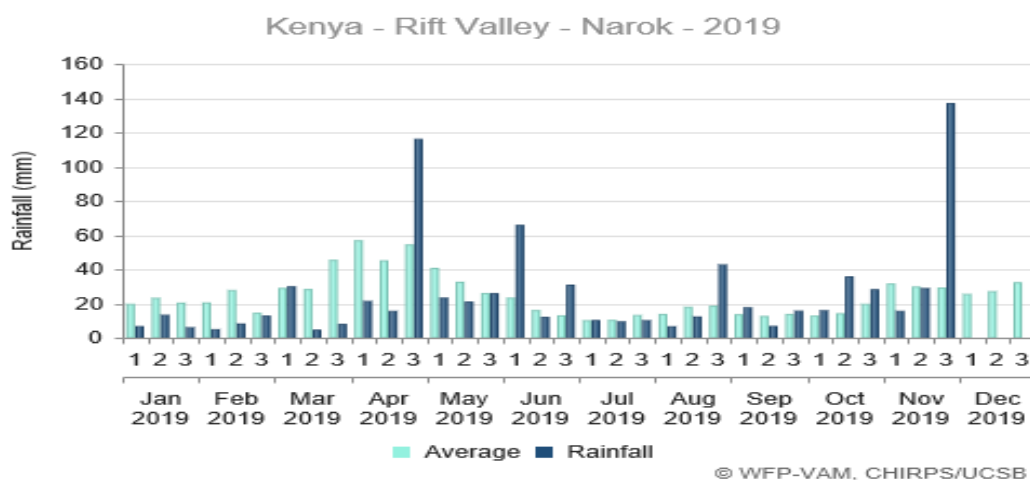
<ul style="list-style-type: none"> <li>Short rains harvests</li> <li>Short dry spell</li> <li>Reduced milk yields</li> <li>Increased HH Food Stocks</li> <li>Land preparation</li> </ul>	<ul style="list-style-type: none"> <li>Planting/Weeding</li> <li>Long rains</li> <li>High Calving Rate</li> <li>Milk 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 experienced moderate to heavy downpours 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 ranged from fair to good across the livelihood zones.

## 1.2 AMOUNT OF RAINFALL AND SPATIAL DISTRIBUTION

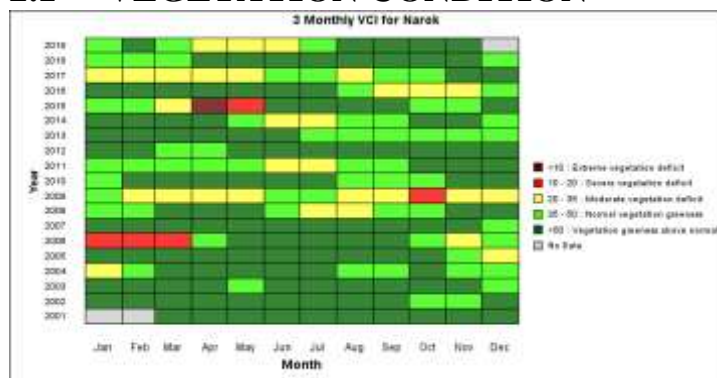


**Figure 1: Rainfall performance-Narok County**

- The above satellite image (Figure 1) highlights the general performance of the rains in the county for the month of November, 2019 in comparison with the long-term averages.
- The bulk of the rains were received within the last decad of the month under review. The amounts received for the month were far more than the expected seasonal range by 248%. In the last decad of the month, the county received about 473% of the normal rains for that period.
- The performance of the rains was above the normal seasonal average.

## 2.0 IMPACTS ON VEGETATION AND WATER

### 2.1 VEGETATION CONDITION



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 was fair since they are still young and in lush conditions compared to last month. The pasture conditions in Ntuka, Mosiro and Koyiaki regions in the pastoral livelihood zone have started regenerating and likely to improve owing to the enhanced rains.
- The available pasture is likely to last for four months in mixed farming and agro-pastoral livelihood zones and two months 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 mixed farming and agro-pastoral livelihood zones was good. In the pastoral livelihood zone, browse conditions ranged from good to fair. 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 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.

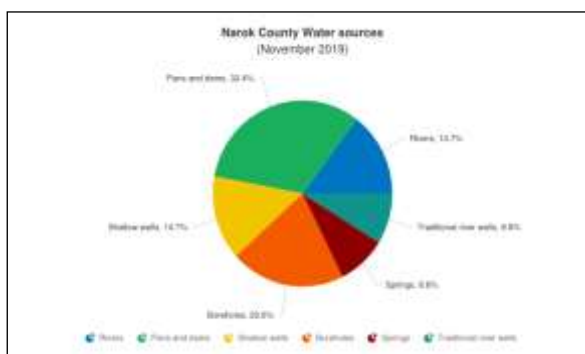


Figure 3: Water sources

- The current water sources are expected to last for more than five months in mixed farming and agro-pastoral livelihood zones. In pastoral livelihood zone, the water is likely to last for more than three months. The current situation is within the normal range at this time of the year.

## 2.2.2 Household access and Utilization

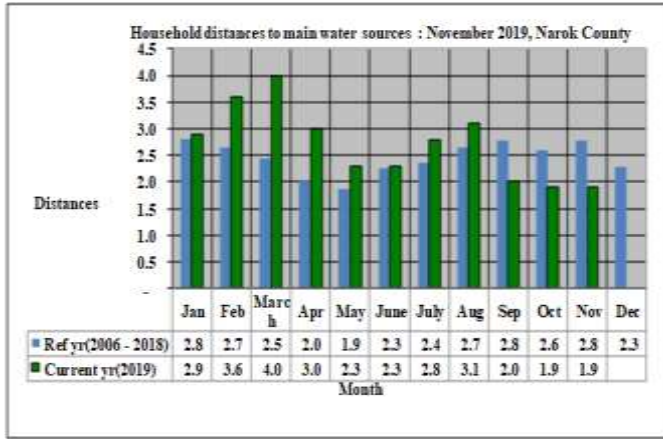


Figure 4: Water access by households

The average distance to watering points for households remained stable compared to the previous month.

Pastoral livelihood zone recorded the longest average distance at three 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 in the county.

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

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

## 2.2.3 Livestock access

The average distance to main water sources from grazing areas reduced by twenty one percent compared to the previous month. Pastoral livelihood zone recorded the longest distance of four 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 had fair to good body condition. The body condition for sheep and goats remained good across all the livelihood zones.
- The current livestock body condition is within normal range at this time of the year.

#### 3.1.2 Livestock Diseases

- The county encountered confirmed minor cases of foot & mouth diseases which is on the increase particularly in Narok East, Narok West and Narok South Sub Counties. Other cases being reported include anthrax in Narok West sub-county, PPR, lumpy skin disease, blue tongue disease, CCPP and CBPP diseases.

#### 3.1.3 Milk Production

- The average milk produced per household per day marginally increased 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 current milk production levels are within the normal range.

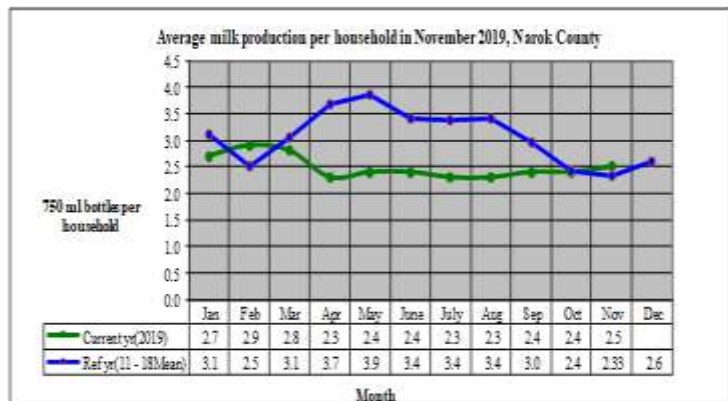


Figure 6: Milk production

## 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 concluded planting.
- Generally crops are in good condition.



## 4.0 MARKET PERFORMANCE

### 4.1 LIVESTOCK MARKETING

#### 4.1.1 Cattle Prices

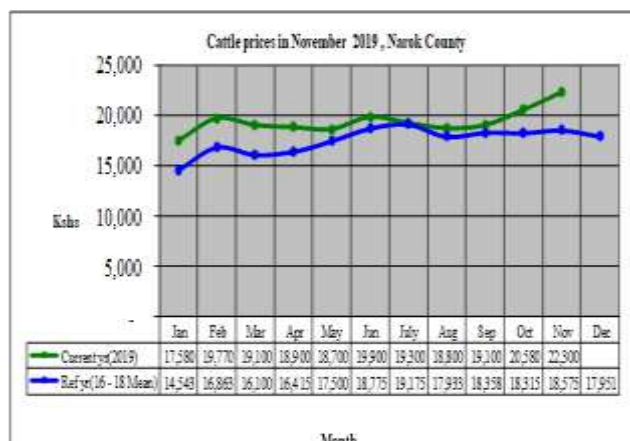


Figure 7: Cattle prices

The average price for the medium sized cattle increased by eight percent compared to the previous month. Those in the pastoral zone fetched more prices at Kshs 23,000 per head while the lowest price was in the agro-pastoral and mixed farming livelihood zones at an average price of Kshs 22,000 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 reduced slightly by three percent compared to the previous month.
- 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 3,600 per head.
- The average goat price was above the normal range at this time of the year as shown in Figure 8.

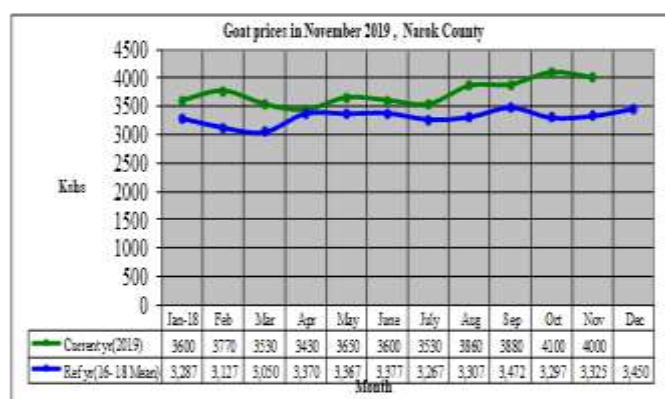


Figure 8: Goat prices

## 4.2 CROP PRICES

### 4.2.1 Maize

- The average price of maize per kilogram slightly decreased by two percent compared to the previous month. The highest prices were recorded in pastoral and mixed farming livelihood zones at Kshs 48 per kg while the lowest price was recorded in the agro-pastoral livelihood zone at an average of Kshs 42 per kg. The price stability is attributed to maize availability in the market.
- The overall price is within the expected range as shown by Figure 9.

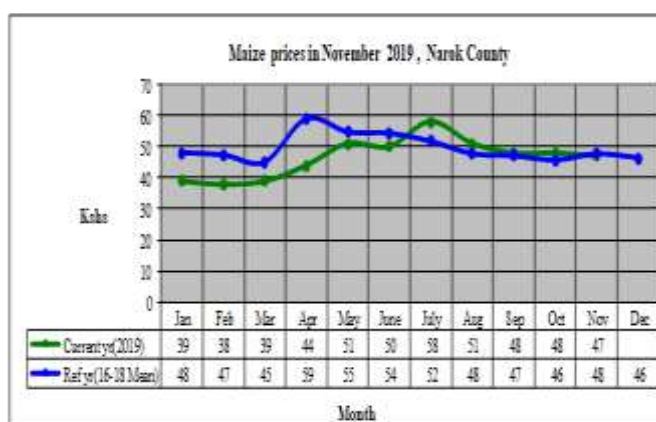


Figure 9: Maize prices

### 4.2.2 Beans

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

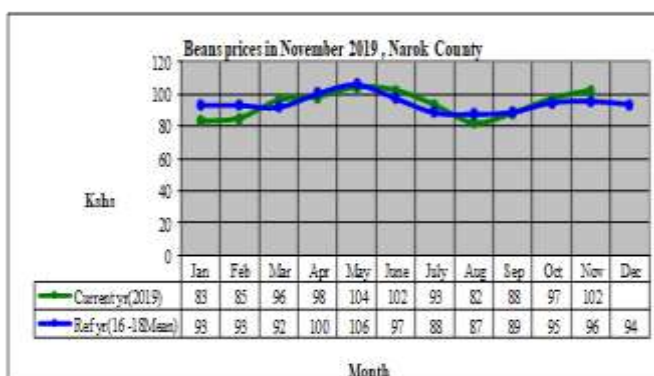


Figure 10: Beans prices

### 4.3 Livestock Price Ratio/Terms of Trade

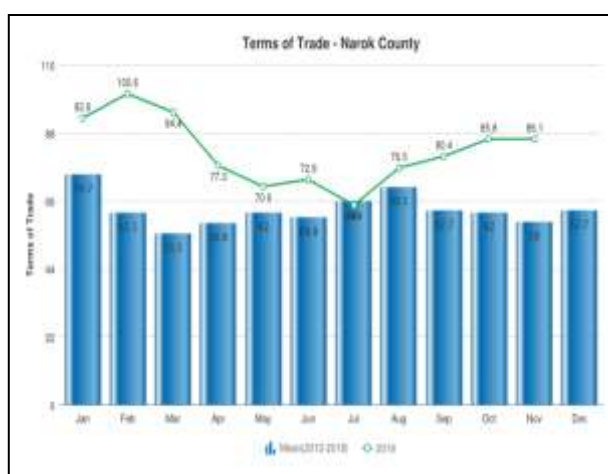


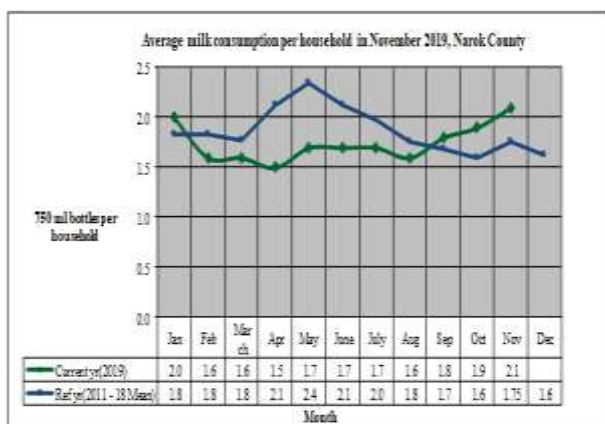
Figure 11: Terms of trade

The Terms of Trade (ToTs) based on the Cereal/Meat price ratio increased slightly 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 compared to 85.8 kgs last month. 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 eleven 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 FOOD CONSUMPTION SCORE

- Approximately 98.8%, 1% and 0.2% of the sampled households fell within the acceptable, borderline and poor food consumption categories respectively in the month under review.
- The poor food consumption score implies households are not consuming balanced diet and rarely consuming food rich in protein and energy giving food. 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.
- There was minimal variation across the livelihood zones as shown in Figure 13. A few of the sampled households in pastoral livelihood zones were in the poor food consumption category.

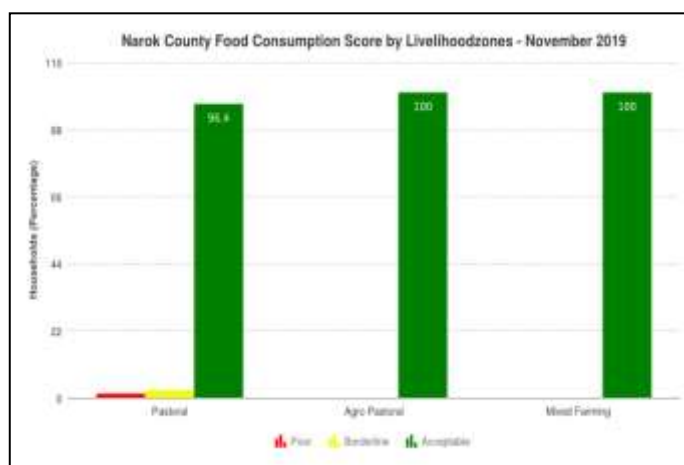


Figure 13: Food consumption score



### 5.3 HEALTH AND NUTRITION STATUS

#### 5.3.1 Nutrition Status

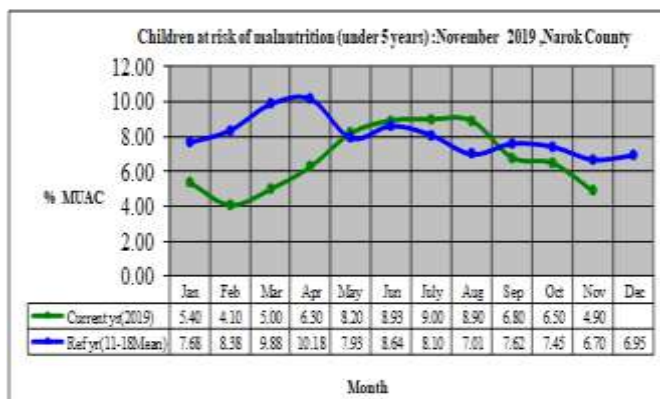


Figure 14: Children at risk of malnutrition

The children less than five years of age who are at risk of malnutrition as indicated by the Mid-Upper Arm Circumference (MUAC) reduced by twenty five percent compared to the previous month as shown by Figure 14. This was occasioned by improved food security situation at the household level owing to cereal and vegetable availability, stable milk intake among other factors.

Areas with moderate malnutrition cases include; Mosiro ward and Ntuka in

Naroosura ward

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

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 conditions.

### 5.4 COPING STRATEGIES

The CSI for the County was at 3.4 in November 2019. Households employed normal coping strategies in accessing food across all the livelihood zones as shown by Figure 15. The pastoral farming livelihood zones had higher CSI compared to mixed and agro-pastoral livelihood zone.

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

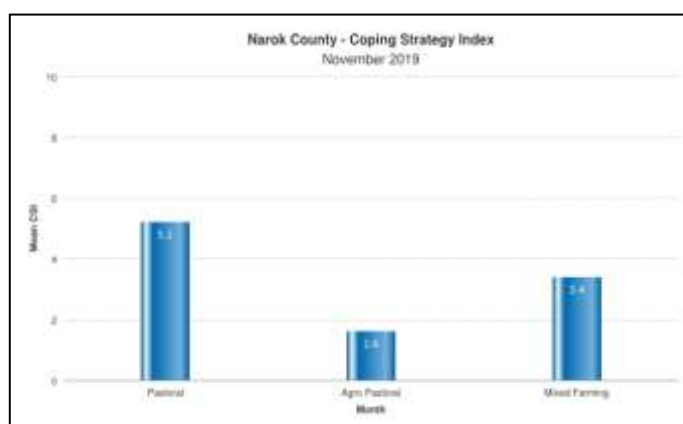


Figure 15: Coping strategies

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

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

- CMDRR training of 14 TOTs and PDRA in Naroosura Ward funded by European Union through NDMA.
- 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, Logorian, 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 along Narok Nairobi road and Narok town on 27<sup>th</sup> November 2019.

### **7.2 Migration**

- Minimal movements of large stocks from wheat farms back to their normal grazing grounds was witnessed in Narok East and Narok South Sub County.

### **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 surfaces 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.
- Sensitization of farmers on best agronomic practices in the county.
- Surveillance of water sources to be enhanced due to possibility of contamination by flood waters.
- 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.