

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



A Vision 2030 Flagship Project



FEBRUARY EW PHASE

Drought Situation & EW Phase Classification

Biophysical Indicators

- **Rainfall:**
 - No rainfall was reported during the month.
- **Vegetation condition:**
 - The vegetation greenness as depicted by the vegetation condition index (VCI) is normal. However, the pastoral livelihood zone is experiencing moderate vegetation deficit.

Socio Economic Indicators (Impact Indicators)

Production indicators:

- The on-going farming activities include weeding of crops and harvesting of maize in Transmara East and kilgoris sub-counties
- Livestock body condition is fair in the pastoral livelihood zone and good in the mixed farming and the agro-pastoral livelihood zones.
- Milk production is still stable in the mixed farming livelihood zone and is within the normal range compared to the long term average.
- There is confirmed outbreak of blue tongue disease in the county affecting sheep and goats mostly in Narok South, Transmara West and Narok West sub counties.

Access indicators:

- Terms of trade were not favorable in pastoral and mixed farming livelihood zones.
- Milk consumption ranged from fair to good in mixed farming and agro-pastoral livelihood zones.
- Water access for both human and livestock was good in the mixed farming and agro-pastoral livelihood zones compared to pastoral livelihood zone which ranged from fair to poor.

Utilization Indicators:

- The rate of malnutrition cases is stable and within the normal range as indicated by percent of mid upper arm Circumference (MUAC).

Early Warning (EW) Phase Classification

Livelihood Zone	Phase	Trend
AGRO PASTORAL (Kirindoni, Kilgoris)	NORMAL	STABLE
MIXED FARMING (ololulunga, Nkareta and Emurua Dikirr)	NORMAL	STABLE
PASTORAL (Loita, Naroosura, Olmesutie, Ntuka and Elang'ata Enterit)	ALERT	STABLE
LEASING/PASTORAL (Mosiro Ward)	ALERT	STABLE
COUNTY	NORMAL	STABLE
Biophysical Indicators	Value	Normal Range/Value
Rainfall (% of Normal)	20%	>90%
VCI-3Month	43.89	>35
Forage condition	Fair-good	Good
Production indicators	Value	Normal
Crop Condition (Maize)	Normal	Normal
Livestock Body Condition	Fair-good	Good
Milk Production	2.1	>5 Litres
Livestock Migration Pattern	Normal	Normal
Livestock deaths (from drought)	No death	No death
Access Indicators	Value	Normal
Terms of Trade (ToT)	60.7	>100
Milk Consumption	1.55	>4 litres
Return distance to water sources	6.3	<5 Km
Cost of water at source in ksh (20 litres)	2-10	<5
Utilization indicators	Value	Normal
Nutrition Status, MUAC (% at risk of malnutrition)	8	<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 county recorded a few off season showers in January up to the first dekad of February. Since then the county has experienced dry spells.

1.2 AMOUNT OF RAINFALL AND SPATIAL DISTRIBUTION

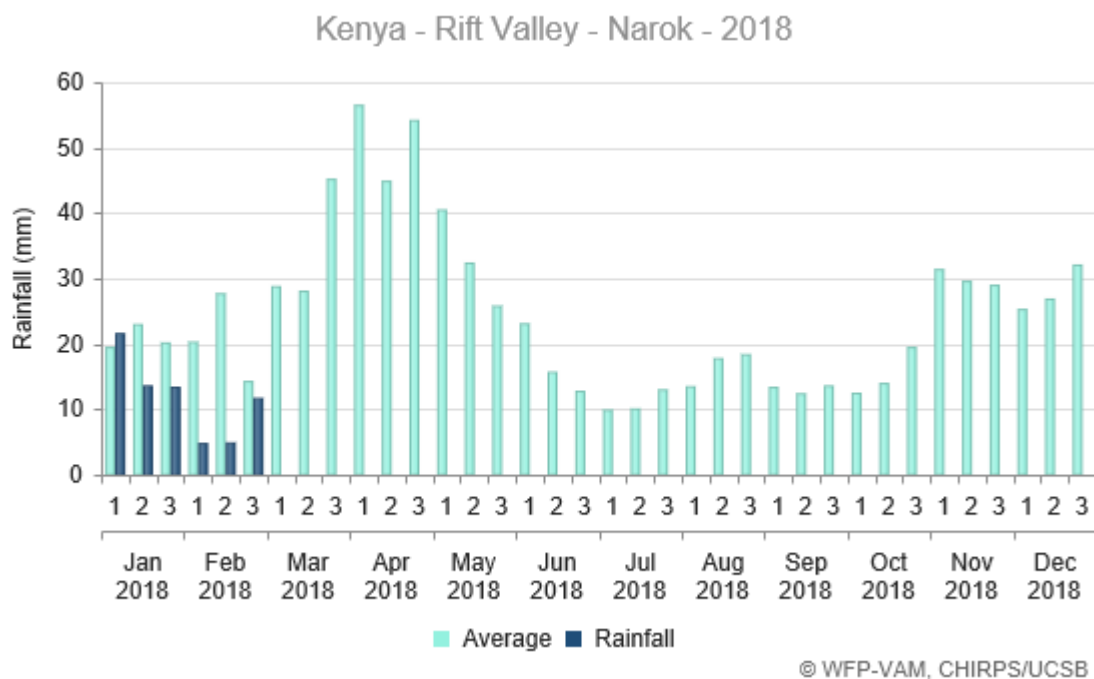


Figure 1

- The above satellite image highlights the general performance of the rains in the county for the month under review. The rainfall performance was below average compared to the long term means.

2. IMPACTS ON VEGETATION AND WATER

2.1 VEGETATION CONDITION

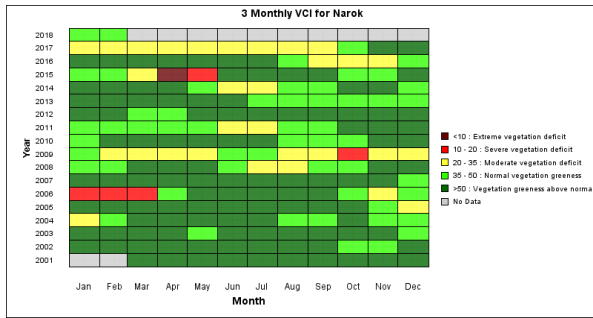
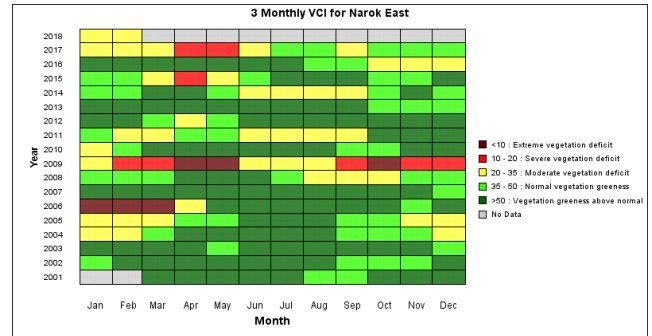


Figure 2

The vegetation greenness as depicted by the vegetation condition index (VCI) shows normal vegetation greenness as shown in Figure 2. However, Narok East Sub County is having moderate vegetation deficit as shown by Figure 3.



2.1.1 Field observations

2.1.1.1 Pasture

- The quantity and quality of pasture in mixed farming livelihood zone and agro pastoral livelihood zone remained good. In **Figure 3** pastoral livelihood zones, pasture conditions were poor. Mosiro Ward in Narok East Sub County and Naroosura ward in Narok south sub county are experiencing very poor pastures due to depressed rains.
- The available pasture is likely to last for three months in mixed farming and agro-pastoral livelihood zones. In pastoral livelihood zone, pastures are likely to last for less than one month. Mosiro and Naroosura wards are the most affected with vegetation deficit.
- The current pasture situation is not normal.

2.1.1.2 Browse

- The quality and quantity of browse in the mixed farming livelihood zone and agro pastoral livelihood zone was good. In pastoral livelihood zone, the browse condition was fair. The available browse is expected to last for three and half months in mixed farming zone whereas in pastoral livelihood zones it is likely to last for two months.
- The current browse situation is almost normal.

2.2 Water resources

2.2.1 Sources

- The main sources of water for livestock and human consumption in the county were pans/dams, rivers traditional river wells and boreholes as shown by Figure 4.
- The quantity and quality of water was generally good in mixed farming and the agro-pastoral livelihood zones with pans and dams being the most used.

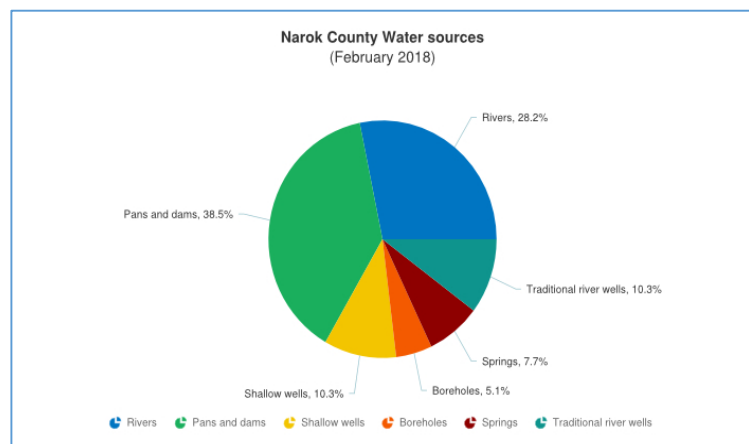


Figure 4

- In pastoral livelihood zone, water volumes ranged from fair to poor. In mixed farming and agro pastoral livelihood zone, water volume are fair to good and this was attributed to off season rains that were received in the previous month.
- 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 a month with most water sources drying up in Mosiro and Naroosura areas.
- The status of main sources of water is normal at this time of the year.

2.2.2 Household access and Utilization

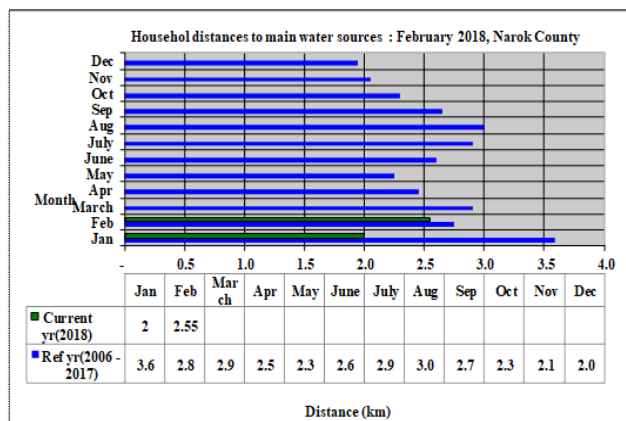


Figure 5 The average distance to watering points for households slightly increased by 30% compared to the previous month. Pastoral livelihood zone recorded the longest average return distance of five km having increased from four km last month while the shortest average distance was recorded in mixed farming livelihood zone being recorded at one km. Trekking distances in pastoral areas increased due to cessation of rain.

2.2.3 Livestock access

The average distance to main water sources from grazing areas increased by 36% compared to the previous month. Pastoral livelihood zone recorded the longest distance at seven km while the shortest distance was recorded in the mixed farming livelihood zone at 1.5 km. Mosiro, Suswa, Koyiaki and Ntuka areas in the pastoral livelihood zone are some of the areas experiencing water access challenges.

- The current average trekking distance is above the normal range at this time of the year as shown in Figure 6.

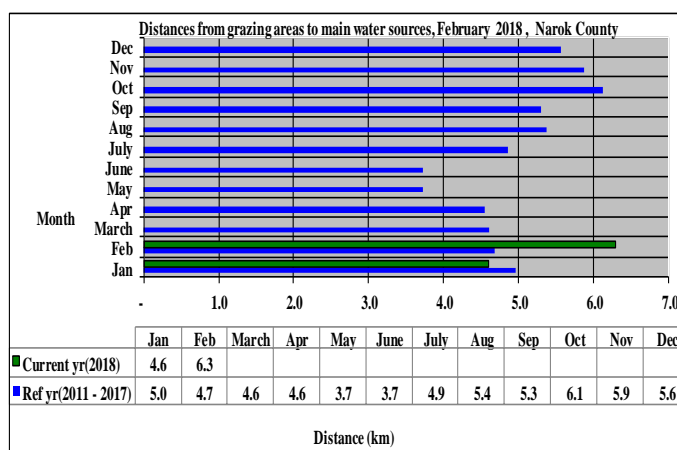


Figure 6

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 fair in the pastoral livelihood zone and the agro-pastoral livelihood zone. The body condition for sheep and goat ranged from fair to good across all livelihood zones.
- The stability in livestock body condition is attributed to improved forage quality and water availability due to off season rains received last month.
- The current livestock body condition is normal at this time of the year.

3.1.2 Livestock Diseases

- There is an outbreak of blue tongue disease in Narok South and Narok West sub counties affecting sheep and goats. More farmers are likely to incur more losses if appropriate measures are not put in place.

3.1.3 Milk Production

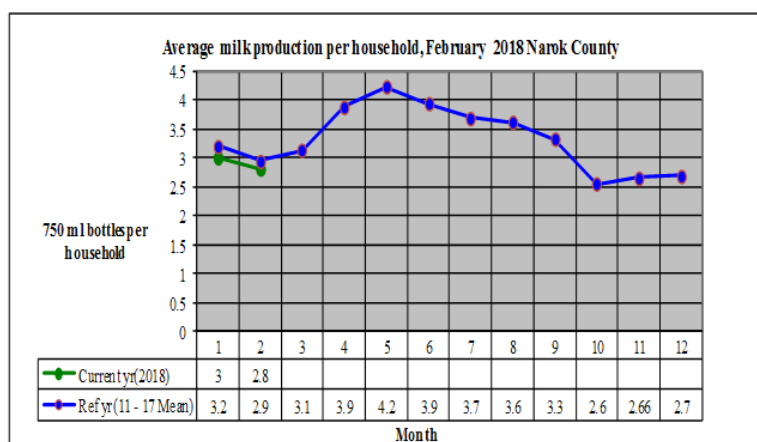


Figure 7

The average milk production per household per day remained stable compared to the previous month. The stability in milk production can be attributed to stable livestock body condition. The current milk production rate is within the normal range at this time of the year as shown by figure 7.

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.
- The on-going farming activities include weeding of crops for those counties in Mau areas found in Narok North and Narok East sub-counties and harvesting of green maize in Transmara East and Kilgoris Sub-counties.

4.0 MARKET PERFORMANCE

4.1 LIVESTOCK MARKETING

4.1.1 Cattle Prices

The average price for the medium sized cattle declined by nine percent compared to the previous month.

The highest prices were recorded in agro-pastoral livelihood zone at Kshs 17,395 per head and the lowest in the pastoral livelihood zones at an average price of Kshs 11, 330 per head.

The current cattle prices are within the normal range compared to long term means at this time of the year as shown by Figure 8.

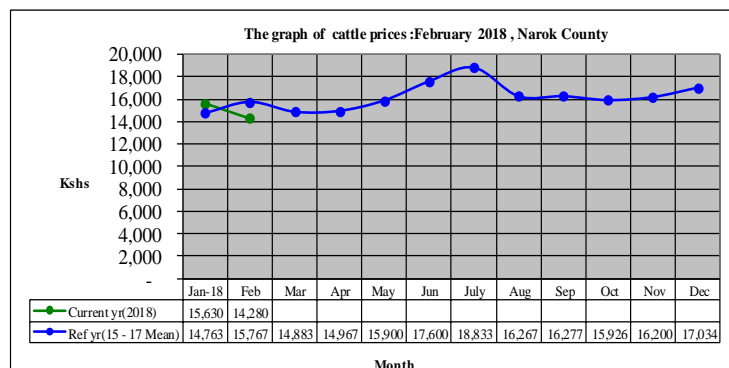


Figure 8

4.1.2 Goat Prices

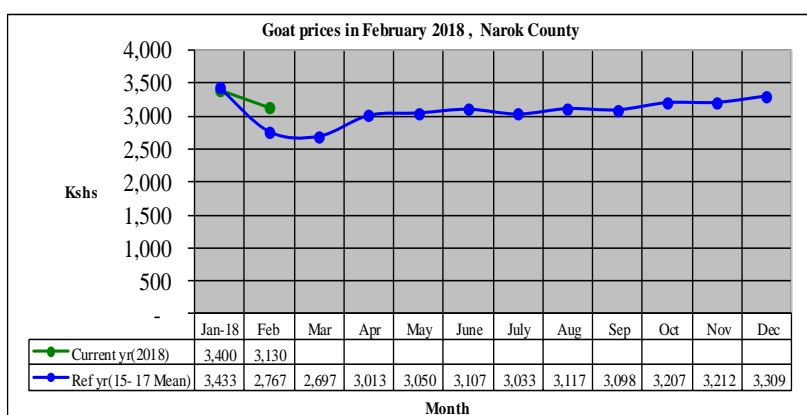


Figure 9

prices, as those in agro-pastoral livelihood zone sold at Kshs. 4,200/head compared to the pastoralists who sold at Kshs. 3,000 per head. The average goat price was above the normal range at this time of the year.

The average price of a medium sized two year old goat increased by eight percent compared to the previous month.

The price stability is attributed to good body condition and forage availability in the mixed farming and agro-pastoral livelihood zones.

There was a significant inter-livelihood variation in goat

4.2 CROP PRICES

4.2.1 Maize

The average price of maize per kilogram remained stable compared to last month. The highest prices were recorded in pastoral livelihood zone at Kshs 70 per kg while the lowest was recorded in the mixed farming livelihood zone at an average price of Kshs 20 per kg. Maize harvested

locally and supplies from other counties have assisted in stabilizing maize prices. The overall price is slightly above the normal range as shown by Figure 10.

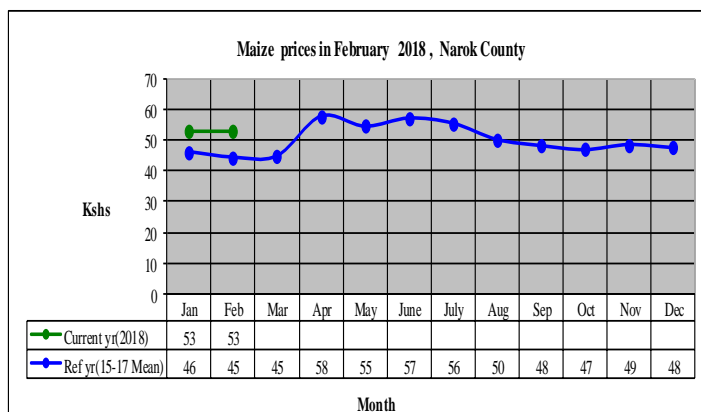


Figure 10

4.2.2 Beans

- There was fifteen percent decrease in the average price of beans per kilogram compared to the previous month. The highest price was recorded in the agro-pastoral livelihood zones at Kshs. 120/kg, compared to the mixed farming livelihood zone, which recorded a lower price of Kshs.71 per kg.
- The current price is within normal range at

this time of the year as shown by Figure 11.

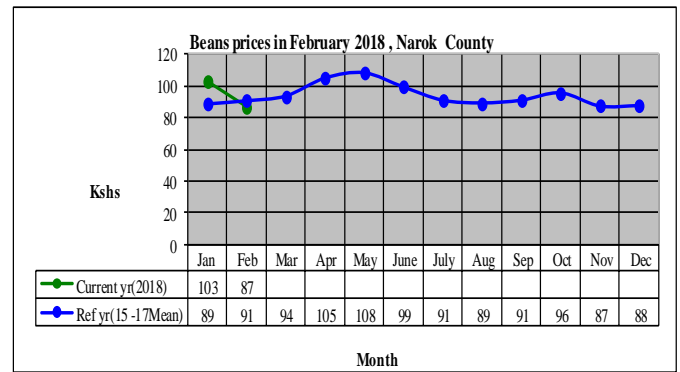


Figure 11

4.3 Livestock Price Ratio/Terms of Trade

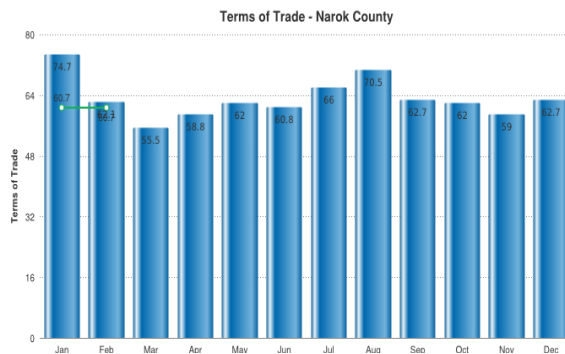


Figure 12

the year as shown in Figure 12.

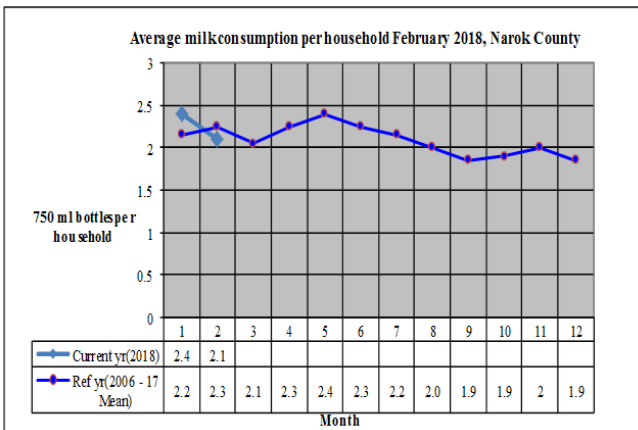
The Terms of Trade (ToTs) based on the Cereal/Meat price ratio remained stable. The stability was occasioned by stable maize and goat prices.

This implies that a sale of one goat fetched 60kg of cereals. The ToTs were less favourable in the pastoral and mixed farming livelihood zones compared to agro pastoral livelihood zone.

The cereal/meat price ratio is within the normal range at this time of

5.0 FOOD CONSUMPTION AND NUTRITION STATUS

5.1 MILK CONSUMPTION



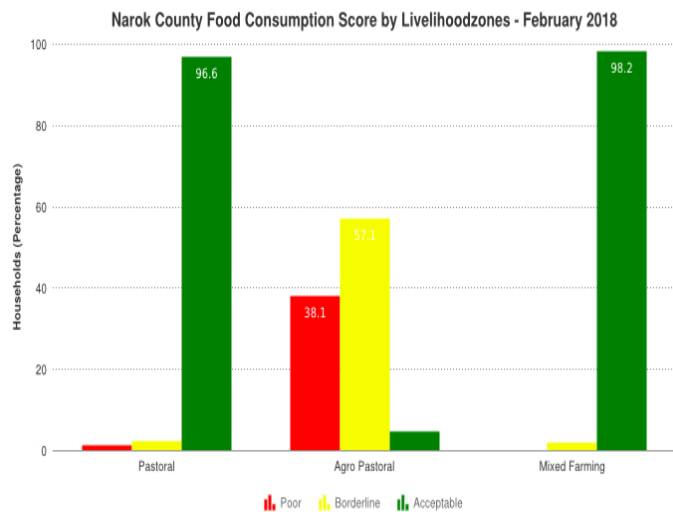
Average household milk consumption per day is stable compared to the previous month although it is on a declining trend. There was significant disparity in milk consumption across the livelihoods with agro pastoral zone having the highest consumption rate at 4.3 litres, followed by mixed farming zone at 2.5 litres while the pastoral zone had the least consumption rate at 1.4 litres.

The current milk consumption rate is within normal range at this time of the year as shown by Figure 13.

Figure 13

5.2 FOOD CONSUMPTION SCORE

- In reference to Food consumption scores, a total of 67%, 20% and 13% of households fell within the acceptable, borderline and poor food consumption score categories respectively in the month under review.
- The poor food consumption score implies household are not consuming a balanced diet rarely consuming food rich in protein, borderline imply household consuming staples, vegetables every day accompanied by oil and pulses a few times in a week while the acceptable imply households consuming staples, protein(milk and meat), vegetables every day and frequently accompanied by pulses.
- However, there was a significant variation across livelihood zones as shown in Figure 14 with mixed farming and pastoral livelihood zones having the bulk of their populations with acceptable food consumption scores. In agro-pastoral livelihood zone, the majority of the population had marginal food consumption scores. The inter-livelihood variation is attributed to high consumption of meat and milk in most households in the pastoral and mixed farming livelihood zones compared to those in the agro-pastoral livelihood zone



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) is stable but on a downward trend compared to the previous month. There were more cases of malnutrition in pastoral livelihood zone than in mixed farming zone. The pastoral and the agro-pastoral livelihood zones recorded the highest number of children at risk of malnutrition at nine percent compared to mixed farming livelihood zone which recorded two percent. The highest number of children at risk of malnutrition was witnessed in

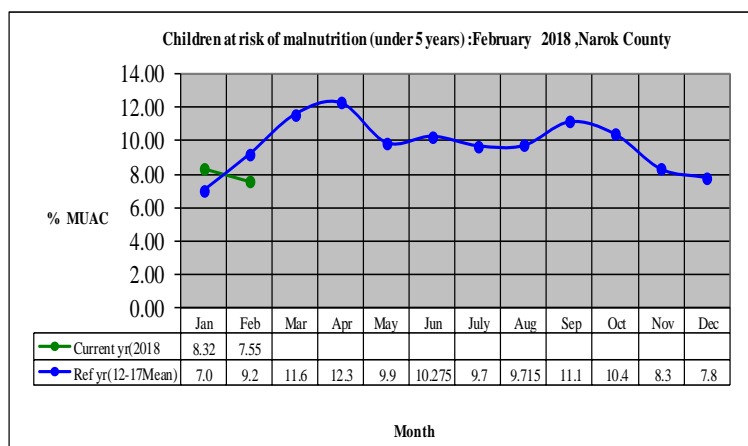


Figure 15

Mosiro, Siana and Naroosura wards in pastoral livelihood zone owing to poor dietary diversity 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 experienced off season showers in January to mid of February which contributed positively to vegetable availability in households.
- The current rate of malnutrition is within the normal range compared to the long term average as shown by Figure 15.

5.3.2 Health

- No major disease outbreaks were reported during the month.

5.4 COPING STRATEGIES

- Household employed less unusual coping strategies in accessing food across all the livelihood zones as shown by Figure 16. The mixed farming livelihood zone had slightly higher CSI compared to other zones. This implies that households in the mixed farming zone employed more coping strategies compared to those in

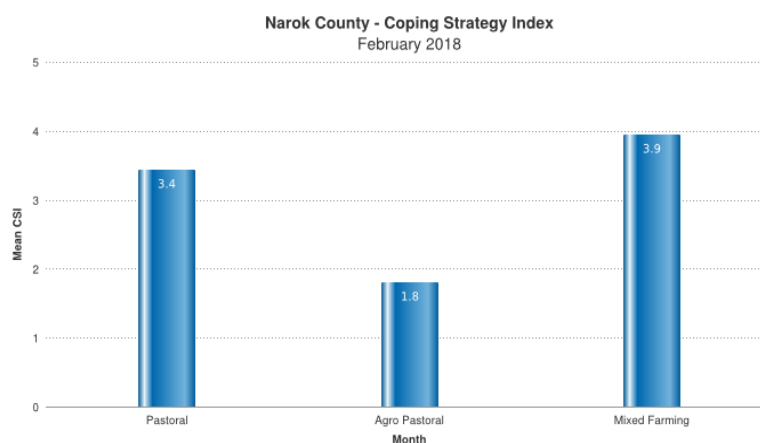


Figure 16

pastoral and agro-pastoral livelihood zones who can sell livestock and livestock products to purchase food.

- Increased cases of charcoal burning and casual labour as a means of getting income to purchase food was observed in Emurua Dikirr and Narok East Sub Counties.
- The coping strategies are 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.

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

- Most Livestock herders in pastoral livelihood zone have returned to their normal grazing grounds due to pasture regeneration and water availability owing to off season showers received in January to mid of February this year.

7.3 FOOD SECURITY PROGNOSIS

- The county has started receiving off season rains by end of February which are expected to have a positive impact on forage condition. This is likely to have a positive impact on livestock productivity and thus improving food security in the next one month. However, the rains may equally worsen the prevailing outbreak of blue tongue disease in the county. The rains will also affect positively water situation, whereby the open water sources are expected to be well recharged. It is therefore expected that water consumption by both livestock and humans will improve significantly.
- Malnutrition rates are expected to remain stable due to prevailing acceptable food consumption patterns.

8.0 RECOMMENDATIONS

- Mass livestock vaccination against the outbreak of blue tongue disease should be activated immediately to avert loss of livestock assets in the county.
- Feed supplementation should be done in Mosiro Ward in Narok East Sub County and Narosora ward in Narok South Sub County. Although VCI value shows moderate vegetation deficit, the forage situation in these Wards is much worse. This zones spills into Kajiado west and Kajiado South Sub Counties who's VCI shows severe vegetation deficit. The VCI for these Sub Counties has been downgraded due to the influence from the mixed farming livelihood zones whose pastures are good.
- The county is expected to receive near normal rains and therefore farmers should take advantage of this by preparing their farms early enough.
- Rehabilitation of rain water harvesting structures should be enhanced in order to maximise harvesting of the rain water during the long rains season.
- Introduction of kitchen gardens in pastoral areas is highly recommended in order to improve the nutrition status of the households.