

National Drought Management Authority

NAROK COUNTY

DROUGHT EARLY WARNING BULLETIN FOR SEPTEMBER 2019



A Vision 2030 Flagship Project



SEPTEMBER EW PHASE

Drought Situation & EW Phase Classification

Biophysical Indicators

Rainfall

- Moderate off-season showers were received in the mixed farming and agro-pastoral livelihood zones with the pastoral livelihood zone receiving relatively low to no rainfall 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 remained good in the mixed farming and the agro-pastoral livelihood zones while those in pastoral livelihood zone had fair to good body condition.
- Slight improvement in milk production ranging 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 ranged from fair to good 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 have marginally reduced and are below the normal range.

Utilization Indicators:

- Cases of malnutrition have reduced 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 with households in the pastoral employing more coping strategies.

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	62.68	>35
Forage condition	Fair-good	Good
Production indicators	Value	Normal
Crop Condition (Maize)	Poor-Fair	Normal
Livestock Body Condition	Fair-Good	Good
Milk Production in litres	2.4	>5
Livestock Migration Pattern	Normal	Normal
Livestock deaths (Drought related)	No death	No death
Access Indicators	Value	Normal
Terms of Trade (ToT)	80.4	>100
Milk Consumption in litres	1.8	>4
Return distance to water sources in km	3.2	<5
Cost of water at source in Kshs (20 litres)	3-5	<5
Utilization indicators	Value	Normal
Nutrition Status, MUAC (% at risk of malnutrition)	6.8	<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

1.0 CLIMATIC CONDITIONS

1.1 RAINFALL PERFORMANCE

- The county recorded some off-season showers in the first and third decad of the month under review. The mixed farming livelihood zone had more rainfall amounts compared to the agro-pastoral and pastoral livelihood zones which recorded low rains with some areas remaining relatively dry during the month.
- The temporal and spatial distribution ranged from fair to poor across the livelihood zones.

1.2 AMOUNT OF RAINFALL AND SPATIAL DISTRIBUTION

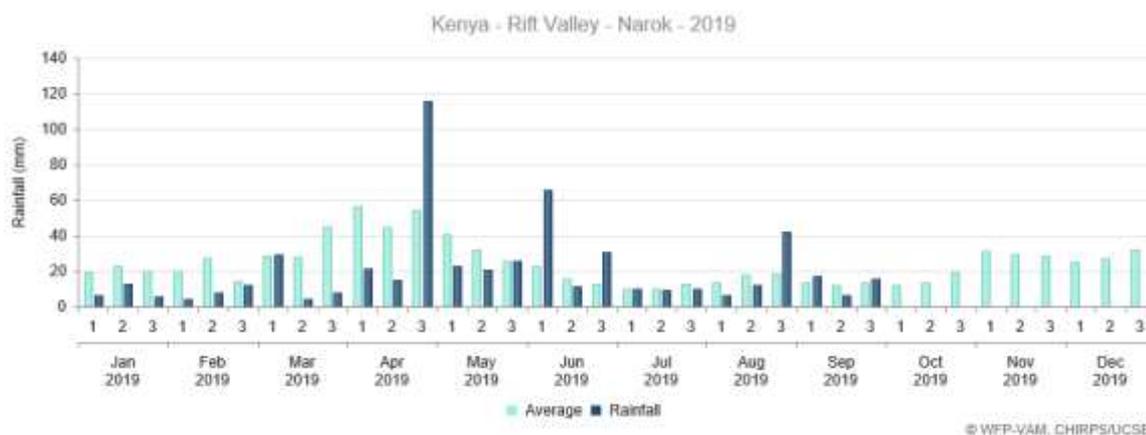


Figure 1: Rainfall performance-Narok County

- The above satellite image (Figure 1) highlights the general performance of the rains in the county for the month of September, 2019 in comparison with the long-term averages.
- The rainfall performance was generally within the expected range during the month under review.

2.0 IMPACTS ON VEGETATION AND WATER

2.1 VEGETATION CONDITION

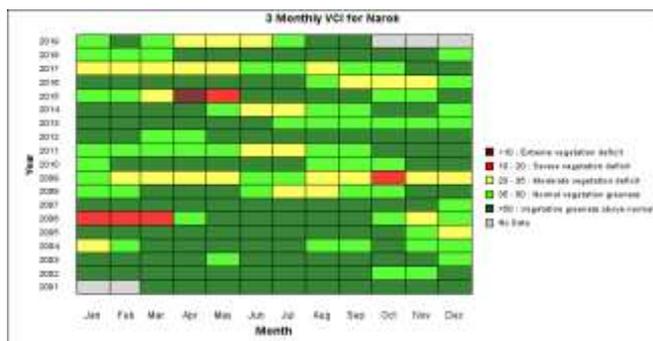


Figure 2: VCI: Narok County

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 good. In the pastoral livelihood zone, pasture condition ranged from poor to fair. The pasture conditions in Ntuka, Mosiro and Koyiaki regions in the pastoral livelihood zone remained poor due to poor rainfall performance.
- The available pasture is likely to last for 2-3 months in mixed farming and agro-pastoral livelihood zones and a month in the pastoral livelihood zone.
- The current pasture situation is within 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 less than 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 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 zones.

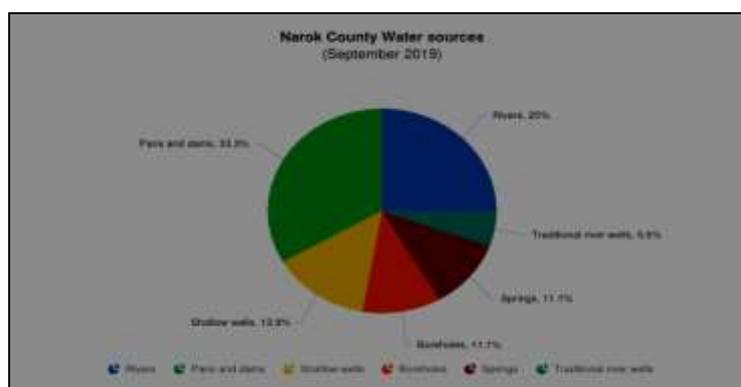


Figure 3: Water sources

- The current water sources are expected to last for two to three months in mixed farming and agro-pastoral livelihood zones. In pastoral livelihood zone, the water is likely to last

for one month. Most households in Koromoto in Mosiro ward and Ntuka in Naroosura ward are still experiencing water stress owing to poor rainfall performance.

- The current situation is below the normal range at this time of the year.

2.2.2 Household access and Utilization

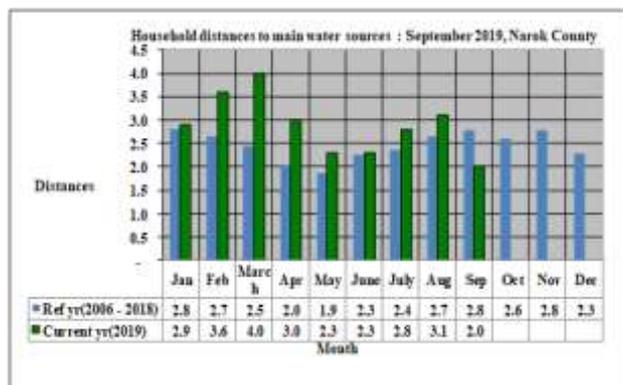


Figure 4: Water access by households

The average distance to watering points for households reduced by thirty-five 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 less than half a kilometre. The reduced distance was occasioned by off season showers in the mixed farming and agro-pastoral livelihood zones.

The current trekking distances to water points was below the 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 reduced by eleven 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 half a kilometre. The current average trekking distance is below the normal range at this time of the year as shown in Figure 5.

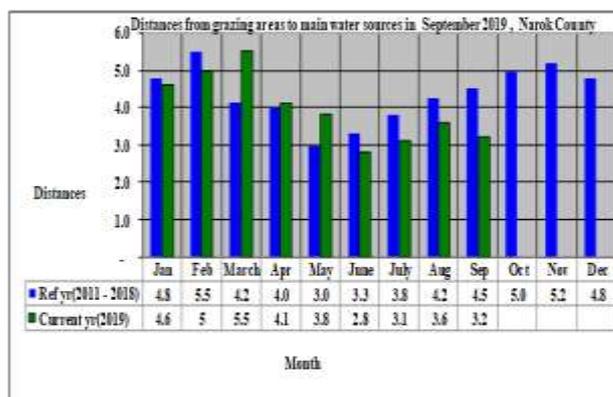


Figure 5: Water access by livestock

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 within 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 slightly increased by four percent compared to the previous month as shown by Figure 6.
- Milk production is 0.5- 3 litres in the pastoral areas, 1-8 litres in agro-pastoral areas and 1-12 litres in the mixed farming livelihood zone.
- The current milk production levels are below the normal range.

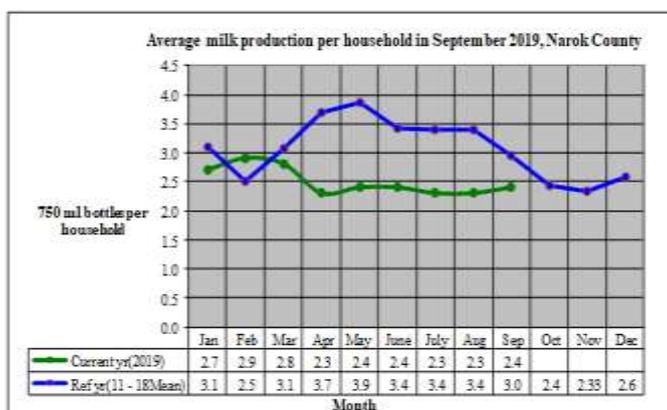


Figure 6: Milk production

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.
- Regions of Mau, Sogoo and Oloolulunga in Narok South, Elenerai and Mulot in Narok West, Emurua Dikirr and Kilgoris have harvested Maize, wheat and beans. Some farmers have started land preparation for the short rains 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

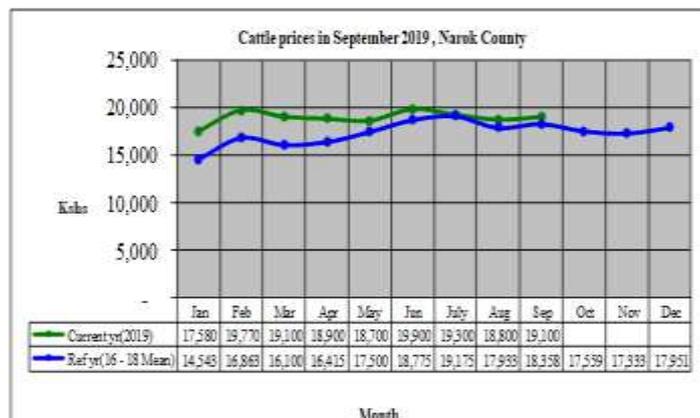


Figure 7: Cattle prices

The average price for the medium sized cattle slightly increased by two percent compared to the previous month. The highest prices were recorded in the mixed farming livelihood zone at Kshs 21,100 per head while the lowest price was in the agro-pastoral livelihood zone at an average price of Kshs 18,800 per head. The stability was attributed to slight improvement in livestock body condition. The current cattle prices are within the expected range compared to long term means at this time of the year as shown by Figure 7.

4.1.2 Goat Prices

- There was a marginal increase in the average goat prices compared to the previous month.
- The highest price was recorded in the agro-pastoral and mixed farming livelihood zones at Kshs 4300 per head while the lowest price was recorded in the pastoral livelihood zone at Kshs 3,400 per head.
- The average goat price was within the normal range at this time of the year as shown in Figure 8.

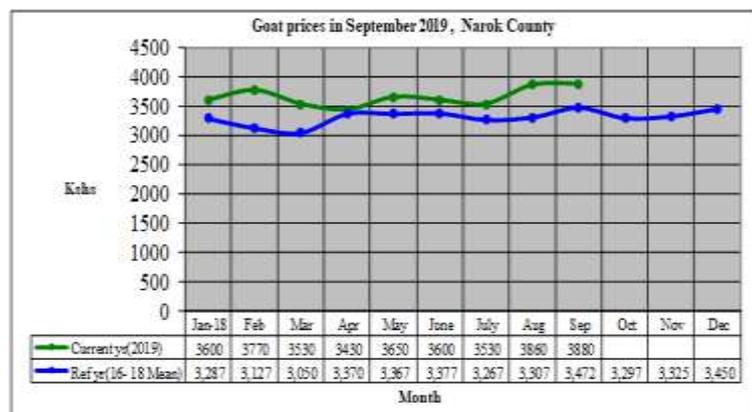


Figure 8: Goat prices

4.2 CROP PRICES

4.2.1 Maize

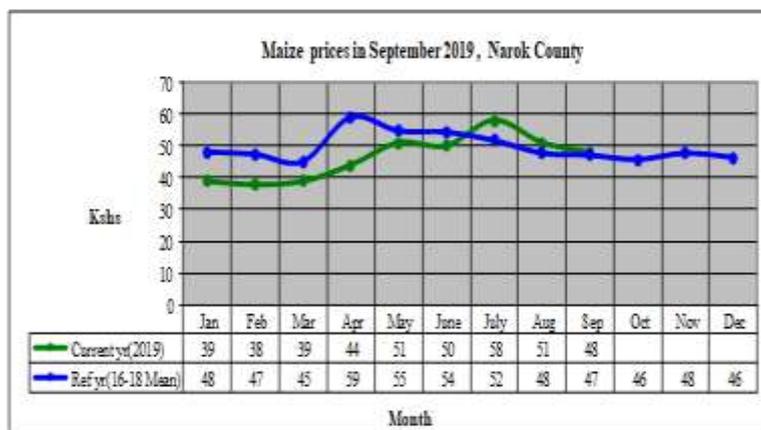


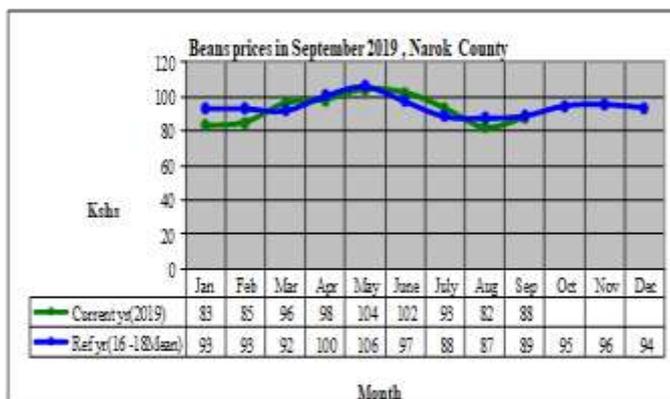
Figure 9: Maize prices

expected range as shown by Figure 9.

- The average price of maize per kilogram reduced by six percent compared to the previous month. The highest prices were recorded in agro-pastoral livelihood zone at Kshs 55 per kg while the lowest price was recorded in the mixed farming livelihood zone at an average of Kshs 49 per kg. The price stability is attributed to the ongoing maize harvesting in the mixed farming and agro-pastoral livelihood zones.
- The overall price is within the

4.2.2 Beans

- The average price of beans increased by seven percent compared to the previous month. The highest price was recorded in the pastoral livelihood zone at Kshs. 95/kg compared to the agro-pastoral livelihood zone which recorded a lower price of Kshs.58 per kg.
- The current price is within 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

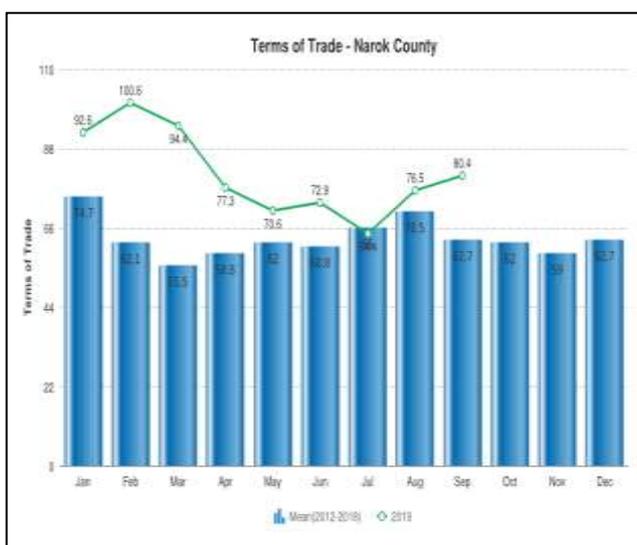


Figure 11: Terms of trade

The Terms of Trade (ToTs) based on the Cereal/Meat price ratio increased by five percent compared to the previous month. The increase in ToTs is due to decrease in cereal prices compared to stable livestock prices. This implies that a sale of one goat fetched 80.4kgs of cereals compared to 76.5 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 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 increased by twelve percent compared to the previous month. There were inter-livelihood variations in milk consumption with mixed farming livelihood zone having the highest consumption rate at 1-4 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 within the normal range at this time of the year as shown by Figure 12.

5.2 FOOD CONSUMPTION SCORE

- Approximately 96%, 3% and 1% of the sampled households fell within the acceptable, borderline and poor food consumption 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. Six percent of the sampled households in pastoral livelihood zones were in the poor food consumption category.

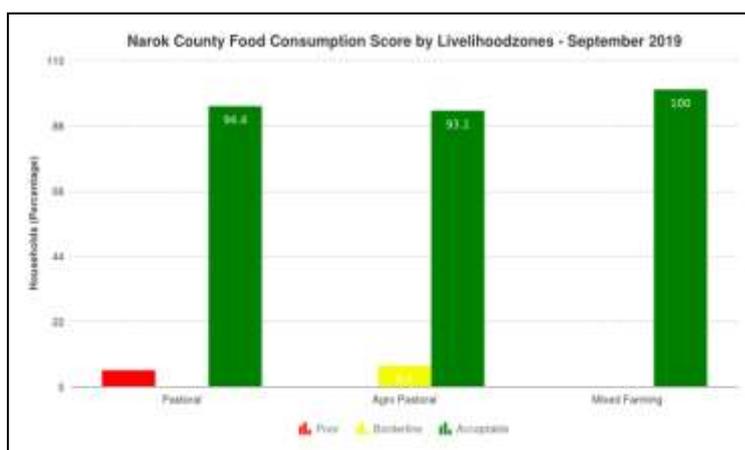


Figure 13: Food consumption score

5.3 HEALTH AND NUTRITION STATUS

5.3.1 Nutrition Status

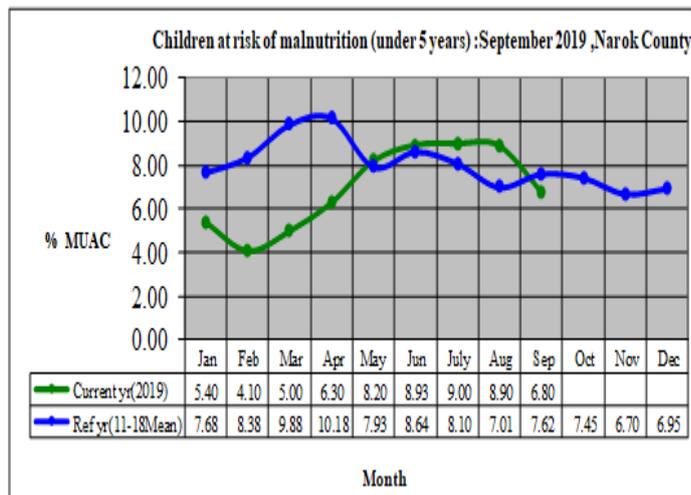


Figure 14: Children at risk of malnutrition

There was an improvement of children less than five years of age who are at risk of malnutrition as indicated by the Mid-Upper Arm Circumference (MUAC) compared to the previous month as shown by Figure 14. This was occasioned by improved food security situation at the household level that has been occasioned by the ongoing maize harvesting, improved milk production among other factors.

The current rate of malnutrition is slightly below the normal range compared to the long-term average as shown by Figure 14.

5.3.2 Health

Fewer cases of fever were recorded in the pastoral and the agro-pastoral livelihood zones during the month under review.

5.4 COPING STRATEGIES

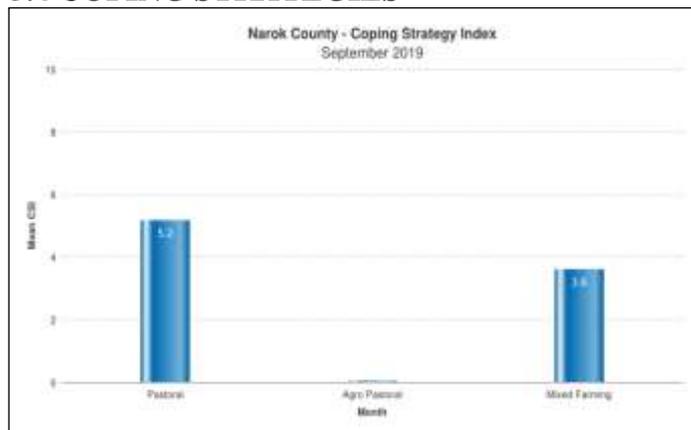


Figure 15: Coping strategies

The CSI for the County was at 2.9 in September 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

- The Ministry of Interior and Coordination through the office of the County Commissioner has received and distributed relief food items to the identified beneficiaries which include maize, beans and Rice. Each Sub county received 150 bags of maize (50kg), 150 bags of beans (50kg) and 100 bags of Rice (50kg).

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 areas was witnessed 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 households is likely to improve following reduction in maize prices.
- Nutrition status in children is expected to improve following an improvement in milk production and consumption at the household level.

8.0 RECOMMENDATIONS

- Livestock disease surveillance should be enhanced across the county. This is due to the persistence of foot and mouth disease in the county.
- 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.