

**National Drought Management Authority**  
**NAROK COUNTY**  
**DROUGHT EARLY WARNING BULLETIN FOR SEPTEMBER 2018**



A Vision 2030 Flagship Project



**SEPTEMBER EW PHASE**

**Drought Situation & EW Phase Classification**

**Biophysical Indicators**

- **Rainfall**
- The county experienced relatively dry spell in September.
- **Vegetation condition:**
- The vegetation greenness as depicted by the vegetation condition index (VCI) is above normal greenness across the county.

**Socio Economic Indicators (Impact Indicators)**

**Production indicators:**

- The on-going farming activities include harvesting of wheat in Narok North and Narok South sub counties. Land preparation for the short rain season is ongoing in Mulot, Mau and Transmara regions in the mixed farming zone.
- Livestock body condition ranged from fair to good in the pastoral livelihood zone and good in the mixed farming and the agro-pastoral livelihood zones.
- Milk production reduced slightly but within the normal range compared to the long term average.

**Access indicators:**

- Terms of trade are generally good 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 ranged from fair to good in the pastoral livelihood zone.
- Distances to water sources were below 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 less 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	68.19	>35
Forage condition	Good	Good
Production indicators	Value	Normal
Crop Condition (Maize)	Normal	Normal
Livestock Body Condition	Good	Good
Milk Production in litres	2.6	>5
Livestock Migration Pattern	Normal	Normal
Livestock deaths (Drought related)	No death	No death
Access Indicators	Value	Normal
Terms of Trade (ToT)	94.2	>100
Milk Consumption in litres	1.7	>4
Return distance to water sources in km	3.7	<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

- There were no rains recorded in the county during the month of September.

## 1.2 AMOUNT OF RAINFALL AND SPATIAL DISTRIBUTION

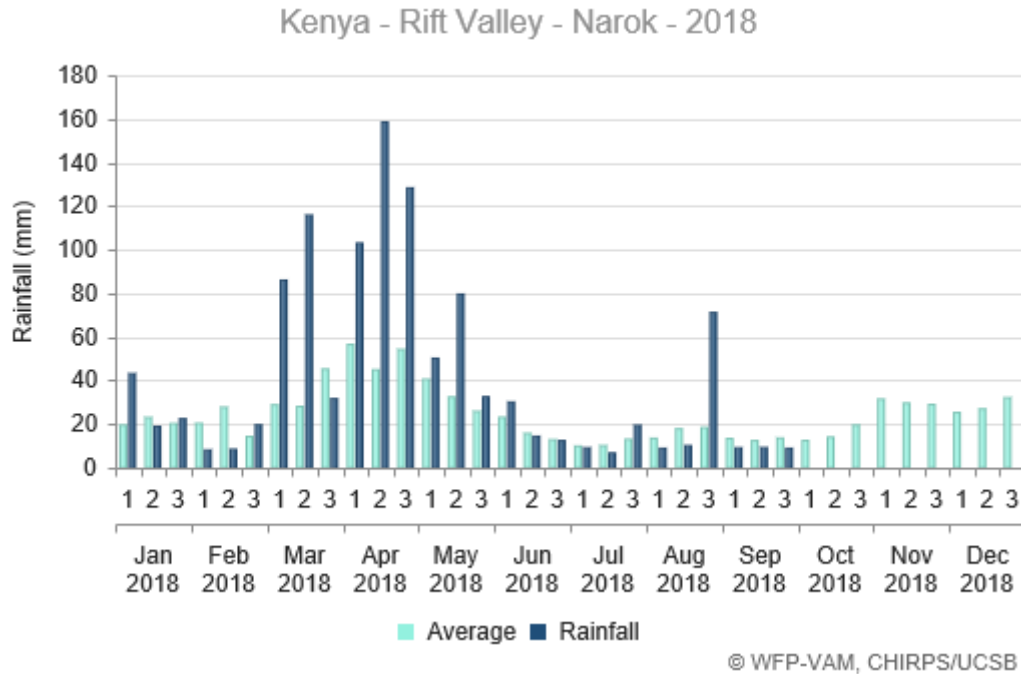


Figure 1

- The above satellite image (Figure 1) highlights the general performance of the rains in the county for the month of September, 2018. Very low precipitation was experienced in the county.
- The current rainfall situation is within the expected seasonal range.

## 2.0 IMPACTS ON VEGETATION AND WATER

### 2.1 VEGETATION CONDITION

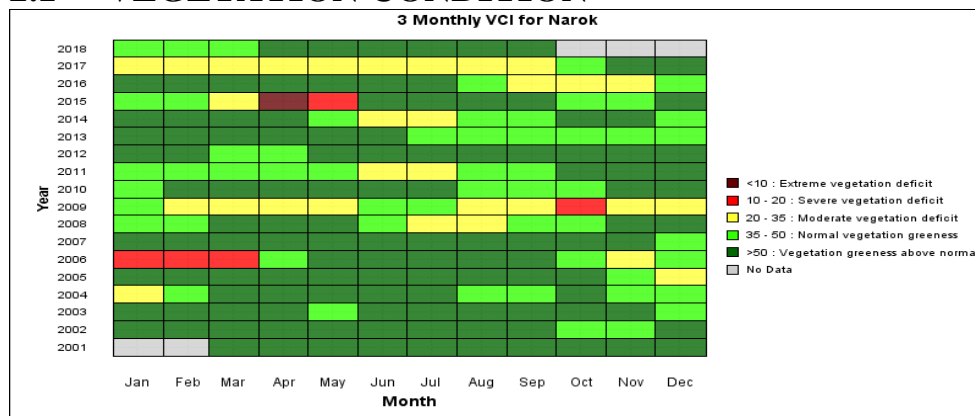


Figure 2

- The vegetation greenness as depicted by the vegetation condition index (VCI) shows above normal vegetation greenness in all the six sub counties since April 2018 as shown in Figure 2.
- This is due to good performance of the long rains season which led to forage regeneration in the county.

#### 2.1.1 Field observations

##### 2.1.1.1 Pasture

- The pasture quantity and quality in mixed farming livelihood zone was good. In the pastoral and the agro-pastoral livelihood zones, pasture conditions ranged from fair to good. The 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 is on declining trend due to rains cessation in the county, presence of invasive species and overgrazing.
- The available pasture is likely to last for three to two months in mixed farming and agro-pastoral livelihood zones. In pastoral livelihood zone, pastures are likely to last for less than two months.
- The current pasture situation is within 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 above normal situation.

#### 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

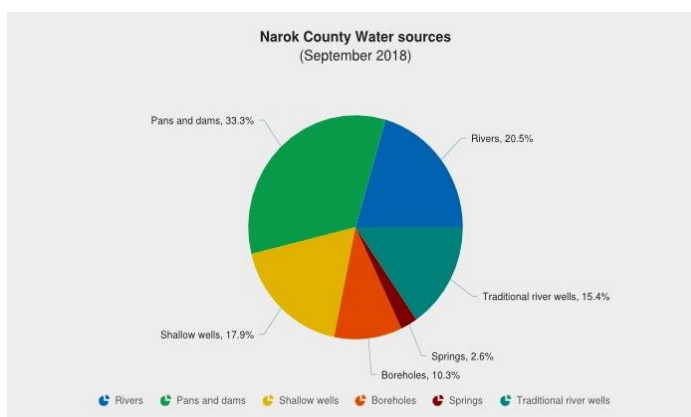


Figure 3

livelihood zones with rivers, pans and dams being the most used.

- In pastoral livelihood zone, water quality ranged from fair to poor due to siltation of pans and dams during the long rains season.
- 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 above normal at this time of the year.

### 2.2.2 Household access and Utilization

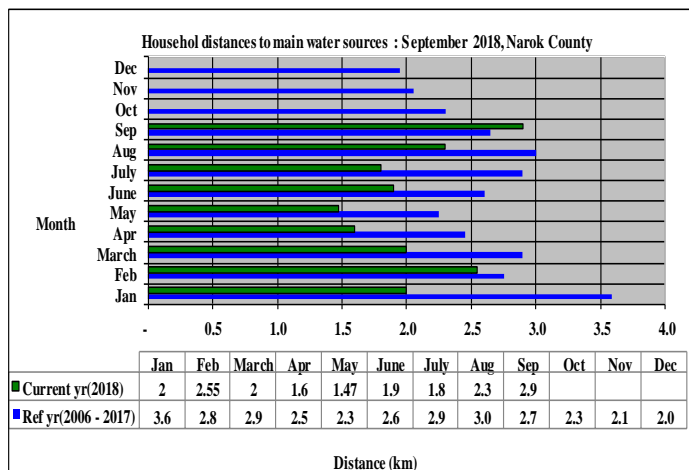


Figure 4

The average distance to watering points for households increased by 26 percent compared to the previous month.

Pastoral livelihood zone recorded the longest average distance at six kilometres same as last month while the shortest average distance was recorded in mixed farming livelihood zone at 1.3 km, depicting an increase from 1 km.

The current trekking distances to water points were below 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 19 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 1.7 km.

The current average trekking distance is below the normal range at this time of the year as shown in Figure 5.

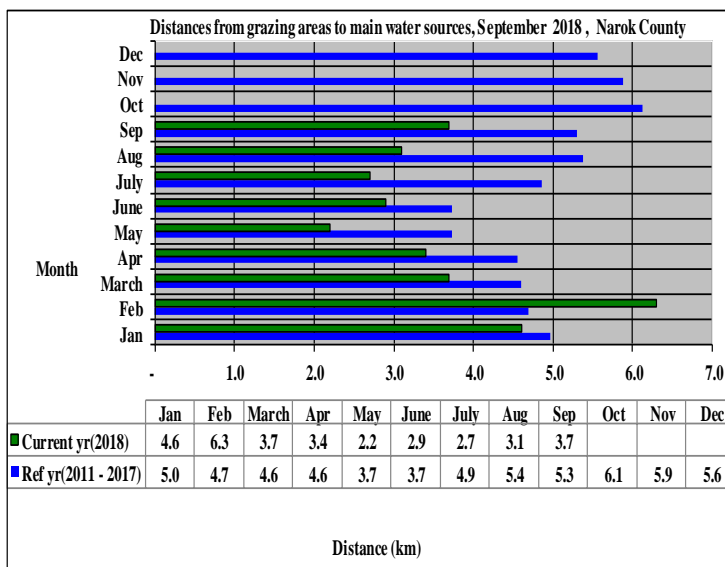


Figure 5

### 3.0 PRODUCTION INDICATORS

#### 3.1 LIVESTOCK PRODUCTION

##### 3.1.1 Livestock Body Condition

- The cattle body condition remained good in the mixed farming and some parts of the agro-pastoral livelihood zones. Cattle body condition ranged from fair to good in the pastoral livelihood zone. The body condition for sheep and goats remained good across all livelihood zones.
- The stability in livestock body condition is attributed to availability of forage and water.
- The current livestock body condition is normal at this time of the year.

##### 3.1.2 Livestock Diseases

Cases of PPR and foot & mouth diseases are on the increase particularly in Narok West Sub County. Other cases being reported include lumpy skin disease, blue tongue disease, CCPP and CBPP diseases.

##### 3.1.3 Milk Production

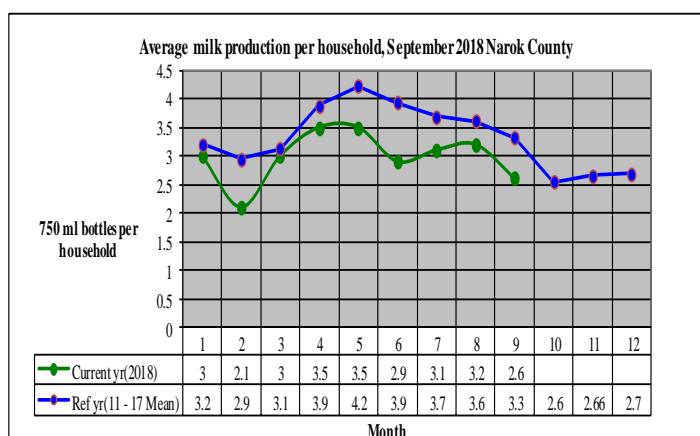


Figure 6

The average milk production per household per day decreased by nineteen percent compared to the previous month. The decrease in milk production was attributed to increased distances to water sources in the pastoral livelihood zone. The current milk production is slightly below the normal range as shown by Figure 6.

### 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.
- Harvesting of wheat is ongoing in Mau region in the Mixed farming zone and land preparation in areas of Transmara, Narok North and Narok East Sub-counties.
- The performance of maize crop was generally good and high yield has been recorded in areas of Transmara, Sogoo, Oloolulunga and Mau region this season. However, the performance of other crops such as Irish potatoes and beans was affected by the excess rains that were experienced in the county and therefore minimal harvest was realized.

## 4.0 MARKET PERFORMANCE

### 4.1 LIVESTOCK MARKETING

#### 4.1.1 Cattle Prices

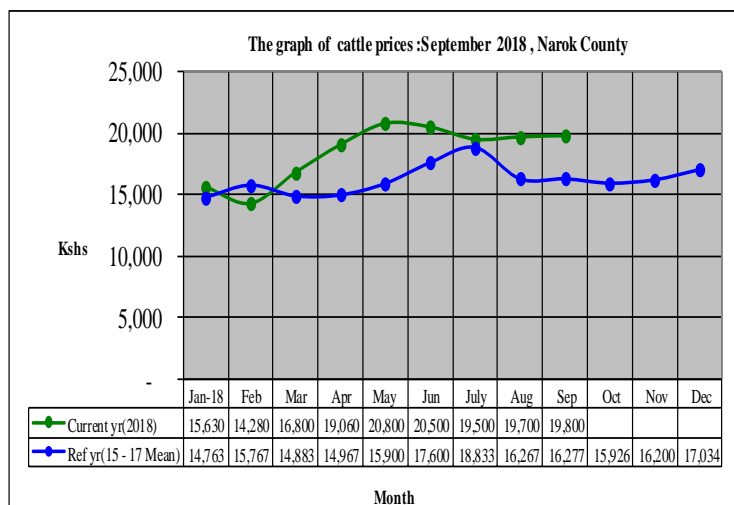


Figure 7

The average price for the medium sized cattle has remained stable compared to last month.

The highest prices were recorded in the mixed and pastoral livelihood zones at Kshs 22,200 per head while the lowest price was in the agro-pastoral livelihood zone at an average price of Kshs 18,000 per head.

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 have remained stable compared to the previous month. The price stability is attributed to good body condition in small stocks and sufficient browse in all the livelihood zones. The highest price was recorded in the mixed farming livelihood zone at Kshs 4,600 per head while the lowest price was recorded in the pastoral livelihood zone at Kshs 3,200 per head. The average goat price was above the normal range at this time of the year as shown by Figure 8.

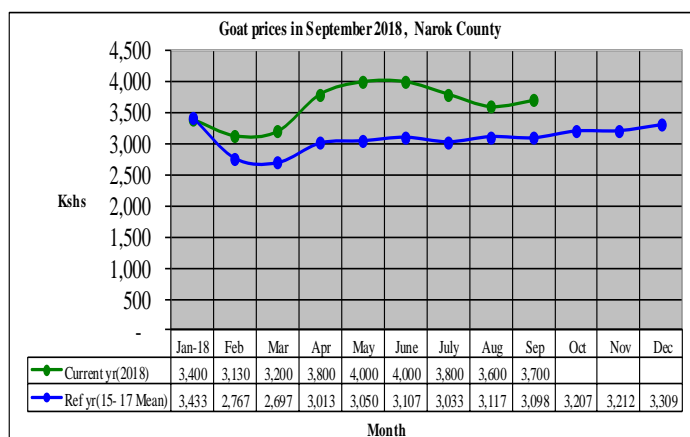


Figure 8

## 4.2 CROP PRICES

### 4.2.1 Maize

The average price of maize per kilogram increased by five percent compared to the previous month. The highest prices were recorded in pastoral livelihood zone at Kshs 47 per kg while the lowest was recorded in the agro-pastoral livelihood zone at an average price of Kshs 25 per kg.

The overall price is below the normal range as shown by Figure 9.

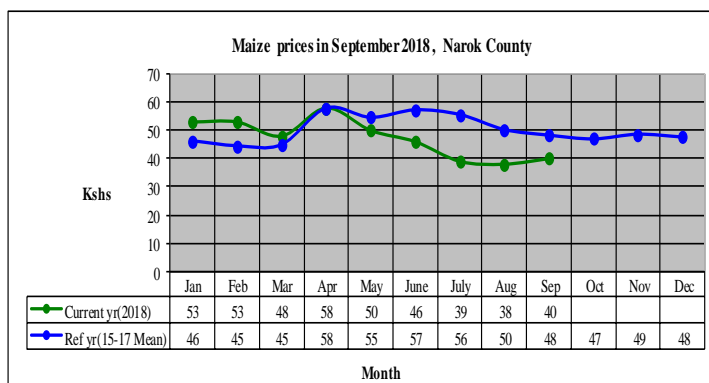


Figure 9

### 4.2.2 Beans

- The average price of beans is stable compared to the previous month. The highest price was recorded in the pastoral livelihood zone at Kshs. 100/kg compared to the agro-pastoral livelihood zone which recorded a lower price of Kshs.75 per kg.
- The current price is within the normal range at this time of the year as shown by Figure 10.

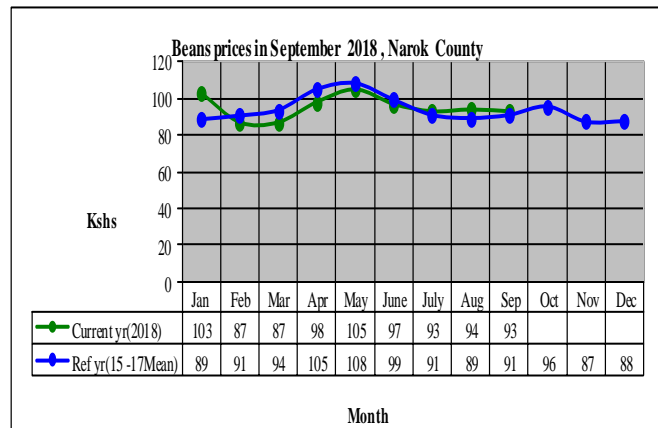


Figure 10

### 4.3 Livestock Price Ratio/Terms of Trade

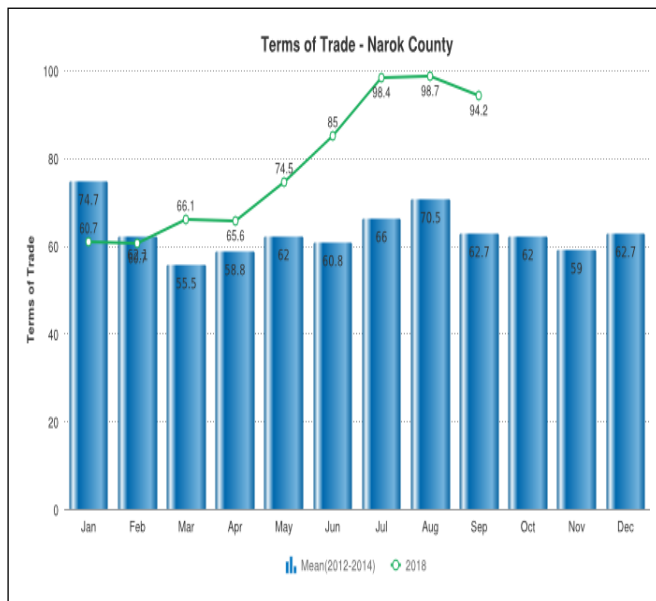


Figure 11

The Terms of Trade (ToTs) based on the Cereal/Meat price ratio reduced slightly by 10 percent compared to last month. The decrease in ratio is due to increasing goat prices relative to that of maize prices.

This implies that a sale of one goat fetched 94.2 kg 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 the normal range at this time of the year as shown in Figure 11.

## 5.0 FOOD CONSUMPTION AND NUTRITION STATUS

### 5.1 MILK CONSUMPTION

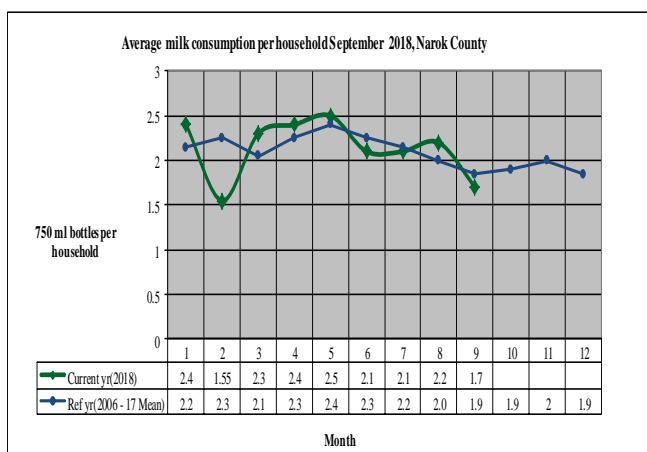
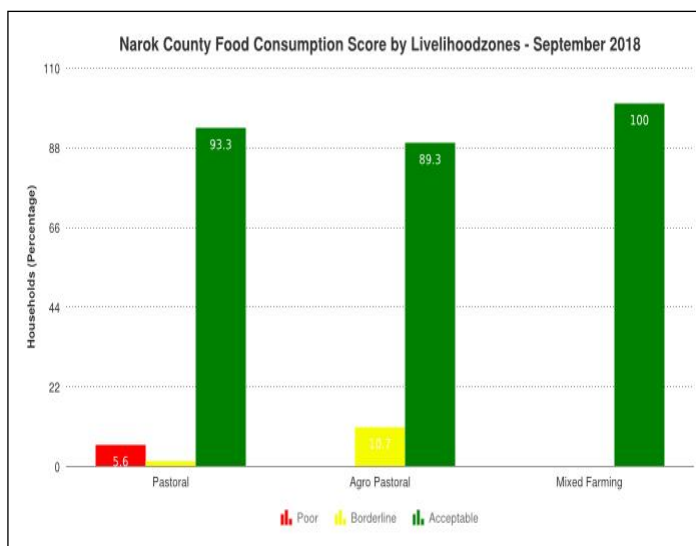


Figure 12

Average household milk consumption per day reduced by 22 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 four litres, followed by agro-pastoral zone at 2.5 litres. The pastoral zone had the least consumption rate at one litre. The current milk consumption rate is within normal range at this time of the year as shown by Figure 12.

### 5.2 FOOD CONSUMPTION SCORE

- About 94.2%, 3.9% and 1.9% of the households fell within the acceptable, borderline and poor 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 **Figure 13** households are consuming

staples, protein (milk and meat) and vegetables every day and frequently accompanied by pulses. However, there was no significant variation across the livelihood zones as shown in Figure 13 with all the livelihood zones having acceptable food consumption scores.



### 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 remained stable compared to the previous month. The pastoral and the agro-pastoral livelihood zones recorded the highest number of children at risk of malnutrition at four percent compared to mixed farming livelihood zone which recorded no child under risk of malnutrition.

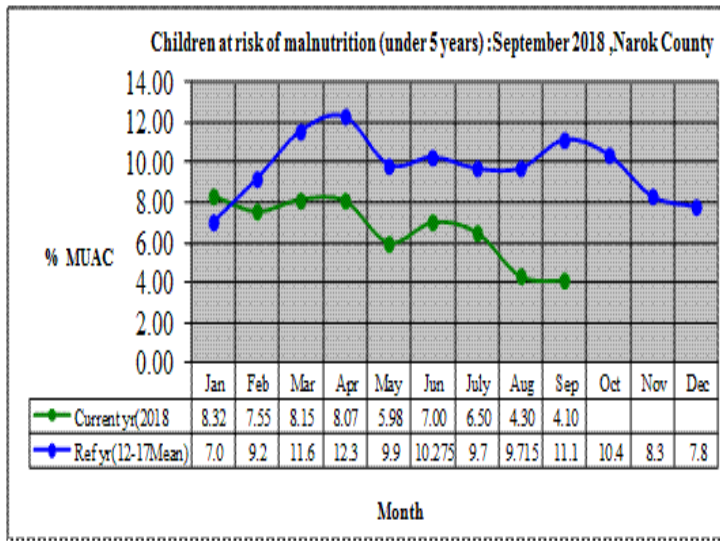


Figure 14

The dietary diversity in mixed farming livelihood zone has improved due to availability of green vegetables and stable milk intake. This zone harvested maize during the month under review which contributed positively to children’s nutrition status.

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

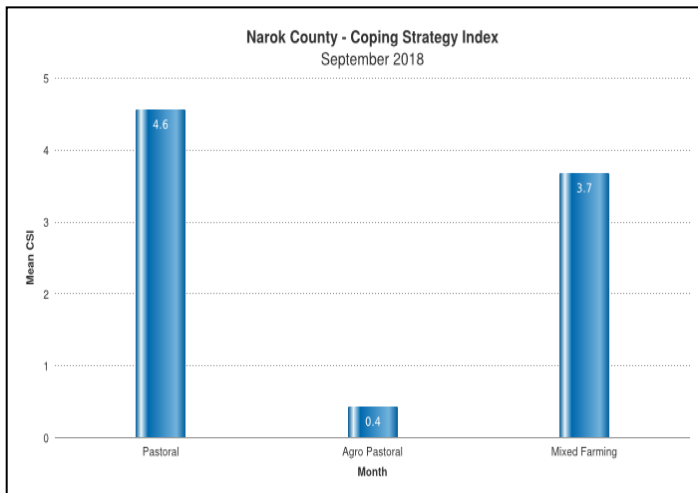


Figure 15

Households employed less unusual 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**

- NARIGP project through the support of the World Bank is undertaking community trainings using participatory rural appraisal tools (PRA) in readiness for various agricultural value chain activities.
- The Kenya Red Cross society is assisting flood victims in Mosiro ward in Narok East Sub County by reconstructing their houses.

### **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 were observed during the month under review that is related to drought.

### **7.2 Migration**

- There were no incidences of migration in the county.

### **7.3 FOOD SECURITY PROGNOSIS**

- The performance of the long rains season was above normal. This has had a positive impact on various food security sectors. Forage conditions have significantly improved, a factor which is likely to enhance livestock productivity for the next three months. Water situation is expected to be stable until the onset of the short rains season. Malnutrition cases will remain stable. Maize prices will remain stable due to availability of stocks in the county. The prevailing good livestock body condition is expected to stabilize livestock market prices.

## **8.0 RECOMMENDATIONS**

- Distillation 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.
- Repair of damaged infrastructure due to heavy rains particularly rural access roads. The Ntulele-Mosiro road should be given top priority to ease movements of goods to the markets.
- 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.