

**National Drought Management Authority  
NAROK COUNTY  
DROUGHT EARLY WARNING BULLETIN FOR AUGUST 2020**



A vision 2030 flagship Project



**AUGUST EW PHASE**

**Drought Situation & EW Phase Classification**

**Biophysical Indicators**

**Rainfall**

- Moderate showers were received in the mixed farming and agro-pastoral livelihood zones with the pastoral livelihood zone receiving relatively low to no rainfall in the month under review,

**Vegetation condition:**

- The county vegetation greenness was above normal during the month under review as depicted by Vegetation Condition Index (VCI).

**Socio Economic Indicators (Impact Indicators)**

**Production indicators:**

- Maize, wheat and beans harvesting is ongoing and land preparation.
- Livestock body condition remained good across all the livelihood zones.
- Milk production ranged from fair to good and within the normal range compared to the long-term average.

**Access indicators:**

- Terms of trade was favorable across all the livelihood zones.
- Milk consumption was stable across all the livelihood zones.
- Water access for both human and livestock consumption remained good across the livelihood zones.
- Distances to water sources is stable and below the normal range.

**Utilization Indicators:**

- There was a slight increase in the number of children who were malnourished measured by 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	79.18	>35
Forage condition	Fair-good	Good
Production indicators	Value	Normal
Crop Condition (Maize)	Fair-good	Normal
Livestock Body Condition	Good	Good
Milk Production in litres	2.5	>2
Livestock Migration Pattern	No migration	Normal
Livestock deaths (Drought related)	No death	No death
Access Indicators	Value	Normal
Terms of Trade (ToT)	97.7	>64.7
Milk Consumption in litres	1.7	>1
Return distance to water sources in km	2.5	<5
Cost of water at source in Kshs (20 litres)	0-5	<5
Utilization indicators	Value	Normal
Nutrition Status, MUAC (% at risk of malnutrition)	3.5%	<10

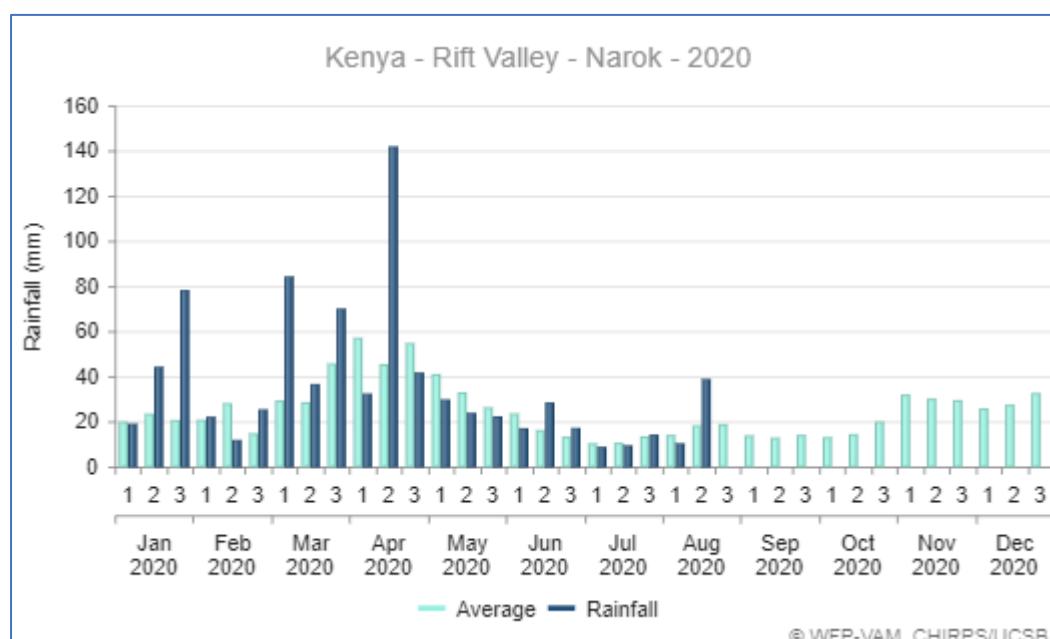
<ul style="list-style-type: none"> <li>Short rains harvests</li> <li>Short dry spell</li> <li>Reduced milk yields</li> <li>Increased HH Food Stocks</li> <li>Land preparation</li> </ul>	<ul style="list-style-type: none"> <li>Planting/Weeding</li> <li>Long rains</li> <li>High Calving Rate</li> <li>Milk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

## 1.0 CLIMATIC CONDITIONS

### 1.1 RAINFALL PERFORMANCE

- The county recorded moderate precipitation during the month under review.
- There was inter-livelihood variation in terms of amounts with mixed farming zone receiving more rainfall amounts compared pastoral livelihood zone, which recorded very low rainfall amounts during the month.
- The temporal and spatial distribution was poor across the livelihood zones.
- The rainfall received were within the normal range.

### 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 2020 in comparison with the long-term averages.
- Rainfall performance in the first dekad recorded below normal with the second dekad above normal in terms of amount received compared to the long-term seasonal range
- The county generally experience rainfall within the expected range during the month under review as shown in figure 1.

## 2.0 IMPACTS ON VEGETATION AND WATER

### 2.1 VEGETATION CONDITION

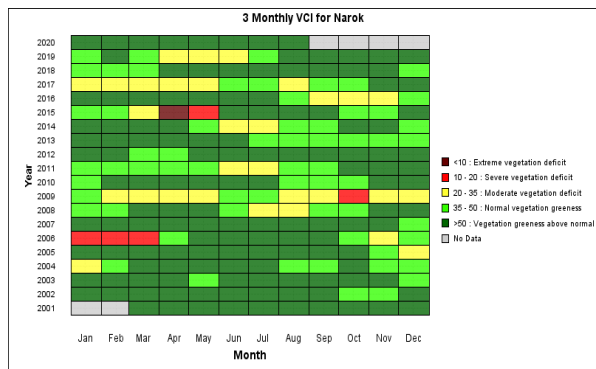


Figure 2: VCI: Narok County

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 above normal vegetation condition is attributed to cumulative effect of the good performance of the long rain season that was well distributed across all the livelihood zones.

#### 2.1.1 Field observations

##### 2.1.1.1 Pasture

- The pasture condition remained good in the mixed farming and agro-pastoral livelihood zones while it is fair in the pastoral livelihood zone. In the pastoral areas of Ntuka, Mosiro and Koyaki, pasture is likely to deteriorate due to overgrazing and rainfall cessation.
- The available pasture is likely to last for two months in mixed farming and agro-pastoral livelihood zones and 1-2 months 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 across all the livelihood zones remained good compared to the previous month. 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 to good in the mixed farming and agro-pastoral livelihood zones with the pastoral livelihood zone having fair quality this is because of siltation of open water sources and poor sanitation. Pans and dams were the most used sources in the pastoral and agro-pastoral livelihood zones.
- The current water sources were expected to last for 3-4 months in mixed farming and agro-pastoral livelihood zones. In pastoral livelihood zone, the water is likely to last for 2-3 months. The current water situation is above the normal range at this time of the year.

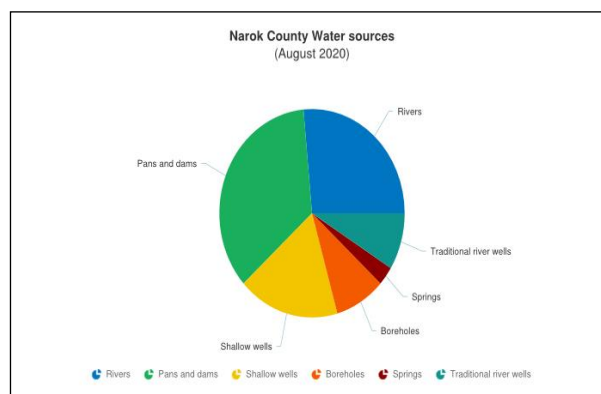
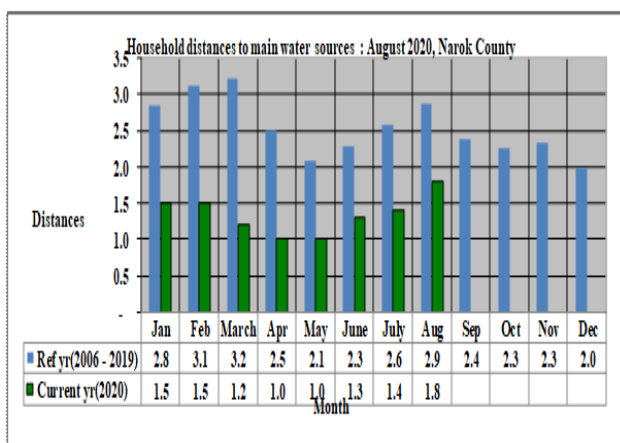


Figure 3: Water sources

## 2.2.2 Household access and Utilization



by Figure 4.

**Figure 4:**

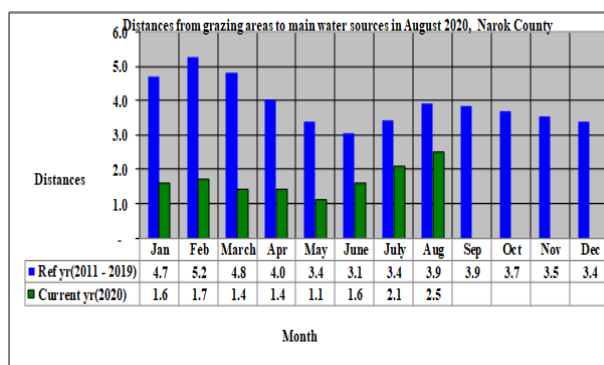
## 2.2.3 Livestock access

The average distance to main water sources from grazing areas increased by nineteen percent compared to the previous month. The pastoral livelihood zone recorded the longest distance of 5 kilometres while the shortest distance was recorded in the mixed farming livelihood zone at 0.8 km. The current average trekking distance is below the normal range at this time of the year as shown in Figure 5.

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

Pastoral livelihood zone recorded the longest average distance at 3 km while the shortest average distance was recorded in mixed farming livelihood zone at 0.5km.

The cessation of the long rains and loss of water due evaporation are the factors responsible for the increase of the trekking distance to water sources. The current trekking distances to water points are below normal compared to the long-term averages as shown



**Figure 5: Water access by livestock**

## 3.0 PRODUCTION INDICATORS

### 3.1 LIVESTOCK PRODUCTION

#### 3.1.1 Livestock Body Condition

- The livestock body condition for cattle, sheep and goats remained good across all the livelihood zones. This is attributed to availability of forage and below normal trekking distances to water sources.
- The body condition is expected to remain good for the next one months across all the livelihood zones.
- The current livestock body condition is above normal range at this time of the year.

#### 3.1.2 Livestock Diseases

- Cases of bluetongue disease in sheep, contagious caprine pleuro-pneumonia (CCPP) in goats and contagious bovine pleuro-pneumonia (CBPP) in cattle were reported in Trans Mara West, Trans Mara East, Narok East and Narok South sub counties.
- Treatment and vaccinations measures were done upon request by farmers and own arrangements with animal practitioners.

### 3.1.3 Milk Production

- The average milk produced per household per day reduced by fourteen percent compared to the previous month as shown by Figure 6.
- Milk production is 1.8 litres/day/household in the pastoral areas, 3.2 litres/day/household in agro-pastoral areas and 3.4 litres/day/household in the mixed farming livelihood zone.
- The stability in milk production is attributed in the improvement of cattle breeds and animal nutrition.
- The current milk production is slightly below the normal range.

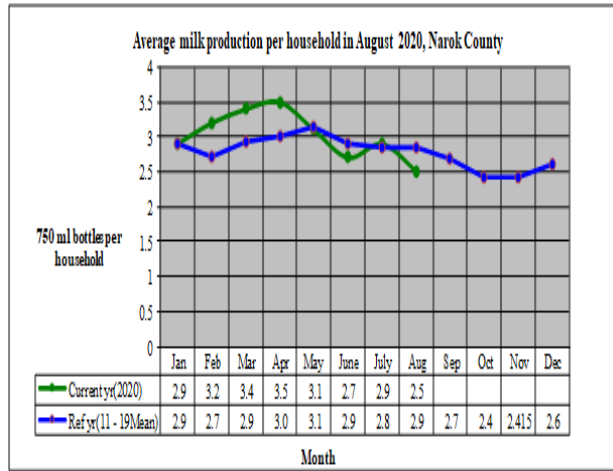


Figure 6: Milk Production

## 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 were in good condition and at various stages of growth.
- The on-going farm activities is harvesting of wheat, maize and beans in Mau and Melili in Narok North, Sogoo and Oloolulunga in Narok South, Elenerai and Mulot in Narok West, Emurua Dikirr and Kilgoris and land preparation as farmers anticipate for the next season.
- Beans and potato production were adversely affected due to excessive rains that resulted to leaching of nutrients, water logging, rotting and increased incidences of pests and diseases during the long rain seasons.

## 4.0 MARKET PERFORMANCE

### 4.1 LIVESTOCK MARKETING

#### 4.1.1 Cattle Prices

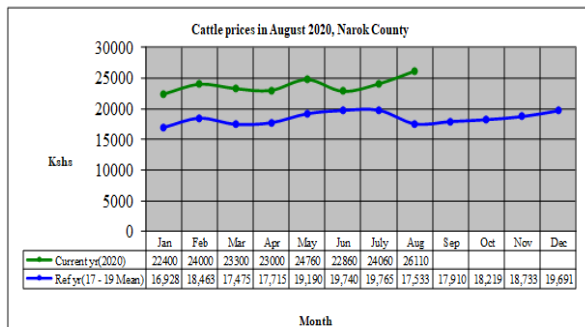


Figure 7: Cattle prices

The average price for a medium-sized cattle increased by nine percent compared to the previous month. Those in the pastoral zone fetched more prices at Kshs 31,110 per head while the lowest price was in the agro-pastoral livelihood zone at an average price of Kshs 18,000 per head. The increase in price is attributed to good body condition. The current cattle prices is above normal compared to long-term average as shown by (Figure 7).

### 4.1.2 Goat Prices

- The average goat prices increased by eight percent compared to the previous month.
- A medium-sized goat in the mixed farming livelihood zone was sold at Kshs 4,625 per head. The highest price was recorded in the mixed farming livelihood zone at Kshs 4750 per head while the lowest price was recorded in the pastoral livelihood zone at Kshs 4500 per.
- The stable price is attributed to good body condition
- The stability in price was attributed to good body condition and availability of browse and water across all the livelihood zones.
- The average goat price was above the normal range at this time of the year as shown in Figure 8.

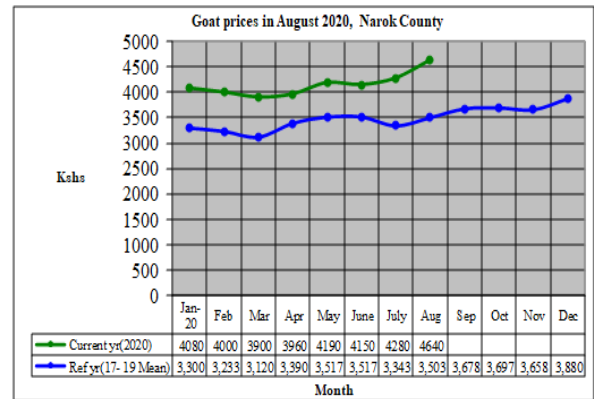


Figure 8: Goat Prices

## 4.2 CROP PRICES

### 4.2.1 Maize

- The average price of maize per kilogram insignificantly increased by four percent compared to the previous month. The highest price was recorded in the pastoral livelihood zone at Kshs. 50 while the lowest price was recorded in the mixed farming zone at Kshs. 42. The stability in price is attributed to maize harvest.
- The current price is below the long-term average as shown by Figure 9.

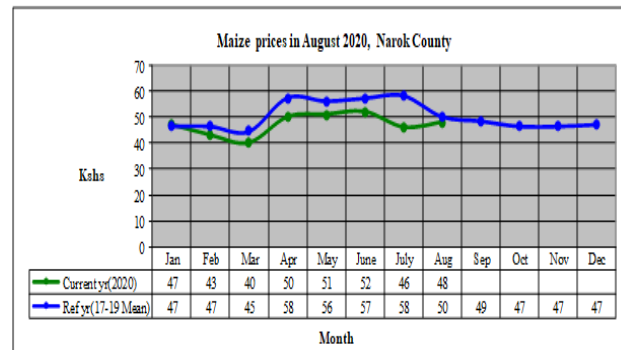


Figure 9: Maize prices

### 4.2.2 Beans

- The average price of beans reduced by eleven percent compared to the previous month. The highest price was recorded in the mixed farming zone at Kshs. 102 while the lowest was recorded in the Agro-Pastoral and pastoral livelihood zone at Kshs.100.
- The beans production was affected by rotting of beans due to water logging which led to below harvest.
- The current price is above the normal range at this time of the year as shown by Figure 10.

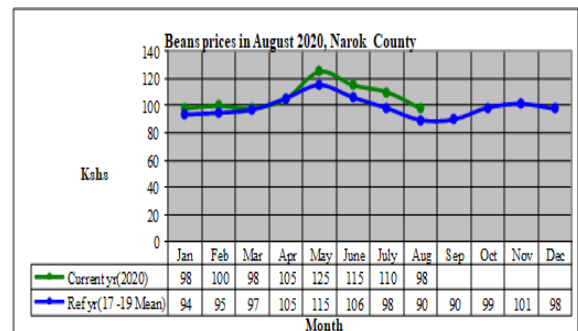


Figure 10: Beans prices

### 4.3 Livestock Price Ratio/Terms of Trade

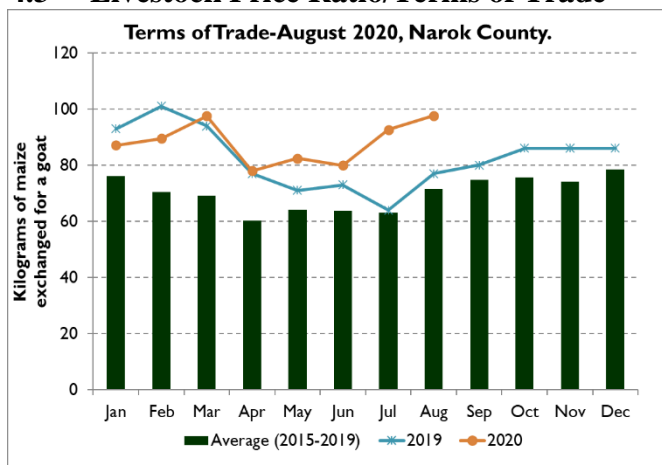


Figure 11: Terms of Trade

The Terms of Trade (ToTs) based on the cereal/meat prices increased by five percent compared to the previous month. The increase in ToTs is increase in goat prices and maize price.

This implies that a sale of one goat fetched 98 kgs of cereals. The ToTs were less favourable in the agro-pastoral and mixed farming livelihood zones compared to pastoral livelihood zone.

The current cereal/goat price ratio is above normal range as shown in Figure 11.

## 5.0 FOOD CONSUMPTION AND NUTRITION STATUS

### 5.1 MILK CONSUMPTION

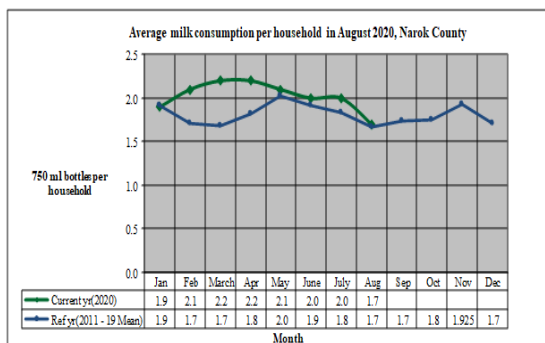


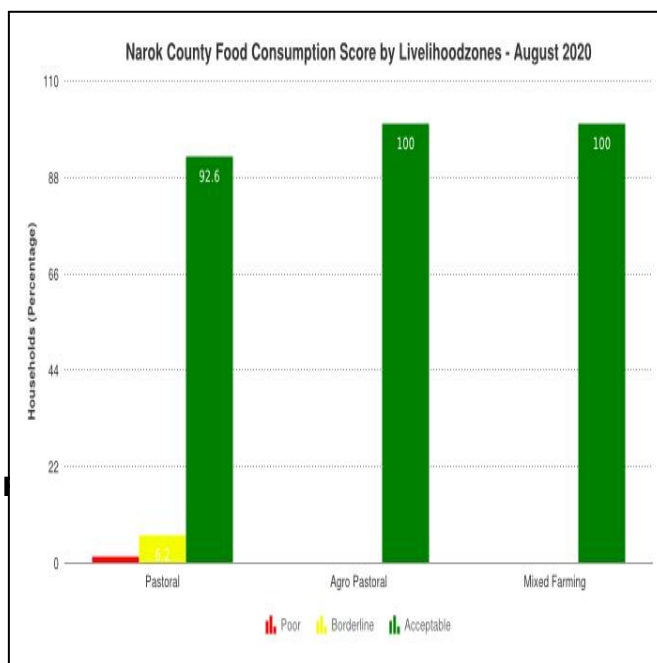
Figure 12: Milk consumption

Average household milk consumption per day reduced by fifteen percent compared to the previous month. There were inter-livelihood variations in milk consumption with agro-pastoral livelihood zone having the highest consumption rate at 1.7 litres, followed by mixed farming zone zone at 1.5 litres.

The pastoral livelihood zone had the least consumption rate at 1.4 litres. 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

- In the month under review, approximately 97.5%, 2.1 and 0.4% of the sampled households fell within the acceptable, borderline and poor food consumption categories.
- The acceptable implies that households are consuming staples, protein (milk and meat) and vegetables every day and frequently accompanied by pulses. Borderline implies that households are consuming staples and vegetables every day accompanied by oil and pulses a few times in a week. The poor food consumption score implies households are not consuming balanced diet and rarely consuming food rich in protein and energy giving food. About 6.2 percent of the sampled households in the Pastoral livelihood zones fell under borderline food consumption category.



### 5.3 HEALTH AND NUTRITION STATUS

#### 5.3.1 Nutrition Status

Six hundred and fourteen children below the age of five years were sampled for MUAC measurement. From (Figure 14) shown above, the proportion of children under the age of five years who were 'at risk' of malnutrition was 3.5 in July. Mosiro, Naroosura and Koyiaki wards in the pastoral livelihood zone still had 6.2 percent of children with moderate malnutrition cases attributed to high cereal prices due to poor accessibility to market, fever condition owing to chilly weather conditions and diarrhoea due to poor sanitation.

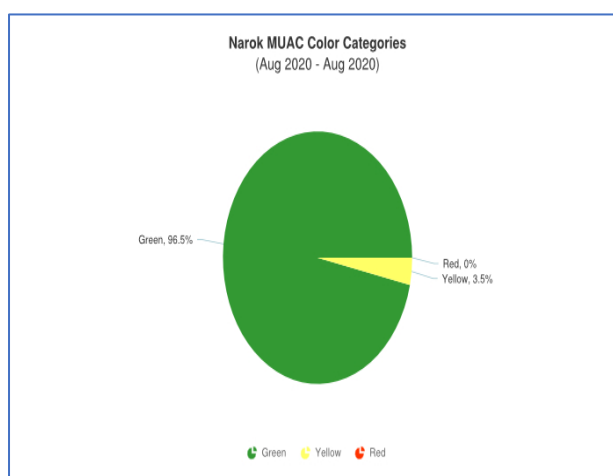


Figure 14: Family MUAC measurements (under five)

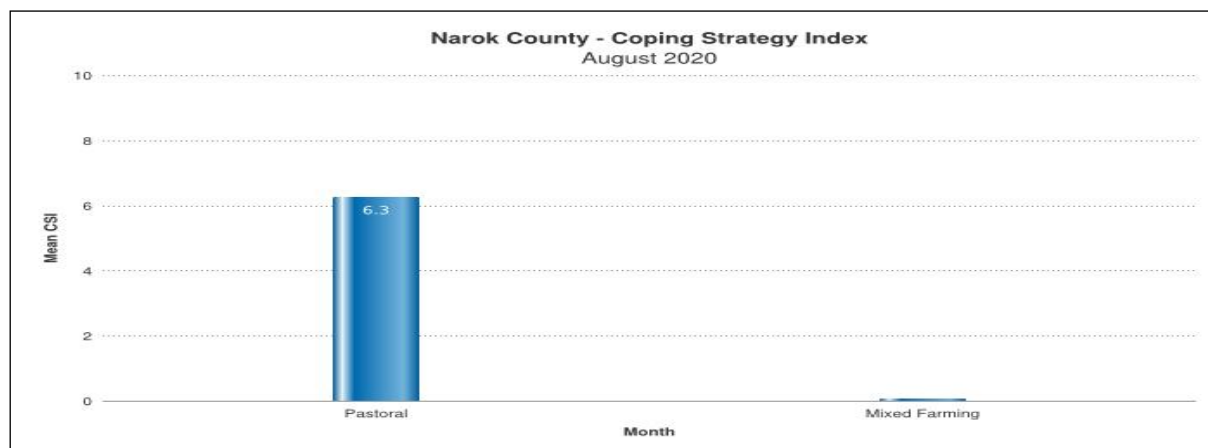


The current rate of malnutrition is below the normal range compared to the long-term average as shown by Figure 14.

### 5.3.2 Health

A few cases of fever and diarrhoea in the pastoral and the agro-pastoral livelihood zones during the month under review due to chilly weather conditions and poor sanitation.

## 5.3 COPING STRATEGIES



**Figure 15: Coping strategies**

The CSI for the County in July reduced to 2.6 from 3.0 compared to the previous month. Households employed normal coping strategies in accessing food across all the livelihood zones as shown by Figure 15. The pastoral livelihood zone had higher CSI at 6.3 compared to Agro-pastoral and Mixed farming zone.

The coping strategies are within the normal at this time of the year.

## 6.0 CURRENT INTERVENTION MEASURES (ACTIONS)

### 6.1 NON-FOOD INTERVENTIONS

- Construction Olesere Community Water Pipeline in Siana ward in Narok west subcounty by NDMA funded by European Union.
- Naroosura PRA funded by Welt Hunger Helt organisation through NDMA.
- Regular Covid-19 surveillance and sensitization by Ministry of Health and KRCS.

### 6.2 FOOD AID

- No food aid

## 7.0 EMERGING ISSUES

### 7.1 Insecurity/Conflict/Human Displacement/Floods.

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

### 7.2 Migration

- Normal livestock movements were witnessed in the month of July.

### **7.3 FOOD SECURITY PROGNOSIS**

- Minimal water stress in terms of accessibility and availability. The current water sources are expected to last for the next 1-2 months owing to good rainfall performance during the long rain season.
- The livestock body condition and productivity in the next 1 to 2 months is expected to remain good due to availability of forage and water. Household milk consumption is projected to remain stable in the next two months.
- The number of children at risk of malnutrition is likely to worsen due to increase in poor accessibility to the market owing to closure of livestock markets and poor health seeking behaviors among the pastoralist.
- Maize prices may remain stable owing to above normal yield during the long rains harvest. Additionally, good livestock body conditions and limited market supply are likely to keep goat prices above long-term average. Therefore, the terms of trade would be stable within the next 2 months.

## **8.0 RECOMMENDATIONS**

- Activation of livestock markets across the county
- Enhanced livestock Vaccination of notifiable diseases and vector control, treatments
- Conduct awareness campaigns on COVID-19 and support hygiene education promotion including installation of hand washing facilities in public spaces.
- Scale up coverage of High Impact Nutrition Interventions in Narok county to reach at least 80% of the target population, Conduct routine hygiene promotion activities
- Integrated outreaches in Naroosura /Maji moto ward
- Development of market infrastructure- sale yards, holding grounds, market information and linkages to markets