

National Drought Management Authority

NAROK COUNTY

DROUGHT EARLY WARNING BULLETIN FOR AUGUST 2019



A Vision 2030 Flagship Project



AUGUST EW PHASE

Drought Situation & EW Phase Classification

Biophysical Indicators

Rainfall

- Most parts of the county remained dry during the month under review.

Vegetation condition:

- The county is experiencing above normal vegetation greenness as depicted by the vegetation condition index (VCI)

Socio Economic Indicators (Impact Indicators)

Production indicators:

- Crops harvested during the month included Maize, beans and wheat mostly in the mixed farming livelihood -+zone.
- Livestock body condition was good in the mixed farming and the agro-pastoral livelihood zones while those in pastoral livelihood zone had fair to good body condition.
- Milk production ranged from good to fair but below the normal range compared to the long-term average.

Access indicators:

- Terms of trade are fair especially for pastoral households.
- Milk consumption was fair in all the livelihood zones.
- Water access for both human and livestock consumption ranged from fair to good in mixed farming and agro-pastoral livelihood zones but poor to fair in the pastoral livelihood zone
- Distances to water sources are on an increasing trend but within the normal range.

Utilization Indicators:

- Cases of malnutrition are still high compared to normal as indicated by percent of mid upper arm circumference (MUAC).
- Most households were within acceptable food consumption scores and employed normal 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
COUNTY	NORMAL	STABLE
Biophysical Indicators	Value	Normal Range/Value
VCI-3Month	65.56	>35
Forage condition	Good	Good
Production indicators	Value	Normal
Crop Condition (Maize)	Poor-Fair	Normal
Livestock Body Condition	Fair-Good	Good
Milk Production in litres	2.3	>5
Livestock Migration Pattern	Normal	Normal
Livestock deaths (Drought related))	No death	No death
Access Indicators	Value	Normal
Terms of Trade (ToT)	76.5	>100
Milk Consumption in litres	1.6	>4
Return distance to water sources in km	3.6	<5
Cost of water at source in Kshs (20 litres)	3-5	<5
Utilization indicators	Value	Normal
Nutrition Status, MUAC (% at risk of malnutrition)	8.9	<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

1.0 CLIMATIC CONDITIONS

1.1 RAINFALL PERFORMANCE

- There was relatively low precipitation recorded in the county during the month under review. The mixed farming livelihood zone had more rainfall amounts compared to the agro-pastoral and pastoral livelihood zones which recorded very little rains.
- The temporal and spatial distribution ranged from fair to poor across the livelihood zones.

1.2 AMOUNT OF RAINFALL AND SPATIAL DISTRIBUTION

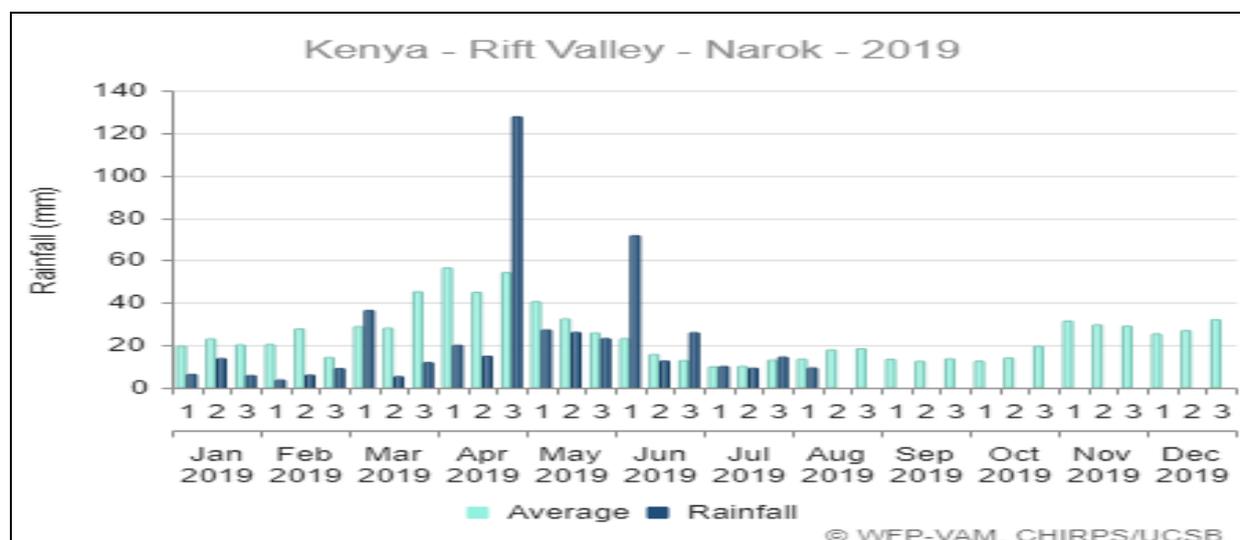


Figure 1: Rainfall performance-Narok County

- The above satellite image (Figure 1) highlights the general performance of the rains in the county for the month of August, 2019 in comparison with the long-term averages.
- Rainfall performance in the month of August was below the normal range in-terms of amount received compared to the long-term seasonal range.

2.0 IMPACTS ON VEGETATION AND WATER

2.1 VEGETATION CONDITION

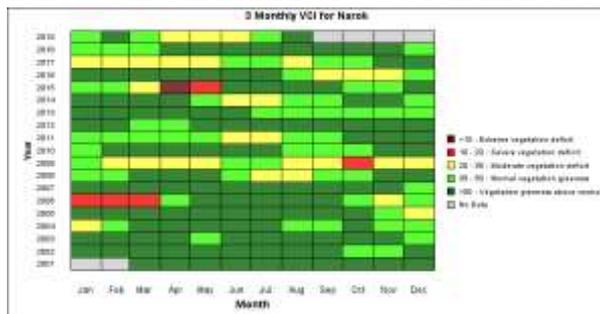


Figure 2: VCI: Narok County

The vegetation greenness as depicted by the vegetation condition index (VCI) shows above normal vegetation greenness across the county (Figure 2) in respect to historical minimum and maximum VCI values. The improved vegetation condition is as a result of the off season showers received in the last two months.

2.1.1 Field observations

2.1.1.1 Pasture

- The pasture quantity and quality in mixed farming and agro-pastoral livelihood zones is fair to good. In the pastoral livelihood zone, pasture condition is poor. The pasture conditions in Ntuka, Mosiro and Koyiaki regions in the pastoral livelihood zone had been depleted owing to poor rainfall performance.
- The available pasture is likely to last for less than three months in mixed farming and agro-pastoral livelihood zones and less than a month in the pastoral livelihood zone.
- The current pasture situation is below the normal range.

2.1.1.2 Browse

- The quantity and quality of browse in mixed farming and agro-pastoral livelihood zones were good. In the pastoral livelihood zone, browse conditions ranged from good to fair. 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 within the normal range.

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-good in

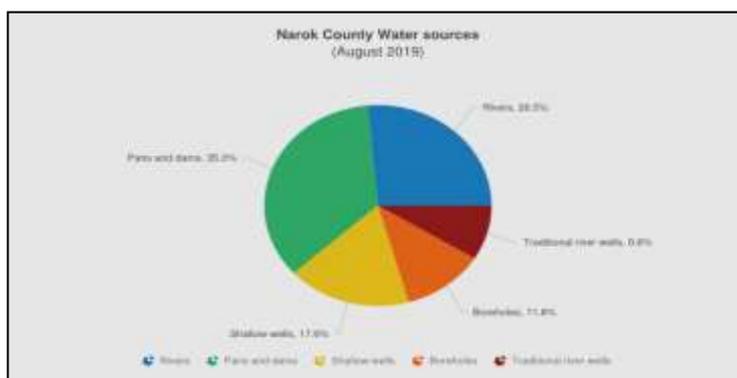


Figure 3: Water sources

- the mixed farming and agro-pastoral livelihood zones with the pastoral livelihood zone having fair-poor quality. Pans and dams were the most used sources in the pastoral and agro-pastoral livelihood zone.
- 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 1-2 months. Most households in of Nturumeti in Mosiro ward and Ntuka in Naroosura ward are experiencing water stress.
- The current situation is below the normal range at this time of the year.

2.2.2 Household access and Utilization

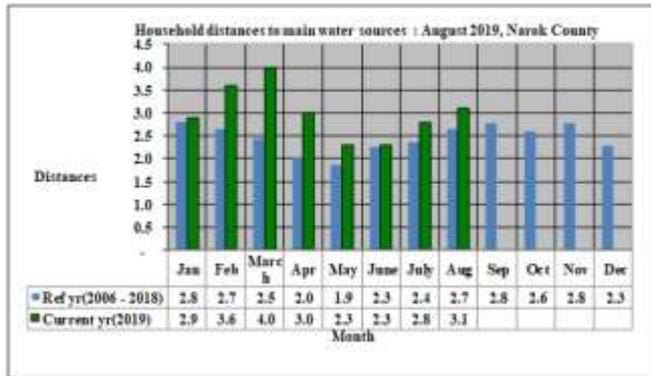


Figure 4: Water access by households

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

Pastoral livelihood zone recorded the longest average distance at six kilometres while the shortest average distance was recorded in mixed farming livelihood zone at half a kilometre.

The current trekking distances to water points was slightly higher than normal

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 sixteen percent compared to the previous month. Pastoral livelihood zone recorded the longest distance of seven kilometres while the shortest distance was recorded in the mixed farming livelihood zone at a kilometre. The current average trekking distance is below the normal range at this time of the year as shown in Figure 5.

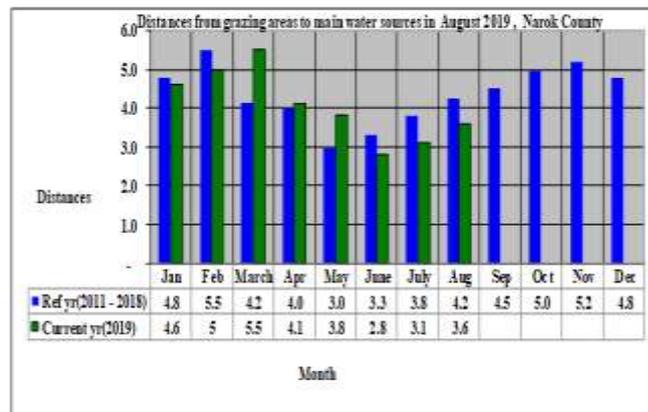


Figure 5: Water access by livestock

3.0 PRODUCTION INDICATORS

3.1 LIVESTOCK PRODUCTION

3.1.1 Livestock Body Condition

- The cattle body condition in the mixed farming and agro-pastoral livelihood zones remained good while those in the pastoral livelihood zone had fair to good body condition. The body condition for sheep and goats remained good across all the livelihood zones.
- The current livestock body condition is below normal range at this time of the year.

3.1.2 Livestock Diseases

- The county encountered confirmed cases of foot & mouth diseases which is on the increase particularly in Narok East, Narok West and Narok South Sub Counties. Other cases being reported include anthrax in Narok West sub-county, lumpy skin disease, blue tongue disease, CCPP and CBPP diseases.

3.1.3 Milk Production

- The average milk produced per household per day remained the same compared to the previous month as shown by Figure 6.
- Milk production is 0.5- 2 litres in the pastoral areas, 1-5 litres in agro-pastoral areas and 1-8 litres in the mixed farming livelihood zone.
- The current milk production levels are below the normal range.

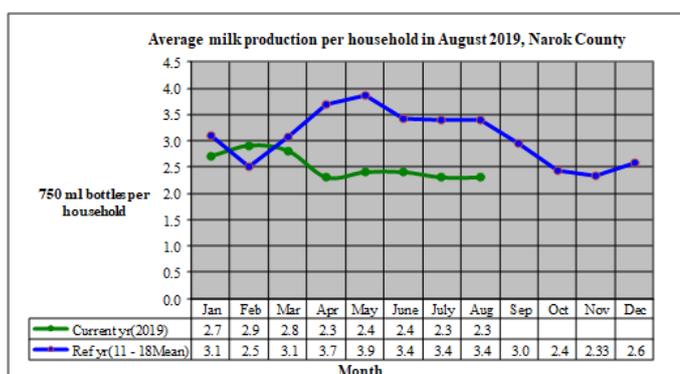


Figure 6: Milk production

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.
- Most of the crops were in poor conditions due to water stress resulting from poor performance of the long rains season. The affected crops include maize, beans and wheat.
- Regions of Mau, Sogoo and Oloolulunga in Narok South, Elenerai and Mulot in Narok West, Emurua Dikirr and Kilgoris have started harvesting Maize, wheat and beans. However, most areas harvested relatively below normal yield during this season.
- In Transmara East and Transmara West Sub Counties, the maize crop is still being attacked by fall army worms and maize lethal necrosis disease.

4.0 MARKET PERFORMANCE

4.1 LIVESTOCK MARKETING

4.1.1 Cattle Prices

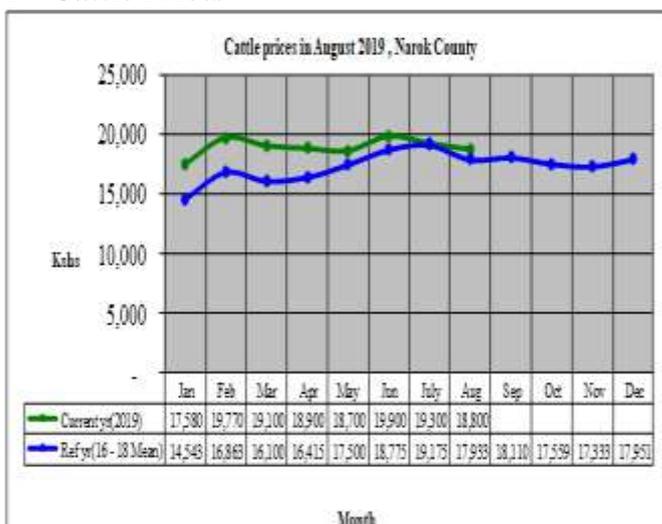


Figure 7: Cattle prices

The average price for the medium sized cattle slightly reduced by three percent compared to last month.

The highest prices were recorded in the mixed farming livelihood zone at Kshs 28,000 per head while the lowest price was in the pastoral livelihood zone at an average price of Kshs 15,000 per head.

The stability was attributed to good livestock body condition.

The current cattle prices are within 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 increased by nine percent compared to the previous month.
- The highest price was recorded in the agro-pastoral livelihood zone at Kshs 4600 per head while the lowest price was recorded in the pastoral livelihood zone at Kshs 3,000 per head.
- The average goat price was above the normal range at this time of the year as shown by Figure 8.

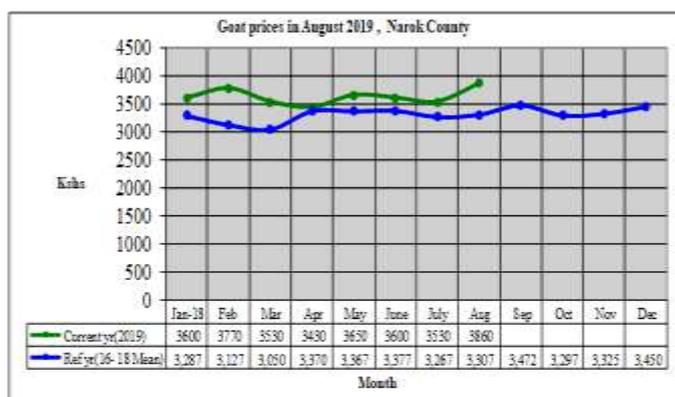


Figure 8: Goat prices

4.2 CROP PRICES

4.2.1 Maize

- The average price of maize per kilogram reduced by twelve percent compared to the previous month. The highest prices were recorded in agro-pastoral livelihood zone at Kshs 60 per kg while the lowest was recorded in the mixed farming livelihood zone at an average price of Kshs 40 per kg.
- The reduction in price is owned to on-going harvest in the mixed farming and agro-pastoral livelihood zones.
- The overall price is above the normal range as shown by Figure 9.

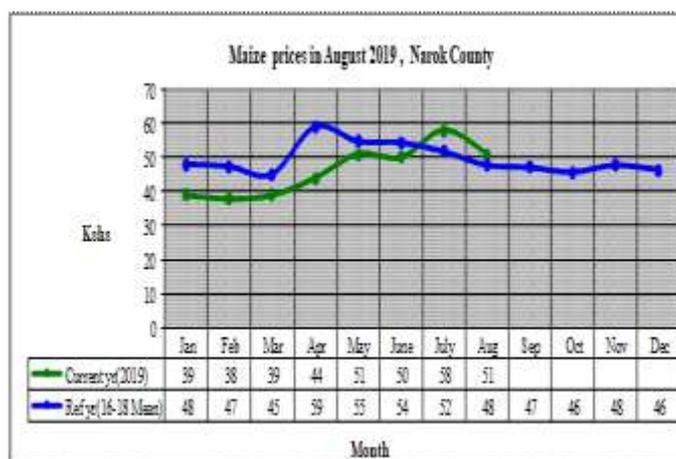


Figure 9: Maize prices

4.2.2 Beans

- The average price of beans reduced by twelve percent compared to the previous month. The highest price was recorded in the pastoral livelihood zone at Kshs. 90/kg compared to the agro-pastoral livelihood zone which recorded a lower price of Kshs.50 per kg.
- The current price is below the



normal range at this time of the year as shown by Figure 10.

Figure 10: Beans prices

4.3 Livestock Price Ratio/Terms of Trade

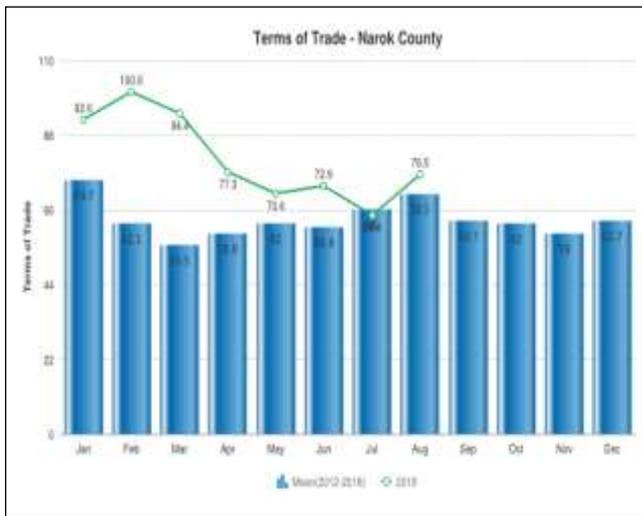


Figure 11: Terms of trade

The Terms of Trade (ToTs) based on the Cereal/Meat price ratio increased by nineteen percent compared to the previous month. The increase in ToTs is due to decrease in cereal prices compared to increase in goat prices.

This implies that a sale of one goat fetched 76.5 kgs of cereals compared to 64.4 kgs last month. 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 slightly above normal range as shown in

Figure 11.

5.0 FOOD CONSUMPTION AND NUTRITION STATUS

5.1 MILK CONSUMPTION

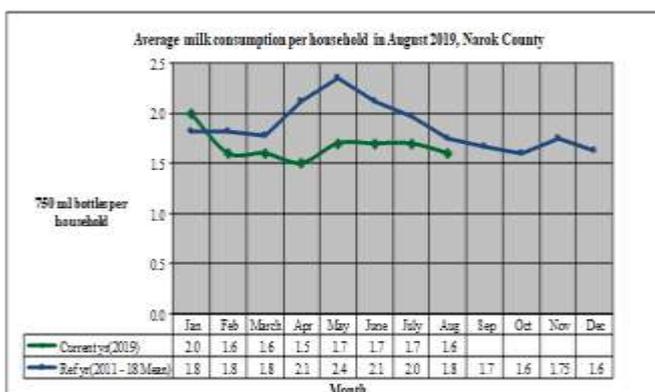


Figure 12: Milk consumption

Average household milk consumption per day slightly reduced compared to the previous month. There were inter-livelihood variations in milk consumption with mixed farming livelihood zone having the highest consumption rate at 1.5-3 litres, followed by agro-pastoral livelihood zone at 1-3 litres. The pastoral livelihood zone had the least consumption rate at 0-1.5 litre. The current milk consumption rate is below the normal range at this time of the year as shown by Figure 12.

5.2 FOOD CONSUMPTION SCORE

- Approximately 92%, 6% and 2% 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 balanced diet and rarely consuming food rich in protein and energy giving food. 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 households are consuming staples, protein (milk and meat) and vegetables every day and frequently accompanied by pulses.
- There was minimal variation across the livelihood zones as shown in Figure 13. However, 6.8% households in pastoral livelihood zones were in the poor food consumption score.

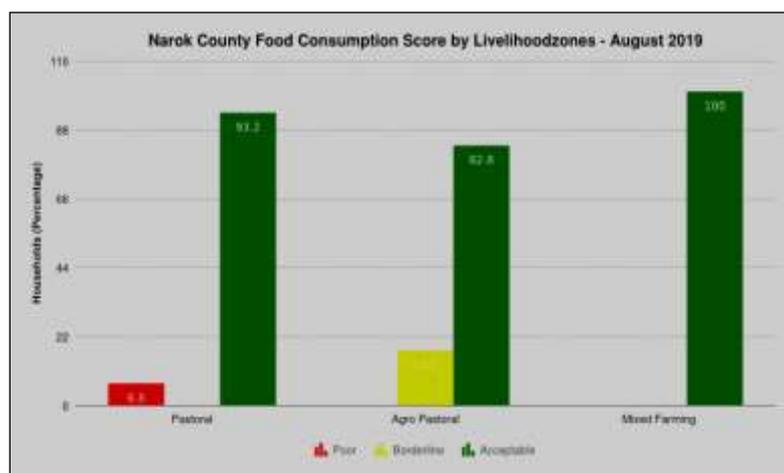


Figure 13: Food consumption score

5.3 HEALTH AND NUTRITION STATUS

5.3.1 Nutrition Status

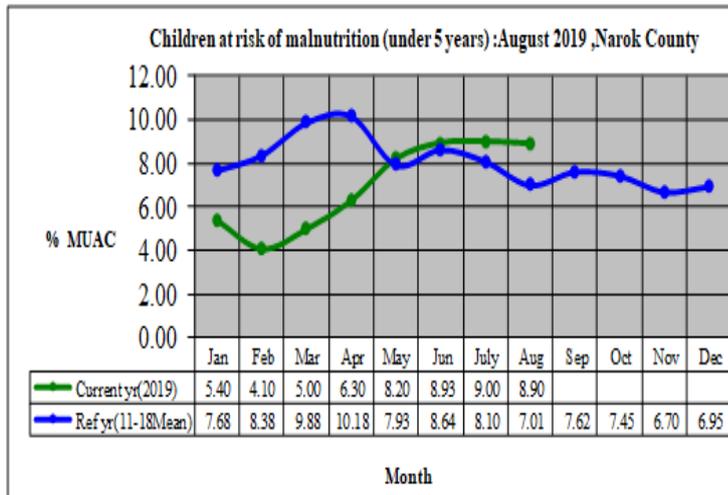


Figure 14: Children at risk of malnutrition compared to the long-term average as shown by Figure 14.

There was no significant variation in percentage of children less than five years of age who are at risk of malnutrition as indicated by the Mid-Upper Arm Circumference (MUAC) compared the previous month. However, Regions of Ntuka in the pastoral livelihood zone recorded the highest number of children at risk at 11.3%. This was occasioned by poor dietary diversity and increasing cereal prices at the household level coupled with low milk consumption rate. The current rate of malnutrition is slightly above the normal range

5.3.2 Health

Minor cases of fever and Malaria were recorded during the month under review. This was mostly recorded in pastoral and agro-pastoral livelihood zones.

5.4 COPING STRATEGIES

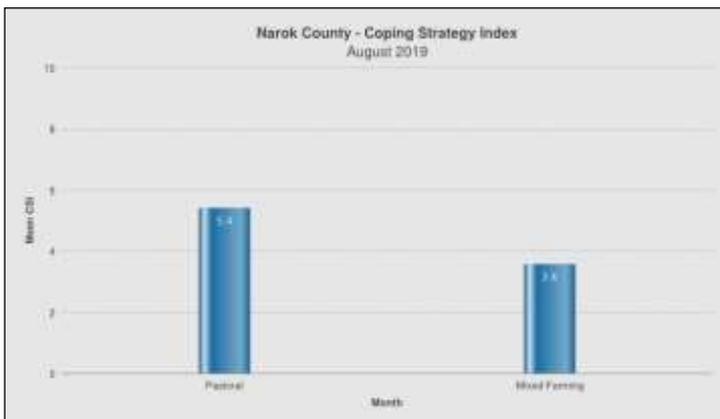


Figure 15: Coping strategies

The CSI for the County was at 3 in August 2019. Households employed normal 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

- The County government is implementing the National Agricultural and Rural Inclusive Growth project (NARIGP). The project is funded by the World Bank covering 20 wards in the county and aims at increasing agricultural productivity and profitability of targeted beneficiaries.
- Construction of 4 water projects (Sogoo, Pinyiny, Olopikidongoe and Entasekera) in four Wards of Sogoo, Lolgorian, Loita and Mosiro at a cost of Kshs 176m. The projects are being funded by Water Services Trust Fund.
- Epidemic diseases surveillance in Narok West Sub County is ongoing. The program is being funded and implemented by KRCS in collaboration with Ministry of Health and Veterinary department.

6.2 FOOD AID

- No food aid was received during the month under review.

7.0 EMERGING ISSUES

7.1 Insecurity/Conflict/Human Displacement

- No major conflict issues that are related to drought were observed during the month under review.

7.2 Migration

- Normal movement of large stocks to wheat and maize harvested farms of Nkareta, Mau and Ntulele was witnessed in the county during the month under review.

7.3 FOOD SECURITY PROGNOSIS

- The ongoing crop harvest particularly maize crop is going to assist in stabilizing food security situation. Food access is going to be better as maize prices are likely to drop.
- The off season showers have assisted in stabilising forage conditions, a factor that will assist in improving livestock productivity. The available forage will sustain livestock up to the next rainfall season.
- Purchasing power mostly for pastoral household is likely to improve following reduction in maize prices.
- Recharge of most water sources was below normal. Water scarcity is likely to be experienced in the coming months especially in pastoral areas.
- The county is likely to start experiencing some hot spots for malnutrition as the trend is rising particularly in pastoral areas.

8.0 RECOMMENDATIONS

- Malnutrition cases are still high thus there is a need for nutrition working group to closely monitor the situation in the known hot spot areas of Naroosura, Mosiro and Siana Wards.
- Desilting 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.
- 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.
- Livestock disease surveillance should be enhanced across the county.