

National Drought Management Authority

NAROK COUNTY

DROUGHT EARLY WARNING BULLETIN FOR MAY 2017



A Vision 2030 Flagship Project



MAY EW PHASE

Drought Status: ALERT

Maandalizi ya mapema

Drought Situation & EW Phase Classification

Biophysical Indicators

- **Rainfall:** Most parts of the county did receive rains in the first and second dekad of the month.
- **Vegetation condition:** The 3 month vegetation condition index (VCI) for the County is 27.74 depicting a moderate vegetation deficit.

Socio Economic Indicators (Impact Indicators)

Production indicators:

- No harvest recorded
- Livestock body condition is fair to good and improving in all the livelihood zones.
- Increased milk production and slightly less than long term average.
- Livestock migration in search of pasture in Pastoral livelihood zone has reduced.

Access indicators:

- Terms of trade were not favorable especially in Pastoral livelihood zone and Mixed farming zone.
- Milk consumption was fair.
- Improved water access by both livestock and humans due to the ongoing long rains season.

Utilization Indicators:

- The percent of Mid Upper Arm Circumference (MUAC) showing children at risk of malnutrition was 14, higher than the long term average of 7.79, less than the previous month of 18%, indicating a drop in malnutrition cases in the County.

Early Warning (EW) Phase Classification

Livelihood Zone	Phase	Trend
AGRO PASTORAL (Kirindoni, Kilgoris)	ALERT	STABLE
MIXED FARMING (lolulunga, Nkareta and Emurua Dikirr)	NORMAL	STABLE
PASTORAL (Loita, Naroosura, Olmesutie, Ntuka and Elang'ata Enterit)	ALERT	STABLE
LEASING/PASTORAL (Lemek)	ALERT	STABLE
COUNTY	ALERT	STABLE
Biophysical Indicators	Value	Normal Range/Value
Rainfall (% of Normal)	0	>90
SPI-3Month (TAMSAT)	-	-1.0 to 1.0
VCI-3Month	27.74	>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	2.3	>4 litres
Return distance to water sources	4.7	<5 Km
Cost of water at source (20 litres)	3-15	<5Kshs
Utilization indicators	Value	Normal
Nutrition Status, MUAC (% at risk of malnutrition)	14	<10
Coping Strategy Index (CSI)	1.8	<2.0

<ul style="list-style-type: none"> ▪ Short rains harvests ▪ Short dry spell ▪ Reduced milk yields ▪ Increased HH Food Stocks ▪ Land preparation 	<ul style="list-style-type: none"> ▪ Planting/Weeding ▪ Long rains ▪ High Calving Rate ▪ Milk Yields Increase 	<ul style="list-style-type: none"> ▪ Long rains harvests ▪ A long dry spell ▪ Land preparation ▪ Increased HH Food Stocks ▪ Kidding (Sept) 	<ul style="list-style-type: none"> ▪ Short rains ▪ Planting/weeding 								
Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec

1. CLIMATIC CONDITIONS

1.1 RAINFALL PERFORMANCE

- The performance of the rains ranged from poor to fair during the month with some parts of the county receiving relatively below normal rains. The Western part of the County received normal rains. The rains ceased towards the end of the month.

1.2 AMOUNT OF RAINFALL AND SPATIAL DISTRIBUTION

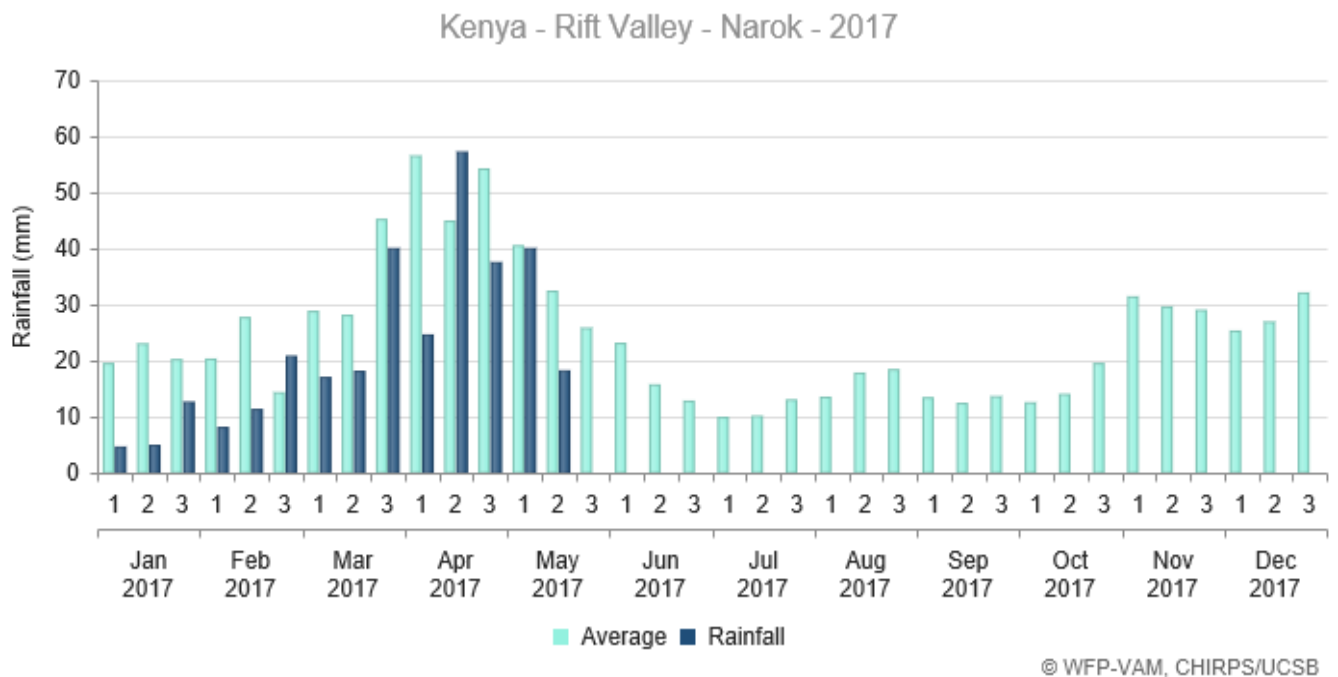


Figure 1

- The satellite image in Figure 1 above highlights the general performance of the rains in the County from the first to third decad of the month. Generally, the County experience relatively heavy rains during the first decad of May. The rains started declining from the second decad of the month and were generally below normal compared to the previous seasons.
- By the third week of the month, there were very little rains being reported especially in Narok East, Narok West and Narok South Sub Counties.

2. IMPACTS ON VEGETATION AND WATER

2.1 VEGETATION CONDITION

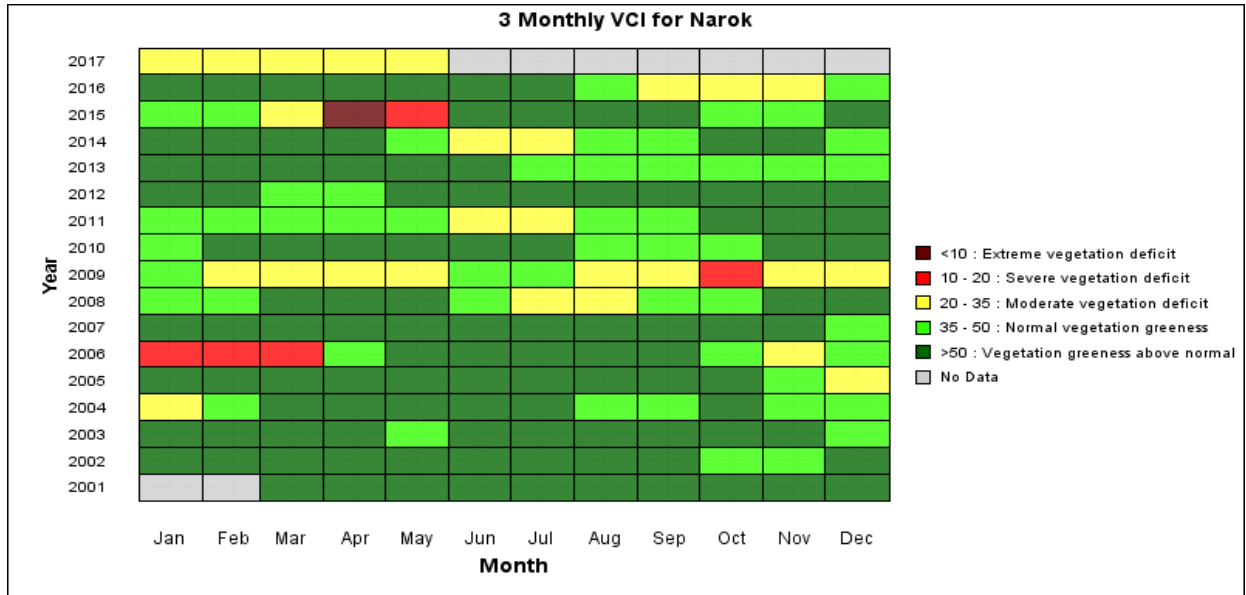


Figure 2

- The vegetation greenness as depicted by the vegetation condition index (VCI) shows moderate vegetation deficit with a value of 27.74 as shown in Figure 2 above.
- Other than Emurua Dikir and Kilgoris Sub Counties, all the other four Sub Counties are experiencing some form of vegetation deficit with Narok East being the most affected as it is having severe vegetation deficit. Figure 3 below shows that Narok East and Narok South Sub Counties had the least VCI indices of 17.59 and 23.3, depicting a severe and moderate vegetation deficit respectively

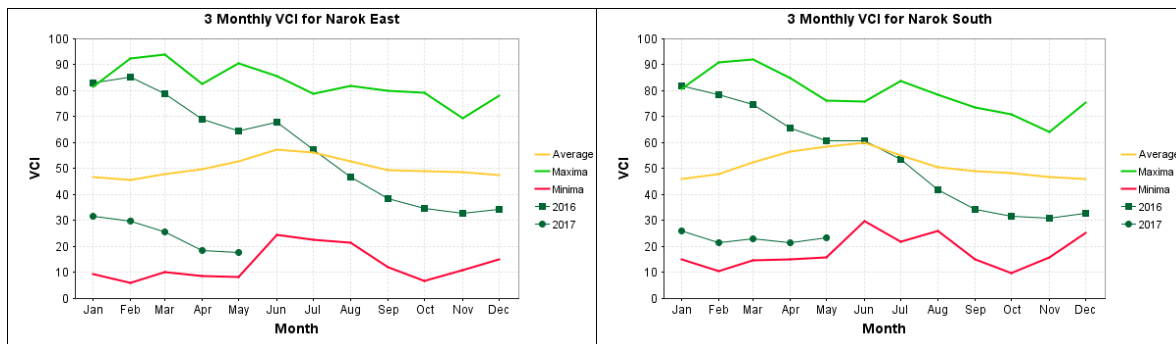


Figure 3

2.1.2 Field observations

2.1.2.1 Pasture

- The quantity and quality of pastures in Mixed farming livelihood zone and few parts of Agro Pastoral livelihood zoned ranged from fair to good. In Pastoral and the bulk of the Agro pastoral livelihood zones, pasture conditions is poor to fair. Mosiro Ward in Narok East Sub County is the most affected with regards to lack of pastures.
- The available pasture is likely to last for two 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 of the 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 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 (26.7%), Rivers (22.2%) and piped water system at 20% as shown by Figure 4.
- Most households relied on Pans and Dams as most of them were recharged by the April-May season rains.

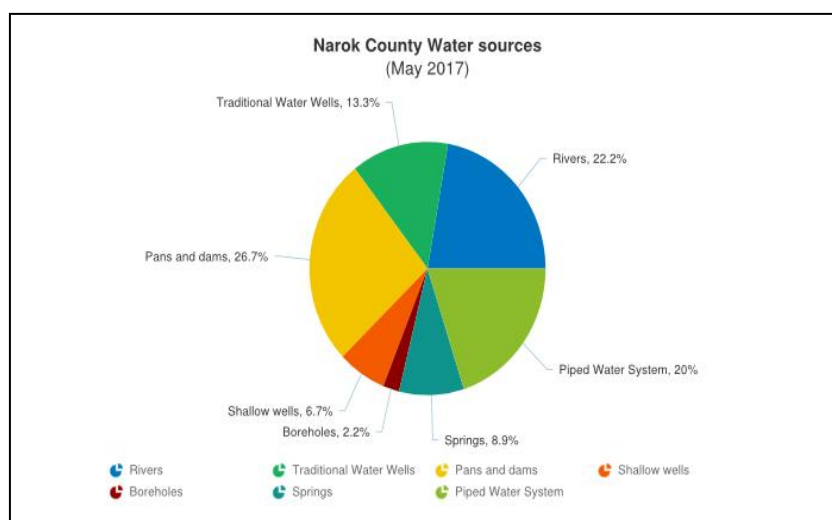


Figure 4

- 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 and half 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 despite the onset of the rains in the county.

2.2.2 Household access and Utilization

- The average distance to watering points for households remained the same compared to last month as shown in Figure 5 below.

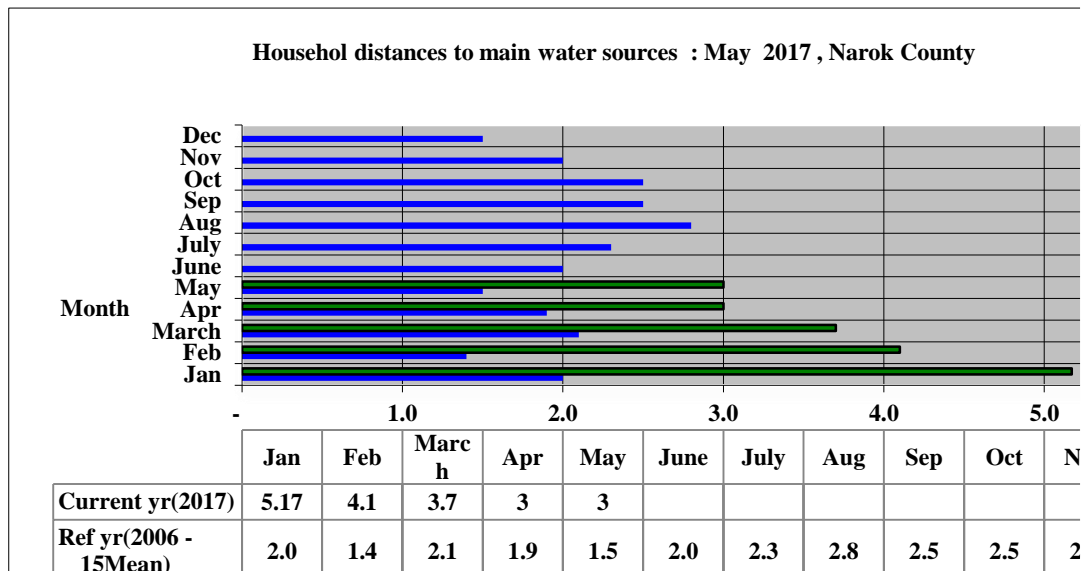


Figure 5

- Pastoral livelihood zone recorded the longest average distance of 4.7 km having increased from 4km as recorded in the previous month while the shortest average distance was recorded in Mixed farming livelihood zone at 1.7 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 decreased to 4.7 km from 5.35 km recorded last month as shown by Figure 6 below.

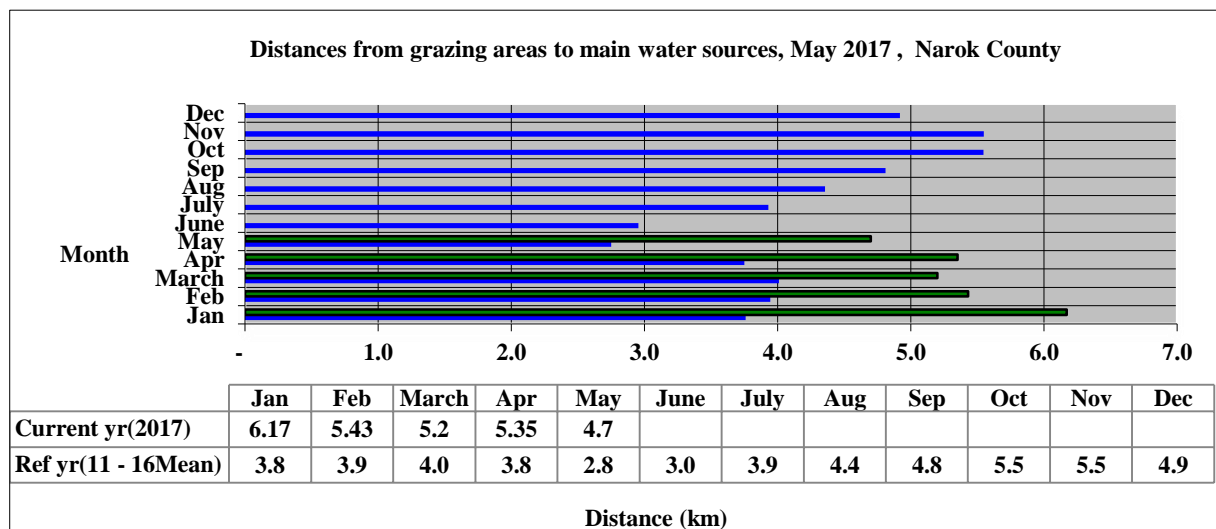


Figure 6

- Pastoral livelihood zone recorded the longest distance at 7 km while the shortest distance was recorded in the Mixed farming livelihood zone at 1.0 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 start worsening.
- 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 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 improvement is attributed to pasture regeneration in selected parts of the County and improved water access and availability.
- The current livestock body condition is slightly 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.
- Sheep and goat pox cases are also prevalent in the County.
- 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.

3.1.3 Milk Production

- The average milk production per household per day increased to 4.2 bottles per household from 3.6 bottles recorded in the previous month as shown in figure 7 below.

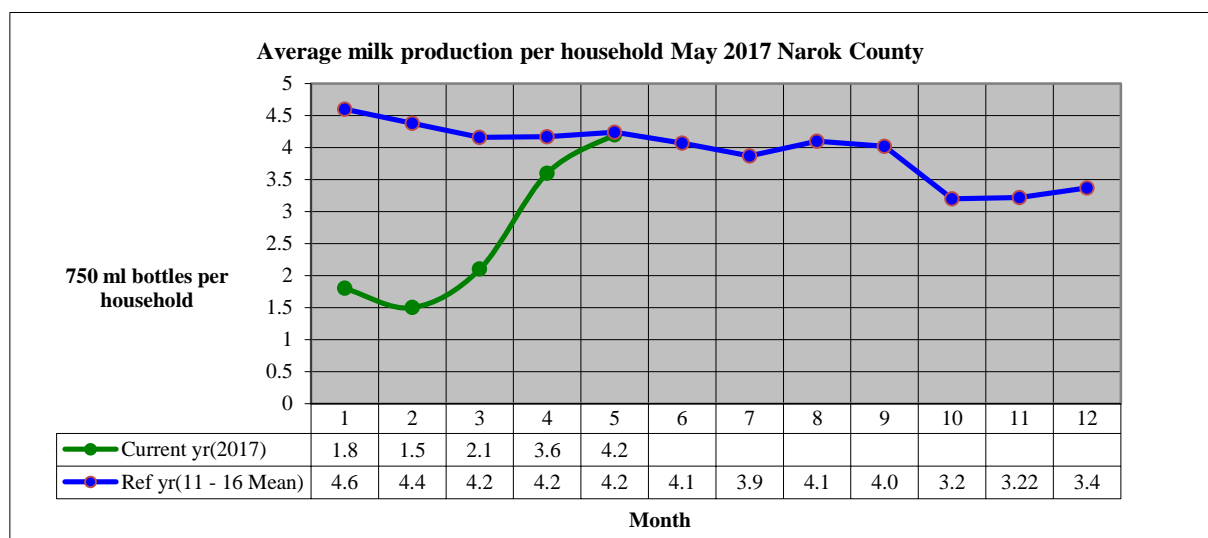


Figure 7

(n = 180)

- The increase in milk production is attributed to improvement in pasture quantity and quality as well as water availability within the Mixed farming livelihood zone. Milk

production in Pastoral and Agro Pastoral livelihood zones is still low due to poor pastures.

- 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 on-going farming activities in Mixed farming and Agro-pastoral livelihood zones is weeding. Most of the crops are at kneeling stage but for the farmers who planted earlier, the crops are approaching tussling stage.
- The crops planted in the County include beans, sorghum, maize and potatoes.
- 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 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 remained at Kshs 17,200/head compared to the previous month as shown by Figure 8 below.

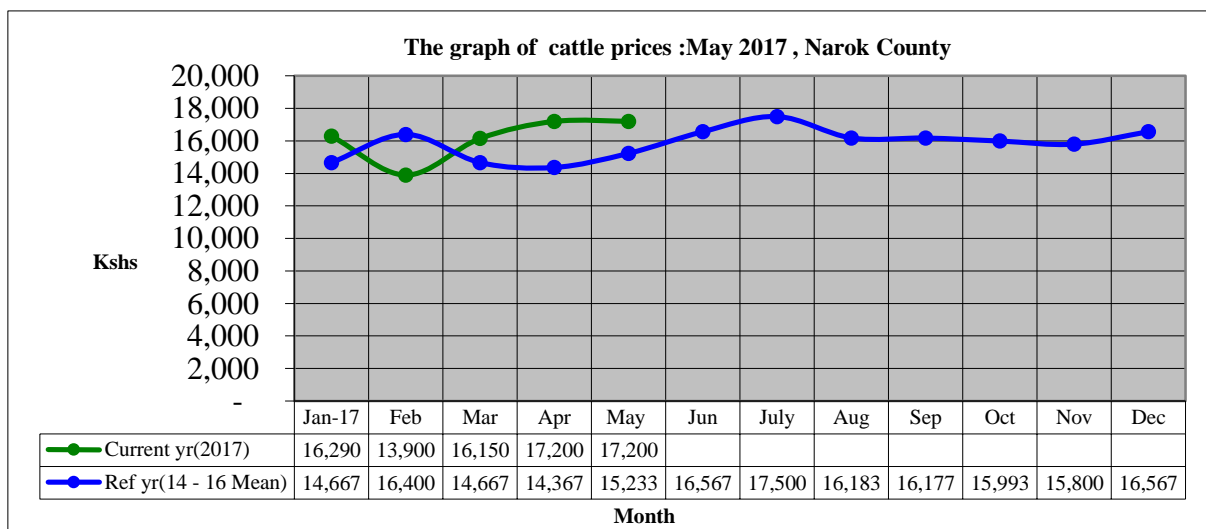


Figure 8

(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 8,000 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 remained fairly stable at Kshs. 2,900 per head compared to last month as indicated by Figure 9 below.

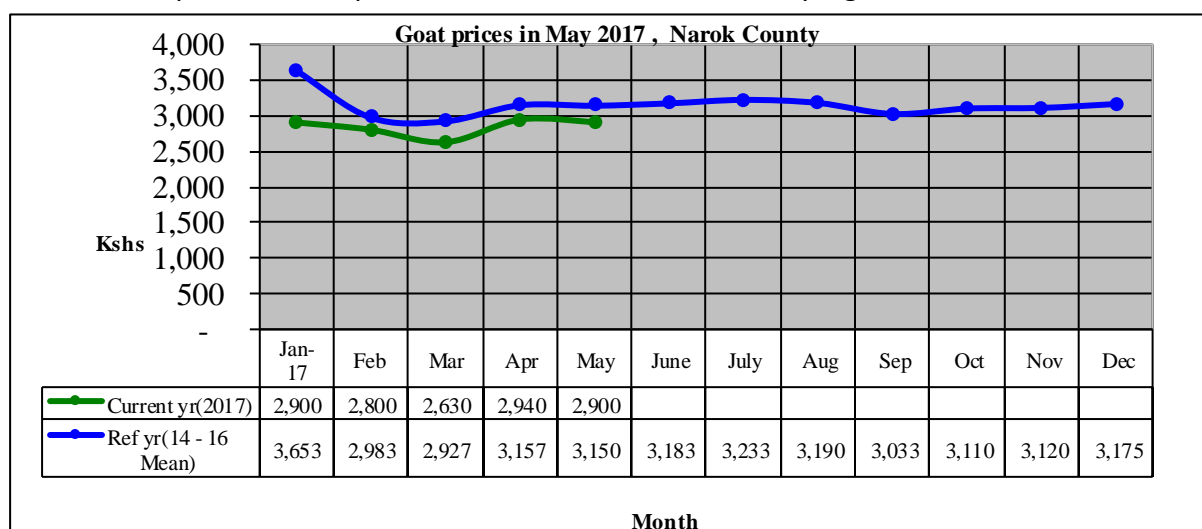


Figure 9

(n = 180)

- The steady goat prices is attributed to low supply of goats in the markets and increased demand due to high restocking rate.
- Households are disposing the goats to the markets in an effort to get cash for purchasing food and other important household expenditures such as school fees and animal feeds.
- There was significant inter-livelihood variation in goat prices as farmers in the Mixed farming livelihood zone were selling at Kshs 3,450/head compared to those in the pastoral livelihood zone selling at Kshs 2,700/head.
- The average goat price was slightly below normal at this time of the year.

4.2 CROP PRICES

4.2.1 Maize

The average prices of maize per kilogram decreased to Kshs.73 from Kshs. 78 of last month as shown in Figure 10 below.

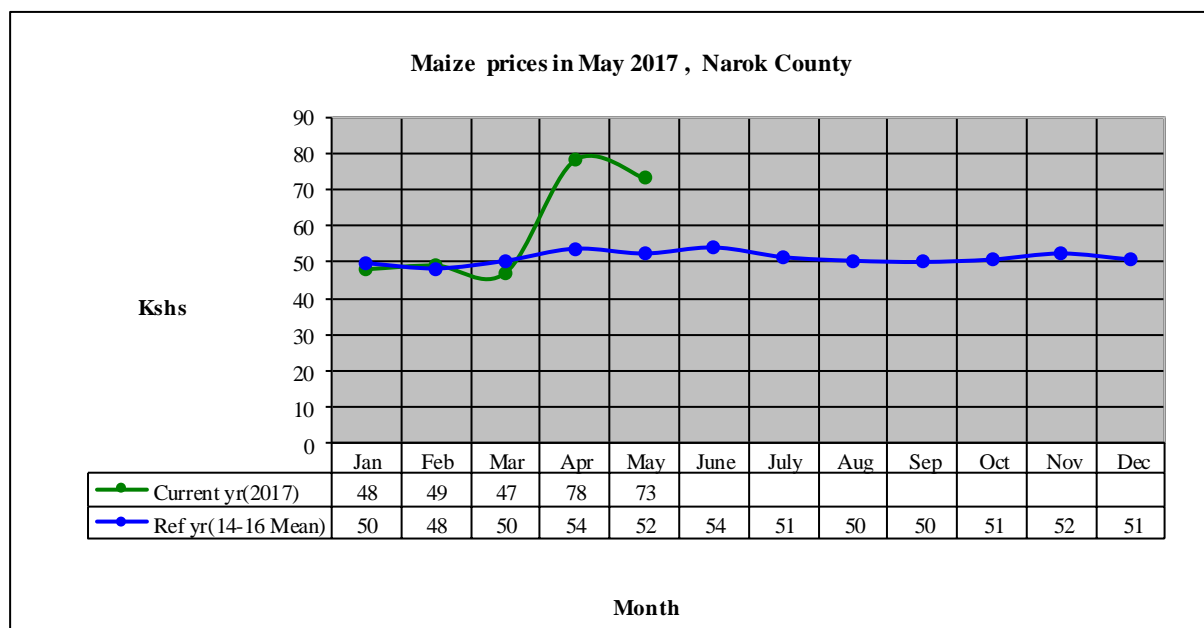


Figure 10

(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 80 per kg while the lowest was recorded in the Mixed farming livelihood zone at an average of Kshs 70 per kg.
- 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 increased to Kshs. 126 compared to the previous month of Kshs. 120 as shown in Figure 11 below.

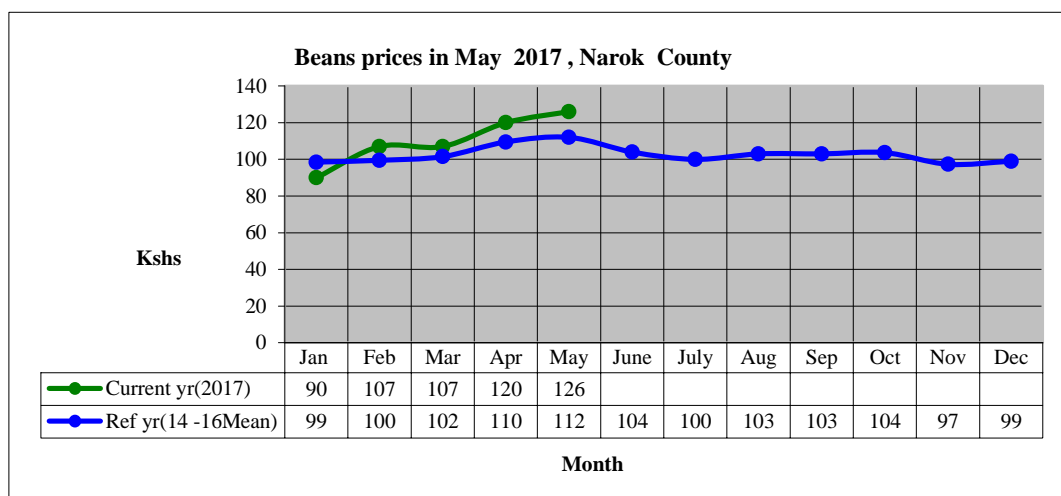


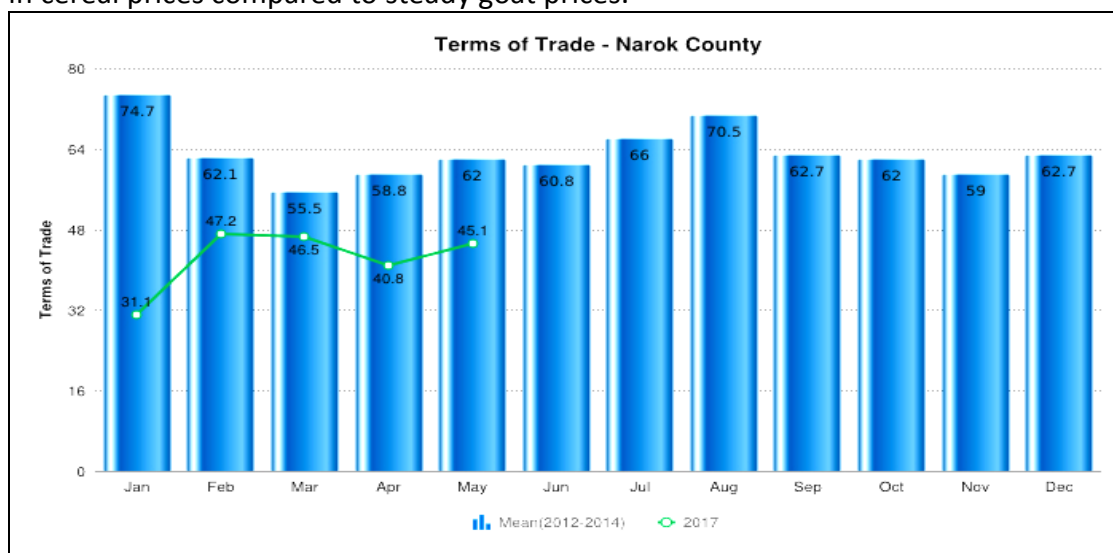
Figure 11

(n = 180)

- The Pastoral and Agro-pastoral livelihood zones recorded a higher average price of Kshs. 140/kg, compared to the Mixed farming livelihood zone, which recorded a lower price of Kshs.120 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 45 from 41 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 drastic increase in cereal prices compared to steady 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 increased to 2.3 litres from 2.0 litres per household per day recorded in the previous month as shown in Figure 12 below.

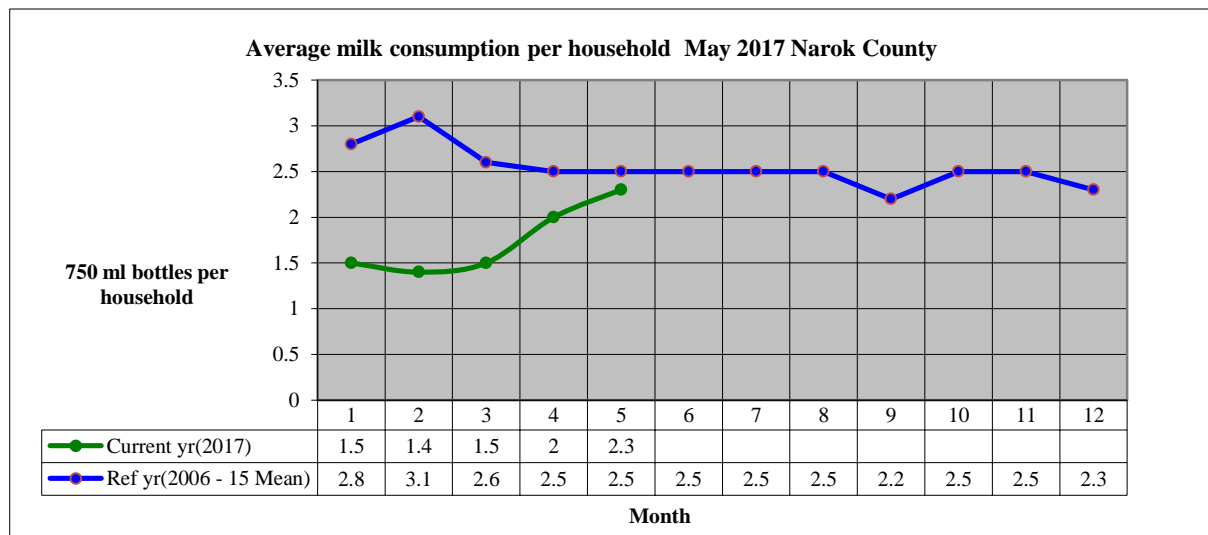


Figure 12

- Milk consumption rate is expected to improve as production increases especially in Mixed farming livelihood zone. In Pastoral livelihood zone, milk consumption is still poor due to low milk production.
- 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) reduced to 14% from 18% of the previous month as shown by Figure 13 below.

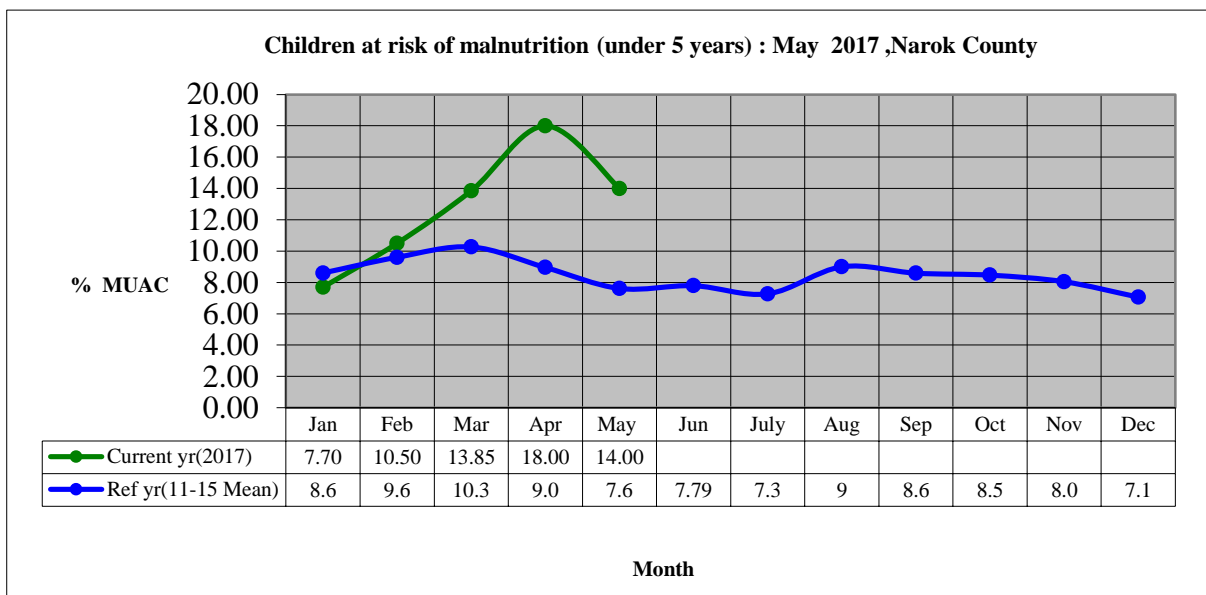


Figure 13

(n = 781)

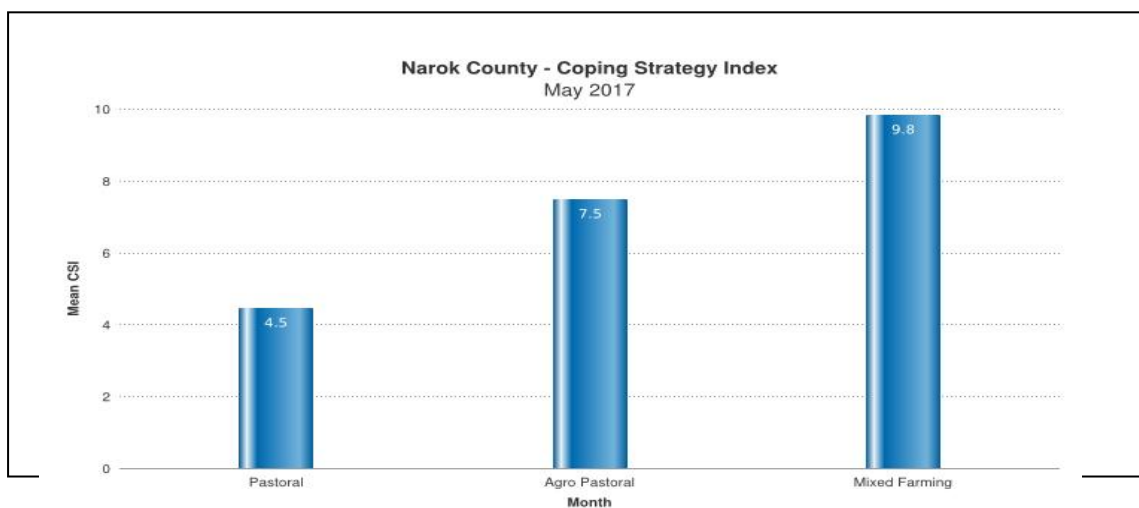
- The improvement in nutrition status was mainly limited in Kilgoris and Emurua Dikir Sub Counties. This was attributed to improved diet owing to vegetable availability coupled with improved milk consumption at household. In the rest of the County particularly in Pastoral and Agro Pastoral livelihood zones, malnutrition rates have not yet improved.
- The Pastoral and the Agro-pastoral livelihood zones recorded the highest number of children at risk of malnutrition at 27% compared to Mixed farming livelihood zone which recorded 1.5%. 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 9.8 while that of Agro-Pastoral and pastoral livelihood zone was 7.5 and 4.5 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.



- The dietary diversity is 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 –

- Repair and rehabilitation of serviceable boreholes in Narok West, East and South sub-counties **(By NDMA, under the DCF and Water Services Board)**
- 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

- 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

- Pasture and browse conditions are still well below the normal conditions particularly in Pastoral and Agro pastoral livelihood zones. The vegetation in this zone requires sustained rains for them to recover to their normal conditions. As the season comes to an end, 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 production is in good condition mostly in Western parts of the County where the season started earlier. However, the 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 Sub County needs close monitoring with regards to the performance of rains in this region. The Sub County is 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.