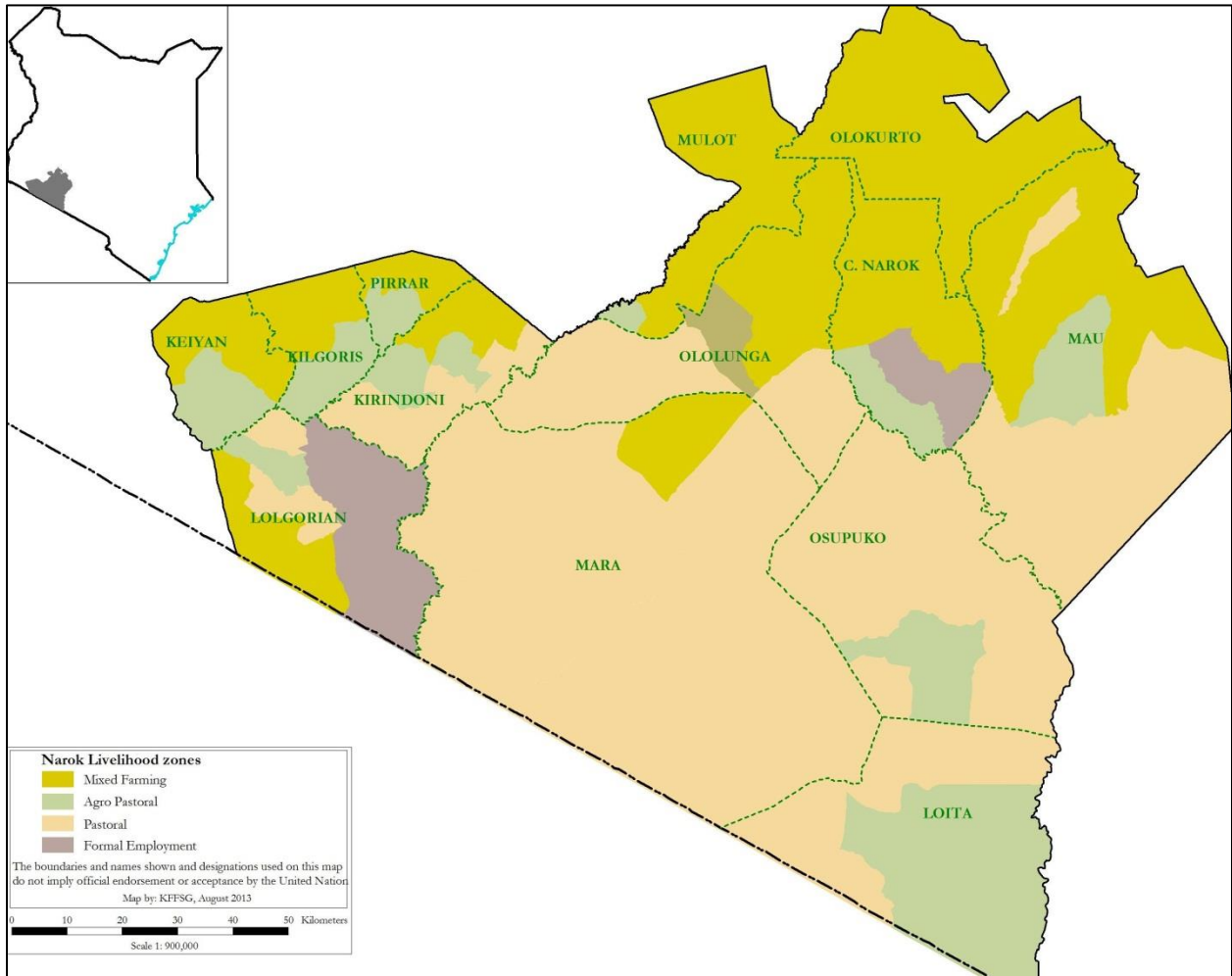


**NAROK COUNTY  
2021 LONG RAINS FOOD AND NUTRITION ASSESSMENT REPORT**



**A joint report by the Kenya Food Security Steering Group<sup>1</sup> and Narok County Steering Group**

**JULY, 2021**

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## **EXECUTIVE SUMMARY**

The 2021 long rains assessment was conducted by the Kenya Food Security Steering Group (KFSSG) together with the technical members of the County Steering Group (CSG) that were drawn from agriculture, livestock, water, health and nutrition and education sectors and other stakeholders. Pastoral, Agro-Pastoral and Mixed Farming livelihood zones were covered in this assessment. The main objective of the long rains' assessment was to develop an objective, evidence-based and transparent food and nutrition security situation analysis following the long rains of 2021. Data was collected using both quantitative and qualitative methods. Primary and secondary data were used in the situation analysis. The cumulative long rains performance was normal to above normal however, the distribution in time and space was poor and uneven respectively. Livestock and crop diseases coupled with human wildlife conflicts were identified as the main food insecurity drivers. Food stocks held by households are 14 percent above the long-term average and thus food is currently available in the Mixed Farming and Agropastoral livelihood zones. Livestock productivity is normal as evidenced by the good body condition of livestock. Milk production has increased and is available across the livelihoods. Access to food is good across the livelihoods as maize prices have reduced while goat prices were 36 percent above the long-term averages. Consequently, the terms of trade are favourable and the sale of one goat can be exchanged for 97 kilograms of maize. Market functions were normal and markets are well provisioned with food. Distances to water sources for domestic consumption have remained within seasonal norms in all livelihood zones. Water consumption has remained normal across the livelihoods with households across the livelihoods are consuming above 20 litres per person per day. While hand washing has improved, water treatment across the livelihood zones is minimal at 28 percent, latrine utilization is 52.4 percent and as such is affecting the utilization pillar of food security. National Drought Management Authority (NDMA) surveillance data indicated that households with acceptable, borderline and poor food consumption scores in the county were 93.5, 2.9 and 3.5 percent respectively. In the Pastoral livelihood zone, 87.2, 5.8 and 7.0 percent of the households had acceptable, borderline and poor food consumption scores. The reduced coping strategy index for the county was 2.3 percent however, in the Pastoral livelihood zone it was 6.9 whereby, 30.2 percent were not employing any coping strategies while 64 and 5.8 percent employed Stressed and crisis coping strategies respectively. With regard to livelihood coping strategies, in the pastoral livelihood zone, 89.5 percent were not employing any coping strategy while the remaining 1.2 and 8.1 percent employed stress and crisis coping strategies respectively. For livelihood coping strategies, those not employing any coping strategy were 94.7 percent, Stress coping strategies (0.6 percent) and crisis coping strategies (2.4 percent). The nutrition status is Acceptable with the proportion of children with global acute malnutrition (GAM) based on mid-upper-arm-circumference (MUAC) were 1.6 percent. There were no unusual deaths reported and thus the Under Five Mortality Rate and the Crude Mortality Rate (CMR) were below the emergency cut offs. Narok County is therefore classified as 'None/Minimal' (IPC Phase 1) across the livelihoods.

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## 1.0 INTRODUCTION

### 1.1 County background

Narok County lies between latitudes 0° 50' and 1° 50' south and longitude 35° 28' and 36° 25' East. It borders Nakuru County to the North, Kajiado County to the east, Kisii, Migori, Nyamira and Bomet Counties to the west and the Republic of Tanzania to the South. The county is divided into six sub-counties namely: Narok North, Narok East, Narok South, Narok West Trans Mara West and Trans Mara East. It covers an approximate area of 17,933 square kilometres

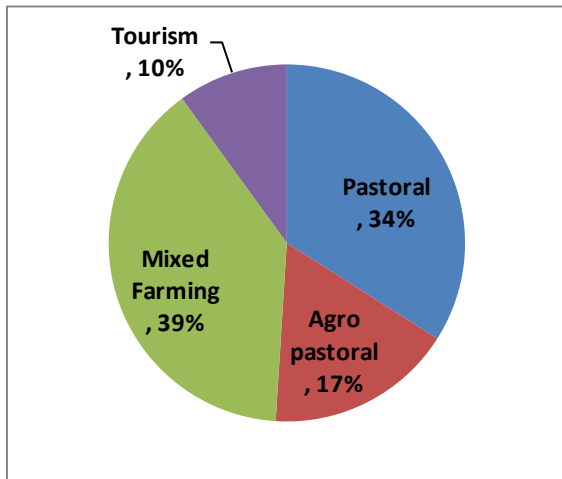


Figure 1: Population Proportion per Livelihood Zone

(Km<sup>2</sup>) with a total population of 1,157,873 people (KNBS, 2019). There are four main livelihood zones which include Pastoral, Agropastoral, Mixed Farming, and tourism/trade with the population proportion as shown in Figure 1.

The main sources of income include livestock production (including meat, milk, hides, skins, and by products) which contributes to 85, 66 and 60 percent cash income to Pastoral, Agropastoral, Mixed Farming respectively. Food crop, cash crop production and Tourism are also significant contributors to food and income for the households in the county.

### 1.2 Methodology and approach

The food and nutrition security assessment exercise is conducted bi-annually to assess the impact of long and short rains on the livelihoods and as such develop an objective, evidence-based and transparent food and nutrition security situation analysis. Both quantitative and qualitative methods were used to collect data. Primary data is collected from the community in sample sites through semi structured focus group discussions, key informant and market interviews. The following sites were visited:- Motony, Ololunga, Aitong, Ntuka, Maji moto, Mosiro, Nturumeti in Pastoral livelihood zone), Naroosura market, Enelera (Agropastoral livelihood zone). Checklists were administered to the relevant departments for collection of quantitative data that together with other data such as livelihood zone data, satellite data for rainfall, routine Demographic Health Information Systems (DHIS) data and National Drought Management Authority (NDMA) bulletins among others, comprised of secondary data. The departments gave sectoral briefs during the county steering group. Data collected was then collated, analyzed and triangulated and analysis was by livelihood zones. The integrated food security phase classification (IPC) protocols were used to do the classification of the severity and identify the possible causes of food insecurity. The assessment exercise was conducted by a multi-sectoral team comprising of lead team from the Kenya Food Security Steering Group and technical experts from the Departments of agriculture, livestock, water, education and health and nutrition at the county level. The long rains assessment in Narok county was done from 19<sup>th</sup> to 23<sup>rd</sup> July, 2021. The coverage was for Pastoral, Agro-pastoral and Mixed Farming livelihood zones.

## 2.0 DRIVERS OF FOOD AND NUTRITION SECURITY IN THE COUNTY

### 2.1 Rainfall Performance

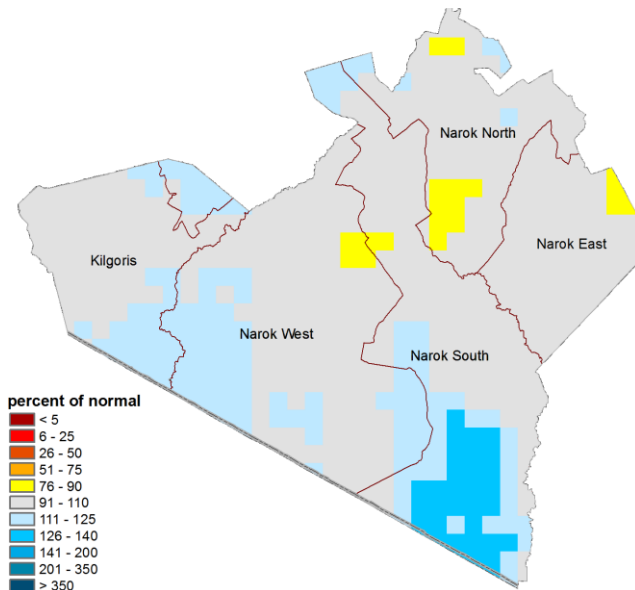


Figure 2: Rainfall Performance as a percent of Normal

Narok County receives bimodal rainfall and is dependent on the long rains of March-April-May (MAM). The onset of the rains was early in the 1<sup>st</sup> dekad of March compared to the third dekad normally, however, the rains continued from January and February. Cumulatively, from March to May the county received 499 mm compared to 352 mm normally (41 percent above normal). Most parts of the county received 91-110 percent of normal; the southern parts received 126-140 percent of normal. Eastern part of Trans Mara East and the western parts of Narok West Sub Counties received 11-125 percent of normal rains. Temporal distribution was poor, for example in the month of March, there were only 11 days

of rain. Spatial distribution was uneven across the livelihoods. The rains were erratic and some rains continued to be received in the month of June. The vegetation cover index trend was and remained above normal from January through to June 2021 period.

### 2.2 Human Wildlife Conflict

There were reported cases of human wildlife conflicts at watering points and grazing areas particularly in the Pastoral livelihood zones surrounding the Maasai Mara National Park. The areas most affected were Mara, Naroosura, Mosiro and Siana.

### 2.3 COVID 19 Pandemic

The impact of the COVID-19 pandemic in the current season was minimal in most sectors. In the health sector, however, there was a reshuffle among the health workers that was precipitated by putting in place preparedness and containment measures for COVID-19. Some facilities received additional staff while in others staff were withdrawn to support covid isolations services. Visits to health facilities have improved however, they are still minimal compared to previous normal years as a result of sensitization during chief barazas on observing COVID-19 measures like distancing and hand washing. In the education sector, as the schools were closed, there were reported cases of teenage pregnancies were experienced as a result there were drop outs and family planning services went up as the community tried to control the menace.

### 2.4 Other shocks and hazards

Crop disease such as Maize Lethal Necrosis Disease (MLND) affected about 2-5 percent of maize in Narok West resulting in reduced yields. Pests such as *Tuta absoluta* that affected tomatoes leading to reduced production. Livestock disease outbreaks of Foot and Mouth Disease (FMD), Contagious Caprine Pleural Pneumonia (CCPP), Pestes des Petite Ruminante (PPR) and Rabies, Anthrax were reported in Narok East, Narok West and South sub counties.

### 3.0 IMPACTS OF DRIVERS ON FOOD AND NUTRITION SECURITY

#### 3.1 Availability

##### 3.1.1 Crop Production

Narok County is dependent on the long rains season for rain-fed cropping for both food and cash crop farming. The main food crops grown in the Agropastoral and Mixed Farming livelihood zones are maize, beans and Irish potatoes. In the Agropastoral livelihood zone, maize, beans and Irish potatoes contribute to 60, 20 and five percent to food and 20, 10 and 60 percent to cash income respectively. Other crops grown in the Agropastoral livelihood zone are millet, sorghum and sweet potatoes. In the Mixed Farming livelihood zone, maize, Irish Potatoes and beans contribute 70, 15 and five percent to food respectively. Contribution to cash income for maize, Irish Potatoes and beans in this livelihood is 15, 11 and four percent respectively. The main cash crop grown in the county is wheat which contributes to 40 percent of cash income.

##### a) Rainfed Crop Production

The major crops that were grown during the recent long rains were maize, wheat, beans, Irish Potatoes and sorghum across the Mixed Farming, Agro-pastoral and sections of Pastoral livelihoods zones, with maize production being the largest staple food produced and consumed in the county.

**Table 1: Acreage and Crop Production in Narok County**

Crop	Area planted during 2021 Long rains season (Ha)	Long Term Average area planted during the Long rains season (Ha)	2021 Long rains season production (90 kg bags) Projected/Actual	Long Term Average production during the short rains season (90 kg bags)
1.Maize	93,165	85,806	2,035,000	1,830,148
2.Beans	31,780	28,356	221,339	180,588
3.Irish Potatoes	9,580	8,828	450,000	436,794

The area under maize production increased by 8.6 percent above the long-term average (LTA) (Table 1). The above average acreage for maize was attributed to the fact that some farmers have shifted to maize growing from wheat farming due to high cost of production, *Quelea quelea* bird invasion, low prices amongst others. Production increased by 11.2 percent of the long-term average. There was 15 percent sold as green maize. The acreage under Irish potatoes was 8.5 percent above the long-term average and subsequently production also increased by three percent compared to LTA (Table 1). The above average production for Irish potatoes is due to the use of clean seed and intensified capacity building initiative. The area under beans was 12 percent resulting in production that was 22 percent above the LTA (Table 1). The production in beans was due to the good rainfall received in this season.

## b) Irrigated Crop Production

Table 2: Acreage and Crop Production Under irrigation in Narok County

Crop	Area planted during 2021 Long rains season (Ha)	Long Term Average area planted during the Long rains season (Ha)	2021 Long rains season production (90 kg bags/MT) Projected/Actual	Long Term Average production during the short rains season (90 kg bags/MT)
Tomatoes	295	365	2714MT	3770
Onions	120	264	2025	3000
Cabbages	70	34	1535	807

Acreage under tomato was 19 percent below the LTA while the production was 28 percent below LTA. The reduced acreage was attributed to high cost of production and increased *Tuta absoluta* pest and diseases that reduced the yield. The area under onions was 54 percent below LTA while the production reduced by 32.5 percent (Table 2). The acreage reduced as farmers were discouraged from planting the crop due to poor prices of the commodity. The area under cabbages was about 105 percent above the LTA (Table 2) due to increase in demand and thus there was ready market for the produce. Production was 90 percent above the long-term average (Table 2). The high yields in cabbages were because of improved agronomic practices by the farmers who have been capacity built over time on the best practices.

### 3.1.2 Cereals stock

Table 3: Maize and Beans Stocks in Narok County

Commodity	Maize		Sorghum	
	Current	LTA	Current	LTA
Farmers	161,170	140,554	280	1528
Traders	128,480	106,496	1385	377
Millers	14350	7710		
NCPB	28,867			
<b>Total</b>	<b>332,867</b>	<b>254,760</b>	<b>1665</b>	<b>1905</b>

Overall, 76.2 percent of the households had some stock as at June 2021 while the remaining 27.8 had none. Maize stocks with farmers and traders were 14 percent and 20.6 percent respectively above the LTA. The increased maize stocks held by the farmers are stocks from the previous season and harvesting has also started in some areas. Stock at household and with traders is expected to rise as harvesting continues. Sorghum held by farmers was 81 percent below the LTA while the stocks with the traders. Stocks were expected to last for the normal 3-6 months.

### 3.1.3 Livestock Production

Livestock production (including meat, milk, hides, skins, and by products) is the main economic activities for households where more than 50 percent are Pastoralists. The main livestock species kept are cattle, goats, sheep and poultry. Livestock production contributes 85, 66 and 40 percent of cash income in the Pastoral-all species, Agropastoral and Mixed Farming livelihood zones. In the Pastoral-all species, cattle contribute to 16 percent of cash income. In the Agropastoral livelihood zone, sheep, goats and cattle contribute to 35, 32 and 30 percent of household income



respectively and contribute to similar amounts in terms of food. In the Mixed Farming livelihood zone, goats and sheep contribute 35 percent each to cash income while cattle and chicken contribute to 20 and 10 percent respectively. In this livelihood zone, contribution to food by goats, sheep, cattle and chicken is 35, 35, 20 and 10 percent respectively.

### Pasture and browse situation

The pasture and browse condition was generally good across all the livelihood zones except some parts of the Pastoral livelihood zone such as, Nturumeti in Narok East Sub County and Majimoto, Naroosura and Loita wards in Narok South pasture condition was poor. The good pasture condition is associated with above normal rainfall that was received in most parts of the county and also offseason rainfall received in June 2021. Similarly, the poor pasture conditions in some parts of the Pastoral livelihood zone are due to below normal rainfall received in those areas.

Pasture is expected to last for one to 2-2.5 months in Pastoral and Agro-pastoral livelihood zones and three months in Mixed Farming zones. Browse is expected to last three months in Pastoral and agro-Pastoral zones and 3-4 months in Mixed Farming which is within normal. Most parts of the County have improved pastures. Furthermore, some farmers have embraced conservation of pastures such as napier grass and Rhodes grasses which supplement the natural grasses. In the Agro-pastoral livelihood zones such as Transmara West, Narok South (Ololulunga, Melelo) Sub counties, parts of Suswa ward, and parts of Mixed Farming zones for example Dikirr, Mulot and Nairegia Enkare have barley, wheat and maize straws which are harvested and conserved (baling and storage) and utilized as livestock feeds during dry seasons.

The main factors limiting access to pastures and browse in the Pastoral Livelihood Zone were competition with wildlife at Mosiro ward, Mararianda in Mara Ward and Kawai area in Lorgorian ward. In the Agropastoral livelihood zone, tsetse fly infestation in Mosiro, Naikarra, Siana, Mara and Kimintet wards and land conflicts in Magena and Mashankwa villages in Lolgorian ward. In the Mixed Farming livelihood zone, the main factor limiting pastures are steep slopes and thorny thicketed bushes which hinders the livestock from penetrating through to access the pasture.

**Table 4: Pasture and Browse condition in Narok County**

Livelihood zone	Pasture				Browse			
	Condition		How long to last (Months)		Condition		How long to last (Months)	
	Current	Normal	Current	Normal	Current	Normal	Current	Normal
Pastoral	Fair	Fair	2	1.5	Good	Good	3	3
Agro-Pastoral	Good	Fair	2.5	1.5	Good	Good	3	3
Mixed Farming	Good	Good	3	2.5	Good	Good	3-4	3

### Pasture conservation

Most of the farmers across the County have adopted pasture production and conservation while the rest grow pasture and sell directly for income due to inadequacy of storage facilities. In the

county, 60 percent of storage facilities are owned by individual farmers, 20 percent by the NARIGP funded groups and the remaining 20 are owned by institutions. Key institutions such as Narok Regional Pastoral Training Centre, Sheep and Goat's station and Eor Ekule Dairies Limited have quite a good number of bales (Rhodes). About 40 percent of conserved pasture is utilized locally by livestock farmers during dry season.

Currently the county has about 325 storage facilities with a storage capacity of 662,000 bales but currently holding 77,000 bales (11.6 percent (Table 5). There are no factors limiting utilization of conserved pastures as currently there is pasture and the one stored is still fresh. Commercial Small Medium Enterprises engaging in pasture and fodder/ seed production exists and their impact has mitigated the problem of seasonal availability of certified seeds which are unsustainable and highly expensive.

**Table 5: Baled hay status in Narok County**

<b>Sub County</b>	<b>No. of Hay Stores</b>	<b>Storage Capacity (Total number of bales)</b>	<b>No. of Bales currently being held</b>	<b>Average Weight per bale (in Kgs)</b>	<b>Average price per bale (Kshs.)</b>	<b>Comments – E.g. percentage held by farmers and other Institutions</b>
Narok North	95	220,000	30,000	14	150	75% by farmers 25% by other institutions
Narok East	50	100,000	3,000	16	200	100% by farmers
Narok South	11	50,000	1,000	15	1300	100% by farmers
Narok West	100	50,000	8000	15	180	80 % farmers 20% large scale producers
Transmara East	15	60,000	6000	40	150	
Transmara West	50	100,000	4,000	15	200	All held by farmers
Narok Regional Pastoral Training Centre (NRPTC)	1	12,000	6,000			For own use
Sheep and Goats Station	1	20,000	5,000	15	150	For own use
Individuals at Katakala area	4	60,000	14,000	15	150	Own use and for sale to ranches
<b>Narok County</b>	<b>321</b>	<b>662,000</b>	<b>77,000</b>	<b>15</b>	<b>150</b>	

## Livestock Productivity

### Livestock body condition

The livestock body condition of goats and sheep was good in all livelihood zones except for cattle in the Pastoral livelihood zone which was fair. The good livestock body condition was attributed to availability of forage and water. The current body condition for cattle is normal for the time of the year. Body condition of cattle in the Pastoral livelihood zones is expected to slightly deteriorate in the next three months, however, thus body condition of the goats and sheep is expected to remain good until the onset of the short rains.

### Tropical livestock units (Tropical Livestock Units)

There was a 10-20 percent decline in TLU across the livelihoods. The TLUs for poor households decreased by 14.2 and 20 percent in the Agro-pastoral and Mixed Farming livelihood zones respectively but remained the same in the Pastoral livelihood zone. Among the Middle-Income Livelihood Zone the number of TLUs per household declined by 4.7 percent for Pastoral, 11.1 percent for Agropastoral and by 14.2 percent in the Mixed Farming livelihood zone (Table 6). The decline in TLU across the livelihoods which was attributed to diminishing land sizes due to land demarcations, increased sale of livestock by household over time to cater for increased costs of living especially school fees, food commodities and other needs and diversification from too many indigenous breeds to fewer improved breeds. There is also an emerging tendency in Pastoral and Agropastoral livelihood zones for diversification from keeping large herds of cattle to small stock (sheep and goats) probably because of their tolerance to dry spells after having previous experiences of cattle losses during prolonged droughts.

**Table 6: Tropical Livestock Units (TLUs) by household income groups in Narok County**

Livelihood zone	Poor income households		Medium income households	
	Current	Normal	Current	Normal
Pastoral	7	7	20	21
Agropastoral	6	7	16	18
Mixed Farming	4	5	6	7

### Milk Production and Prices

Milk production per household increased by 33, 14 and 50 percent in the Agro-pastoral, Mixed Farming and Pastoral Livelihood Zones respectively compared to LTA (Table 7). The increased production is attributed to availability of forage and water. However, in some parts of the Pastoral livelihood zones especially lowlands of Narok South, milk production declined due to migration of cattle to dry season grazing areas.

**Table 7: Milk production, consumption and prices in Narok County**

Livelihood zone	Milk Production (Litres)/Household		Prices (Ksh)/Litre	
	Current	LTA	Current	LTA
Pastoral	3	2	40	50
Agropastoral	4	3	30	40
Mixed Farming	7	6	30	30

The price of milk is within average in the mixed livelihood zones. The reduction in price in the Pastoral livelihood zones was attributed to the fact that currently there were additional coolers and milk collection centres that were established in the period from January to June. However, in some parts of the Pastoral livelihood zone such as Naroosura, Ntuka and Majimoto (Narok South) a litre of milk was sold at Ksh. 80 compared to a normal of Ksh. 90. The farmers in these areas are selling their milk directly due to availability of a ready market. The reduction in the price is attributed to improved infrastructure (road network) which has allowed for free flow of milk from other areas.

### **Livestock Diseases and Mortality**

The endemic livestock diseases in the county are East Coast Fever (ECF), Lumpy Skin Disease (LSD), Foot and Mouth Disease (FMD), Contagious Caprine Pleural Pneumonia (CCPP), Anthrax and brucellosis. The reported cases of disease outbreaks were Narok East and South FMD, Narok west- Rabies, Anthrax, FMD, and Pestes des Petite Ruminante (PPR). However, there was no quarantine enforced in the areas. Other outbreaks reported were CCPP in Narok North and Blue tongue Narok West. The control measures undertaken to control the disease outbreaks were treatments and vaccinations. Mortality rates for the season are within the normal ranges and the causes are diseases, injuries and predation

### **Migration**

The County has not experienced any migration of livestock out of the county apart from some localized movements within. Some livestock movements in Agro-Pastoral zone were due to preparation of land for cereal growing in Mosiro and Suswa wards to Mau area. Other migrations are from Melelo and Ololulunga wards to Mara and from Naroosura to Loita hills and others to Nkorinkori in search of pasture. The current migrations are normal. The species and proportion of the livestock that have migrated are five percent each for sheep and goats and 10 percent for cattle. Migration to other counties is expected in the next two months as from September.

### **Water for Livestock**

The main sources of water for livestock in the county are boreholes, shallow wells, pans, seasonal and permanent rivers and ponds which is normal at this time of the year (Table 8). The water sources are projected to last for one month in Pastoral and two months in agro-Pastoral and Mixed Farming zones. However, some areas such as Naroosura, Ntuka and Nturumeti water pans have dried up and livestock migrated to Mosiro and Loita. Livestock return trekking distances from grazing to water sources ranges from 6-8 km in Pastoral to 12 km. 4–6 km in agro-Pastoral and 0.5–4 km in Mixed Farming zones which is normal as compared to the long-term average (LTA). The watering frequency for livestock is once to twice per day across all the livelihood zones. Most households in the Mixed Farming livelihood zone have constructed farm ponds which collect rainwater runoff and this is what is being used for watering livestock thus the reduction in distances.

**Table 8: Water for livestock in Narok County**

Livelihood zone	Return trekking distances (Kms)		Expected duration to last (Months)		Watering frequency	
	Current	Normal	Current	Normal	Current	Normal
<b>Pastoral</b>	6-8	4-8	3-4	2-3	Daily	Daily

<b>Agropastoral</b>	4-6	3-6	3-4	3-4	Daily	Daily
<b>Mixed Farming</b>	0.5-4	2-4	3-4	3-4	Daily	Daily

### **3.1.4 Impact on availability**

The rains received in the current season had a positive impact on availability of food across the livelihoods. Food stocks in the county are above the long-term average. Livestock productivity improved due to pasture regeneration that was supported across the livelihoods though it was not adequate in the Pastoral Livelihood zones. Browse is currently available. The livestock body condition for all livestock species is generally good except for cattle. Milk production per household increased thus milk is available in the households.

## **3.2 Access**

### **3.2.1 Markets- prices – functioning**

#### **Market operations**

Market operations were normal with major markets for livestock and other food commodities in all livelihoods were functioning normally. The major markets in the county are, Naroosura, Ngosvani, Ntulele, Mosiro, Ewaso Nyiro, Aitong and Suswa in Pastoral areas. The main markets in the Agro-Pastoral areas include Kelena, Logorian and Kilgoris while in the Mixed Farming zones markets include:- Narok town, Sogoo, Mulot, Olokurto, Ololulunga and Tipis. In these markets, all species of livestock and food stuffs are traded. The main supply sources for food stuffs and livestock were from within the county and neighboring counties such as Bomet, Kisii, Migori and Kajiado. Livestock also is brought in from the neighbouring county of Tanzania. The main livestock species being sold in the market were cattle, goats and sheep whose supply was considered high in most of the markets across the county and in Naroosura particularly there was reported an influx of livestock from Tanzania.

The volumes traded for livestock were high for the season. The high numbers of livestock in the market are attributed to sales being done to meet school fees needs and others are selling off in anticipation of the lean season just in case the dry weather conditions persist. The markets were well provisioned with the main food stuffs purchased by the households such as maize, beans, rice, potatoes, green grams, tomatoes and cabbages. Other key items purchased by the households were sugar, cooking fat, bar soap and sukuma wiki. More than 90 percent of the households in Pastoral livelihood zones obtained food from markets.

## Market Prices

### Maize prices

The price of maize in July, 2021 was Ksh. 47, and had decreased by nine percent compared to the long-term average (2016-2020) of Ksh.53 and remained the same to the prices reported in the

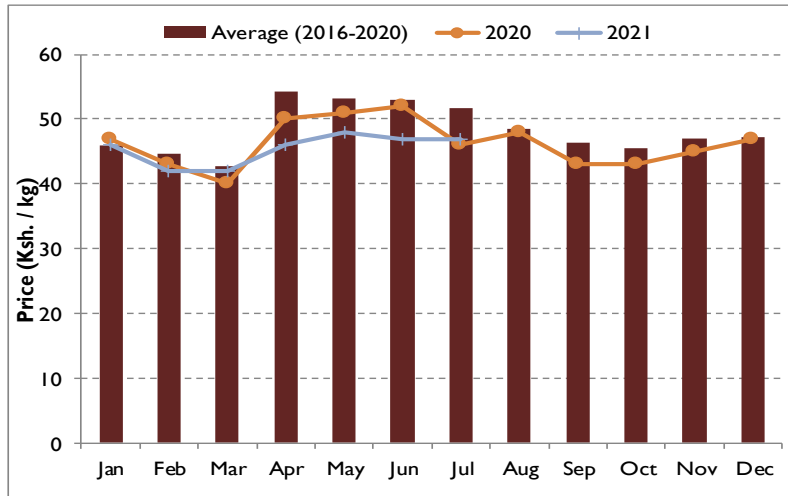


Figure 3: Maize Prices for Narok County

variation in maize price is attributed to transport cost to the Pastoral livelihood zones markets. The price of maize is likely decrease in the next three months following the inflow of maize into the market as a result of the expected harvest.

### Goat price

The price of a medium sized goat as at July 2021 was Ksh. 4,570 compared to Ksh.4,280 reported in the same month in 2020.

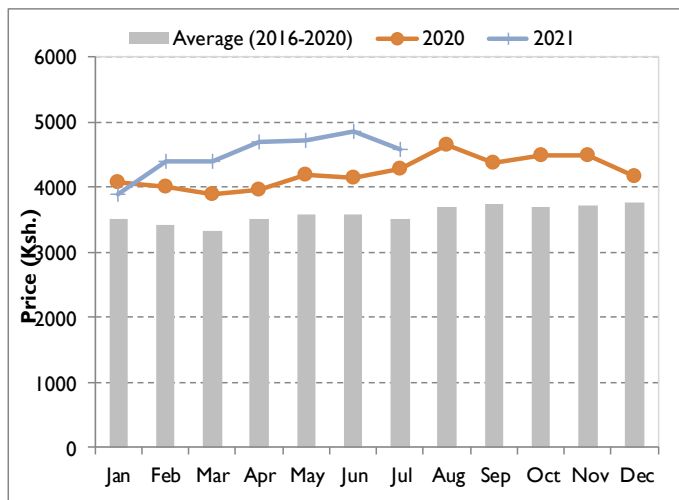


Figure 4: Goat Prices in Narok County

lowest price was recorded in the Agro- Pastoral livelihood zone at Ksh. 4,852. The current prices are also attributed to the demand for goats for breeding. The high prices spike was noted as from July, 2020 which was precipitated by improved body condition of goats following good

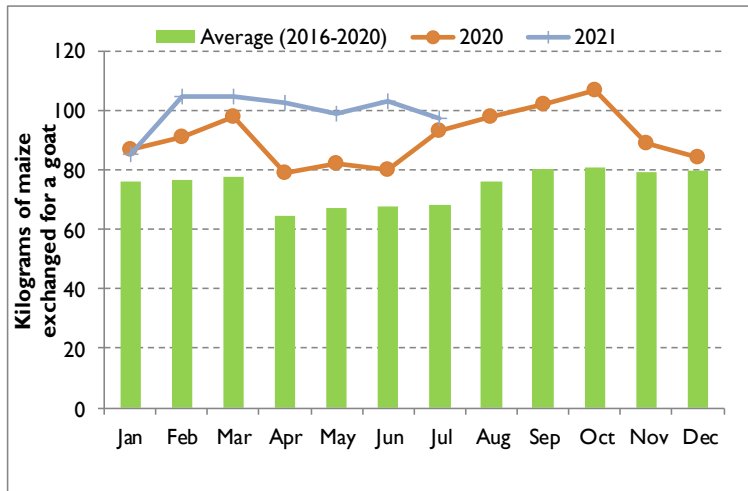
previous month of June. The price from January to July 2021 followed the seasonal trends increasing in April through to July however, remained below the long-term averages. The price reported in July was two percent above the price reported during the same time last year. The highest price was recorded in the Pastoral livelihood zone at Ksh. 54 per kilogram while the lowest price was recorded in the Mixed Farming and agro-Pastoral livelihood zones at Ksh.40 per kilogramme. The

The current price was 30 percent above the five-year average of 2016-2020 and seven percent above the price reported in the same time in 2020 (Figure 4). The price in July decreased by six percent when compared to the price reported in June. From January through to July, 2021, the trend of the goat prices remained relatively above the long term averages and the prices reported during the same period last year, 2020. The highest price was reported in the Pastoral livelihood and Mixed Farming zone at Ksh. 5,000 while the

performance of the last 3 seasons. The goat prices are likely to remain above the long-term averages and follow the trend for the next three months.

### 3.2.2 Terms of trade

The current terms of trade were good at five percent above those reported in July 2020 and 43 percent above the long-term average 2016-2020. Currently, the sale of a goat can be



**Figure 5: Terms of Trade for Narok County**

exchanged for 97 kilograms of maize (Figure 5). There was a six percent reduction in the terms of trade when compared to the month of June when the sale of one goat could be exchanged for 103 kilograms of maize. Although the terms of trade remained above the long-term average, they have been on a downward since March 2021 until July as a result of the increasing maize prices (Figure

5). The lowest terms of trade were reported in the Pastoral livelihood zone in areas where the sale of a goat could be exchanged for 92.5 kilograms of maize while they were significantly favourable for the Mixed Farming and Agropastoral livelihood zone in which the sale of a goat could be exchanged for 122 and 125 kilograms of maize respectively. The terms of trade are likely to remain stable in the next three months as no significant changes are expected in both the goat and maize prices.

### 3.2.3 Income sources

The main sources of cash income are varied across the livelihood zones with livestock production including meat, milk, hides, skins and by products contributing to 85, 66, and 40 percent of cash income in the Pastoral, Agropastoral and Mixed Farming Livelihood Zones respectively. Food crop production and cash crop farming contribute to 25 and 10 percent of cash income respectively in the Mixed Farming livelihood zone. Wheat which is the major cash crop grown in the Agropastoral and Mixed Farming livelihood zone contributes to 60 and 40 percent cash income respectively.

### 3.2.4 Water access and availability

#### Major water sources

The three main sources of water for domestic use in the County are: rivers, dams/pans, and boreholes. Other sources include shallow wells, springs and traditional wells. The surface water sources and shallow wells were recharged to about 80 percent during the 2021 long rainfall season in all the livelihood zones. However, the percentage has reduced to around 50 percent due to usage and evaporation. The current water sources are the normal ones used at such time of the year. Piped water is the main source of water in major urban areas.

The major permanent rivers in the county include Enkare Narok River, Ewaso Nyiro River, Siyiapei River, Enkare Ngoso River and Amala River which are currently having normal flows. About 66percent of boreholes are operational across the livelihoods with most of non-operational ones are being in Narok South and Narok West sub-counties. Mismanagement due to collapse of managements committees, theft or breakage of solar panels, breakdowns and dilapidated infrastructure are reasons for non-operationalization of these boreholes. Some water structures especially dams, water pans and boreholes need rehabilitation to enable them attain their maximum efficiency. Lower parts of Narok East and Narok South have the lowest number of water points due to vastness and poor accessibility. In the Mixed Farming and agro-Pastoral livelihood zones, pans are likely to last for the normal six months while in Pastoral zones, they will last for about two months instead of the six months expected normally. All rivers and boreholes will last for a normal duration of 12 months, as the latter are permanent.

**Table 9: Water Sources for Domestic Consumption in Narok County**

Ward Livelihood Zone	Water Source	No of Normal Operational	No of current operational	Projected duration	Normal duration of water	% Recharged by rain	Locality of non – operational sources
Pastoral	Rivers	3	3	Permanent	Permanent	50	None
	Water pans	285	265	2 months	6months	60%	Spread across livelihood
	Boreholes	24	17	12 months	12 months	80%	Mosiro, Katakala
Mixed Farming	Rivers	2	2	Permanent	Permanent	50%	None
	Bore holes	8	4	12 months	12 months	80%	AngataNaado, Kikuyani
	Water Pans	50	46	2 Months	6 Months	60%	Ilkinye
Agropastoral	Rivers	3	3	Permanent	All year round	80%	None
	Water Pans	42	36	2 months	6 months	60%	Spread across the livelihood
	Bore holes	24	12	12 months	12 months	80%	Spread across the livelihood.

### **Distances, Waiting time, Cost of water, Consumption**

Average return distance to water sources ranges from 0.2-1kilometre and 0.5 – 2 kilometres in the Mixed Farming and agro-Pastoral livelihood zone respectively. Return distances in the Pastoral zone range from 1-5 kilometre. Waiting time varied across all the livelihood zones however it remained normal in each of the zones at this time of the year. In the Pastoral livelihood zone, waiting time was 10-15 minutes as some households get water from water kiosks (Table 10). Waiting time in the Mixed Farming and Agropastoral livelihood zone ranged from 0-10 minutes as most of the households draw water from rivers, earth dams and pans. Distances to water sources remained normal across the livelihood zones (Table 10) as a result of availability of shallow wells and farm ponds at the household level, scattered springs within these regions and roof harvesting. The cost of water is within the normal range at Ksh. 3-5 per 20 litre jerrican across all the livelihoods (Table 10).



**Table 10: Distances, Cost, Waiting Time and Consumption**

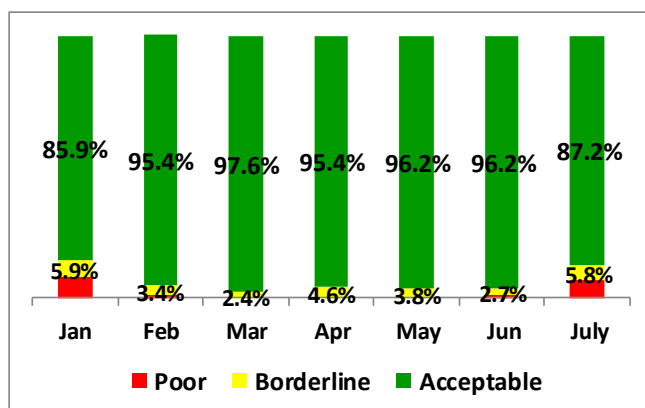
Livelihood zone	Return Distance to Water for Domestic Use (Km)		Cost of Water at Source (Ksh. Per 20litres)		Waiting Time at Water Source (Minutes)		Average Water Consumption (Litres/person/day)	
	Normal	Current	Normal	Current	Normal	Current	Normal	Current
Agropastoral	0.5-2	0.5-2	3-5	3-5	0-10	0-10	30	30
Mixed Farming	0.2-1	0.2-1	3-5	3-5	0-10	0-10	40	40
Pastoral	1-5	1-5	3-5	3-5	10-15	10-15	20	20

The average water consumption per household is normal as across the livelihoods (Table 10). Households in the Mixed Farming livelihood zone are consuming 40 litres per person per day while agro-Pastoral zone consumption is 30 litres per person per day. Pastoralists are consuming 20 litres per person per day. Currently, water is available and accessible. In major towns, the demand has increased slightly due to the frequent hand washing that has been brought by the COVID pandemic. However, most water supplies are coping through rationing.

Water quality in the open water sources such as rivers, pans /dams and pond is poor as they are heavily polluted. Open defecation of human and animals are some of the pollutants affecting water quality in the county. Some pans/ dams which have been constructed recently have erected sanitation facilities such as toilets and bathrooms which are supposed to be used by the area residents to control contamination mostly from defecation.

### 3.2.5 Food Consumption

Meal consumption has remained normal across the livelihoods with households in the Pastoral-



**Figure 6: Food Consumption Scores in Pastoral livelihood zone**

all species, Mixed Farming and Agropastoral livelihood zones consuming three meals per day. According to the NDMA Early Warning Bulletin, as at July, 2021, the proportions of households having acceptable, borderline and poor food consumption scores in the county were 93.5, 2.9 and 3.5 percent respectively (Figure 6). In the Pastoral livelihood zone, 87.2, 5.8 and 7.0 percent of the households acceptable, borderline and poor food consumption scores. In the Agropastoral and the Mixed Farming livelihood zone, the proportion of

households having acceptable food consumption scores has been 100 percent as from January to July, 2021. Majority of households across the livelihood zones were able to take diverse food groups where staples and vegetables are consumed daily, frequently accompanied by oil and pulses and occasionally meat, fish and dairy and thus are more likely to meet their nutrient adequacy.

## Milk consumption

Table 11: Milk Consumption per livelihood zone

Livelihood zone	Milk consumption (Litres) per Household	
	Current	LTA
Pastoral	2	2
Agropastoral	3	3
Mixed Farming	3	3

Milk consumption remained stable across all the livelihood zones (Table 11). Currently milk is available at the households as there was an increase in milk production per household across the livelihood zones.

### 3.2.6 Coping strategy

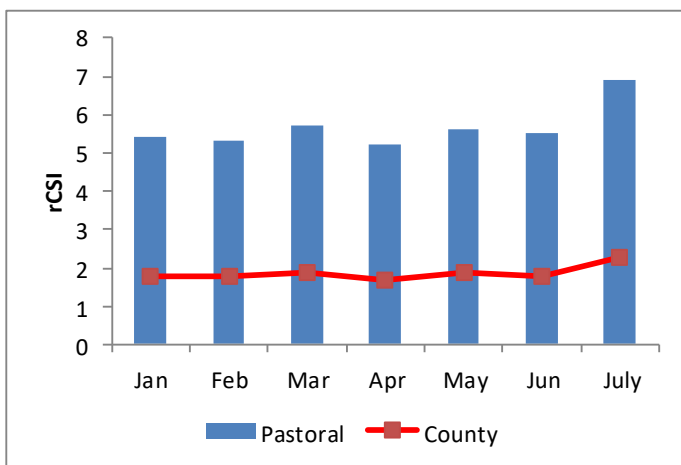


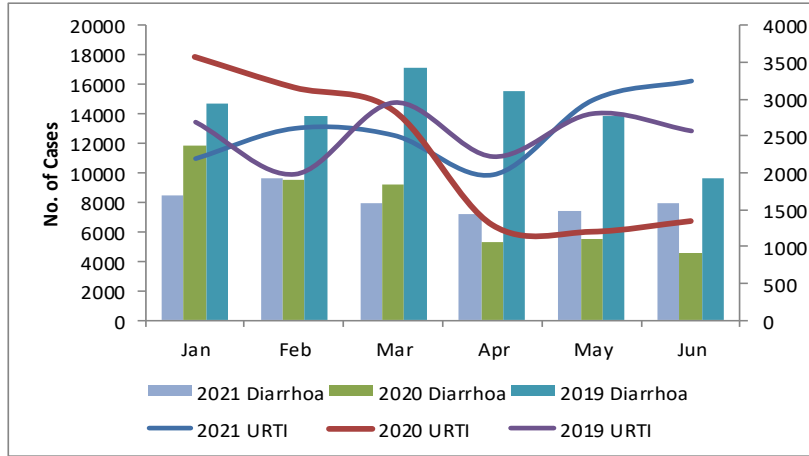
Figure 7: Coping Strategy Index

Based on NDMA data, the mean coping strategy index (CSI) for the county in July, 2021 was 2.3 and was slightly higher than 1.8 reported in June. The proportion of those households who were not employing any coping strategies was 30.2 percent while 64.0 and 5.8 percent employed stressed and crisis coping strategies respectively. Regarding livelihood coping strategies, 89.5 percent were not employing any coping strategy while the remaining 1.2 and 8.1 percent employed stress and crisis coping strategies respectively. In the Pastoral livelihood zone the rCSI in July was 6.9 and had increased from 5.5 reported in June. The coping strategy index has been stable from January through to June in the Pastoral livelihood zone and also in the county. For livelihood coping strategies, those not employing any coping strategy were 94.7 percent, Stress coping strategies (0.6 percent) and crisis coping strategies (2.4 percent). The households in the agro-Pastoral and Mixed Farming livelihood zones were not employing any coping strategy

### 3.3 Utilization

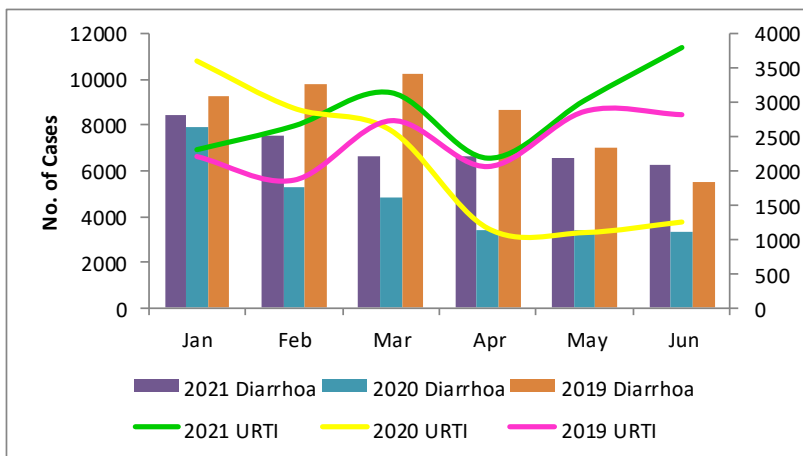
#### 3.3.1 Morbidity and mortality patterns

Morbidity trends for upper respiratory tract infections, diarrhea and malaria from January to June were generally on an upward trend in 2021 compared to 2020 (Figure 8). The upward trend is



**Figure 8: Morbidity trends for General Population in Narok County**

attributed to more hospital visitation in 2021 compared to 2020 following the fact that the households have adapted to the new norm of going about their usual life while observing the COVID-19 protocols unlike in 2020 when they were scared and they stayed off the facilities. In the period under reference in 2021, the upper respiratory tract infections increased by 13 percent while those of diarrhea increased by six percent when compared to the same period in 2020. From January to June, 2021, the upper respiratory tract infections in 2021 took a similar trend to that of similar period 2019. Cases of diarrhoeal diseases for the general population from January to June 2021 and 2020 were significantly lower when compared to cases reported in a similar period in 2019 (Figure 8).. The decrease in diarrhea cases may be attributed to the improved hand washing in the 2020 and 2021 as a measure to deal with the COVID-19 and this is a positive impact. Malaria cases for January to June 2021 among the general population decreased by 12 percent when compared to a similar period in 2020.



**Figure 9: Morbidly Trends for the Under Fives in Narok County**

Morbidity trends for the under-fives from January to June 2021, followed the seasonal trend as that recorded in 2019 however, when compared to the same period in 2020, however there was a notable increase (Figure 9). The disparity with the 2020 trend is due to the fact that there were minimal visits to the health facilities last year as people were scared of COVID-19. Cases of upper respiratory tract infections increased by 36 percent for the period January to June 2021 compared to the same period in 2020 (Figure 9). Cases of diarrhea for the under fives for the period January to June 2021 took a similar trend to that of 2019 and were significantly higher by 49

percent compared to the case reported in the same period in 2020 (Figure 9). Malaria cases for January to June 2021 decreased by 20 percent when compared to a similar period in 2020.

There was reported a total of 117 measles cases in January to June 2021 an increase from 79 cases reported in July to December, 2020. The increase is attributed to a lapse in immunization during the march to December period when there were reduced visitation to the hospital following the COVID-19 scare that made people not to bring the children to the health facilities coupled with the fact that outreaches were halted. Cases of dysentery reported in January to June 2021 were 729 cases and had also increased when compared 752 cases reported in similar time in 2020. There were no unusual deaths reported in the county for both the general population and the children aged less than five years and thus were considered to be below the emergency thresholds.

### 3.3.2 Immunization and Vitamin A supplementation

Based on DHIS data, the proportion of fully immunized children in the county between January and June 2021 was 45 percent compared to 48.6 percent in the same period in 2020. The current coverage is below the national target of 80 percent. The decrease is attributed to the fact that there are no outreaches that are ongoing especially to the hard to reach to reach areas. The Vitamin A supplementation for children n aged 6-11 months for the period January to May, 2021 was 87.4, while that for children aged 12-59 months was dismally low at 16.5 percent. Overall, the coverage for the children aged 6-59 months for the reference period was 23.2 percent. After the Malezi bora campaign in 2021, the Vitamin A supplementation for 6-59 increased to 87 percent compared to 58 percent. The low coverage in 2020 was due to the fact that Malezi Bora campaigns were not done due to delays in the release of funds due to COVID-19.

COVID- 19 pandemic has had a negative impact on the immunization coverage despite the fact that there were no disruptions of services at health facilities in the current year. Outreaches were stopped in March of 2020 when the first case of COVID-19 was reported and had not resumed. Generally, the number of children attending growth monitoring had reduced. Defaulter rates for children under the supplementary feeding programme increased from and reported in January (17.2 percent), February (15.6 percent) and March (18.2 percent) to 34.2 and 24.2 percent reported in April and May 2021 respectively.

### 3.3.3 Nutritional status and dietary diversity

The proportion of children 6 -59 months who were malnourished reduced to 1.6 percent remaining the same as that reported in the previous month (Fig 10).

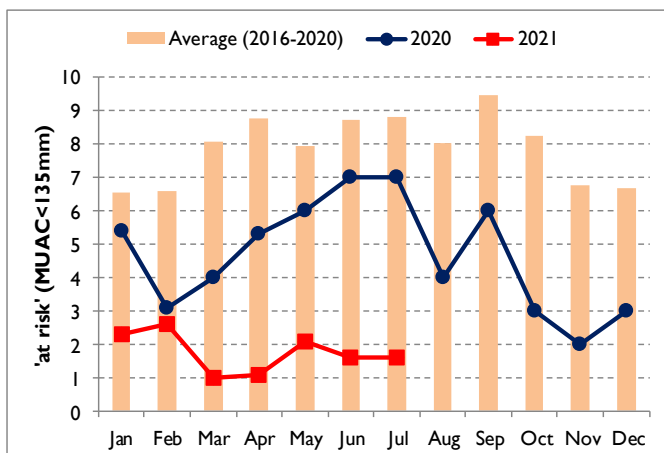


Figure 10: Proportion of Children Under Fives at Risk of Malnutrition based on MUAC <115mm

As at June, 2021, the Pastoral livelihood zone recorded the highest proportion of children who were at risk of malnutrition at three percent compared to seven percent reported during the same time in June 2020.

The most affected areas in the Pastoral livelihood zones were Mosiro, Naroosura and Koyiaki wards. The trend from January to

June, 2021 remained below the long term averages reported in the five year averages and the proportions reported in 2020. The current nutrition status is attributed to availability of food and milk at the household level. Milk consumption has remained stable. From January to May, 2021, a total of 499 cases had been admitted into the supplementary feeding programme (SFP) and were comparable to 443 cases admitted in a similar period in 2020.

### **3.3.4 Health and Nutrition Sector in COVID -19 Context**

COVID-19 had different impacts in the various areas of health. Some facilities received additional staff while in others staff were withdrawn to support covid isolations services. Due to economic difficulties, some patients could not afford to visit health facilities. During public gatherings such as chief barazas sensitization on COVID-19 and mitigation measures that can be taken to prevent the spread of the disease were emphasize as the very young and the older persons were encouraged to remain at home while observing covid measures like distancing and hand washing.

Health outreach services have not yet resumed however, the services offered by community volunteers including household visits came are ongoing. During this COVID-19 period, there were reported stock-outs of supplies for managing acute malnutrition such as plump nuts, fortified blended flour and corn-soy blended flour. Supplies of PPEs such as masks, sanitizers/hand washing sites were availed to allow health care workers to perform their duties.

### **3.3.5 Public interventions, risk communication and community level actions:**

At community level, households have put hand washing points at the homesteads. There is generally high adherence to hand washing guidelines however, masks are not being worn at the community as they indicated that there was no case that had been reported locally. There is a general belief that COVID-19 is not in the villages.

### **3.3.6 Sanitation and Hygiene**

The main sources of water for domestic use included rivers, earth dams/pans, and boreholes, piped water and dams. Based on NDMA data as at July, 2021, the proportion of the population using the available water sources is 31.4, 22.9, 8.6, 17.1 and 8.6 percent for pans/dams, rivers, springs, shallow wells and traditional wells respectively. Water storage at the household was done using jerricans. Water treatment was being done by 28 percent of the households of which 71.3 percent were boiling, 38.3 percent used chemicals and 4.2 percent used pot filters.

Latrine coverage as at December 2019 was at 52.4 percent and the distribution of latrines is not even with some parts of the county with areas like Mosiro having less than 10 percent coverage. During community interviews, households in the Pastoral livelihood zone indicated a low coverage of less than 30 percent in most areas. Hand washing may have improved as there were hand-washing facilities at market places and in most of the households.

### 3.4 Trends of key food security indicators

**Table 12: Food security trends in Kajiado County**

Indicator	Short rains assessment, Feb 2020			Long rains assessment, July 2021(Current)		
% of maize stocks held by households (Agro-Pastoral and Mixed Farming)	10 percent of LTA			14 percent		
Livestock body condition		Cattle	Goats		Cattle	Goats
	Pastoral	Good	Good	Pastoral	Fair	Good
	Agropastoral	Good	Good	Agropastoral	Good	Good
	Mixed Farming	Good	Good	Mixed Farming	Good	Good
Water consumption (litres per person per day)	Pastoral: 20 Agro-Pastoral: 30 Mixed: 40			Pastoral: 20 Agro-Pastoral:30 Mixed:40		
Price of maize (per kg)	Ksh. 47			Ksh. 47		
Distance to water resources	Pastoral: 4-6 km Agro-Pastoral: 1-2 km Mixed: <1 km			Pastoral: 6-8km Agro-Pastoral: 4-6km Mixed Farming: 0.5-4km		
Terms of trade (Pastoral zone)	84.4			97		
Coping strategy index	County: 1.9 Pastoral: 5.3			County: 2.3 Pastoral: 6.9		
Food consumption score	Acceptable: 95.3 percent Borderline: 2 percent Poor: 2.7 percent			Acceptable: 93.5percent Borderline: 2.9 percent Poor: 3.5 percent		

### 3.5 Education

#### 3.5.1 Enrolment

Between January and May 2021 ECDE, primary and secondary schools recorded an increment of 50.5, 54.3 and 37.1 percent in enrolment. The increment for boys and girls in the ECDE was comparable at 26.3 and 24.2 percent respectively. The overall increment in ECD is attributed to provision of physical facilities and employment of teachers by the country government. The observed increment in enrollment in primary was as a result of provision of the *Uji* programme from Ministry of Education and the presidential directive of every child to be in school. In Primary schools, the enrollment of boys was higher at 35.1 percent compared to that for girls (19.2 percent). Most of the girls did not enroll due to teenage pregnancies and others were married off and thus could not come back to school. At secondary school level, the enrolment for boys increased by 21.6 percent and that for girls increase by 15.5 percent. The increment was attributed to free day secondary education and the transition policy being implemented by the Ministry of Education and Interior.

During the period under review, the county experienced a drop-out of 157 boys and 325 girls (Table 12). The reasons for boys dropping out were child labour such as herding of cattle, weeding, harvesting and others economic activities such as in the ‘boda boda’ industry. The girl child on the other hand drops out of school due to inhibitive cultural practices like child marriage.

**Table 13: Drop out Cases in Narok County**

	<b>BOYS</b>	<b>GIRLS</b>	<b>TOTAL</b>
ECD	40	52	92
Primary	74	202	276
Secondary	43	71	114
<b>Total</b>	<b>157</b>	<b>325</b>	<b>482</b>

### 3.5.2 Effects of COVID -19 in schools

**Table 14: Adherence to COVID-19 Measures**

	Face Masks Est. %	Social Distancing Est. %	Hand Washing Est. %
ECDE	80	70	90
Primary	95	60	90
Secondary	100	65	100

With regard to adherence of the Ministry of Health guidelines in ECDE schools, there was noted to be 80 percent adherence to the wearing of masks while the proportion of those wearing masks in primary and secondary schools was higher at 95 and 100 percent respectively. Hand washing was equally high across the levels of learning at above 90 percent. There was a challenge with keeping social distance in the schools with ECDE, primary and secondary schools reporting 70, 60 and 65 percent. The contributing factor to not observing social distance included lack of adequate facilities such as desks, classrooms and dormitories for boarding schools. Some schools have not acquired adequate hand washing facilities.

### 3.5.3 Effects of Long rains on schools

**Table 15: Schools with damages in Narok County**

<b>Name of sub-county</b>	<b>Total Number of ECD centers in the County</b>	<b>Total Number of Primary schools in the County</b>	<b>Total Number of Secondary schools in the County</b>	<b>Total Number of Schools with damages.</b>	<b>Nature of damaged infrastructure e.g. damaged walls, roof, reading materials, toilets..etc (List from the most affected )</b>
Transmara East	183	88	36	13	<ul style="list-style-type: none"> <li>• Flooded classrooms</li> <li>• Roof were blown off roofs</li> <li>• Sunken toilets</li> </ul>
Narok West	165	141	31	55	
Narok East	138	89	15	0	
Narok North	148	127	23	10	
Narok South	196	136	36	-	
Transmara West	111	147	58	26	

Total	941	728	179	104	
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A total of 104 schools suffered damages following the long rains (Table 15). Most schools suffered multiple damages in which roofs were blown off, classrooms were flooded and toilets sunk. In some schools, roofs were blown off as a result of which text books were rained on a also destroyed.

### 3.5.4 School Feeding

Community Supported School Meals Programme where parents take food items to school or pay cash to school for meals is the only school meals programme which is in two sub counties; Narok South and TransMara West. A total of 6,009 boys and 5341 girls are benefitting from the programme. Of the total enrolment, (271,894 pupils), 95.8 percent of the pupils are not benefitting from any school meals programme.

### 3.5.5 Inter Sectoral links where available

Name of sub-county	№ schools with inadequate functional latrine (i.e. Pupil toilet Ratio- PtOR of above 1:60)			№ schools with no access to safe water (functional source within 100m radius)		
	ECD	Primary	Secondary	ECD	Primary	Secondary
<b>Transmara East</b>	59	59	-	15	15	5
<b>Transmara West</b>	-	100	-	-	-	-
<b>Narok West</b>	55	48	12	40	38	2
<b>Narok South</b>	30	100	10	45	60	20
<b>Narok North</b>	42	42	Nil	35	35	4
<b>Narok East</b>	31	30	2	150	94	14
<b>Total</b>	217	379	24	285	242	45

A total of 217, 379 and 24 ECDE, Primary and Secondary schools respectively have inadequate functional latrines. Schools with no access to safe water were ECDE (285), Primary (242) and Secondary(45) across the county except Transmara west in which schools have access to water.

Girl child has access to sanitary /hygiene packs during the school sessions and the dignity kits which were provided by the county government and other stakeholders such as the office of the first lady, World Vision and other development partners.

## 4.0 FOOD SECURITY PROGNOSIS

### 4.1 Prognosis Assumptions

- According to NMME and WMO forecasts forecast, the short rains season (October - December 2021) is likely to below average.
- Based on the long term trends of prices (NDMA data), the staple food prices are expected to be slightly reduce but remain above the long term averages as maize harvesting is ongoing while goat prices are likely to remain within the long term averages for the next three months.



- Terms of trade are likely to remain stable and relatively above the long-term averages across the livelihoods precipitated by the minimal changes in maize and goat prices as from August, September and October.
- Based on analysis of the current forage condition and the expected rainfall, pasture in the most parts of the Pastoral livelihood depleted in some areas while browse is likely to be available and last until the next season which starts in October.
- Based on trend analysis and the current availability of water, distances to water sources for livestock are expected to remain stable across the livelihood zones until the onset of the short rains in October.
- Distances and waiting time at the water source for domestic consumption are expected to remain normal for the next three months.

#### **4.2 Food security Outlook for the next 6 months**

- **Outlook for August to October**

Pasture is likely to deteriorate in the Pastoral livelihood zones while browse condition in the county are likely to remain good. Livestock body condition is expected to remain good for goats and sheep across all livelihoods while that of cattle is expected to slightly deteriorate to fair particularly in the Pastoral livelihood zone in August through to September during the lean season Milk production is expected to be available at household level. Water availability and accessibility is expected to remain stable across the livelihoods and households in the Agropastoral and the Mixed Farming livelihood zone are likely to consume more than 15 litres per person per day. Food is likely to be physically available in the markets and that the prices for maize which is the staple food are anticipated to slightly reduce following the ongoing harvest thus food is likely to be accessible across the livelihood zones. Livestock prices are expected to reduce slightly but remain above the long-term average thus the purchasing power of households is expected to remain favourable through the three months under review. Food consumption patterns are likely to remain relatively the same as food will be readily available and accessible during this time and as such no significant changes are expected in the nutrition status for the children under-fives as well as in the mortality rates for the children under five years of age and the general population. No significant changes are expected in the livelihood coping strategies. The food security situation is likely to remain in the “None/Minimal” (IPC Phase 1).

- **Outlook for November to January**

Despite the expected below normal rainfall in this period, the cumulative impact of the previous seasons is likely to sustain the food security outcome indicators at an acceptable level.No significant changes are expected in food consumption patterns across the livelihood zone as food will be available and accessible. Pasture is likely to be low in the Pastoral livelihood zone and thus the body condition of the cattle is likely to be fair and migrations to other counties are expected. Availability to milk at household level is likely to reduce and as a result access will also be a challenge. The proportion of households likely to be employing food related coping mechanisms will not change significantly. No significant changes are expected in the nutrition status mortality. The County is likely to remain in the “None/Minimal” (IPC Phase 1) across the livelihood zones.

## 5.0 CONCLUSION AND INTERVENTIONS

### 5.1 Conclusion

#### 5.1.1 Phase classification

The County is classified under Minimal (IPC Phase 1) as food is available and accessible for more than 90 percent of the households. Households are not engaging in any atypical coping strategies. Nutrition status is acceptable (< 5 percent) and no unusual deaths were reported. Contributing factors were impacted positively by the normal to above normal rains received in the county.

#### 5.1.2 Summary of Findings

The long rains of 2021 were near normal to normal across the county however, temporal distribution was poor and spatial distribution was uneven. COVID-19 had minimal impact to the livelihoods as households have learnt to go about their daily activities while observing the mitigations measures. Crop production was above the long-term average for the three major crops in the county. The hectareage for irrigated cropping reduced especially for tomatoes and onions as a result of high cost of inputs and poor returns for onions. The stocks held by farmers currently are above LTA and harvesting has just started thus they are expected to increase further. Pasture and browse conditions were generally good across all the livelihood zones which was normal. Return trekking distances to water sources was normal across all livelihood zones but on an increasing trend in the Pastoral livelihood zone. Livestock body condition for the different species was good across all the livelihood zones. Milk production per household increased across the livelihood zones and thus milk is available and accessible. Milk consumption remained stable across all the livelihood zones. The terms of trade were above the long-term average and were favorable to households across the livelihood zone as they could access more maize upon sale of a medium- size goat. Water availability, access and utilization was normal for the households across livelihood zones. Morbidity among children under five years of age increased in the months of January to June however, trends were within the seasonal norms when compared same time in 2019. The proportion of children under the age of five years who were malnourished reduced to 1.6 percent in June 2021 from 3.3 percent in December 2020. The County is therefore classified as Minimal (IPC Phase 1) and the situation is expected to remain the same but decline to Stressed (IPC Phase 2) in the Pastoral and parts of the Agropastoral Livelihood Zones from March to May 2021.

#### 5.1.3 Sub-county ranking

Sub County	Predominant Livelihood	Food security rank (1-6)	Main food security threat / Contributing factors
Narok West	Agropastoral	1	<ul style="list-style-type: none"><li>• Human -Wild life conflicts</li><li>• Livestock diseases</li><li>• Poor infrastructure</li></ul>
Narok South	Pastoral	2	<ul style="list-style-type: none"><li>• wildlife conflicts</li><li>• livestock diseases</li><li>• Low zone low crop production</li></ul>

Narok East	Pastoral	3	<ul style="list-style-type: none"> <li>Fair crop production</li> <li>Prevalent livestock diseases</li> <li>poor sanitation and hygiene</li> <li>moderate malnutrition rates</li> </ul>
Transmara East	Mixed Farming	4	<ul style="list-style-type: none"> <li>Improved road network</li> <li>water logging</li> <li>Improved hygiene and sanitation</li> </ul>
Narok North	Mixed Farming	5	<ul style="list-style-type: none"> <li>Good market infrastructure</li> <li>Diversification of livelihoods</li> <li>high potential,</li> <li>Minimal livestock diseases</li> </ul>
Transmara West	Mixed Farming	6	<ul style="list-style-type: none"> <li>Good market infrastructure</li> <li>High crop production</li> <li>Improved livestock breeds</li> <li>Tourism</li> </ul>
Very Good (5-6)      Good (4)      Fair (3)      Poor (1-2)			

## 5.2 Ongoing Interventions

### 5.2.1 Non-food interventions

Intervention	Objective	Specific Location	Activity target	Cost	No. of beneficiaries	Implementation Time Frame	Implementation stakeholders
<b>Livestock</b>							
Capacity building (extension services)	Improve livestock productivity	Narok South, Narok North and Narok West subcounties	Households		60% of households	2017 - 2022	WHH, SNV, MOALF
Livestock vaccination	Disease control	County wide	livestock		All affected livestock	2018-2022	Vet. department
Promotion of beef and dairy Value Chains	Improve livestock productivity and household	20Wards of the County	Households		60-75% of households	2018-2022	ASDSP Project, NARIGP (National agricultural rural

	Id income						inclusive growth project)/MOALF
Tsetse and Trypanosomiasis control and eradication	Eradication of Tsetsefly	Narok South and West	Livestock		All affected livestock	Ongoing	KENTTEC MOALF
Pasture production and range land grass seed bulking and capacity building	Increase pasture availability	Transmara West and Narok East	households		10 % of households	2020-2022	ADP -ACK
<b>Agriculture</b>							
Capacity Building Of Tomato and Potato farmers	Enhanced knowledge & skills		households	10 million	300	2017-2022	State Department of Agriculture
Strengthening of Producer Organization and Value Chain development	Enhanced skills & income			27 million	2000 Tomato Farmers 1600 Potato farmers	2017-2022	State Department of Agriculture
Capacity Building of Farmers	Improved Productivity			14 million	3500 Framers	2017-2022	State Department of Agriculture

**Remarks:** Resources required, Available resources, Contribution of each stakeholder

### 5.3 Recommended Interventions

#### 5.3.1 Non-food interventions

Intervention	Sub-County	Specific Location	Cost	No. of beneficiaries	Implementation Time Frame	Implementation stakeholders
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<b>Health</b>						
HINI outreaches	County wide	All wards	35m	200,000under fives 100,000 PLW	Continuous	MOH/Partners
Deworming	County wide	All health facilities, ECDE schools and outreaches	50m	200,000under fives 100,000 PLW	Continuous	MOH/Partners
<b>Livestock</b>						
Pasture improvement, conservation and construction of strategic feed reserves	County wide	10 wards	10M	5,000 households		MOAL&F Community, relevant stakeholders, Development partners
Enhanced disease surveillance and vaccinations	County wide	Narok East, Narok West, Transmara West and Narok South	50M	300,000 cattle 600,000 goats and sheep		MOALF and partners
Breed improvement	County wide		3 M	3,500 households		MOAL&F and partners
Construction of water pans and drilling of boreholes where applicable	Narok South and Narok East Sub Counties	Ntuka, Naroosura, and Nturumeti	20M	4,000 households		MOAL&F and partners
<b>Agriculture</b>						
Capacity Building of farmers on post harvest management	County wide in Agropastoral and Mixed Farming zones	All wards	2 million	1000 farmers	July-October, 2021	Narok County Government/ Partners
Provision of Drought Tolerant Seed	Agropastoral zones	All wards	5 million	1000 farmers		Narok County Government/ Partners
Provision of fertilizer subsidy	County wide	All wards	10 million	5000 farmers		Narok County Government/ Partners

## **Water**

<b>Interventions</b>	<b>Location</b>	<b>No of beneficiaries</b>	<b>Proposed Implementers</b>	<b>Required Resources</b>	<b>Available Resources</b>	<b>Time Frame</b>
Provision of plastic water tanks to institutions	20 schools	6000 pupils	County Government Partners	1.6m	0	Jully-Sept, 2021
Provision of 24000 liters storage tank, servicing of solar system	Mosiro –Olosokkon bore hole	3000	County Government Partners	300,000	0	August-Sept, 2021
Rehabilitation of existing pipe line	Mosiro –Olosokkon bore hole Ntuka-Olepariata water project	4000	County Govt and willing partners	1,500,000	0	August-Sept, 2021
Drilling of bore-holes and Construction of water pans	Drought hot spots Mosiro ward and Narosora –Maji moto ward(2pans per ward)	3000 20,000 livestock	County Govt Donors	70M	0	August-Sept, 2021
Desilting of water pans	-Olpura water pan -Kilongisa village water pan	-1500 -8000 livestock	County Govt Donors	2M		3 weeks per pan
Construction of convectional water supplies	Major centers e.g. Ewasonyiro, Ntulele, Eor Ekule	15000 people	County Govt Donors	100M	0	12 months per water supply
Construction water pans	Ilmotiok	500	County Govt Donors	15M	0	2 months per pan