

# National Drought Management Authority

## NAROK COUNTY

### DROUGHT EARLY WARNING BULLETIN FOR JUNE 2017



A Vision 2030 Flagship Project



#### JUNE EW PHASE

**Drought Status: ALERT**

**Maandalizi ya mapema**

**Drought Situation & EW Phase Classification**

**Biophysical Indicators**

- **Rainfall:**
- The cessation of long rains was experienced in the third dekad of May.
- Vegetation condition: The 3 month vegetation condition index (VCI) for the County is 28.67 depicting a moderate vegetation deficit.

**Socio Economic Indicators (Impact Indicators)**

**Production indicators:**

- No harvest recorded and crop failure recorded in most part of the county.
- Livestock body condition is ranged from fair to poor in all the livelihood zones.
- Reduced milk production and less than long term average.
- Livestock migration in search of pasture in Pastoral livelihood zone has reduced.
- Poor Pasture situation in Pastoral livelihood zone.

**Access indicators:**

- Terms of trade were not favorable in Pastoral livelihood zone and Mixed farming zone.
- Milk consumption ranged from fair to poor.
- Fair access to water for both livestock and humans but slightly below the long term average.

**Utilization Indicators:**

- The percent of Mid Upper Arm Circumference (MUAC) showing children at risk of malnutrition was 14.45, higher than the long term average of 7.79, slightly above the previous months 14%.

#### Early Warning (EW) Phase Classification

Livelihood Zone	Phase	Trend
AGRO PASTORAL (Kirindoni, Kilgoris)	ALERT	WORSENING
MIXED FARMING (ololulunga, Nkareta and Emurua Dikirr)	NORMAL	WORSENING
PASTORAL (Loita, Naroosura, Olmesutie, Ntuka and Elang'ata Enterit)	ALERT	WORSENING
LEASING/PASTORAL (Lemek, Siana)	ALERT	WORSENING
<b>COUNTY</b>	<b>ALERT</b>	<b>WORSENING</b>
Biophysical Indicators	Value	Normal Range/Value
Rainfall (% of Normal)	0	>90
SPI-3Month (TAMSAT)	-	-1.0 to 1.0
VCI-3Month	28.67	>35
Forage condition	Fair	Fair
Production indicators	Value	Normal
Crop Condition (Maize)	-	-
Livestock Body Condition	Fair	Normal
Milk Production		>5 Litres
Livestock Migration Pattern	Not normal	Normal
Livestock deaths (from drought)	Minimal death	No death
Access Indicators	Value	Normal
Terms of Trade (ToT)	45.1	>100
Milk Consumption	2	>4 litres
Return distance to water sources	4.5	<5 Km
Cost of water at source (20 litres)	2-15	<5Kshs
Utilization indicators	Value	Normal
Nutrition Status, MUAC (% at risk of malnutrition)	14.45	<10

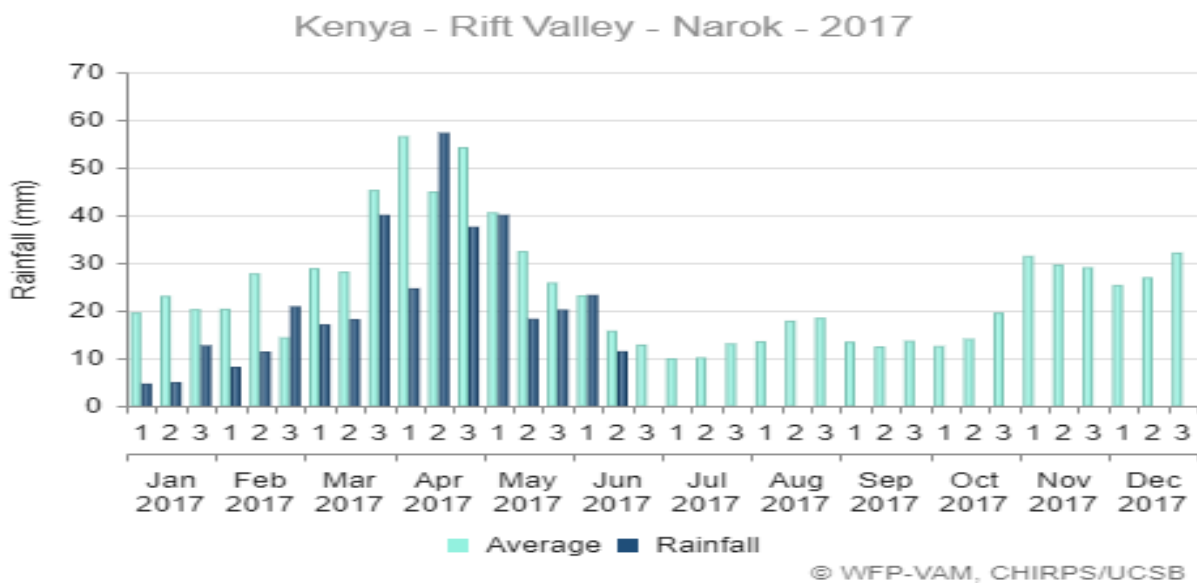
<ul style="list-style-type: none"> <li>▪ Short rains harvests</li> <li>▪ Short dry spell</li> <li>▪ Reduced milk yields</li> <li>▪ Increased HH Food Stocks</li> <li>▪ Land preparation</li> </ul>	<ul style="list-style-type: none"> <li>▪ Planting/Weeding</li> <li>▪ Long rains</li> <li>▪ High Calving Rate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

- The onset of 2017 long rains was late and early cessation with poor performance compared to the long-term average
- Rains performed poorly during the month with some parts of the county receiving negligible showers coupled with dry weather conditions.
- Both spatial and temporal distribution of rainfall in June was poor. Suswa, Nkareta and Emurua Dikirr wards received traces of rain.

## 1.2 AMOUNT OF RAINFALL AND SPATIAL DISTRIBUTION



**Figure 1**

- The satellite image in Figure 1 above highlights the general performance of the rains in the County from the first to third dekad of the month. Generally, the County experience low rains during the first dekad of June with the Second and third dekad receiving negligible rains depicting the end of MAM long rains cessation.
- The rains received during the month were below normal compared to the previous seasons.

## 2. IMPACTS ON VEGETATION AND WATER

### 2.1 VEGETATION CONDITION

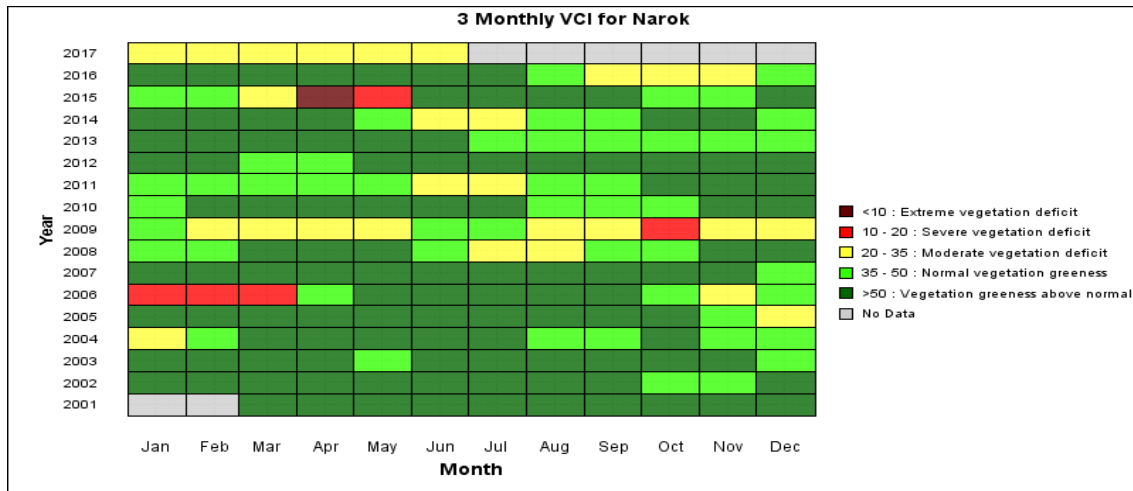


Figure 2

- The vegetation greenness as depicted by the vegetation condition index (VCI) shows moderate vegetation deficit with a value of 28.65 as shown in Figure 2 above.
- Other than Emurua Dikirr and Narok North Sub Counties, all the other four Sub Counties are experiencing some form of vegetation deficit with Narok West being the most affected as it is having severe vegetation deficit. Figure 3 below shows that Narok West and Kilgoris Sub Counties had the least VCI indices of 18.3 and 28.4, showing a severe and moderate vegetation deficit respectively

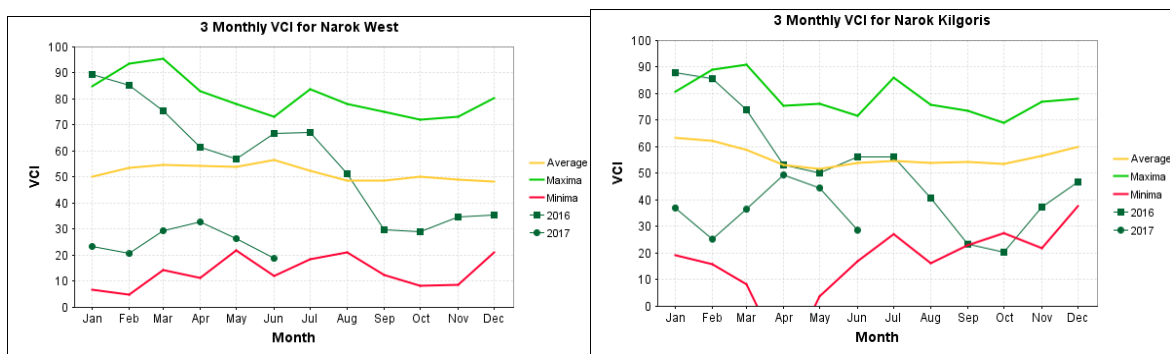


Figure 3

#### 2.1.2 Field observations

##### 2.1.2.1 Pasture

- Pasture quantity and quality of pastures in Mixed farming livelihood zone and few parts of Agro Pastoral livelihood zoned ranged from fair. In Pastoral and some other parts of the Agro pastoral livelihood zones had pasture conditions ranging from poor to fair. Mosiro Ward in Narok East Sub County and Siana in Narok West Sub County were the most affected with regards to lack of pastures owing to poor rains performance and overgrazing.
- The available pasture is likely to last for one and half months in Mixed farming and the Agro-pastoral livelihood Zones and less than a month in Pastoral livelihood zone.

- The situation is not normal at this time of the year.

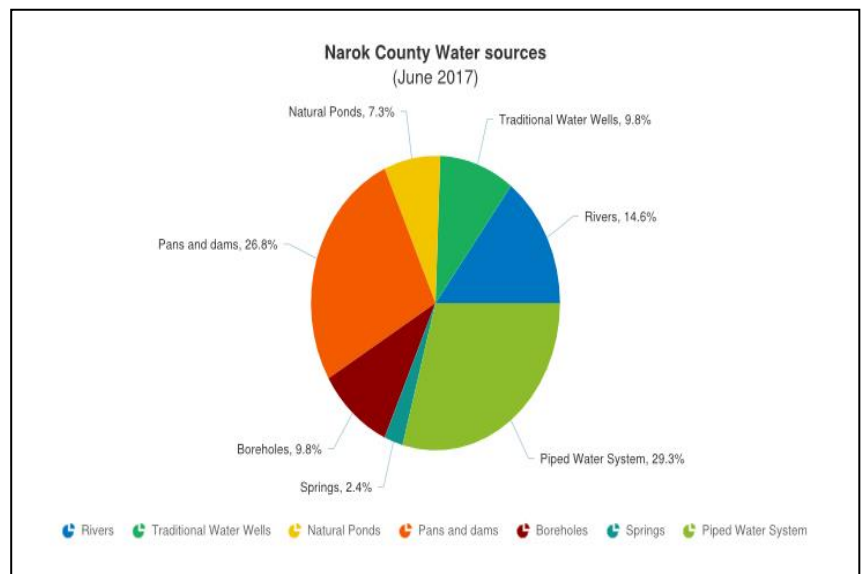
### 2.1.2.2 Browse

- The quality and quantity of browse in the Mixed farming livelihood zone and some areas Agro pastoral livelihood zone ranged from fair to good. In Pastoral livelihood zone, the browse condition is poor to fair. The available browse is expected to last for two and half months in Mixed farming whereas in Agro-pastoral and Pastoral livelihood zones it is projected to last for less than a month.
- The current situation is not normal at this time of the year.

## 2.2 Water resource

### 2.2.1 Sources

- The main sources of water for livestock and human consumption in the county were Pans/Dams (26.8%), Rivers (14.6%) and boreholes at 9.8 % as shown by Figure 4.
- Most households relied on Pans and Dams as most of them were recharged by the April-May season rains.

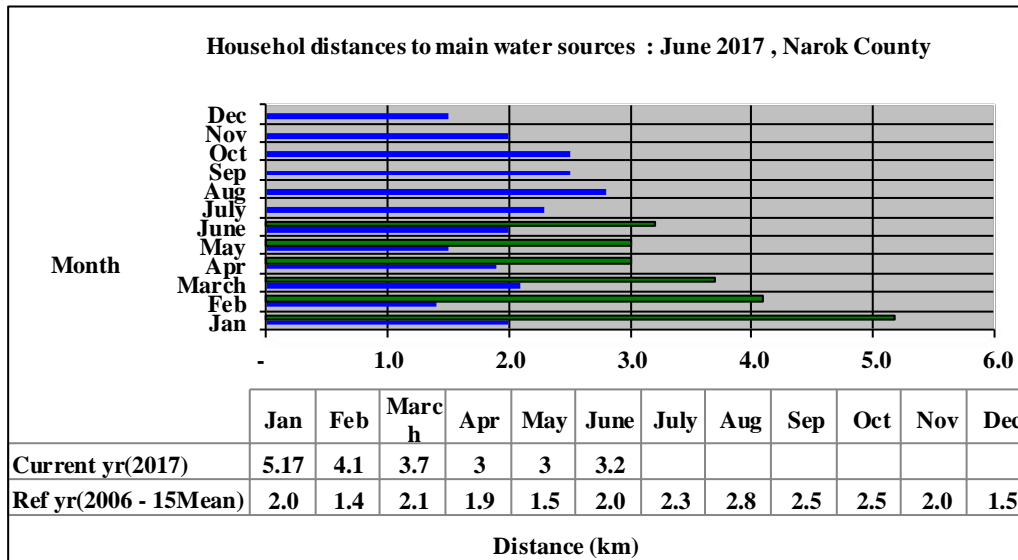


**Figure 4**

- The quantity and quality of water was fair to good in Mixed farming livelihood zones. In Pastoral and Agro Pastoral livelihood zones, water volumes are fair.
- The current water sources are expected to last for two months in Mixed farming livelihood zone. In Pastoral and Agro-pastoral livelihood zones, the water is to last for one to two months.
- The status of main sources of water is still below normal at this time of the year is likely to worsen as rains have ceased in the county.

### 2.2.2 Household access and Utilization

- The average distance to watering points for households was recorded at 3.2 km having increased slightly from 3 km recorded in the previous month as shown in figure 5 below.

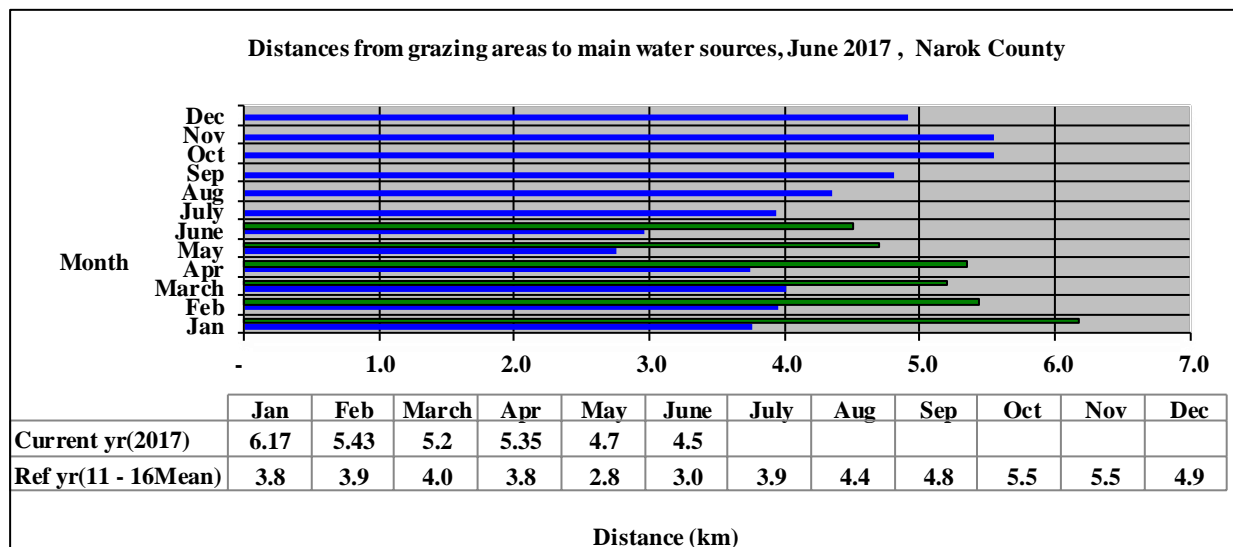


**Figure 5**

- Pastoral livelihood zone recorded the longest average distance of 6 km having increased from 4.5km as recorded in the previous month while the shortest average distance was recorded in Mixed farming livelihood zone at 1.5 km.
- The current trekking distances to water points are above normal at this time of the year.

### 2.2.3 Livestock access

- The average distance to main water sources from grazing areas slightly decreased to 4.5 km from 4.5km recorded last month as shown by Figure 6 below.



**Figure 6**

- Pastoral livelihood zone recorded the longest distance at 7.5 km while the shortest distance was recorded in the Mixed farming livelihood zone at 0.5 km. Mosiro, Ntuka and Siana areas in the Pastoral livelihood zone are some of the areas experiencing challenges in accessing water points. As the season comes to an end, access distances to water points are likely to worsen.
- The current average distance is above normal at this time of the year.

### 3.0 PRODUCTION INDICATORS

#### 3.1 LIVESTOCK PRODUCTION

##### 3.1.1 Livestock Body Condition

- The Cattle body condition still ranged from fair to good in the Mixed farming and Agro-Pastoral livelihood zones and poor to fair in the Pastoral livelihood zone compared to last month. The body condition for sheep and goat were generally good in all livelihood zones.
- The livestock body condition stability is attributed to positive impact of MAM rains on Pasture and water sources recharge mostly in the mixed farming zone County as opposed to the pastoral livelihood zone whose livestock body condition is deteriorating owing to depletion of vegetation condition.
- The current livestock body condition is below normal at this time of the year.

##### 3.1.2 Livestock Diseases

- Foot and Mouth disease (FMD), Contagious Bovine Pleuropneumonia (CBPP) and West and Lumpy Skin Disease (LSD) were reported mostly in the pastoral and in the Agro-pastoral livelihood zones. FMD was reported in Narok South and Narok East Sub Counties. CBPP was reported in Narok West and Narok South Sub Counties. LSD was reported in Narok West and Kilgoris Sub Counties
- There is an outbreak of PPR diseases in Transmara West and Narok West Sub Counties.
- There were also cases of diarrhoea in livestock as a result of consuming lush pastures. This led to some death cases being reported in some parts of the County especially in Pastoral livelihood zone and Agro pastoral livelihood zone.

##### 3.1.3 Milk Production

- The average milk production per household per day reduced to 3.8 bottles per household from 4.2 bottles recorded in the previous month as shown in figure 7 below.

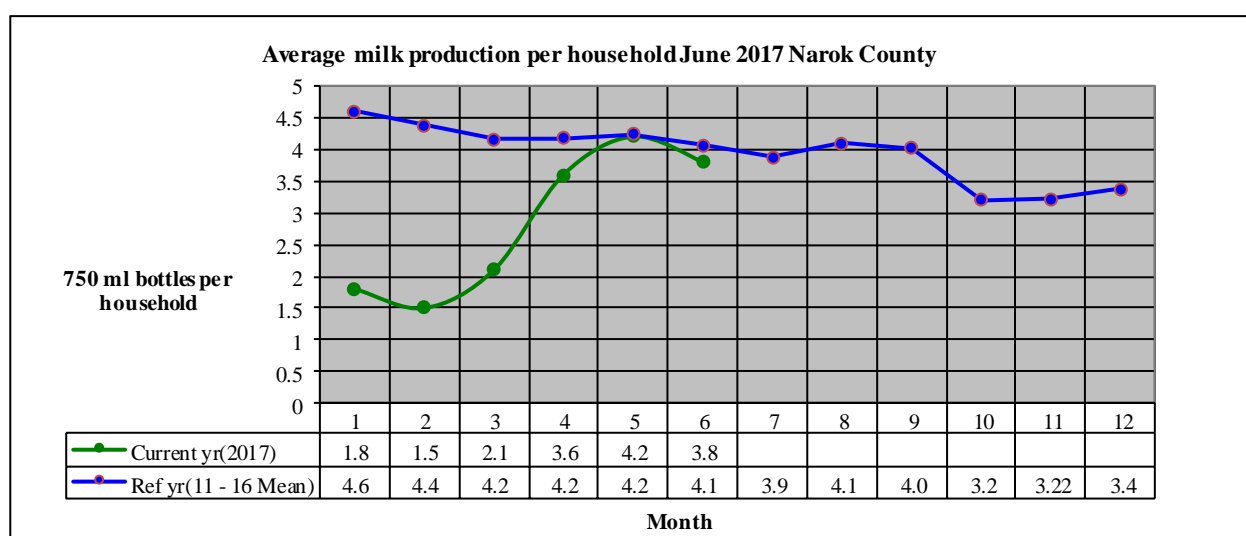


Figure 7

(n = 180)

- The decrease in milk production is attributed to decrease in pasture quantity and quality as well as water availability in the pastoral livelihood zone and Agropastoral livelihood zone. Milk production in the mixed farming zone is still stable compared to last months. However, the milk production is likely to decrease due to decreasing pasture condition in all the livelihood zones.
- The quantity of milk produced is normal at this time of the year.

## **3.2 RAIN-FED CROP PRODUCTION**

### **3.2.1 Stage and Condition of food Crops**

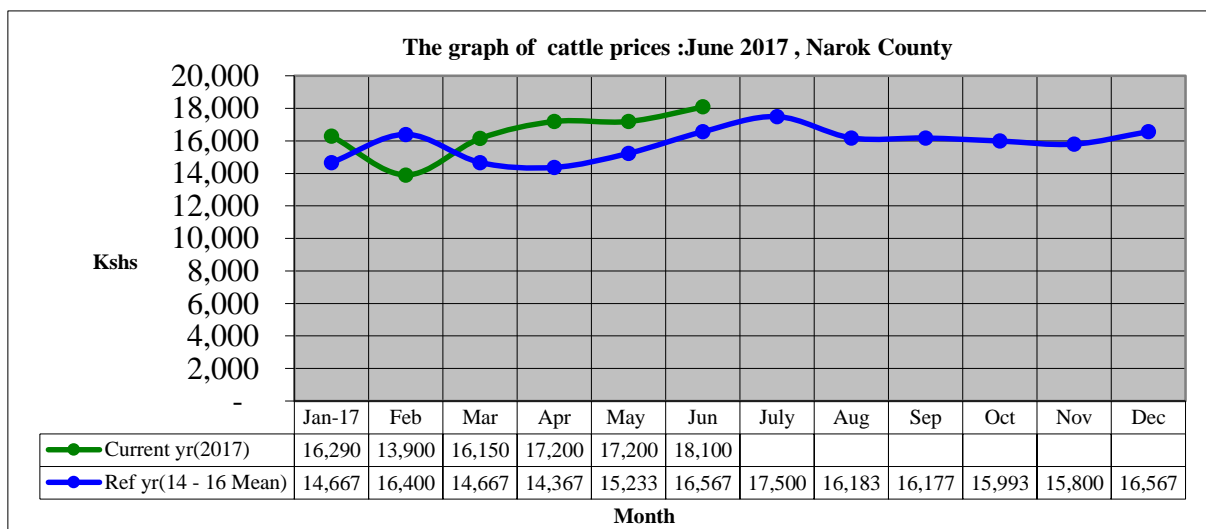
- The crops planted in the County include beans, sorghum, maize, wheat and potatoes.
- The on-going farming activity in Mixed farming is weeding and wheat harvesting. Most of the crops tussling stage even though, most crops have failed due to poor moisture as a result of rains cessation.
- However, there is concern due to an outbreak of fall army worms and African army worms which are attacking the crops. The pests have been observed in Narok East, Transmara West and Transmara East Sub Counties.

## 4.0 MARKET PERFORMANCE

### 4.1 LIVESTOCK MARKETING

#### 4.1.1 Cattle Prices

- The average price for the medium size cattle increased to Kshs 18,100 from Kshs 17,200 /head compared to the previous month as shown by Figure 8 below.



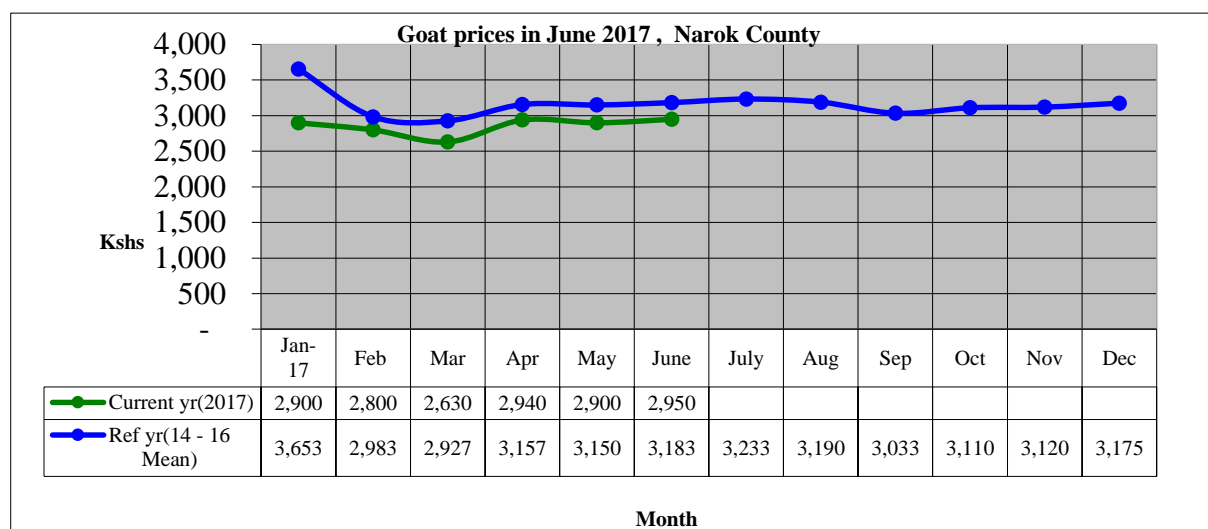
**Figure 8**

(n = 180)

- The price stability is attributed to improvement in body condition of cattle in Mixed farming livelihood zone.
- The highest prices were recorded in Mixed farming livelihood zone at Kshs 28,000 per head and the lowest in the Pastoral livelihood zones at an average of Kshs 7,500 per head.
- The current cattle prices are above normal compared to long term average at this time of the year.

#### 4.1.2 Goat Prices

- The average price of a medium sized two year old goat insignificantly increased to Kshs. 2,950 from Kshs. 2,900 per head recorded last month as indicated by Figure 9 below.



**Figure 9**



(n = 180)

- The steady goat prices is attributed to low supply of goats in the markets and increased demand due to high restocking rate coupled with improved body condition.
- Households are disposing the goats to the markets in an effort to get cash for purchasing food and other important household expenditures such as food and animal feeds.
- There was no significant inter-livelihood variation in goat prices across all the livelihood zones.
- The average goat price was below normal at this time of the year.

## 4.2 CROP PRICES

### 4.2.1 Maize

The average prices of maize per kilogram increased to Kshs.76 from Kshs. 73 of last month as shown in Figure 10 below.

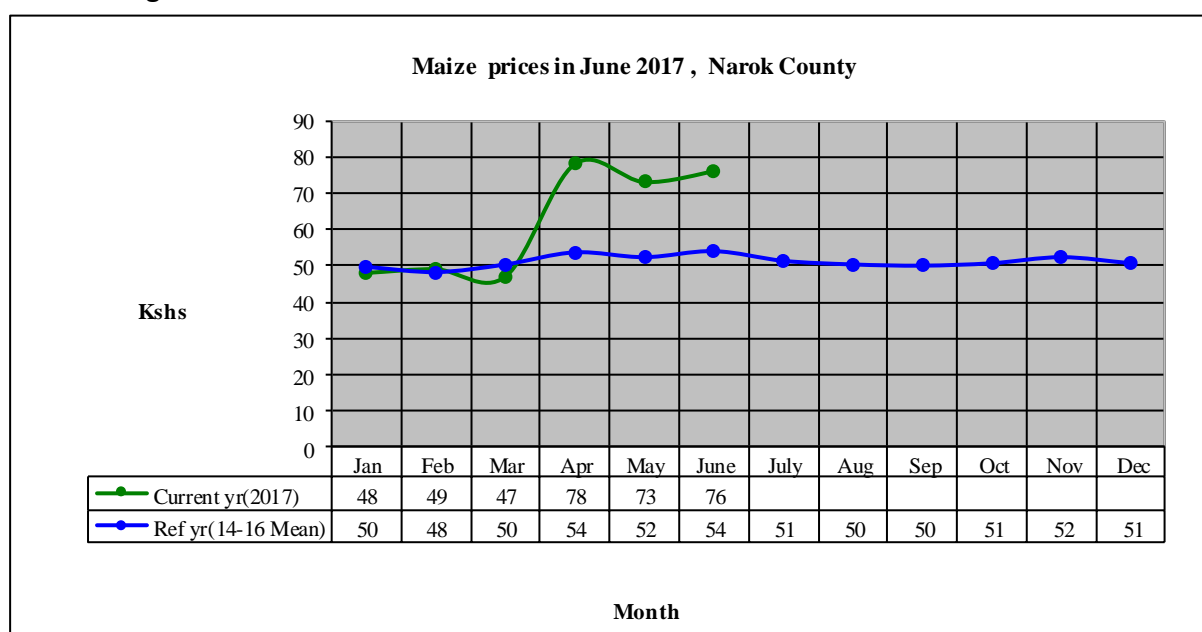


Figure 10

(n = 180)

- There is generally low supply of maize in the country leading to maize shortages and sharp increase in maize prices as from last month.
- The highest prices were recorded in Pastoral livelihood zone at Kshs 90 per kg while the lowest was recorded in the Mixed farming livelihood zone at an average of Kshs 75 per kg. The prices are likely to increase owing to decreasing stock coupled with high demand and crop failure in the county.
- The overall price was higher than the long-term average at this time of the year.

#### 4.2.2 Beans

- The average price of beans per kg reduced to Kshs. 110 compared to the previous month of Kshs. 126 as shown in Figure 11 below.

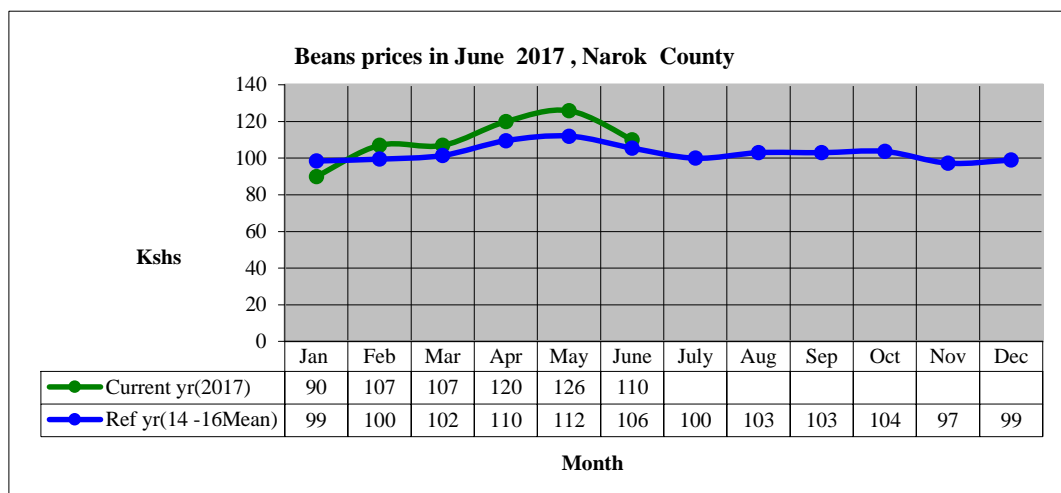


Figure 11

(n = 180)

- The Pastoral and Agro-pastoral livelihood zones recorded a higher average price of Kshs. 120/kg, compared to the Mixed farming livelihood zone, which recorded a lower price of Kshs.80 per kg. The inter-livelihood price variation is attributed to additional costs during transportation due to poor market access networks and high demand.
- The price is above normal at this time of the year.

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

- The Terms of Trade based on the Cereal/Meat price ratio increased to 52.1 from 50.2 as recorded in the previous month. Fewer amounts of cereals could be obtained in exchange for meat than the previous month. This was occasioned by the increase in cereal prices compared to slight increase in goat prices.

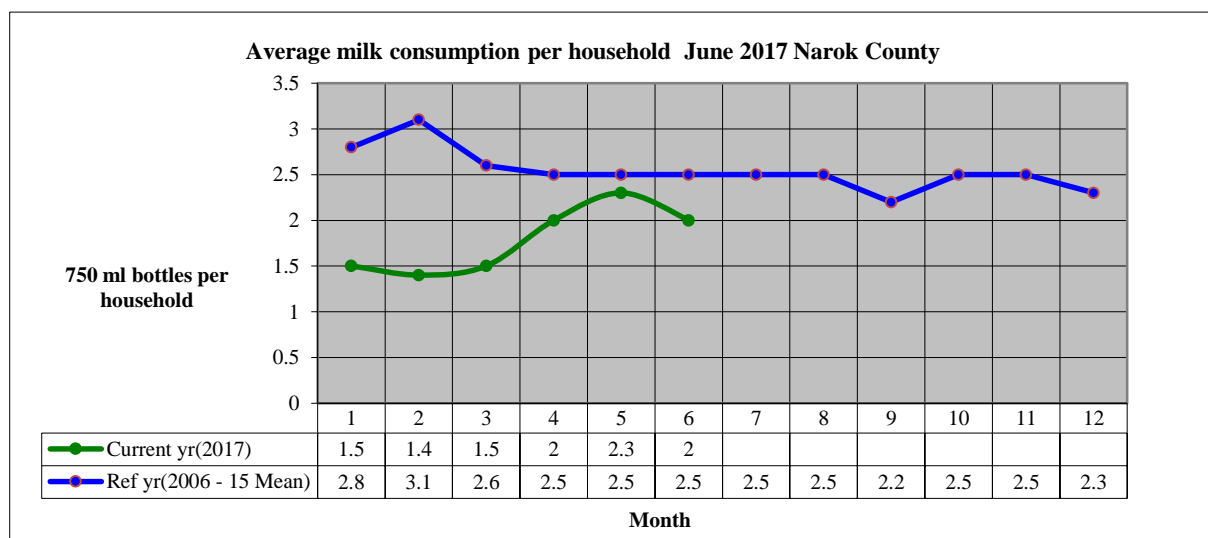


- The terms of trade was not favourable in the pastoral livelihood zone as it was much lower compared to Mixed farming livelihood zone. The Pastoral areas recorded much higher cereal prices accompanied with relatively lower livestock prices compared to Mixed farming zones.
- The cereal/meat price ratio is not normal at this time of the year.

## 5.0 FOOD CONSUMPTION AND NUTRITION STATUS

### 5.1 MILK CONSUMPTION

- Average milk consumption at the household level reduced to 2 litres from 2.3 litres per household per day recorded in the previous month as shown in Figure 12 below.



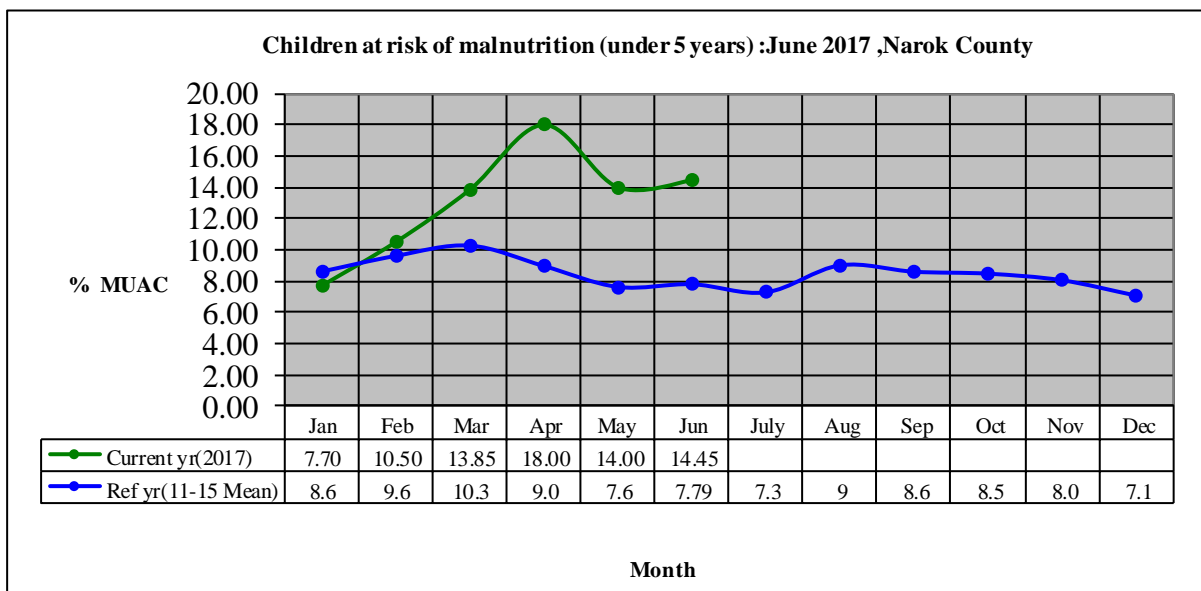
**Figure 12**

- Milk consumption rate is expected to decline in August in all the livelihood zone since pasture quality and quantity expected to deteriorate owing to poor rainfall performance. The Pastoral livelihood zone, milk consumption is still poor due to low milk production and poor livestock condition.
- The situation is slightly below normal at this time of the year.

## 5.2 HEALTH AND NUTRITION STATUS

### 5.2.1 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) increased to 14.45% from 14% of the previous month as shown by Figure 13 below.



**Figure 13**

**(n = 781)**

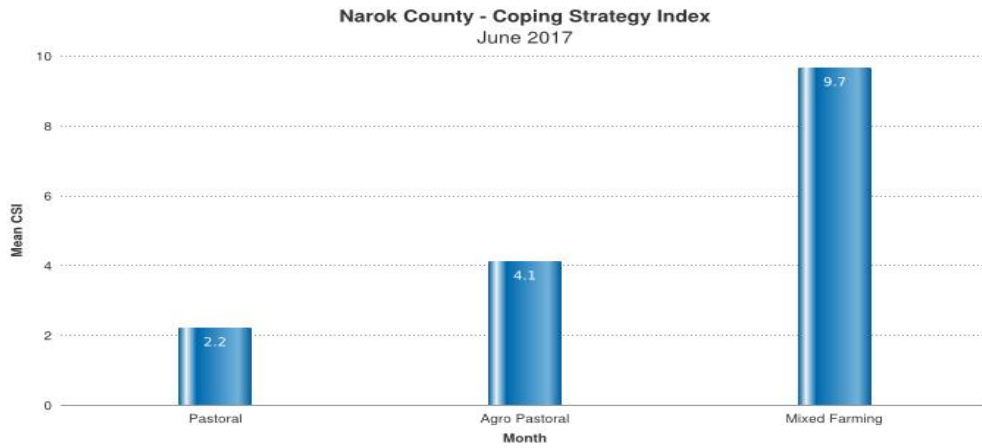
- The slight decrease in nutrition rate is attributed to poor dietary diversity owing to low food rich in vitamin and decreasing milk consumption at household mostly in the Pastoral and Agro-pastoral livelihood zone.
- The Pastoral and the Agro-pastoral livelihood zones recorded the highest number of children at risk of malnutrition at 25% compared to Mixed farming livelihood zone which recorded 2.3%. The highest number of children at risk of malnutrition was witnessed in Mosiro and Naroosura wards in Pastoral livelihood zone.
- The current rate of malnutrition is above normal compared to the long term average.

### 5.2.2 Health

- No major disease outbreaks were reported during the month apart from a few cases of fever in children, especially in the Pastoral livelihood zone.

### 5.3 COPING STRATEGIES

- In the Mixed Farming zone the CSI was 9.7 while that of Pastoral and Agro-pastoral livelihood zone was 4.1 and 2.2 respectively. This implies that households in the Mixed farming zone employed more coping strategies compared to those in Pastoral and Agro-pastoral livelihood zones. The high CSI in Mixed Farming livelihood zone is being contributed by reduced availability of income sources (in this case casual labour) which renders households not to be in a position to afford basic food items due to drastic upshot in food prices coupled with low purchasing power.



- The dietary diversity has improving in Mixed farming livelihood zone, even though households are still dependent on cereals compared to other food groups. Households have reduced the number of meals consumed per day from the usual two to once a day and this is being witnessed across the entire livelihood zones.
- Charcoal burning and casual labour as a means of getting income to purchase food was on the increase in Emurua Dikir and Narok East Sub Counties.
- The coping strategies are not normal at this time of the year.

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

### **6.1 NON-FOOD INTERVENTIONS –**

- Vaccination campaign against contagious bovine pleuropneumonia (CBPP) in various parts of the county. **(By Regional Pastoral Livelihood Resilience Project)**.
- The National Government assisted the County with relief seeds which include 10 tons of gadam sorghum and 5 tons of KATX56 beans. The County has also received livestock feed supplements which include 2400 range cubes (50kg) and 6,000 bags of mineral blocks (15 tons). The supplements are awaiting distribution to the beneficiaries.

### **6.2 FOOD AID**

- Narok East Sub County received eight tons of maize flour and eight tons of cooking fat. The two items have already been distributed. The donation was received from the Chinese Embassy.

## **7.0 EMERGING ISSUES**

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

- No major incidences of insecurity, conflict or human displacement was reported in the County during the month.

### **7.2 Migration**

- 80% of the herders who had migrated into the Masaai Mara game reserve and beyond have started coming back to their normal grazing fields especially in Narok West, Narok East and Narok South Sub Counties.

### **7.3 FOOD SECURITY PROGNOSIS**

- The month under review marked the end of the long rains (MAM) whose performance was below normal with poor temporal and spatial distribution. Pasture and browse conditions are still below the normal conditions particularly in Pastoral and Agro pastoral livelihood zones and on a declining state. Due to rains cessation, vegetation in this zone will not be able to recover and chances of further deterioration are real. This will have adverse impacts on livestock productivity. Presence of livestock diseases such as foot and mouth is also further expected to undermine livestock productivity. The Pastoral and Agro pastoral livelihood zones are therefore expected to slide further into worst drought and food security phases.
- Crop condition has been affected negatively by rains rainfall performance and most areas are likely to face challenges of crop failure resulting to food insecurity and hiking food commodities in the county. Additionally, outbreak of African army worms and fall army worms is threatening crop production in the County.

## **8.0 RECOMMENDATIONS**

- Upscaling of campaign against various livestock diseases in areas not being covered by the ongoing drought contingency funds (DCF) activities.
- Surveillance of human and livestock disease outbreaks is necessary. The livestock that are coming back from where they had migrated are likely to bring with them livestock diseases.
- Due to relatively high cases of malnutrition, there is a need to carry out mass screening of children in Pastoral livelihood zone for the purpose of carrying out targeted nutrition interventions. Such interventions include provision of supplementary feeding programme at selected health facilities. Narosura Ward in Narok South Sub County and

Mosiro Ward in Narok East Sub County must be given first priority in terms of targeted interventions.

- The drought situation in Narok East, Kilgoris and Narok West Sub Counties requires close monitoring with regards to the performance of rains in this region. These areas are currently undergoing severe vegetation deficit due to prolonged drought spell. Reactivation of County drought contingency plan is necessary to minimise loss of lives and livelihoods. Livestock off take and livestock supplementary feeding are some of the programs that should be considered as immediate interventions.