

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



A vision 2030 flagship Project



SEPTEMBER EW PHASE

Drought Situation & EW Phase Classification

Biophysical Indicators

Rainfall

- During the month under review, moderate to no rainfall was registered across all the livelihood zones with poor temporal and spatial distribution.

Vegetation condition:

- The county vegetation greenness as depicted by vegetation cover index (VCI) was above normal during the month under review

Socio Economic Indicators (Impact Indicators)

Production indicators:

- Maize, wheat and beans harvesting and land preparation are 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 was favorable across all the livelihood zones.
- Milk consumption was within the normal range.
- Water access for both human and livestock ranged from fair to good across the livelihood zones.
- Distances to water sources have slightly increased and below the normal range.

Utilization Indicators:

- There was a slight increase in the number of children who were malnourished as 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	80.52	>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	2.7	>2
Livestock Migration Pattern	No migration	Normal
Livestock deaths (Drought related)	No death	No death
Access Indicators	Value	Normal
Terms of Trade (ToT)	102	>64.7
Milk Consumption in litres	1.7	>1
Return distance to water sources in km	3.1	<5
Cost of water at source in Kshs (20 litres)	0-5	<5
Utilization indicators	Value	Normal
Nutrition Status, MUAC (% at risk of malnutrition)	5.9%	<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

- The county experienced off season precipitation during the month under review.

1.2 AMOUNT OF RAINFALL AND SPATIAL DISTRIBUTION

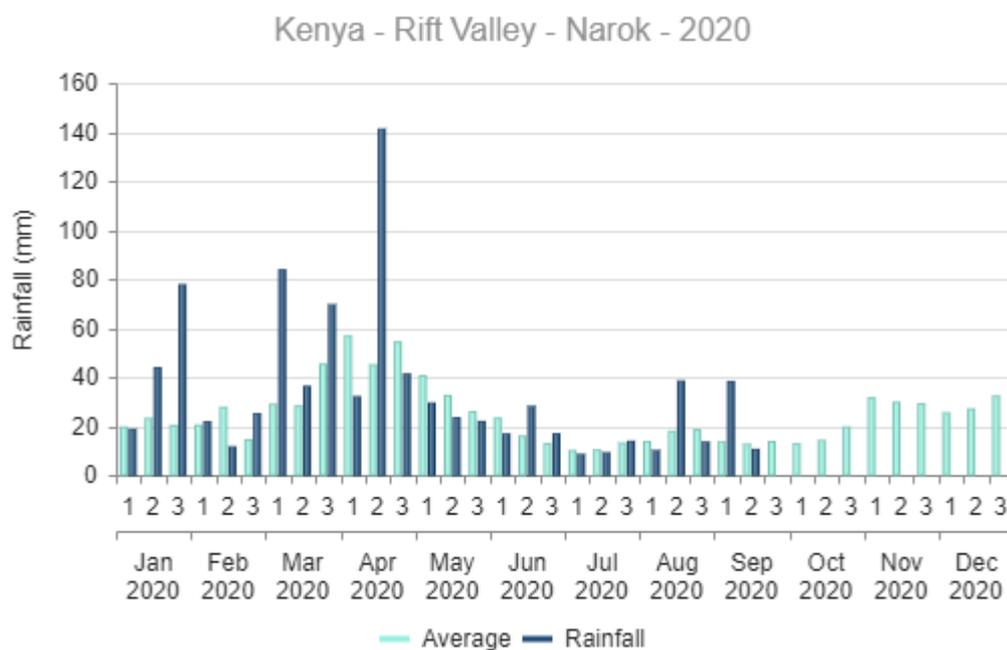


Figure 1 Showing Rainfall Estimates (RFE) trends for Narok County (Source WFP-VAM, CHIRPS/UCSB)

- The above satellite image (Figure 1) highlights the amount of the rainfall recorded in the county for the month of August 2020 in comparison with the long-term averages.
- The amount of rainfall recorded in the first dekad was 185 percent above normal and 15.8 percent below normal in the second dekad
- The county generally experience above normal rainfall during the month under review as shown in figure 1.

2.0 IMPACTS ON VEGETATION AND WATER

2.1 VEGETATION CONDITION

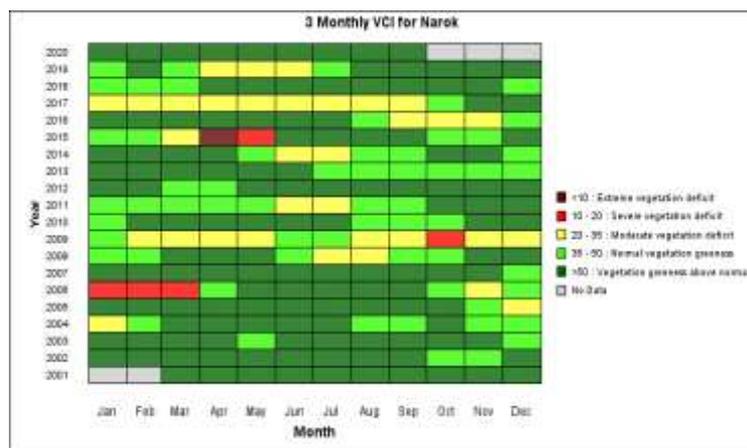


Figure 2: 3 month VCI for Narok

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 the off season precipitation experienced during the month under

2.1.1 Field observations

2.1.1.1 Pasture

- The pasture condition ranged from fair to good across all the livelihood zones. 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 1-2 months in mixed farming and agro-pastoral livelihood zones and more than 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 across all the livelihood zones remained good compared to the previous month. The available browse is expected to last for 2-3 months in mixed farming livelihood zone while in pastoral livelihood zone, it is likely to last for 1-2 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 (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 ranging from poor to 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 three months in mixed farming and agro-pastoral livelihood zones. In pastoral livelihood zone, the water is likely to last for two months. The current water situation is above the normal range at this time of the year.

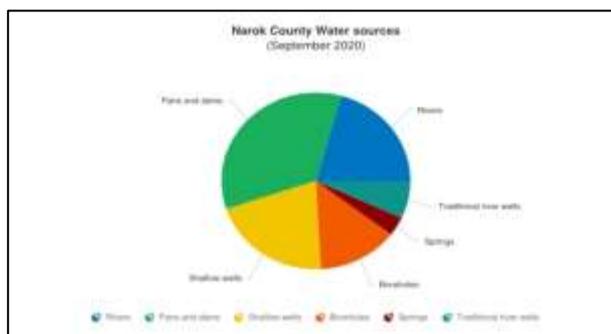


Figure 3: Water Sources for Narok County

2.2.2 Household access and Utilization

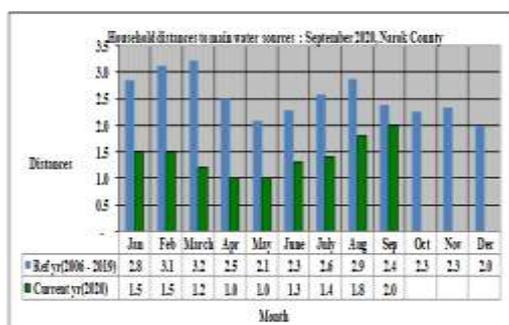


Figure 4: Water access by households

The average distance to watering points for households increased by 7 percent compared to the previous month. Pastoral livelihood zone recorded the longest average distance at 4 km while the shortest average distance was recorded in the mixed farming livelihood zone at 1.7 km. The current trekking distances to water points are below normal compared to the long-term averages as shown by Figure 4.

2.2.3 Livestock access

The average distance to main water sources from grazing areas increased by 24 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 1.3 km. The current average trekking distance is below the normal range at this time of the year as shown in Figure 5.

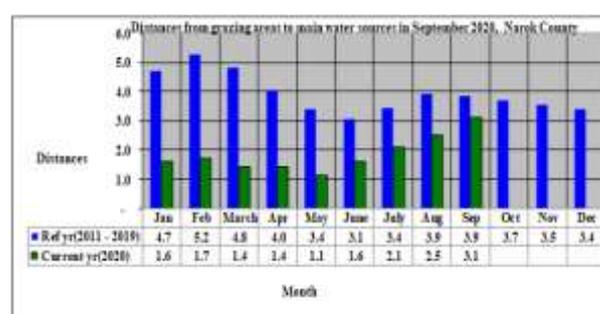


Figure 5: Water access by livestock

3.0 PRODUCTION INDICATORS

3.1 LIVESTOCK PRODUCTION

3.1.1 Livestock Body Condition

- The 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 1-2 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 increased by 8 percent compared to the previous month as shown by Figure 6.
- Milk production is 1.8 litres/day/household in the pastoral areas, 3.3 litres/day/household in agro-pastoral areas and 3.7 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 within the normal range.

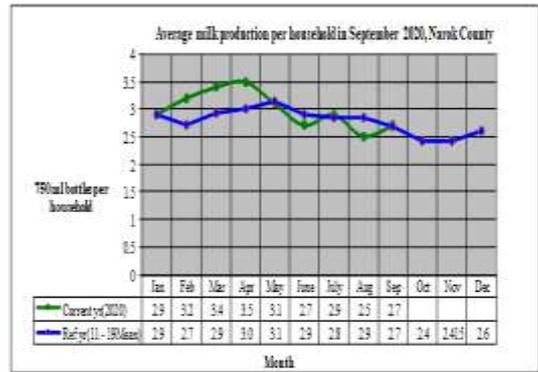


Figure 6: Milk Production

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 minimal 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.
- Land under beans and potato production were adversely affected due to excessive rains and hailstones that resulted to leaching of nutrients, water logging, rotting and increased incidences of pests and diseases in the month of August in Melili, Mau and Sogoo wards in the Mixed farming zone.

4.0 MARKET PERFORMANCE

4.1 LIVESTOCK MARKETING

4.1.1 Cattle Prices

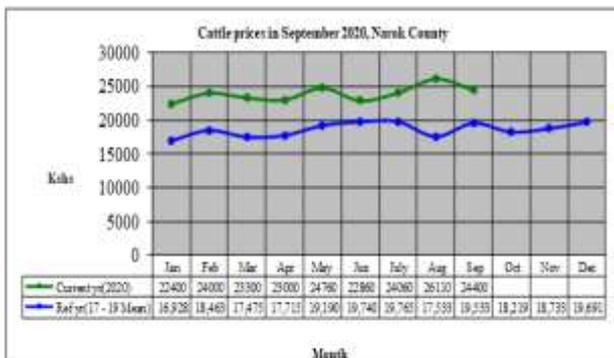


Figure 7: Cattle prices

The average price for medium-sized cattle reduced by seven percent compared to the previous month. Those in the pastoral zone fetched more prices at Kshs 27,880 per head while the lowest price was in the agro-pastoral livelihood zone at an average price of Kshs 18,000 per head. Price stability is attributed to good body condition. The current cattle price is above normal compared to long-term average as shown by (Figure 7).

4.1.2 Goat Prices

- The average goat prices reduced by six percent compared to the previous month.
- The highest price was posted in the mixed farming livelihood zone at Kshs 4750 per head while the lowest price was recorded in the pastoral livelihood zone at Kshs 4030 per head.
- 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 reduced by eleven percent compared to the previous month. The highest price was recorded in the pastoral livelihood zone at Kshs. 46 while the lowest price was recorded in the mixed farming zone at Kshs. 39. The stability in price is attributed to maize harvest during the month under review.
- 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 increased by seven percent compared to the previous month. The highest price was recorded in the Agro pastoral livelihood zone at Kshs. 125 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 and diminishing stock which led to below harvest.
- The current price is above the normal range at this time of the year as shown by Figure 10.

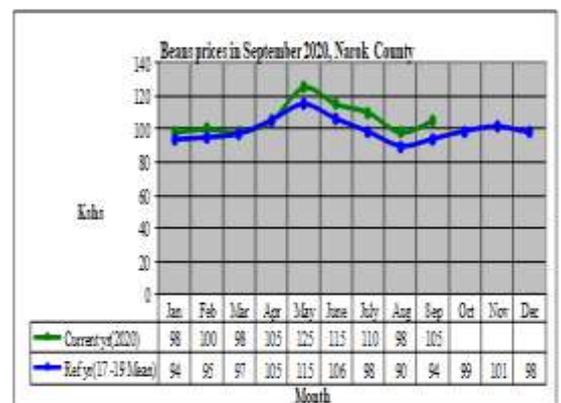


Figure 10: Beans prices

4.3 Livestock Price Ratio/Terms of Trade

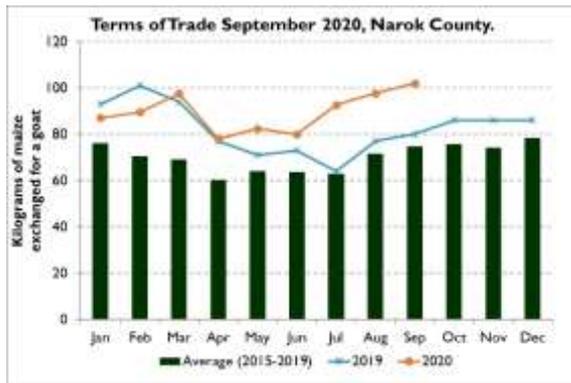


Figure 11: Terms of Trade

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

This implies that a sale of one goat fetched 102 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

1 MILK CONSUMPTION

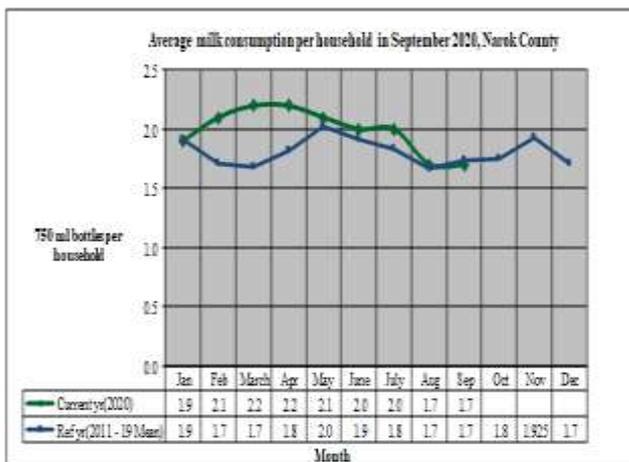


Figure 12: Milk consumption

Average household milk consumption per day remained at 1.7 litres per household as compared to the previous month. There were inter-livelihood variations in milk consumption with agro-pastoral livelihood zone having the highest consumption rate at 1.8 litres, followed by mixed farming and pastoral livelihood zones having the least at consumption rate at 1.7 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

- Food consumption patterns across the livelihood zones were stable with majority of households remaining in acceptable band. The largest proportion of about 96.9 percent of the households had acceptable food consumption score. This implies that majority of households were able to take diverse food groups more frequently thus able to meet their essential food needs.
- In pastoral livelihood zone, 90.9 percent had acceptable, 6.8 percent had borderline and 2.3 percent had poor consumption while in Agro pastoral and mixed farming, 100 percent had acceptable food consumption score (Fig 13)

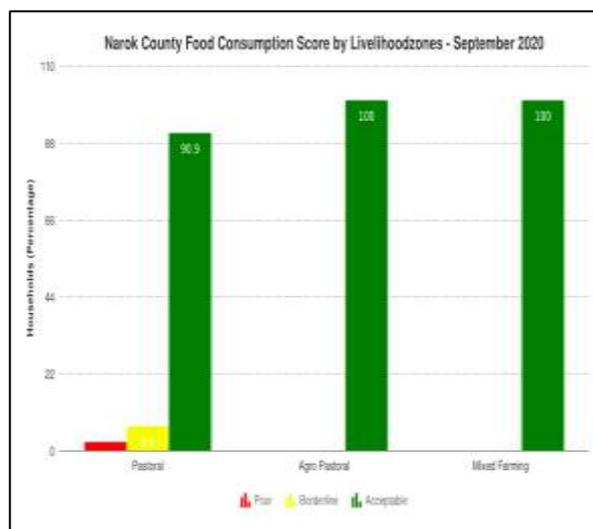


Figure 13: Food consumption score

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. The proportion of children under the age of five years who were ‘at risk’ of malnutrition increased to 5.9% in September from 3.5% in previous month (Fig 14). Mosiro, Naroosura and Koyiaki wards in the pastoral livelihood zone still had 10.9 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 in the pastoral livelihood zone.

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

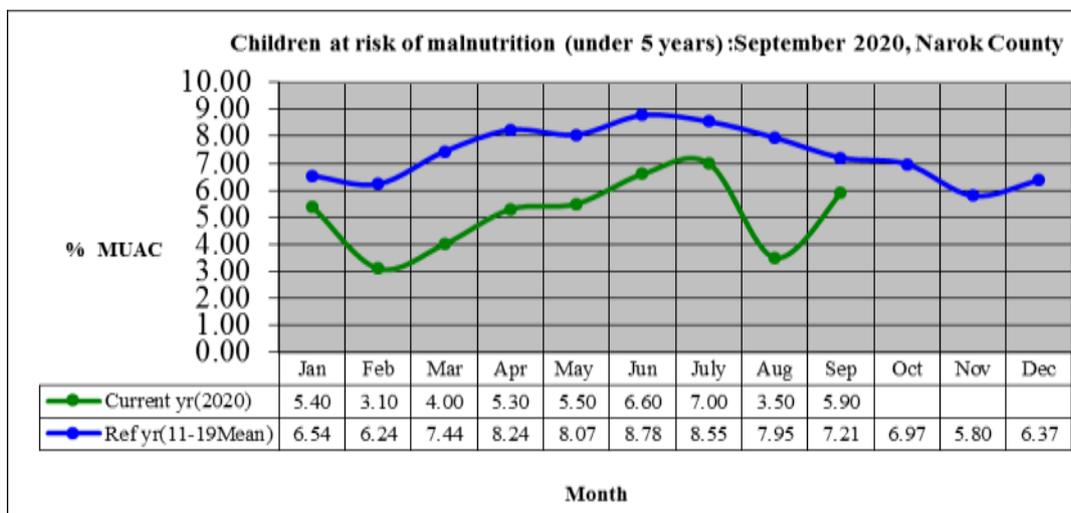


Figure 14: Children <5yrs at Risk of Malnutrition in Narok County Sept 2020

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 dust and poor sanitation.

5.3 COPING STRATEGIES

The CSI for the County in September remained at 2.6 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 5.3 compared to Agro-pastoral and Mixed farming zone.

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

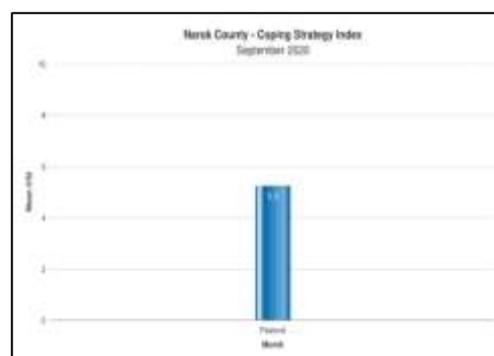


Figure 15: Coping strategies

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.
- 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

- Livestock migration observed from Naroosura to Loita and irrigation scheme, Mosiro to Ntulele wheat harvested areas

7.3 FOOD SECURITY PROGNOSIS

- Accessibility and availability of water is likely to remain stable for the next 1-2 months. 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 1-2 months.
- The number of children at risk of malnutrition is likely to worsen due to increase in poor accessibility to the market 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 remain stable within the next 2-3 months.

8.0 RECOMMENDATIONS

- Enhanced livestock Vaccination and surveillance of notifiable diseases and vector control.
- Continued awareness campaigns on COVID-19 and support hygiene education promotion including installation of hand washing facilities in public facilities and learning institution.
- 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