

National Drought Management Authority

NAROK COUNTY

DROUGHT EARLY WARNING BULLETIN FOR DECEMBER 2017



A Vision 2030 Flagship Project



DECEMBER EW PHASE

Early Warning (EW) Phase Classification

Drought Status: **NORMAL**



Shughuli za kawaida

Drought Situation & EW Phase Classification

Biophysical Indicators

Rainfall:

Below normal Showers were experienced in the first dekad in the Mixed farming livelihood zone and fewer parts in Agro-pastoral livelihood. A few areas in the pastoral livelihood zone received light showers during the month.

Vegetation condition:

The 3 month vegetation condition index (VCI) for the County is 53.03, depicting above normal vegetation greenness although this is mainly in mixed farming livelihood zone. The pastoral livelihood zone is still experiencing poor pasture conditions.

Socio Economic Indicators (Impact Indicators)

Production indicators:

Ongoing harvesting of wheat, Beans and maize was recorded in Oloolung' a in Narok south, Suswa and Ntulele in Narok East and Mau region in Narok North sub counties. Harvesting of Irish Potatoes in Mau areas in Narok North was recorded this month.

Livestock body condition is fair to poor in the Pastoral livelihood zone and generally fair to good in the Mixed farming zone and in the Agro-pastoral livelihood zone.

Stable milk production in the Mixed farming zone but still less than long term average.

Access indicators:

Terms of trade were not favorable in Pastoral livelihood zone and Mixed farming zone.

Milk consumption was fair in Mixed farming and Agro-pastoral livelihood zones.

Water access for both human and livestock was fair in the mixed farming and Agro-pastoral livelihood zones compared to pastoral livelihood zone which ranged from poor to fair.

Utilization Indicators:

The percent of Mid Upper Arm Circumference (MUAC) showing children at risk of malnutrition was 8.02%, slightly less than the long term average of 7.1%.

| Livelihood Zone | Phase | Trend |
|--|---------------|--------------------|
| AGRO PASTORAL (Kirindoni, Kilgoris) | NORMAL | STABLE |
| MIXED FARMING (ololung'a, Nkareta and Emurua Dikirr) | NORMAL | STABLE |
| PASTORAL (Loita, Narosura, Olmesutie, Ntuka and Elang'ata Enterit) | ALERT | STABLE |
| LEASING/PASTORAL (Lemek, Siana) | ALERT | STABLE |
| COUNTY | NORMAL | STABLE |
| Biophysical Indicators | Value | Normal Range/Value |
| Rainfall (% of Normal) | 0 | >90 |
| SPI-3Month (TAMSAT) | - | -1.0 to 1.0 |
| VCI-3Month | 53.03 | >35 |
| Forage condition | Fair-poor | Fair |
| Production indicators | Value | Normal |
| Crop Condition (Maize) | - | - |
| Livestock Body Condition | Fair-good | fair |
| Milk Production | 2.0 | >5 Litres |
| Livestock Migration Pattern | Not normal | Normal |
| Livestock deaths (from drought) | No death | No death |
| Access Indicators | Value | Normal |
| Terms of Trade (ToT) | 63.3 | >100 |
| Milk Consumption | 1.5 | >4 litres |
| Return distance to water sources | 6.2 | <5 Km |
| Cost of water at source (20 litres) | 5-15 | <5Kshs |
| Utilization indicators | Value | Normal |
| Nutrition Status, MUAC (% at risk of malnutrition) | 8.02 | <10 |

| | | | |
|--|---|---|---|
| <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 spatial and temporal distribution of rainfall ranged from poor to fair.
- Rains were fairly distributed in the mixed farming and agro-pastoral livelihood zones which received showers coupled with windy and chilly weather conditions. However, Mosiro ward in Narok East, Naroosura ward in Narok South and Siana ward in Narok West sub counties in the pastoral livelihood zone received minimal showers.
- The performance of the rains is generally below normal at this time of the year.

1.2 AMOUNT OF RAINFALL AND SPATIAL DISTRIBUTION

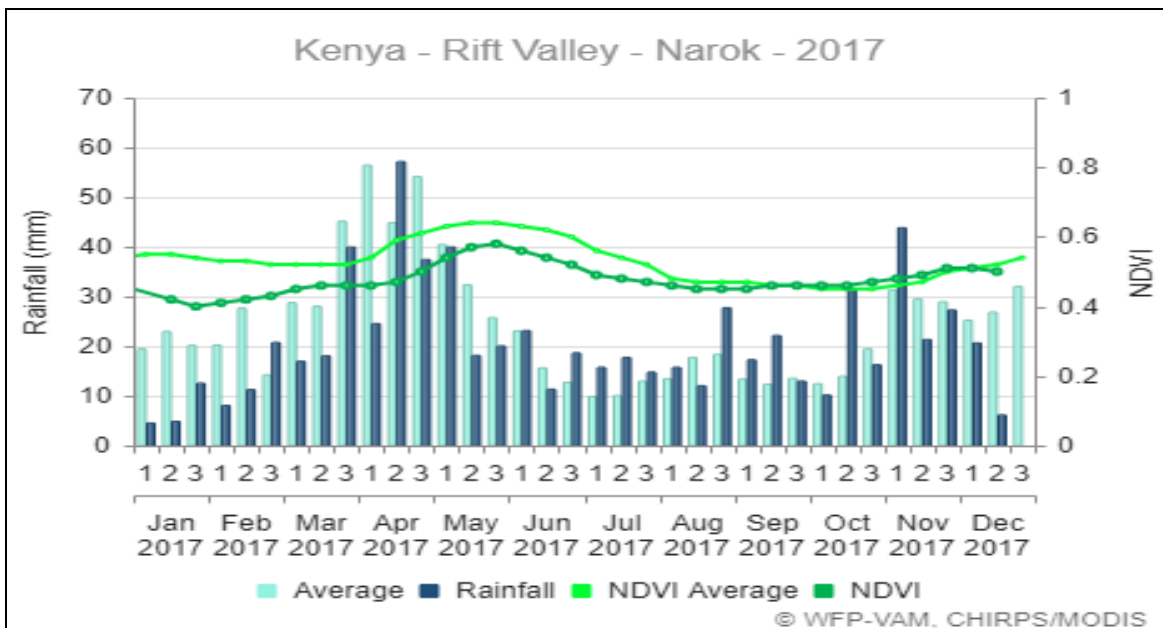


Figure 1

- The above satellite image highlights the general performance of the rains in the County from the first to second dekad of the month. The County experienced below normal rains in the first dekad. The rains declined drastically in the second dekad of the month. However, it should be noted that these rains were localised in just a few areas in the county mostly in Mixed farming livelihood zone spread in Transmara East, Transmara West, Narok East and Narok North sub counties.
- No rains were reported during the last dekad of the month.

2. IMPACTS ON VEGETATION AND WATER

2.1 VEGETATION CONDITION

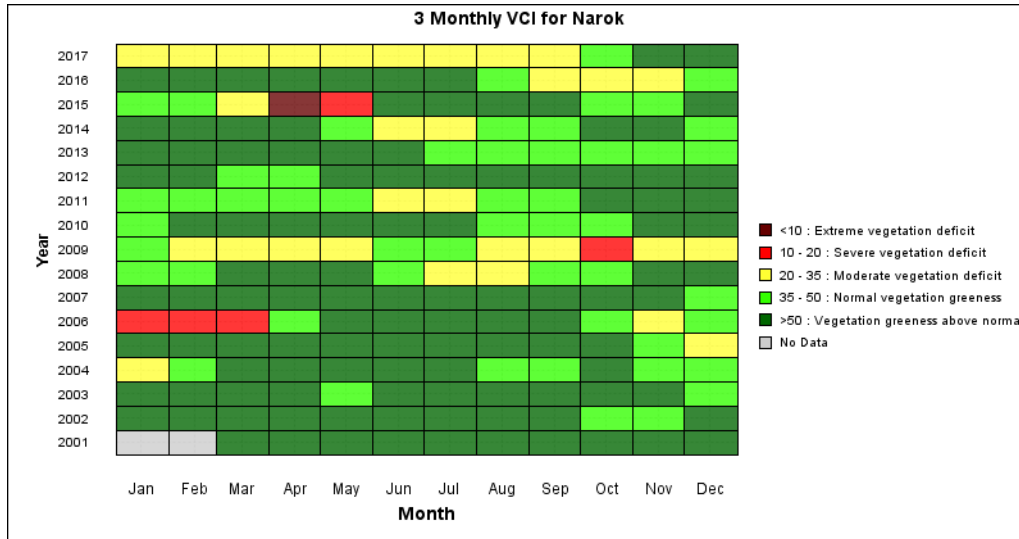


Figure 2

- The vegetation greenness as depicted by the vegetation condition index (VCI) shows above normal vegetation greenness with a value of 53.03 as shown in Figure 2 above.
- There are pockets within Narok East and Narok South which still have poor vegetation mostly in the pastoral livelihood zone. Although Narok East sub county shows normal vegetation greenness (Figure 3 below) due to improved pastures in mixed farming livelihood zone, Mosiro ward which lies in pastoral zone and borders Kajiado County is experiencing severe pasture deficit.

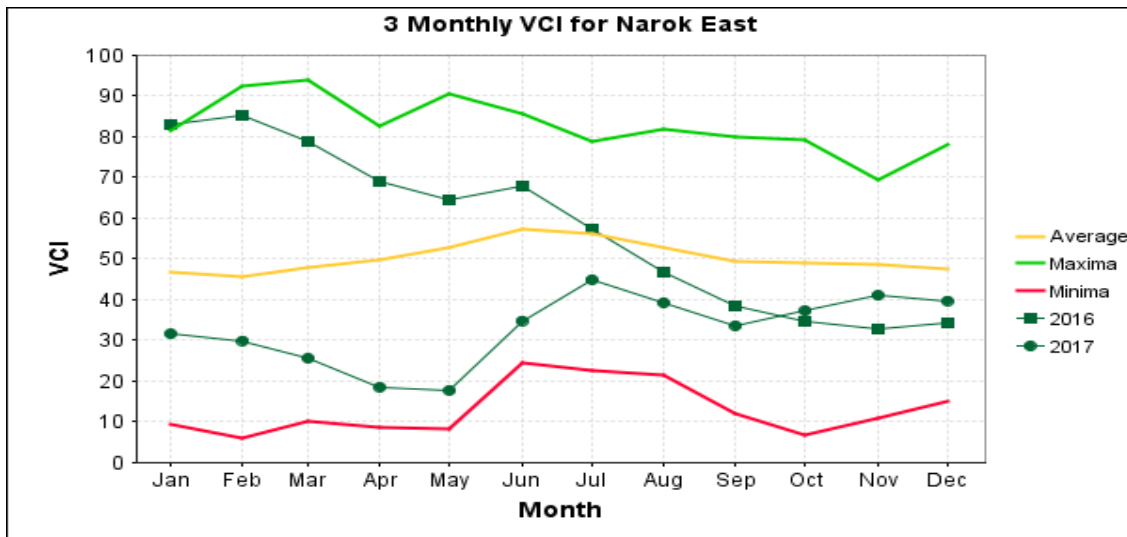


Figure 3

2.1.1 Field observations

2.1.1.1 Pasture

- The quantity and quality of pasture in Mixed farming livelihood zone was generally good. In Pastoral and some other parts of the Agro pastoral livelihood zones, pasture

conditions ranged from fair to poor. Mosiro Ward in Narok East Sub County, Siana ward in Narok West Sub County and Naroosura ward in Narok South Sub County are experiencing poor pastures with slow regeneration rate due to depressed rains during the season.

- The available pasture is likely to last for three months in mixed farming and agro-pastoral livelihood Zones. In pastoral livelihood zones, pastures are likely to last for less than one month. Mosiro, Siana and Naroosura Wards are the most affected with vegetation deficit and consequently, the herders are yet to return to their normal grazing fields.
- The situation is not normal at this time of the year.

2.1.1.2 Browse

- The quality and quantity of browse in the mixed farming livelihood zone and some areas in agro pastoral livelihood zone was good. In Pastoral livelihood zone, the browse condition ranged from poor to fair. The available browse is expected to last for three months in mixed farming zone whereas in agro-pastoral and pastoral livelihood zones it is likely to last for a month.
- The current situation is not normal at this time of the year.

2.2 Water resources

2.2.1 Sources

- The main sources of water for livestock and human consumption in the county were rivers (30.6%), Pans/Dams (26.5%) and boreholes at (18.4%) as shown by Figure 4 below.

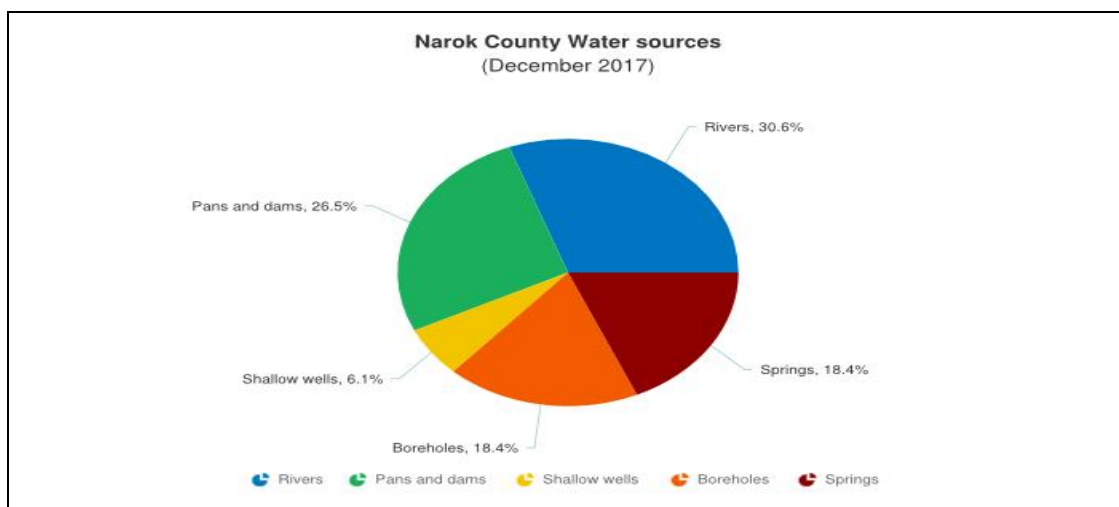


Figure 4

- The quantity and quality of water ranged from fair to good in mixed farming livelihood zones with rivers being the most used. In pastoral livelihood zones, water volumes were still below normal.
- 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 one month with some areas in Naroosura ward facing water deficit.
- The status of main sources of water is still below normal at this time of the year.

2.2.2 Household access and Utilization

- The average distance to watering points for households increased slightly to 2.4 km from 2.1km as recorded in the previous month as shown in figure 5 below.

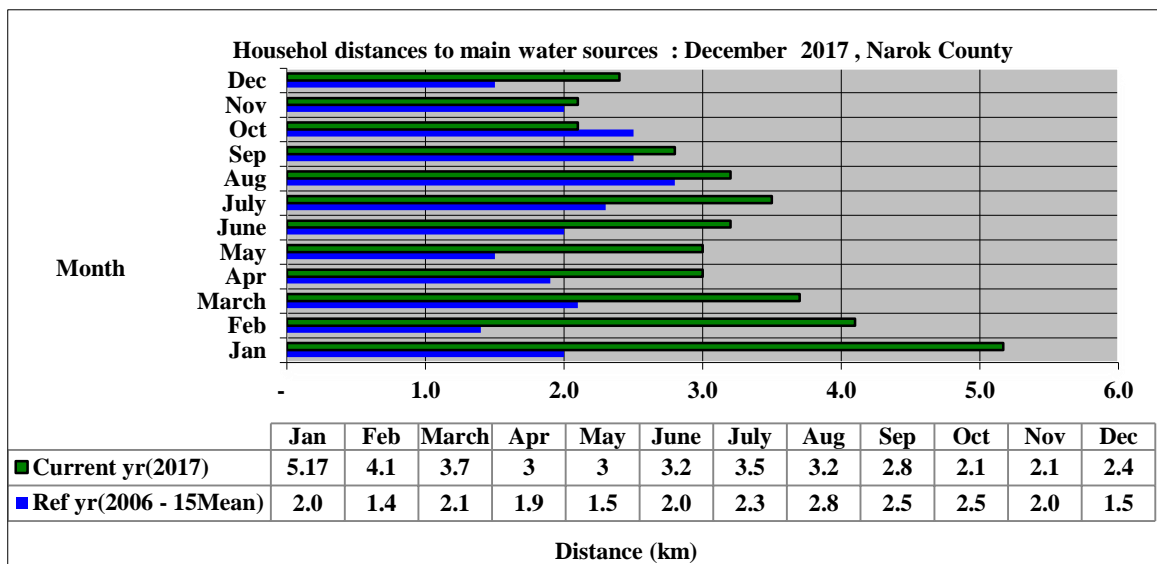


Figure 5

- Pastoral livelihood zone recorded the longest average return distance of 7.4 km having increased from 7 km last month while the shortest average distance was recorded in mixed farming livelihood zone, remaining at 0.5 km as recorded last month. Trekking distances in pastoral areas are still above normal due to poor rainfall performance in the current season.
- The current trekking distances to water points are above normal compared to the long term means.

2.2.3 Livestock access

- The average distance to main water sources from grazing areas remained at 6.2 km as recorded in the previous month as shown by Figure 6 below.

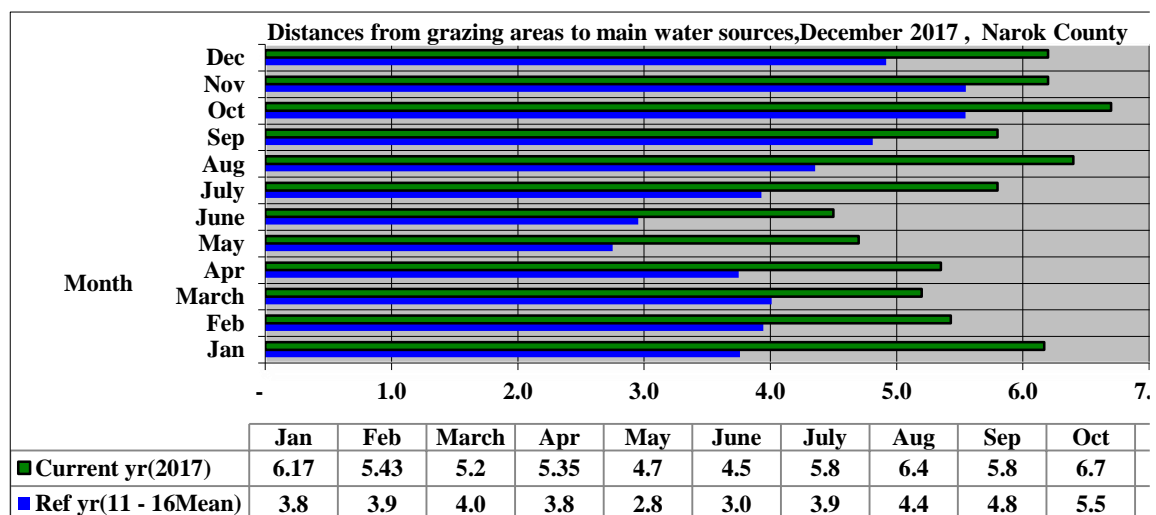


Figure 6

- Pastoral livelihood zone recorded the longest distance at 10 km while the shortest distance was recorded in the mixed farming livelihood zone at 1.6 km. Mosiro, Suswa, Ntuka and Siana areas in the pastoral livelihood zone are some of the areas still experiencing challenges in accessing water due to poor rainfall performance. Pasture

depletion is also contributing to longer distances to watering points as most of the livestock is yet to return to their normal grazing fields.

- 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 was generally good in the mixed farming and some parts in the agro-pastoral livelihood zones. Cattle body condition was poor to fair in the pastoral livelihood zone and a few areas in the agro-pastoral livelihood zone compared to last month. The body condition for sheep and goat ranged from fair to good across all livelihood zones as they were least affected by drought effects.
- The large stock body condition is likely to deteriorate in the pastoral livelihood zone owing to depressed rains coupled with slow pasture regeneration and low water recharge.
- The current livestock body condition is below normal at this time of the year.

3.1.2 Livestock Diseases

- Suspected cases of Contagious Bovine Pleuropneumonia (CBPP) were reported mostly in Lemek ward in Narok West and Naikara ward in Narok South in the pastoral zone. Foot and mouth disease (FMD) was reported in Narok South and Narok East Sub Counties.
- A few cases of confirmed outbreak of PPR diseases in Transmara West and Narok West Sub Counties were reported during the month.

3.1.3 Milk Production

- The average milk production per household per day slightly reduced to 2.0 bottles per household from 2.1 bottles recorded in the previous month as shown in figure 7 below.

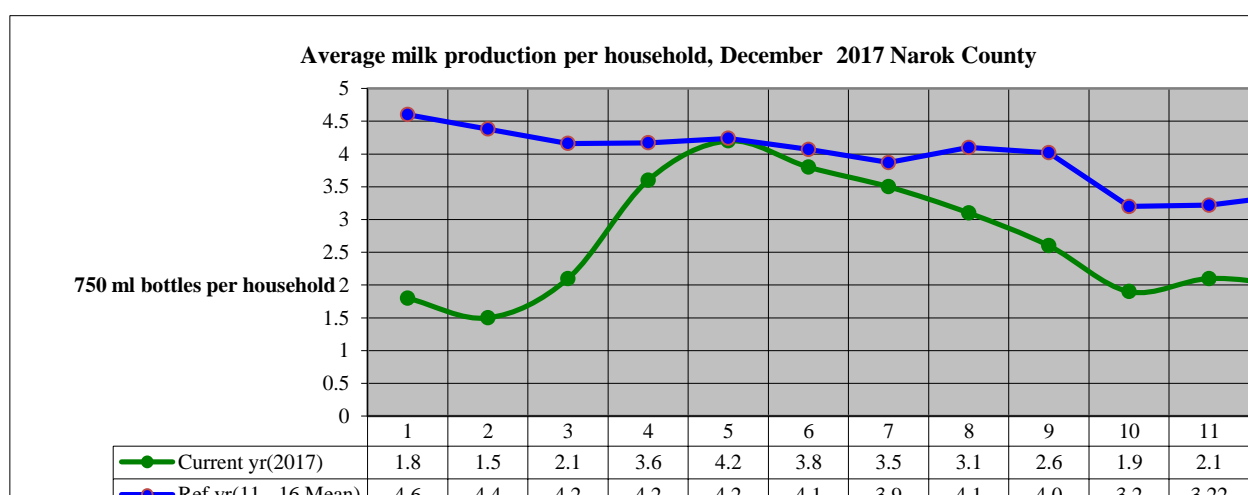


Figure 7

(n = 180)

- The decline is attributed to poor pastures in pastoral livelihood zone.
- The quantity of milk produced is below 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 activities include harvesting of crops such as beans and maize

4.0 MARKET PERFORMANCE

4.1 LIVESTOCK MARKETING

4.1.1 Cattle Prices

- The average price for the medium sized cattle remained at Kshs. 15,200/head as recorded in the previous month (Figure 8 below).

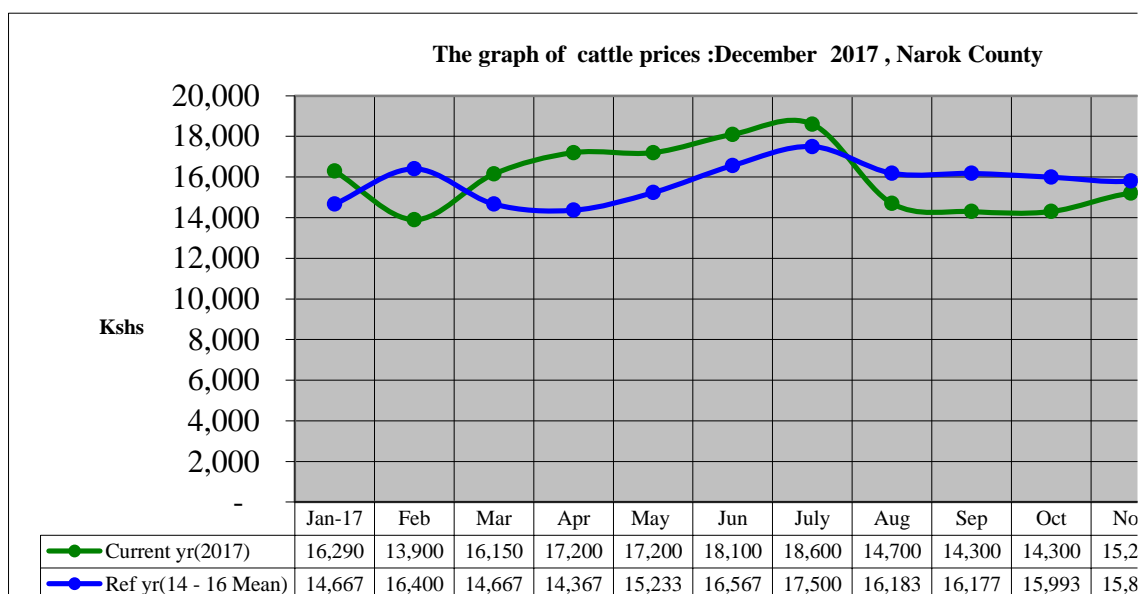


Figure 8

(n = 180)

- The highest prices were recorded in mixed farming livelihood zone at Kshs 16,200 per head and the lowest in the pastoral livelihood zones at an average of Kshs 12,300 per head. The stable livestock prices is due to improved livestock condition in the mixed farming livelihood zone.
- The current cattle prices are below normal compared to long term means at this time of the year.

4.1.2 Goat Prices

- The average price of a medium sized two year old goat increased to Kshs. 3,400 from Kshs. 3,275 per head recorded last month as indicated by Figure 9 below.

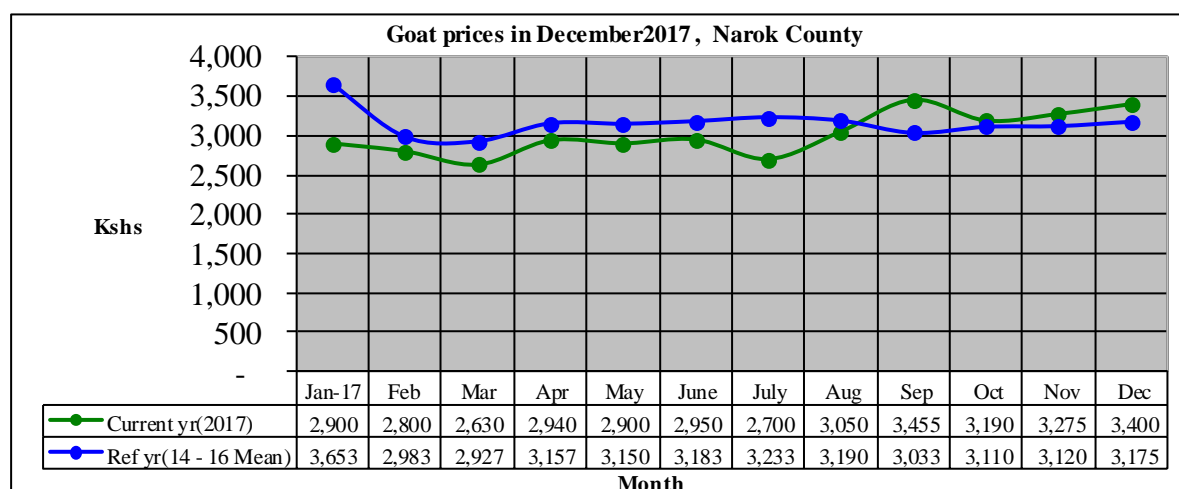


Figure 9

(n = 180)

- The increase is attributed to improved body condition due to availability of good forage (browse).
- There was a significant inter-livelihood variation in goat prices, as those in mixed farming livelihood zone sold at Kshs. 5,000/head compared to the pastoralist who sold at Kshs. 3,000 per head.
- The average goat price was above normal at this time of the year.

4.2 CROP PRICES

4.2.1 Maize

The average prices of maize per kilogram increased slightly to Kshs.53 from Kshs.52 compared to last month as shown in Figure 10 below.

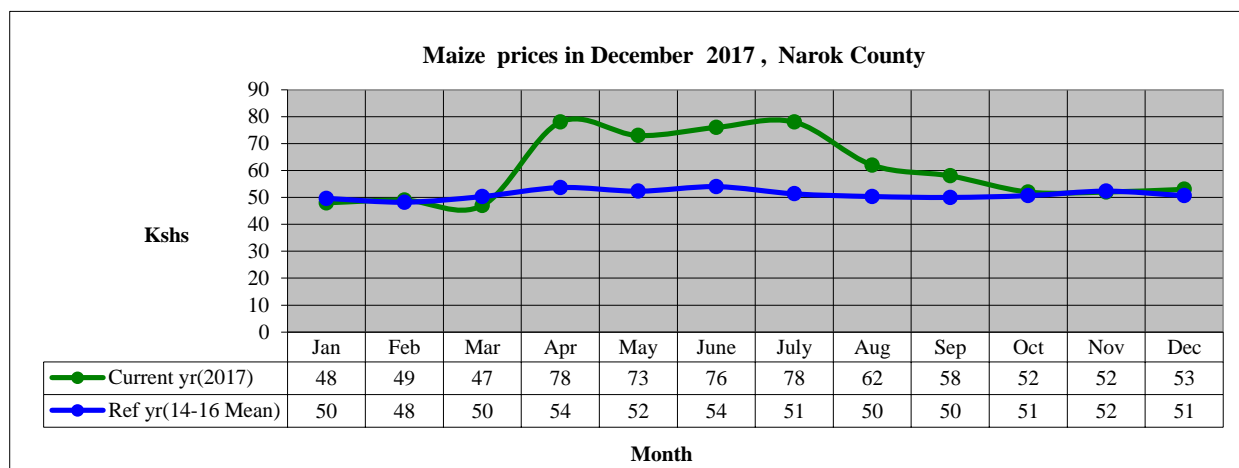


Figure 10

(n = 180)

- The highest prices were recorded in pastoral livelihood zone at Kshs 75 per kg while the lowest was recorded in the mixed farming livelihood zone at an average of Kshs 38 per kg. Maize harvested locally and supplies from other counties have assisted in stabilizing maize prices. However, the prices are likely to rise owing to diminishing stock at household level.
- The overall price is almost normal compared to the long term means at this time of the year.

4.2.2 Beans

- The average price of beans per kg reduced to Kshs. 92 compared to the previous month of Kshs. 97 as shown in Figure 11 below.

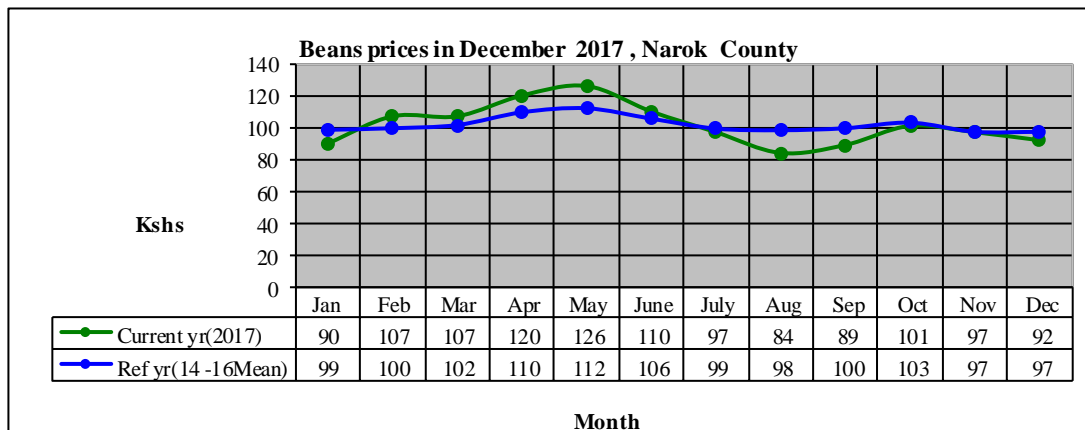


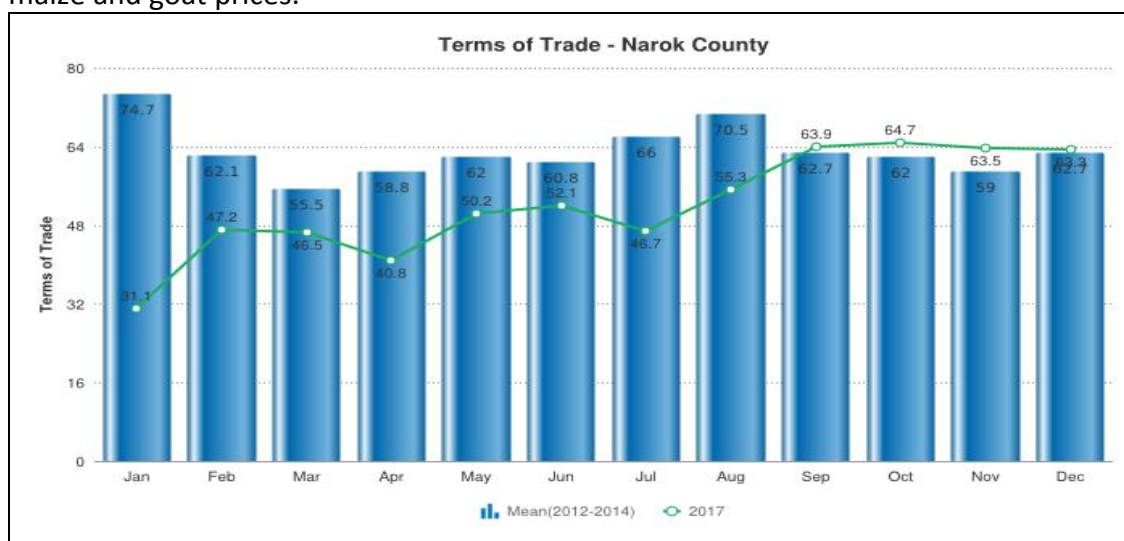
Figure 11

(n = 180)

- The highest price was recorded in the pastoral livelihood zones at Kshs. 110/kg, compared to the mixed farming livelihood zone, which recorded a lower price of Kshs.80 per kg. The price reduction has been attributed to the ongoing harvesting of beans in some parts of the mixed farming livelihood zone.
- The current price is slightly below 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 slightly reduced to 63.3 from 63.5 as recorded in the previous month. The decrease was occasioned by increase in maize and goat prices.



- The terms of trade were not favourable in the pastoral and mixed farming livelihood zones as it was much lower compared to agro-pastoral livelihood zone. The agro-pastoral and pastoral areas recorded much higher cereal prices accompanied with increased goat prices compared to mixed farming zones which recorded low goat and cereal prices.
- The cereal/meat price ratio is slightly above 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 slightly decreased to 1.4 litres from 1.5 litres compared to previous month as shown in Figure 12 below.

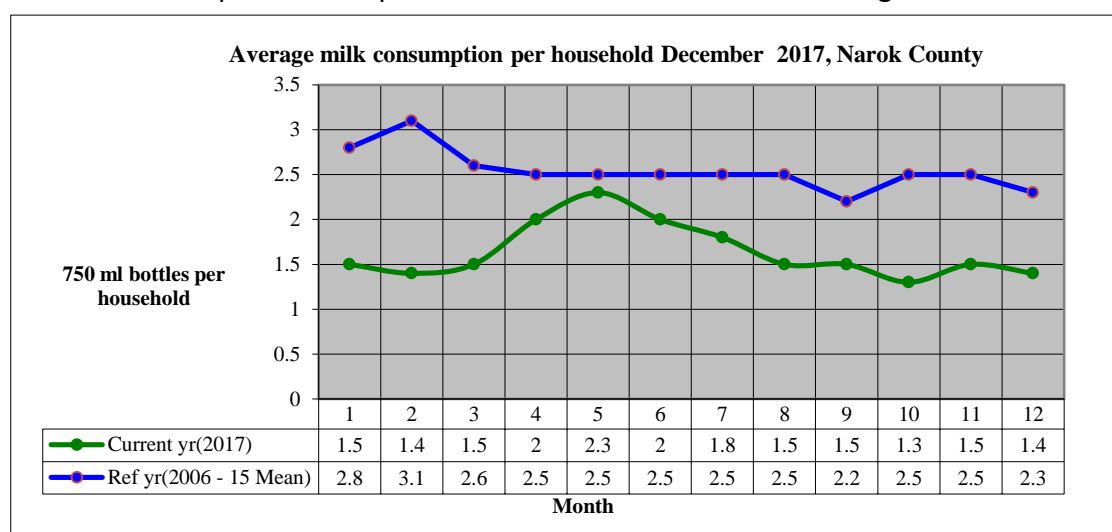


Figure 12

- In the pastoral livelihood zone, milk consumption is still poor due to livestock migration coupled with low milk production and poor livestock body condition.
- The current milk consumption rate is 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) has slightly increased to 8.02 % from 7.14 % as shown by Figure 13 below.

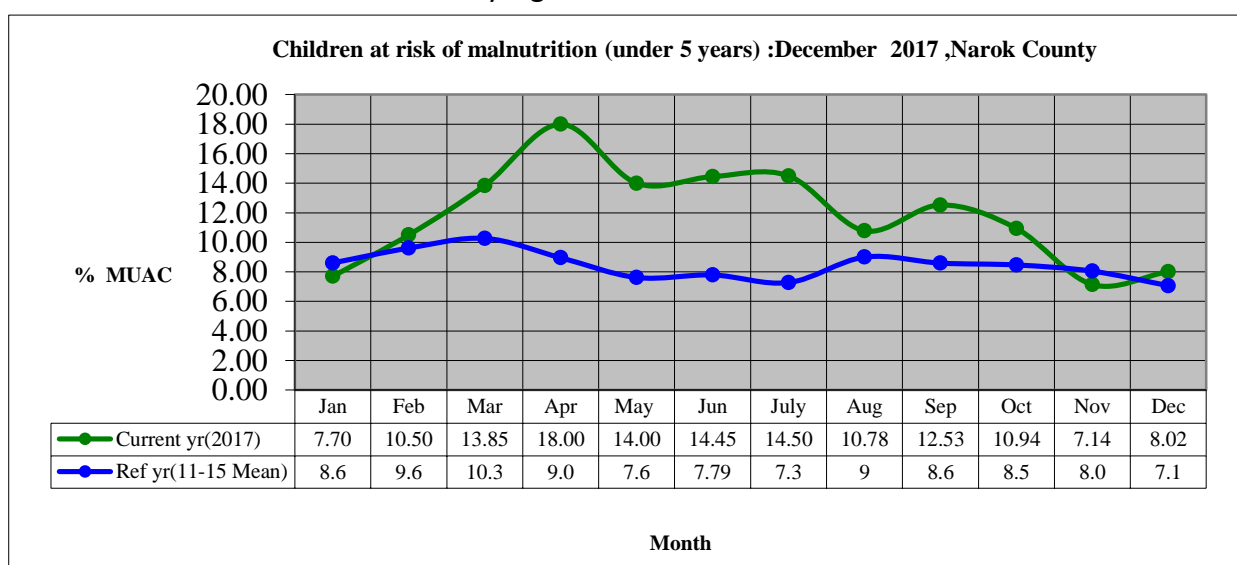


Figure 13

(n = 611)

- The increase in MUAC cases was mostly witnessed in pastoral livelihood zone. The pastoral and the agro-pastoral livelihood zones recorded the highest number of children at risk of malnutrition at 16.5% compared to mixed farming livelihood zone which recorded 0.5%. The highest number of children at risk of malnutrition was witnessed in Mosiro, Siana and Naroosura wards in pastoral livelihood zone owing to poor dietary diversity and increased food prices coupled with poor household milk consumption rate.
- The dietary diversity in mixed farming livelihood zone has improved slightly due to availability of green vegetables and cereals. This zone has experienced better rainfall performance in the current season.
- The current rate of malnutrition is slightly above normal compared to the long term average.

5.2.2 Health

- No major disease outbreaks were reported during the month.

5.3 COPING STRATEGIES

- In the mixed Farming zone, the coping strategy index (CSI) was 7.4 while that of agro-pastoral and pastoral livelihood zone was 4.6 and 3.2 respectively (Figure 14). This implies that households in the mixed farming zone employed more coping strategies compared to those in pastoral and agro-pastoral livelihood zones who can sell livestock and livestock products to purchase food. In the mixed farming livelihood zone, there are limited income opportunities.

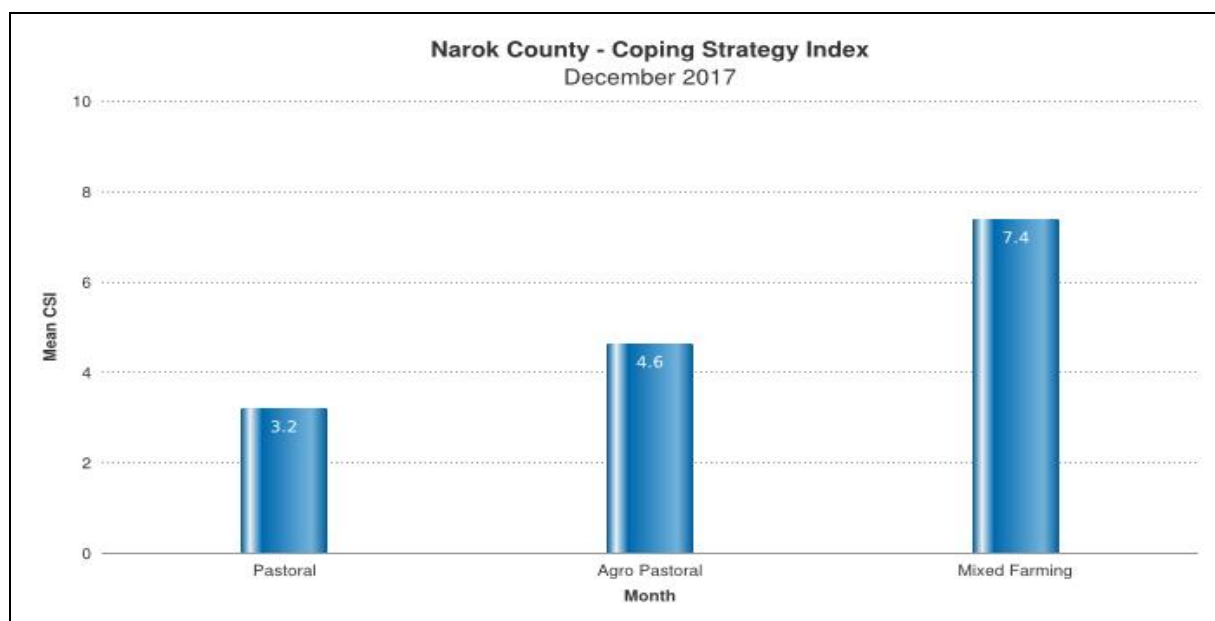


Figure 14

- Increased cases of charcoal burning and casual labour as a means of getting income to purchase food was on the increase in Emurua Dikirr 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

- Malnutrition screening is ongoing. It is being conducted by NDMA in collaboration with Ministry of Health through EU/DCF support in Narok East, Narok South and Transmara East Sub counties.
- Regional Pastoral Livelihood Resilience Project (RPLRP) is in the process of procuring livestock supplementary feeds to be distributed to vulnerable households mostly in pastoral livelihood zone.

6.2 FOOD AID

- No food aid was issued during the month.

7.0 EMERGING ISSUES

7.1 Insecurity/Conflict/Human Displacement

- No major incident was recorded during the month under review.

7.2 Migration

- Livestock herders in pastoral livelihood zone are yet to return to their normal grazing grounds due to poor pasture conditions. High concentration was witnessed in wheat harvested areas in Narok North Sub County.

7.3 FOOD SECURITY PROGNOSIS

- In mixed farming livelihood zone, food security situation is improving gradually due to a relatively better rainfall performance compared to other parts of the county. Milk production is improving due to availability of good pastures. Crop production is likely to do well as most of the crops on the farms are in good condition. Water access and availability is also good.
- However, in pastoral livelihood zone, rainfall performance has been poor, resulting in poor forage conditions and water availability. Livestock production has been severely affected. This zone is likely to continue witnessing poor dietary intakes and consequently resulting into more cases of malnutrition. Cases of livestock –wildlife conflicts are likely to be experienced as herders attempt to access pastures from Maasai Mara game reserve.

8.0 RECOMMENDATIONS

- Drought response interventions targeted to pastoral livelihood zone should be enhanced. These include livestock feed supplements to save key productive stocks. Livestock vaccination is needed to mop up few existing cases of livestock diseases.