



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



**JUNE EW PHASE**

**Drought Situation & EW Phase Classification**

**Biophysical Indicators**

**Rainfall**

- Moderate off-season showers was registered in the county during the month under review.
- The rains were unevenly distributed in both time and space.

**Vegetation condition:**

- The county vegetation greenness was above normal during the month under review.
- Water was fairly sufficient and accessible for both livestock and domestic use.

**Socio Economic Indicators (Impact Indicators)**

**Production indicators:**

- Maize, wheat and beans weeding and harvesting of green maize and beans is ongoing.
- 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 remained stable across all the livelihood zones.
- Milk consumption remained 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:**

- Cases of malnutrition remained stable compared to last month and is below the normal measured by mid upper arm circumference (MUAC).
- Most households were within acceptable food consumption scores and employed normal coping strategies in accessing food.

- Short dry spell
- Reduced milk yields
- Increased HH Food Stocks
- Land preparation

- Long rains
- High Calving Rate
- Milk Yields Increase

- A long dry spell
- Land preparation
- Increased HH Food Stocks
- Kidding (Sept)

**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	73.83	>35
Forage condition	Good	Good
Production indicators	Value	Normal
Crop Condition (Maize)	Fair-good	Normal
Livestock Body Condition	Good	Good
Milk Production in litres	2.7	>2
Livestock Migration Pattern	No migration	Normal
Livestock deaths (Drought related)	No death	No death
Access Indicators	Value	Normal
Terms of Trade (ToT)	80	>62
Milk Consumption in litres	2	>1
Return distance to water sources in km	1.6	<5
Cost of water at source in Kshs (20 litres)	0-5	<5
Utilization indicators	Value	Normal
Nutrition Status, MUAC (% at risk of malnutrition)	6.6	<10

<ul style="list-style-type: none"> <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>Long rains</li> <li>High Calving Rate</li> <li>Milk Yields Increase</li> </ul>			<ul style="list-style-type: none"> <li>A long dry spell</li> <li>Land preparation</li> <li>Increased HH Food Stocks</li> <li>Kidding (Sept)</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 showers during the month under review.
- There was no significant inter-livelihood variation in terms of amounts recorded during the month.
- The temporal and spatial distribution was fair across the livelihood zones.
- The rainfall received were above the normal range.

## 1.2 AMOUNT OF RAINFALL AND SPATIAL DISTRIBUTION

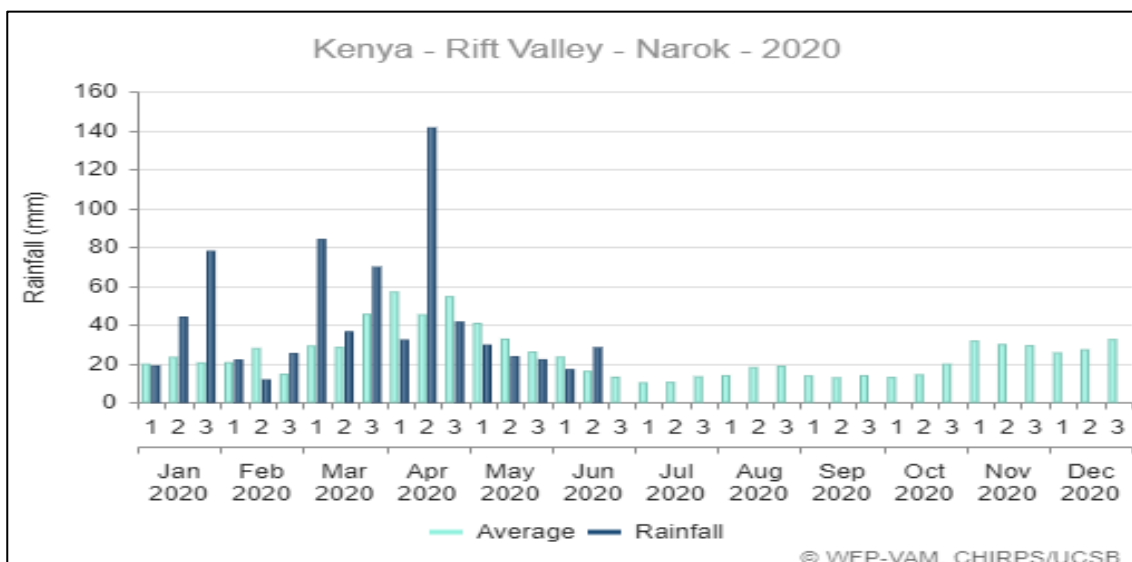


Figure 1: Rainfall performance-Narok County

- The above satellite image (Figure 1) highlights the general performance of the rains in the county for the month of June 2020 in comparison with the long-term averages.
- Rainfall performance in the first dekad of June was below normal with the second dekad recording above normal in terms of amount received compared to the long-term seasonal range.
- The county posted slightly below normal rains during the month under review as shown in figure 1.

## 2.0 IMPACTS ON VEGETATION AND WATER

### 2.1 VEGETATION CONDITION

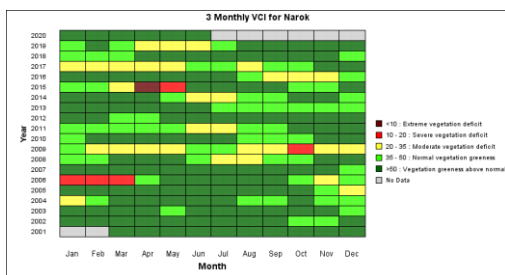


Figure 2: VCI: Narok County

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 as a result of the enhanced rainfall recorded in the county.

#### 2.1.1 Field observations

##### 2.1.1.1 Pasture

- The pasture quantity and quality in all livelihood zones remained good across all the livelihood zones.
- The available pasture is likely to last for three months in mixed farming and agro-pastoral livelihood zones and 2-3 months in the pastoral livelihood zone.
- The current pasture situation is above 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 3-4 months in mixed farming livelihood zone while in pastoral livelihood zone, it is likely to last for three months.
- The current browse situation is above 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. Pans and dams were the most used sources in the pastoral and agro-pastoral livelihood zones.
- The current water sources are expected to last for 4-5 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.

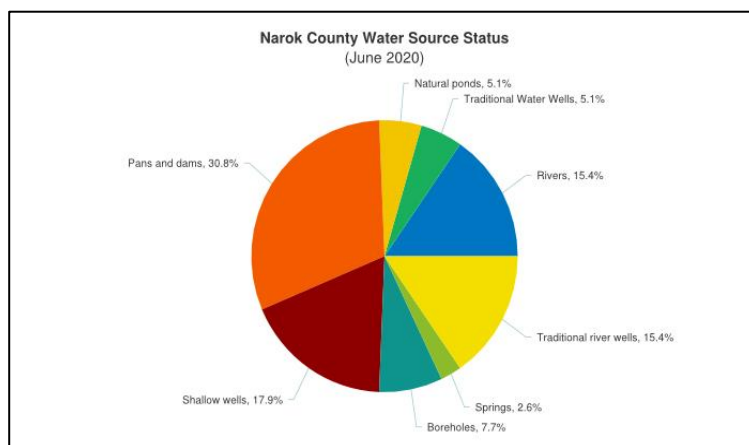
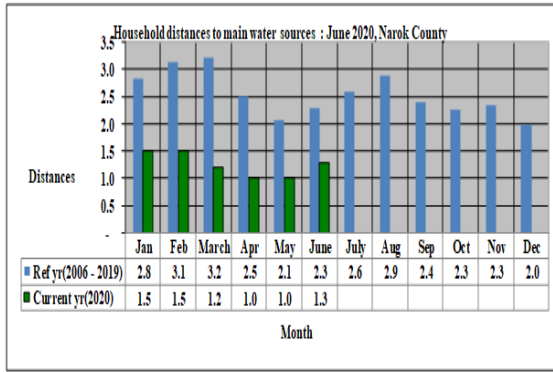


Figure 3: Water sources

### 2.2.2 Household access and Utilization



**Figure 4: Water access by households** shown by Figure 4.

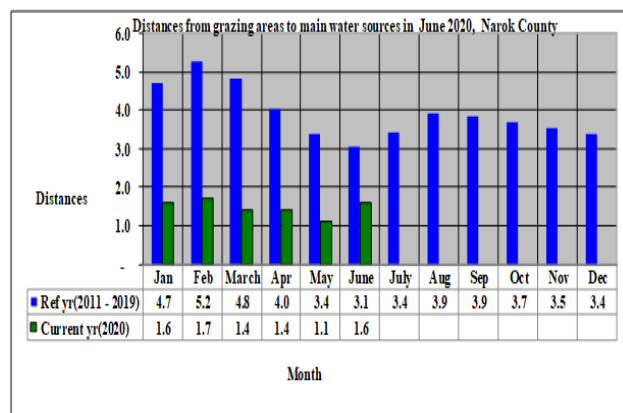
The average distance to watering points for households increased by thirty percent the same compared to the previous month.

Pastoral livelihood zone recorded the longest average distance at 2.1 km while the shortest average distance was recorded in mixed farming livelihood zone at less than a kilometre. The increase distance is attributed to cessation of the long rain season.

The current trekking distances to water points are below normal compared to the long term means as

### 2.2.3 Livestock access

The average distance to main water sources from grazing areas increased by 45 percent compared to the previous month. The pastoral livelihood zone recorded the longest distance of 2.7 kilometres while the shortest distance was recorded in the mixed farming livelihood zone at less than 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

- Livestock body conditions for cattle, sheep and goats remained good across all the livelihood zones which is attributed to availability of forage.
- The body condition is anticipated to reduce for the next 2-3 months across all the livelihood zones due to rains cessation.
- The current livestock body condition is above normal range at this time of the year.

#### 3.1.2 Livestock Diseases

- Cases of Bluetongue disease and contagious caprine pleuro-pneumonia (CCPP) were reported in sheep and contagious bovine pleuro-pneumonia (CBPP) in was reported in cattle 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 thirteen percent compared to the previous month as shown by Figure 6.
- Milk production is 1.5 litres in the pastoral areas, 3.5 litres in agro-pastoral areas and 4.3 litres in the mixed farming livelihood zone.
- The reduced milk production is attributed to cessation of rains coupled with slightly increased distances to water sources in the pastoral livelihood zone.
- The current milk production is slightly below the normal range.

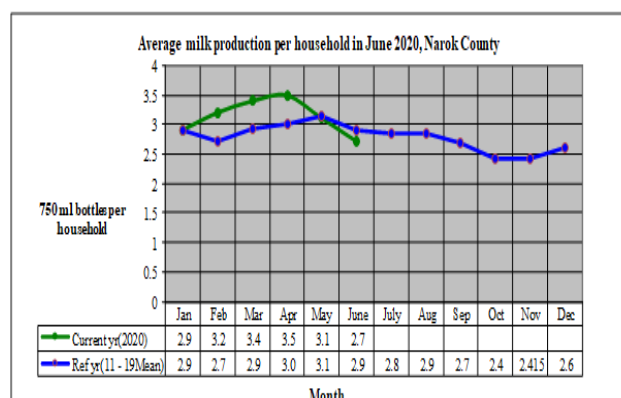


Figure 6: Milk production

## 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 green 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.
- Beans and potato production were affected adversely 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

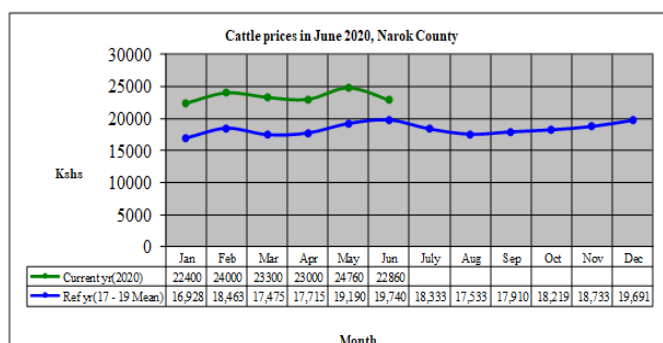


Figure 7: Cattle prices

The average price for an average sized cattle reduced by eight percent compared to the previous month. Those in the pastoral zone fetched more prices at Kshs 24,900 per head while the lowest price was in the agro-pastoral livelihood zone at an average price of Kshs 17,000 per head. The stability in price is attributed to improvement in livestock body condition. The current cattle price is above normal compared to such at this time of the year as shown by (Figure 7).

#### 4.1.2 Goat Prices

- The average goat prices insignificantly reduced compared to the previous month.
- The highest price was recorded in the mixed farming livelihood zone at Kshs 4,830 per head while the lowest price was recorded in the pastoral livelihood zone at Kshs 3,740 per head.
- The stable price is attributed to good body condition.
- The average goat price was above the normal range at this time of the year as shown in Figure 8.

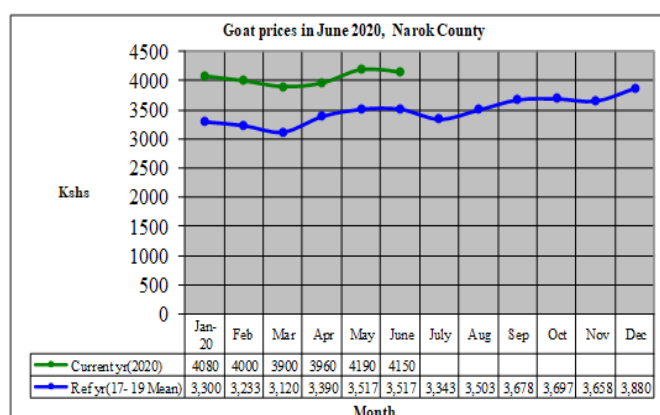


Figure 8: Goat prices

## 4.2 CROP PRICES

#### 4.2.1 Maize

- The average price of maize per kilogram insignificantly increased compared to the previous month. The highest price was recorded in the pastoral livelihood zone at Kshs. 55 while the lowest price was recorded in the Mixed farming zone at Kshs. 48. The increase in price is attributed to closure of markets and poor market accessibility by the pastoralist.
- The current price is below the expected long-term average as shown by Figure 9.

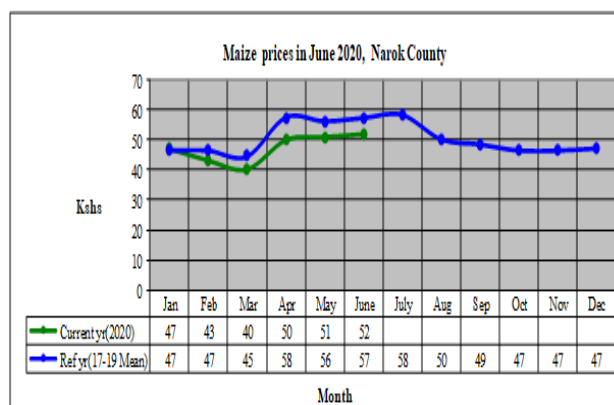


Figure 9: Maize prices

### 4.2.2 Beans

- The average price of beans reduced by eight percent compared to the previous month. The lowest price was recorded in the mixed farming zone at Kshs. 107 while the highest was recorded in the Agro-Pastoral and pastoral livelihood zone at Kshs.150.
- The beans production was affected by rotting of beans due to water logging which led to below harvest coupled with poor accessibility to markets.
- The current price is within the normal range at this time of the year as shown by Figure 10.

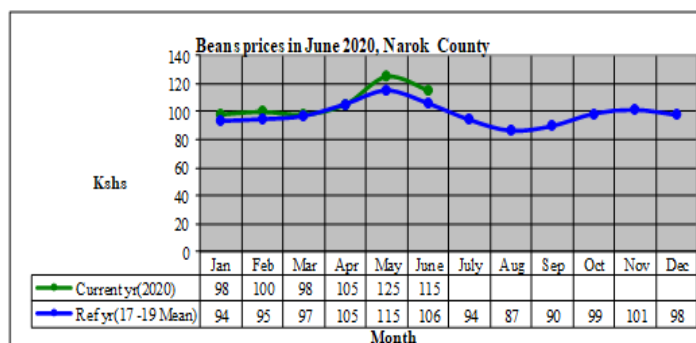


Figure 10: Beans prices

### 4.3 Livestock Price Ratio/Terms of Trade

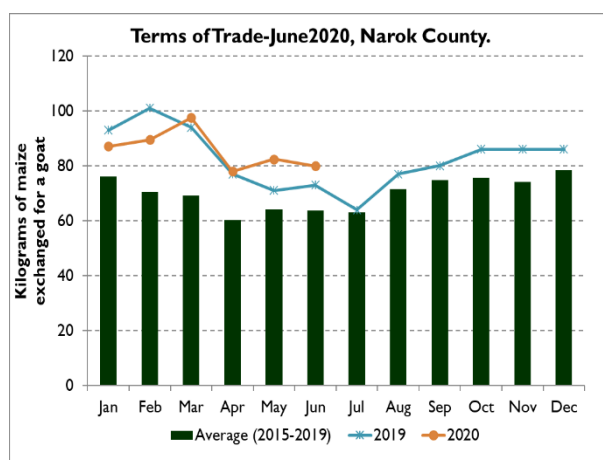


Figure 11: Terms of Trade

The Terms of Trade (ToTs) based on the cereal/meat prices reduced by three percent compared to the previous month. The increase in ToTs is stable goat prices with an increase in maize price. This implies that a sale of one goat fetched 80 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

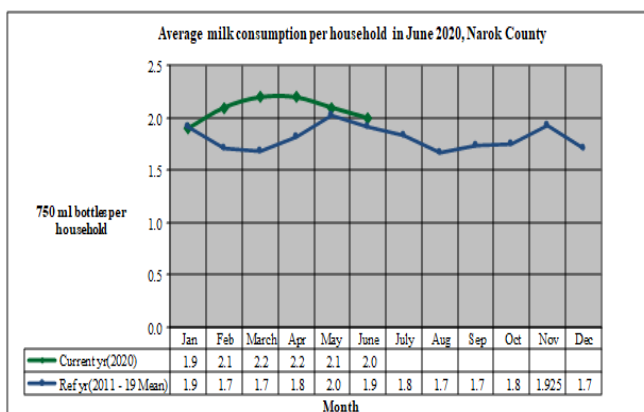


Figure 12: Milk consumption

Average household milk consumption per day reduced marginally compared to the previous month. There were inter-livelihood variations in milk consumption with mixed farming livelihood zone having the highest consumption rate at 2.5 litres, followed by agro-pastoral livelihood zone at 2.1 litres. The pastoral livelihood zone had the least consumption rate at 1.5 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

- Approximately 99.2% and 0.8 % of the sampled households fell within the acceptable and borderline food consumption categories respectively in the month under review.
- 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. There was insignificant variation across the livelihood zones as shown in Figure 13. About 2 percent of the sampled households in the Pastoral livelihood zones fell under borderline food consumption category.

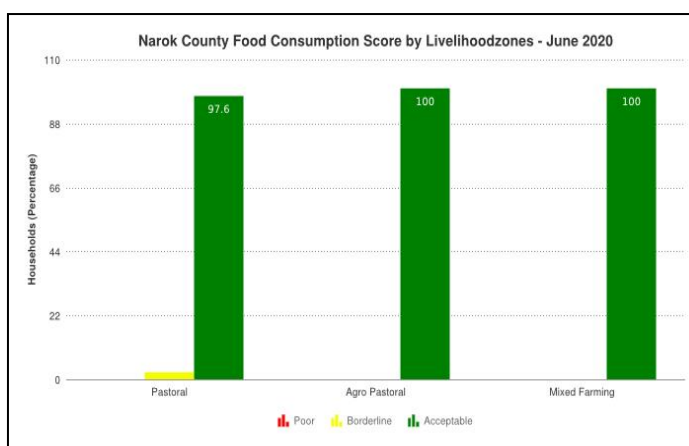


Figure 13: Food consumption score

### 5.3 HEALTH AND NUTRITION STATUS

#### 5.3.1 Nutrition Status

A total of 533 children below the age of five years were sampled for MUAC measurement. The children under five years of age who are at risk of malnutrition as indicated by the Mid-Upper Arm Circumference (MUAC) rose to 6.6 percent from 5.5 percent compared to the previous month as shown by Figure 14. The increased can be linked to limited access to health services since some of the caregivers stopped taking their children for routine because of fear of COVID-19. Mosiro, Naroosura and Koyiaki wards in the pastoral livelihood zone still had some children with moderate malnutrition cases attributed to increased

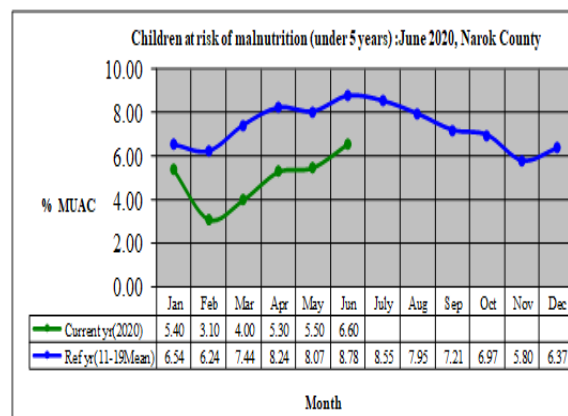


Figure 14: Children at risk of malnutrition



cereal prices due to poor accessibility to market, fever condition owing to chilly weather conditions and diarrhoea due to poor sanitation.

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

The county recorded 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

The CSI for the County in June increased to 3.2 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 compared to mixed farming livelihood zones.

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

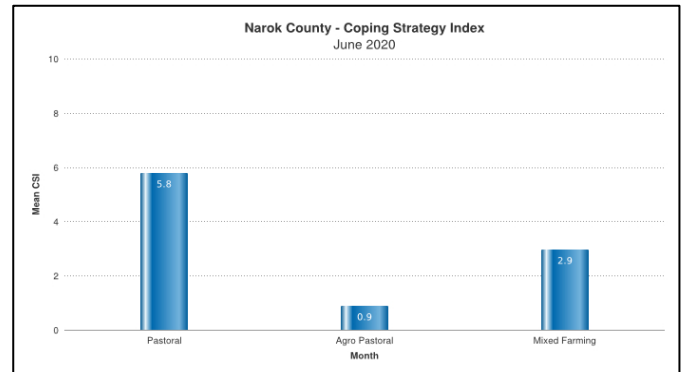


Figure 15: Coping strategies

## **6.0 CURRENT INTERVENTION MEASURES (ACTIONS)**

### **6.1 NON-FOOD INTERVENTIONS**

- Review of Drought Contingency Plan was done by TWG and NDMA funded by European Union.
- Construction Olesere Community Water Pipeline in Siana ward in Narok west subcounty by NDMA funded by European Union.
- The County government department of agriculture 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.
- Rapid Covid-19 Food Security Assessment was carried out in June funded by County Government.
- Regular Covid-19 surveillance and sensitization by Ministry of Health and KRCS.

### **6.2 FOOD AID**

- No food aids.

## **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 June.

### **7.3 FOOD SECURITY PROGNOSIS**

- Above rainfall performance during the long rain season is likely to have a positive impact on crop, nutrition, water and livestock sectors. Crop conditions particularly for maize crop will improve and therefore resulting into better yield.
- Forage and water conditions will continue to improve and therefore livestock body condition and productivity is expected to perform well which may result to improved milk consumption at household level.
- 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 markets. However, WASH component mostly in the pastoral livelihood zone might be affected negatively due to contamination of water sources and siltation of open water sources during the long rain season.
- Maize prices are likely to go up while goat price is likely to remain stable. Therefore, the terms of trade would be stable within the period.
- The closure of livestock markets, cessation of movement among other COVID-19 related mitigation measures is likely to affect food security status of the poor households.

## 8.0 RECOMMENDATIONS

Sector	Intervention	Areas
Health	<ul style="list-style-type: none"> <li>▪ Conduct awareness campaigns on COVID-19 and support hygiene education promotion including installation of hand washing facilities in public spaces.</li> <li>▪ Provision of face masks, hand sanitizers and soap to vulnerable members of the community</li> </ul>	County wide
Livestock	<ul style="list-style-type: none"> <li>▪ Vaccination against PPR, Bluetongue,CCPP and CBPP</li> </ul>	Trans Mara West, Narok East and Narok South sub counties
Water	<ul style="list-style-type: none"> <li>▪ Sensitization on treatment of drinking water as most households are accessing water from unprotected sources</li> </ul>	County wide
Agriculture	<ul style="list-style-type: none"> <li>▪ Provision of hermetic bags</li> </ul>	Narok West , Trans Mara West, Emarti