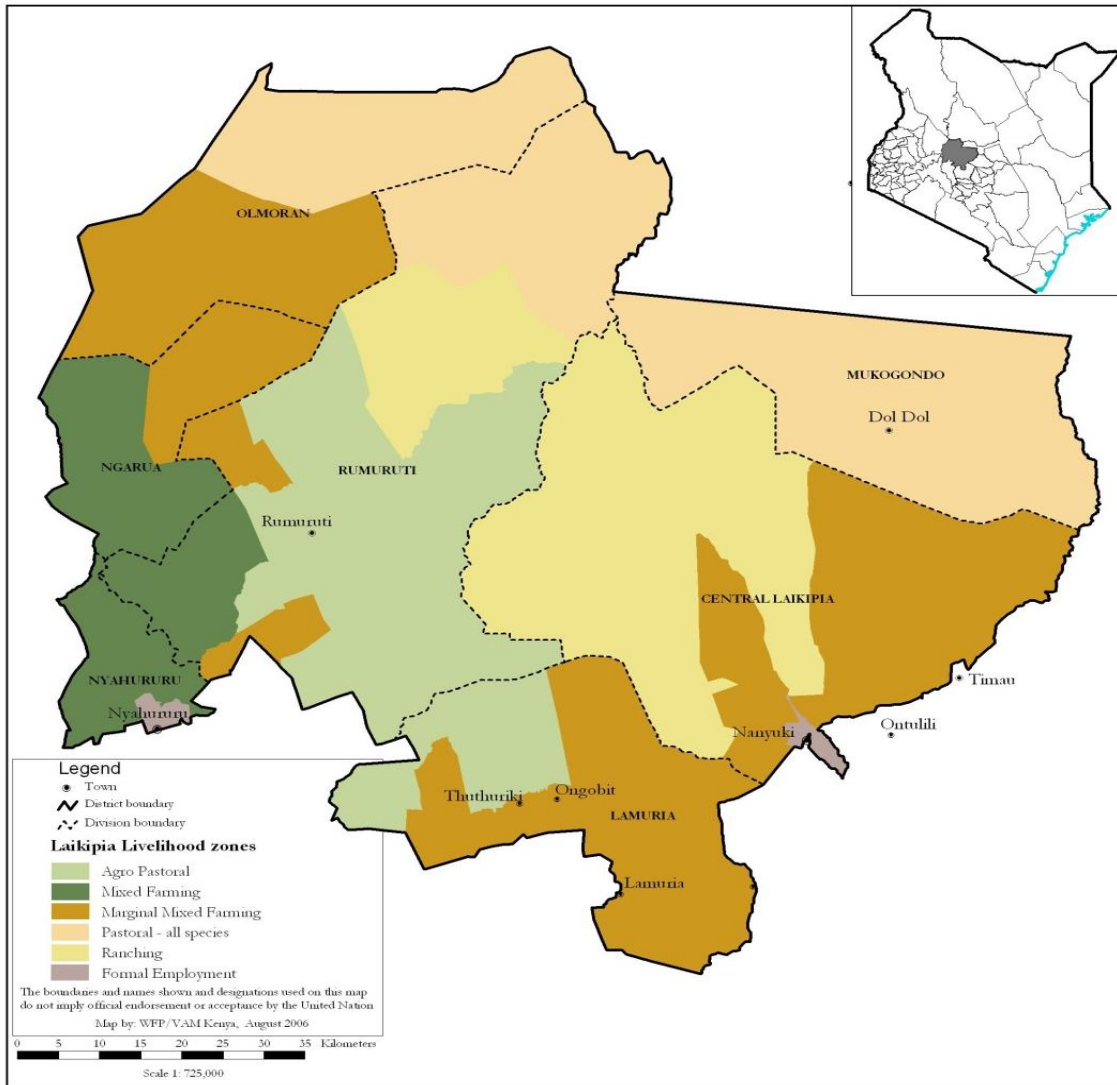


# LAIKIPIA COUNTY

## 2020 SHORT RAINS FOOD AND NUTRITION SECURITY ASSESSMENT REPORT



### A Joint Report of Kenya Food Security Steering Group<sup>1</sup> and Laikipia County Steering Group

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## Executive Summary

The short rains food security assessment was conducted with the support of Kenya Food Security Steering Group (KFSSG) alongside the Laikipia County Steering Group (CSG). The CSG comprised representatives from the crop, livestock, education, health departments and other stakeholders in the county. The assessment is a bi-annual activity aimed at developing an objective, evidence based and transparent analysis of food and nutrition security situation, after the end of the short and long rains and considers the cumulative effects of rainfall seasons. The onset of the short rains in the second and third dekad of October was timely and the cessation was normal but with a poor temporal and spatial distribution. The poor rainfall performance led to low crop production particularly in the marginal mixed livelihood zone. The area planted maize and beans was 11 percent and seven percent respectively above the LTA while area planted under irish potato reduced at 10 percent below the LTA because farmers opted to plant maize and beans. The Cereal stocks held by farmers is expected to last five months and about 64 percent above the Long Term Average because the NCPB delayed in purchasing the produce. Similarly the traders and millers embarked on buying maize after the long rains and are holding huge stocks at **269** percent above the LTA. The pasture condition was fair in the marginal mixed zone and almost comparable in the Marginal Mixed and mixed farming zone but improved in the pastoral farming zone. The pasture is expected to last two-three months in the pastoral zone compared to one month normally because of the substantial rainfall received at the end of December. In general, the livestock body condition for all livestock species is good that is normal in the Mixed farming zone but normally fair in the pastoral zone attributable to availability of water, pasture and browse. The water dams and pans are at 90 percent holding capacity after favourable recharge following the off season long rains. The increased water availability reduced trekking distances for pastoralists while the watering frequency was maintained in all livelihood zones. Subsequently, the births rates are normal and the Tropical Livestock Units (TLUs) and milk production are stable. However in the MF & MMF the covid-19 pandemic led to reduced household incomes hence reducing purchasing power and milk consumption. In addition water access improved; average return distance in MF is normal at <1Km, reduced by 1Km in Pastoral and MMF zone, Waiting time in MF and MMF was less than 10 minutes, slightly reduced from the normal 20 to 15 minutes in pastoral areas but exceptionally long in ol moran at about 20-30minutes. The cost of water and water consumption has remained normal at 20-30Lppd, MF: MMF & Pastoral: 15-20Lppd and 15-20Lppd in Pastoral zone. Prevalence of the URTIs, diarrhea and malaria in under-fives declined by 48.7, 40 and 62.1 percent respectively compared to the same period in 2019 because of reduced visits to the health facilities for fear of contracting the pandemic. The mean CSI in the month of December 2020 was 3.21 compared to 3.18 in August 2020, which indicates stability. The Food Consumption Scores were in the acceptable category, nutrition status for the under-five was within the normal range and mortality rates and the crude mortality rate was normal and below the emergency threshold the percentages of fully immunized and vitamin A increased to 95 percent in July- December 2020 compared to 88 per cent July-December 2019. Supplementary Feeding Program (SFP) and Outpatient Therapeutic Program (OTP) admission dropped by 53.6 percent and 12.4 percent respectively. Laikipia County is classified under 'Minimal' Food Insecurity Phase (IPC Phase 1). The phase classification, similar to previous assessment, implying that 80 percent of the households can meet their food needs without employing severe coping strategies.

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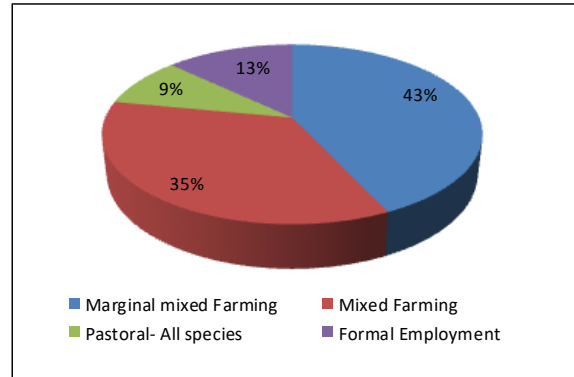
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## 1.0 INTRODUCTION

### 1.1 County Background

Laikipia County borders seven counties namely; Samburu County to the North, Isiolo County to the East, Meru County to the South East, Nyandarua and Nyeri counties to the South, Nakuru County to the South West and Baringo County to the West.

The county covers an area of 9,462 square kilometers with a population of 518,650 (Kenya National Bureau of Statistics (KNBS) 2019 Census). Administratively, the county is divided into three sub-counties namely Laikipia North, Laikipia East and Laikipia West. There are three main livelihood zones: - marginal mixed farming (MMF) (43 percent), mixed farming (35 percent), pastoral-all species (nine percent), and formal employment (13 percent) (Figure 1). Rivers traversing the county are the Ewaso Nyiro and Ewaso Narok rivers. In the main livelihood zones, households practice crop farming, cattle rearing on large commercial ranches and community owned rangelands. Ranching is done in 65 percent of the pastoral livelihood zone.



**Figure 1: Proportion of population in Laikipia County**

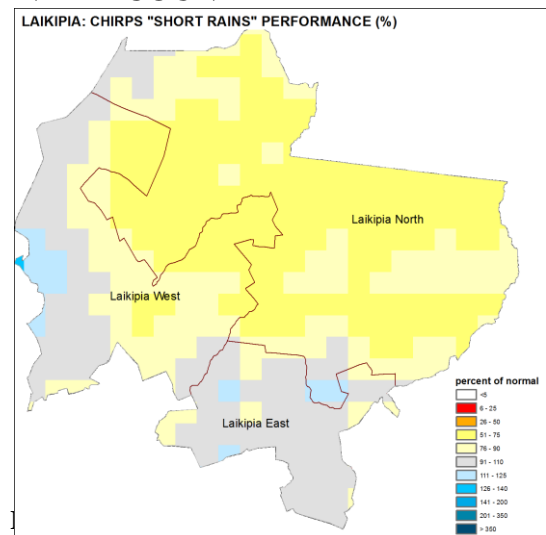
### 1.2 Methodology and Approach

The assessment used both qualitative and quantitative data. Primary data was collected during the field visits at the county where community and market interviews were conducted. Secondary data was collected using structured questionnaires for each sector that were sent two weeks prior to the assessment. Technical reports were also provided by the sectoral technical members at the county level. Secondary data collected from the early warning system was relied upon to provide trends for the different food security indicators.

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

### 2.1 Rainfall Performance

The onset of the short rains in the County was timely between the third and fourth week of October, 2020. Temporal distribution was poor with most areas experiencing between 6 to 13 rainy days in the month of October, 7 to 10 rainy days in November and 2 to 10 rainy days in December. Spatial distribution was poor and unevenly distributed across the County with most areas receiving between 51 and 75 percent of normal rains. A few areas in the Mixed farming areas received between 91 to 110 percent of normal rains. Rains ceased as usual in the third week of December.



### 2.2 Insecurity / Conflict

Cases of insecurity associated with cattle rustling have been reported in Ol-moran and Sipili. One case of death in Wangwaci in Sipili in the month of December 2020.

## **2.3 Other Shock and Hazards**

Other hazards contributing to food insecurity in the county include Fall Army worms and Desert locusts. Invasive species (*Opuntia*) continue to inhabit grazing areas in the Pastoral and Marginal Mixed farming livelihood zones. Though of lesser magnitude, in migration of livestock from East Pokot and Samburu towards Olmoran and Laikipia Nature Conservancy (LNC) ranch.

## **3.0 IMPACT OF DRIVERS ON FOOD AND NUTRITION SECURITY**

### **3.1 Availability**

Food availability in the County is largely dependent on both crop and livestock production. The County has three major livelihood zones which are mixed farming, marginal mixed farming and pastoral livelihood zones. During the short rains, the county received reduced rains which were also poorly distributed and this resulted in poor crop performance. Most crops started deteriorating from the 3rd decade of December 2020 to wilting of maize, beans and the late planted Irish potato. However, irrigated crops were not adversely affected by the reduced rains mainly because the river flow was fairly good enabling irrigation supplementation. Most of the food in the county is produced from the high potential Mixed farming zone from rain fed and irrigated agriculture with some also imported from neighboring counties. During the season, most food items are widely available at the household level and in the markets across the livelihood zones. Areas where maize, beans and potatoes is grown include Igwamiti, Marmanet, Githiga, Parts of Olmoran and Umande in the Mixed farming zone, Rumuruti, Salama, Tigithi Thingithu, Ngobit, Parts of Olmoran, Segera, Sosian, Mukogodo East in the Marginal Mixed Farming zone and Mukogodo West, Parts of Segera, Sosian, Mukogodo East in Pastoral zone.

Table 1: The three main crops grown per livelihood zone

#### **3.1.1 Crop Production**

Food crop production contributes 20 percent and 40 percent of cash income in the marginal mixed and mixed farming livelihood zones respectively. Maize contributes 66 percent to food and 12 percent to cash income in the marginal mixed livelihood zone while beans contribute 11 percent to food and 40 percent to cash income in the same zone. Irish potatoes contribute 8 percent to food and 24 percent to cash income in the marginal mixed livelihood zone while wheat contribute 4 percent and 6 percent to food and cash income respectively in the marginal mixed farming livelihood zone. In the mixed farming livelihood zone, maize contributes 65 percent and 55 percent to food and cash income respectively. Beans contribute 15 percent and 8 percent to food and cash income respectively while potatoes contribute 10 percent and 4 percent to food and cash income respectively.

#### **Rain fed Crop Production**

The four main rain-fed crops grown in the county during the short rains are maize, beans and potatoes. The area planted under rain-fed production for maize and beans was 11 percent and seven percent (7) percent respectively above the LTA. However, the area planted under Irish potato was 10 percent below the LTA. The increased area under maize and beans was attributed to the support provided to farmers in the form of certified seeds by Bayer East Africa. The decline in the area planted with Irish potato is attributed to the increase in area planted with maize and beans.

During the season, the projected production of maize, beans and Irish potato is 51 percent, 72, percent and 90 percent respectively of the LTA due to reduced amount of rains as well as poor rainfall distribution especially in Laikipia East and North sub counties which are purely marginal mixed farming.

#### **Table 1: Rain-fed Crop Production**

Crop	Area planted during 2020 short rains season (Ha)	Long Term Average area planted during the short rains season (Ha)	2020 Short rains season production (90 kg bags)	Long Term Average production during the short rains season (90 kg bags)
Maize	4450	4000	49,470	97,000
Beans	2025	1900	8,100	11,400
Irish potato	3805	4220	291,475	325,440

### Irrigated Crop Production

The main crops grown under irrigated agriculture are tomatoes, french beans, cabbages and onions. The area planted under tomato and cabbages are 38 percent and three (3) percent above the LTA. However, the area planted under French beans and onions are five (5) percent and 30 percent respectively below the LTA. The increase in the area planted under tomatoes and cabbages is due to favourable prices in the market while the prices of French beans and onions were relatively low. The projected production of tomatoes and cabbages are 31 percent and seven (7) percent respectively above the LTA while the project production of French beans and onions are two (2) percent and thirty percent below the LTA. The projected increase in tomatoes and cabbages above the LTA is attributed to increased area planted and favorable weather while the production of French beans and onions declined due to reduced area planted.

**Table 2: Irrigated Crop Production**

Crop	Area planted during 2020 short rains season (Ha)	Long Term Average area planted during the short rains season (Ha)	2020 Short rains season production (90 kg bags)	Long Term Average production during the short rains season (90 kg bags)
Tomato	165	120	4500	3440
French beans	104	110	440	450
Onion	35	50	245	350
Cabbage	130	125	160	150

### 3.1.2 Cereal stock

Most of the long rains crop in mixed farming was harvested in November through December 2020 and with the National Cereals and Produce Board not buying, most of the stocks are still being held by the farmers and hence large stocks especially in the mixed and marginal mixed farming zones. The current stocks of 229,832 (90kgs) bags with the farmers is 64 percent above the long term average of 140,540 due to the long rains harvest which has not yet been sold. Most of the maize stocks in the pastoral zones were with the Traders and millers who have started buying from the long rains harvest. The 172,430 bags of maize with the traders and millers is above the LTA due to the good long rains harvest. The 229,832 maize stock bags with the household are able to last them for five (5) months based on the consumption of 45,900 bags per month.

**Table 3: Quantities of cereal stocks currently held (90-kg bags)**

Commodity / Held by	Maize		Rice		Sorghum		Green gram		TOTAL	
	Current	LTA	Current	LTA	Current	LTA	Current	LTA	Current	LTA
Farmers	229,832	140,540			90	50				
Traders/millers	172,430	46,680	52,000		350	300				
Food Assistance	0									

NCPB	0	18,000								
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### 3.1.3 Livestock Production

The main livestock species in the county are cattle, sheep, goats, camel and poultry. Livestock production is the main source of income contributing about 90 percent of cash income in the pastoral livelihood zone, 52 percent in the marginal mixed farming and 30 percent in the mixed farming livelihood zone. In the pastoral and the mixed farming livelihood zones, cattle contribute to 60 and 80 percent of cash income respectively while in the marginal mixed farming livelihood zone, sheep, goats and cattle contribute to 40, 30 and 20 percent of cash income respectively. Market stimulation activities across the major terminal and feeder markets are expected to boost livestock sales and prices.

### Pasture and Browse Condition

The pasture condition was fair in the marginal mixed zone namely in; Olmoran, Rumuruti and Salama and also in the Ngobit, Tigithi and Umande because the short rains that stopped early in December had variations in the amount and distribution from one ward to the other. On the hand, pasture and browse condition were almost comparable in the Marginal Mixed farming and mixed farming zone. Pasture and browse is expected to last two –three months compared to one month’s normally in the pastoral farming zone representing a 50 percent improvement in the livelihood zone. Pasture and browse condition improved due to substantial rainfall received at the end of December. Migration of animals in search of pasture from neighbouring County of Isiolo occurred in Mukogodo West Ward and parts of Mukogodo East, caused conflicts and insecurity hence limiting access to pastures. Cattle rustling by the Samburu and Pokot in Githiga Laikipia West limited access to fodder. In addition, reduced access to pastures is due to increased population of Opuntia or prickly pear, an invasive species on pasture lands.

**Table 4: Pasture and browse condition**

Livelihood zone	Pasture					Browse				
	Condition		How long to last (Months)		Factors Limiting access	Condition		How long to last (Months)		Factors Limiting access
	Current	Normal	Current	Normal		Current	Normal	Current	Normal	
Pastoral	Good to Fair	Fair	2-3	1	Insecurity	Good	Fair	2-3	3	Insecurity
Marginal Mixed farming	Good to Fair	Fair	2-3	< 1	No limiting factors	Good	Fair	3	1.5	No limiting factors
Mixed farming	Good	Fair - good	3-4	< 1	No limiting factors	Good	Good	3	2.5	No limiting factors

### Pasture conservation

In Laikipia West, pasture conservation is prevalent in Marmanet, Githiga and Igwamiti wards followed by Olmoran and Salama. Pastures are also conserved in learning institutions engaged in dairy production, for example, GG Rumuruti, Mwenje high school and Ndururumo High school. About 281 hay stores have been constructed holding 250,000 bales. In Laikipia North pastures are conserved in Segera ward, upper part of Mukogodo east ward and parts of Mukogodo West and Sosian Wards to ensure availability of pastures in the dry season. There are few SMEs in Iing’wesi location engaged in commercial fodder

production ensuring consistent availability of fodder. The main institutions are Tigithi hay growers cooperative society, Ilingwesi group Ranch and Musul group ranch. Tigithi hay growers cooperative society received 300,000/= from Cooperative department to purchase and store hay to mitigate seasonal fodder availability.

In the County, there are few farmers involved in commercial hay production who sell shortly after harvesting but there are no SMEs undertaking seed production. The farmers have conserved hay at the household level (99,600), the capacity of stores range from 200 to 250,000 bales, currently bales in store are approximately 176, 950, prices range between ksh 130-150, the average prevailing prices is ksh 135 per bale. Pasture conservation is common in all the three sub-counties. Farmers are utilizing about 20 percent of standing hay that was not harvested while the stored baled hay is preserved for use during shortages

**Table 5: Baled hay status**

Sub County	No. of Hay Stores	Storage Capacity (Total number of bales)	No. of Bales currently being held	Average Weight per bale (in Kgs)	Average price per bale (Kshs.)	Comments – E.g. percentage held by farmers and other Institutions
Laikipia west	281	250,000	138450	15	135	55.4% by farmers, 15% by Learning institutions
Laikipia North	6	100,000	35,000	15	150	65% by individual farmers, 35% by producer groups
Laikipia East	1	25,000	2,500	15	130	700 stored by farmers and 1,800 purchased by Tigithi hay growers cooperative society at 2/= per month

### 3.1.3.1 Livestock Productivity

#### Livestock Body Condition

The general body condition for all livestock species is good attributed to availability of water, pasture and browse. However, body condition for cattle is fair in the Marginal Mixed farming zones. The current body condition is normal at this time of the year. The body conditions are expected to be sustained for the next to remain good for the next 3-4 months in the Mixed farming zones and 2-3 months in the Pastoral and Marginal Mixed farming zones.

**Table 6: Livestock body condition**

Livelihood zone	Cattle		Sheep		Goat		Camel	
	Current	Normal	Current	Normal	Current	Normal	Current	Normal
Pastoral	Good	Fair	Good	Fair	Good	Good	Good	Good



Marginal Mixed farming	Fair	Fair	Fair	Fair	Fair	Fair	Good	Good
Mixed farming	Good	Good	Good	Good	Good	Good	Good	Good

### Tropical livestock units (TLUs)

The Tropical Livestock Units (TLUs) were lower in the mixed farming zone but increased in the pastoral zone because of the favourable forage conditions and availability of water. In the mixed farms, the outbreak of COVID-19, coincided with favourable weather and the availability of fodder. Majority of the people retreated to the farms and opted to keep animals stabilizing the TLUs.

**Table 7: Tropical Livestock Units**

Livelihood zone	Poor income households		Medium income households	
	Current	Normal	Current	Normal
Pastoral	5	3	10	8
Marginal Mixed farming	2	1	2	2
Mixed farming	1-2	2- 3	5-8	8-10

### Birth Rate

The peak season for calving, lambing and kidding after the long rains season is usually between October and November. The birth rate for cattle is 10 percent, sheep 15 percent and goats 20 percent which is normal because of the favorable pastures, browse and water availability. According to the seasonal calendar, it is expected that calving and kidding would be at its peak in March-April.

### Milk production and consumption

Milk production improved in the pastoral livelihood zone due to favourable forage conditions and availability of water. Due to availability of milk the prices were lower compared to the LTA in the pastoral zone. The current average milk production is three litres per household per day in pastoral compared to one litre normally. Milk consumption is two litres compared to a litre normally. This represents an increase of milk consumption by 50 percent while milk prices in the livelihood zone decreased by 17 percent due to availability of milk. Currently, the price of milk is Ksh. 50 per litre compared to LTA of Ksh 60. The average milk production, consumption and prices in County were comparable with the LTA. The price of milk is Ksh. 47 compared to LTA of Ksh 50 while milk production was 4 litres compared to LTA of 3 litres, Milk consumption stabilized at 2.5 litres. Milk production is likely to decline in the next one month due to diminishing forage, increasing trekking return distances and current disease outbreaks.

**Table 8: Milk production, consumption and prices**

Livelihood zone	Milk Production (Litres)/Household		Milk consumption (Litres) per Household		Prices (Ksh)/Litre	
	Current	LTA	Current	LTA	Current	LTA
Pastoral	3	1	2	1	50	60

Marginal Mixed farming	4	4	1.5	2	50	50
Mixed farming	5	5	1.5	2	45	45

Covid-19 impacted negatively on milk production because majority of the farmers could not afford supplements feeds to boost milk production. In addition the pandemic reduced household income reducing purchasing power hence reducing milk consumption particularly in the mived and mar

### Livestock Diseases and Mortalities

Confirmed outbreak of Food and Mouth (FMD) disease was reported in Mutara, Rumuruti, Nanyuki ward and Chumvi. CCPP outbreak was reported in Sosian and Ngobit wards. Scheduled vaccination Programs and Disease Surveillance are some of the measures taken to control the disease outbreaks. There were no significant mortalities have been reported.

### Migration

Few cases of in-migration have been reported in the county from East Pokot and Samburu towards Olmoran and Laikipia Nature Conservancy (LNC) ranch which are normal at this time of the year. Movement of cattle goats and sheep from Laikipia East to West search of pastures was reported which is normal. The Covid-19 currently has no effects on livestock Migration.

### Water for Livestock

The main sources of water for livestock are boreholes, dams, water pans, rivers, piped water and roof catchment. In Laikipia West. Majority of dairy farmers keep few animals and most of them have shallow wells or storage tanks hence reducing pressure on dams that have plenty of water. Currently there no factors limiting access to water in the mixed farming livelihood zone. in the pastoral zone, the current trekking return distances from grazing area to watering points is 2km compared to the normal 4 Km and the water is expected to last 2 months compared to 1 month normally in the pastoral livelihood zone. This is because most areas received above normal OND rains which recharged the water sources. Controlled movement aimed at minimizing crowding and the spread of Covid-19 at the watering points increased the duration of watering the livestock.

### Watering Frequency

The watering frequency of all livestock species are comparable but increased for the camels in the pastoral zone because water is plenty and readily available. In the pastoral livelihood zone the watering frequency increased because of above normal OND rainfall. The watering frequency is expected to be maintained particularly with the timely onset of the MAM rains.

**Table 9: Watering frequency in days per week**

Livelihood zone	Cattle		Camels		Goats		Sheep	
	Current	Normal	Current	Normal	Current	Normal	Current	Normal
Pastoral	7	4	5	3	6	4	7	5

Marginal Mixed Farming	7	7	7	7	7	7	7	7
Mixed Farming	7	7	N/A	N/A	7	7	7	7

### Water availability and access

The main water sources in the County are borehole, earth dams or pans, subsurface dams, springs and the roof catchment. The return distances are 4km in the pastoral which is normal because of the good recharge of water sources after the OND rains. The water is expected to last 2 months and 3 months in the Pastoral and Marginal mixed farming which is normal. Return distances are stable because the dams have plenty of water. The farmers in MF and MMF livelihood zones keep few animals and most of them have shallow wells or storage tanks hence reducing pressure on dams. In pastoral livelihood zones they rely on surface dams and seasonal rivers which have water from off-season rains.

**Table 10: Water availability and access**

Livelihood zone	Sources		Return average distances (km)		Expected duration to last (months)	
	Current	Normal	Current	Normal	Current	Normal
Pastoral	Borehole, earth dams/pans, subsurface dams	Borehole, earth dams, subsurface dams	4	4	2	2
Marginal mixed farming	Borehole, Dams, rivers and shallow wells	Borehole, Dams, rivers and shallow wells & roof catchment	4	4	3	3
Mixed farming	Borehole, Dams and shallow wells and springs	Borehole, Dams and shallow wells and springs and & roof catchment	3	2	3	3

## 3.2 Access

### 3.2.1 Market Operations

The main markets in the county are Nyahururu and Sipili in the Mixed Farming zone, Rumuruti, Nanyuki and Olmorani in the Marginal Mixed Farming zone and Doldol, Kimanju and Chumvi in the Pastoral species zone. Markets are operating normally without disruption. Over 90 percent of households in the pastoral livelihood zone depend on the markets for food commodities.

## Maize Prices

The average market maize price in the month of January 2021 is Ksh. 31.8 per Kilogram (kg) compared to the long term average (LTA) of Ksh. 32 per Kg, which is comparable with LTA. Figure 3 illustrate the trend of maize prices. There is no major variation between the three livelihoods. Maize prices are expected to remain lower than LTA in the next three months.

### Goat Prices

Average market goat price in the month of January 2021 is Ksh. 4,500, which is about 22 percent above the LTA of Ksh. 3,707. Figure 4 illustrate the trend of goat prices. The average price is higher in the Mixed and Marginal Mixed livelihood zones. Livestock is mainly supplied locally. Goat prices are expected to remain higher than LTA in the next three months as the current body condition is likely to be sustained and less pressure to sell to meet school fees needs.

### 3.2.2 Terms of Trade

The current terms of trade (ToT) are favourable to livestock keepers. Households are able to purchase 143 Kgs of maize with the sale of one medium-sized goat. Normally, households would access about 108 Kgs of maize with the sale of a medium sized goat.

Figure 5 illustrate the trend of goat prices. Due to good body condition and availability of browse, goat prices are expected to remain high while maize prices are likely to remain stable due to higher stocks from the long rains season. Therefore ToT is expected to remain relatively higher in the next three months.

### 3.2.3 Income Sources

The current main income source of income include sale of crops and livestock produce. Communities nearer to Ewaso Nyiro are engaged in irrigated farming thus selling additional income from the sale of horticulture crops such as onions, cabbage, tomatoes. Income sources are normal at this time of the year.

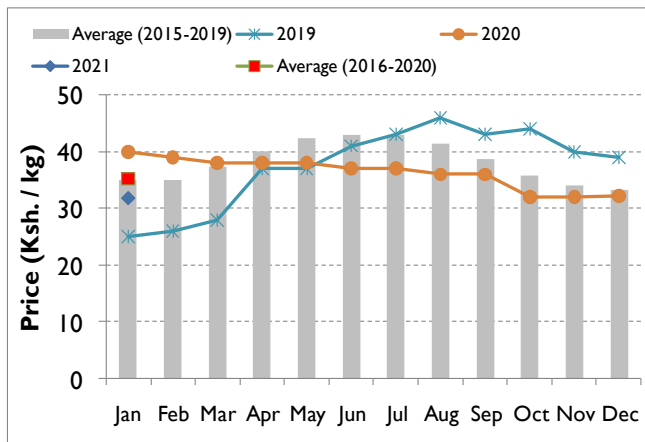


Figure 3: Trend of maize prices

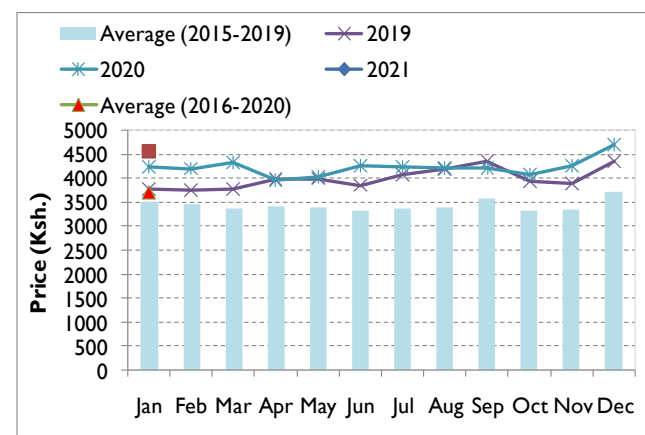


Figure 4: Trend of goat prices

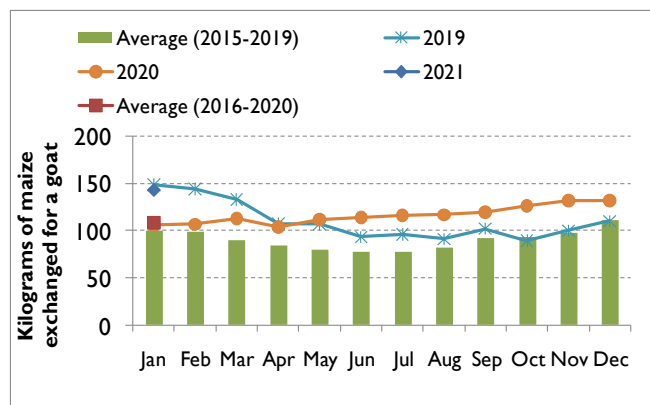


Figure 5: Terms of trade

### **3.2.4 Water Access and Availability**

The current major water sources across the county are boreholes, pans/dams and rivers. Pans/dams are mainly in the Pastoral and Mixed farming areas while rivers are mainly in the Mixed and Marginal Mixed farming zones. Springs are also major water sources in the Mixed farming zones. Over 90 percent of the major water sources are operational and are the usual water sources at this time of the year. About 28 and 30 percent of population is relying on boreholes and pans/dams respectively.

**Figure 6: Reliance on various water sources**

Open water sources were recharged to about 95 percent of their capacities due to good rainfall amounts across the County. However, siltation continues to limit dams/ pans storage total capacities across the County. Dams/ water pans are holding about 90 percent of their capacities due to favourable recharge and may hold water for the next 7-8 months in the Mixed and MMF zones while in the pastoral zone, they are expected to contain water for the next three months. Normally most water pans contain water until the long rains. Most rivers have average flows unlike previous seasons when River EwasoNyiro flows just past Daraja market in Ilmotiok while Ewaso Narok flows up to Impala Ranch. Locality of non-operational boreholes include Makurian, Kurikuri, Nadung'oro, Lariakorok, Ilpolei, Loiborsoit, Ewaso, Debatas, Bombo, minjore, Githima and Kahuho in the Pastoral zone, Yard, Reli B, Kundarilia and Mahianyu in the Mixed farming areas, Sipili centre, Kiamariga, Salama and Gloise in the Marginal mixed farming zones. Four boreholes have not been equipped in Githiga ward. Non-operation earth dams include Karuchua and Lusewa in the Marginal Mixed farming zone, KCC and Magadi in the Mixed farming zone and Kijabe, Koija and Loiborsoit in the pastoral zone.

The most concentrated water points in the Pastoral livelihood zone serving between 2,800 and 3,500 persons include Doldol borehole I, II & III, Kiwanja ndege, Tangi nyeusi, Tutu, Muramati, Naibor, Mithuri, Mirango, Ngaremare, Kahuho and Gathanje boreholes. Ilpolei borehole and Naiperere boreholes are serving between 1,500 and 2,000 persons. However, the current population being served has reduced by about 1,000 persons compared to the normal season due to availability of alternate water sources.

#### **Distance to Water Sources**

Return distances in the Pastoral and Marginal Mixed farming zone has reduced by one kilometer with most households in covering a return distance of 2-3Km and 1-2Km in the Pastoral and Marginal Mixed farming zones respectively. Return distance in the Mixed farming zone is within the normal range of less than a kilometre.

#### **Waiting Time at the Source**

The average waiting time in the Mixed farming and MMF is normal at less than 10 minutes and 15 minutes in the Pastoral areas. Waiting time has slightly reduced in the pastoral zone from the normal 20 to 15 minutes. Exceptional areas with longer waiting time include Ol-moran where households are waiting 20-30 minutes to collect water.

### Cost of Water

Most households in the rural areas depend on rivers, pans/dams and earth dams hence don't pay for water. Cost of borehole water at source has remained normal at Ksh. 3-5 per 20 litres jerricans. About 20-30 percent of residents in Jua Kali, Siek, Kurikuri and Ilpolei rely entirely on water vendors who are selling water at Ksh. 5-30 per 20 litres jerry can. Kinamba town is mainly supplied by private water kiosks selling a 20 litres jerry can at Ksh. 10 with vendors selling at Ksh. 20. The only borehole available serves the Kenya police.

### Water Consumption

Average water consumption is normal with households in the Mixed farming consuming 20-30 litres per person per day. Households in the Pastoral and Marginal mixed farming areas are consuming the normal 15-20 litres per person per day.

### 3.2.5 Food Consumption Score

The NDMA bulletin for January, 2021 indicates that the proportion of households with acceptable and poor FCS was 69.4 percent and 1.1 percent respectively. Households with poor FCS are in the Marginal Mixed zone. 93.3 and 6.7 percent of households in the Pastoral areas have acceptable and borderline FCS respectively. 43.3 percent and 54.4 percent of households in the Marginal Mixed farming zones have acceptable and borderline FCS respectively.

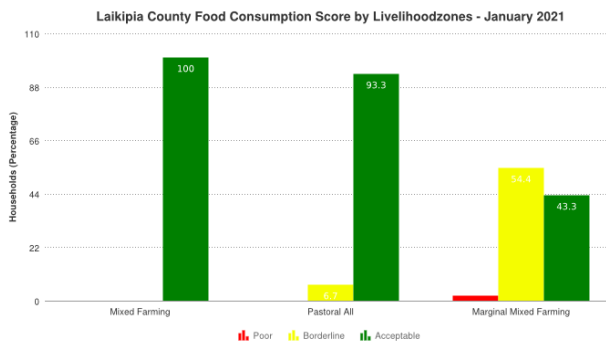
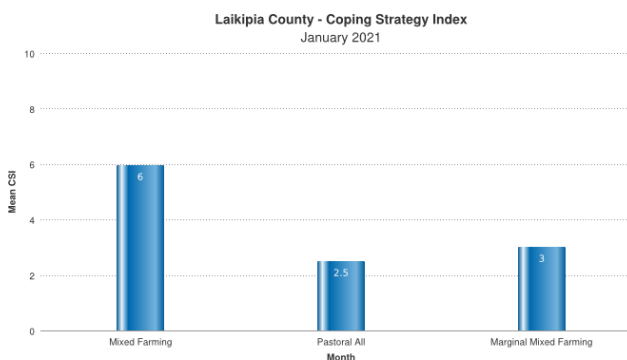


Figure 7: Food consumption score

FCS has improved with the proportion of households with having acceptable FCS in August 2020 being 75.9 percent. Acceptable score implies that households were consuming at least a staple and vegetables on a daily basis complemented by a frequent consumption of pulses and oil.

### 3.2.6 Coping Mechanisms

The mean CSI in the month of January 2021 was 3.33, which indicate stability compared to December 2020 and August 2020 when mean CSI was 3.21 and 3.18 respectively. The mean CSI for Mixed farming, MMF and pastoral zone was 6, 2.8 and 2.5 respectively. This indicates that households are employing insurance based coping strategies.



### Utilization

#### 3.3.1 Health and Nutrition

#### Morbidity and Mortality patterns

The most common morbidities for both the under-fives and the general population were Upper Respiratory Tract Infection (URTIs), diarrhea and malaria and same in the general population. In the period July – December 2020, the prevalence of the URTIs, diarrhea and malaria in under-fives declined by 48.7, 40

and 62.1 percent respectively compared to the same period in 2019. The decline was attributed to the fear of contracting COVID-19 at the health facilities. The fear of COVID-19 has reduced number of patient's access available and quality health Services. In the general population, the prevalence of Upper Respiratory Tract Infection (URTIs), diarrhea and malaria in July to December 2020 declined by 46.8, 43.5 and 23 percent respectively compared to the same period in 2019. The reduction in trends is mainly due to COVID-19 pandemic. The crude mortality rate was 0.24/10,000/day while the under-five mortality was 0.48/10,000/day. The rates were below normal threshold <0.5/10,000/day for crude mortality and

**Figure 9: Morbidity trends**

alert 2/10,000 children/day for under five mortality.

### **Immunization and Vitamin A Supplementation Coverage**

Immunization coverage between July and December 2020 was 84 percent which indicated stability when compared to the same period of 2019 which recorded 83.6 percent. Vitamin coverage between July and December was 92 percent, an increase from 88 percent recorded in 2019. Vitamin coverage for children aged 6-11 months between July and December 2020 was 88 percent compared to 89 recorded in a similar period of 2019. Vitamin coverage for children aged 12-59 months reduced from 101 percent recorded in 2019 to 95 percent in 2020 between July to December. Immunization and Vitamin A coverage were above national target of 80 percent due to understanding of importance of immunizations and more outreach' programmes conducted by County Government. Vitamin A supplementation helps to boost the immunity of the children and reduce severity of infections. No variations were noted across the livelihood zones.

### **Nutrition Status and Dietary Diversity**

The proportion of children under-five years of age at risk of malnutrition in the month of December 2020 was 1.7 percent, a slight increase compared to 1.2 percent recorded during the same period of 2019. Low malnutrition rates are attributed to the stable food availability and dietary diversity across the county. The proportion was 47 percent below the long term average of 3.2 percent. However, restrictions related to COVID-19 pandemic have made collection of MUAC data difficult.

In July to December 2020, the proportion of under-weight children (0-59 months) increased by 34 percent compared to the same period of 2019 attributed to fewer children attending the growth monitoring in 2020 as compared to 2019 due to Covid-19 pandemic.

Admissions to supplementary feeding programs (SFP) and Outpatient Therapeutic Programme (OTP) between July to December 2020 decreased by 53.6 and 12.4 percent respectively compared to the same period on 2019. The decrease in SFPs and OTPs was associated with supplies sand accessibility of stocks and COVID-19 pandemic. The number of meals consumed in the pastoral livelihood zone was 2-3 meals per day that was normal at this time of the year. In the mixed farming, marginal mixed farming and formal

employment livelihood zones household consumed 2-3 meals per day that was normal but with minimum variations.

**Health and Nutrition Sector in COVID -19 Pandemic**

Both health facilities and the outpatient services have reduced drastically due to COVID-19 pandemic. Outreach services have resumed but not at optimal due to restrictions related to COVID-19 pandemic. Closure of schools has also affected outreach services as they were used to support the services. Community health platforms by CHVs have reduced referrals and admissions due to lack of routine screening at the community. Disruptions of services at facilities were reported due to COVID-19 pandemic and health workers' strike resulting in reduced cases of morbidities and admissions. The county has also created space by decongested the clinical areas at health facilities by fixing more tents and limiting the number of patients seen by health workers at a time as well as limiting the number of people visiting admitted patients.

**Hygiene and Sanitation**

About 45 percent of households depend on protected water sources mainly piped water for domestic use which is safe. Cases of all water-related diseases decreased during the season. 28 and 69 cases of Dysentery and Typhoid were reported between July and December 2020 respectively. Dysentery decreased by 40 percent while Typhoid decreased by 19 percent from the same period of 2019. One case of Cholera disease outbreak was reported during the period. Hand washing has improved due to mitigation measures put in place to reduce the spread of COVID-19. About one percent of households in the Mixed and Marginal Mixed zones are treating water. Water treatment was rarely done in the pastoral livelihood zone. In July to December 2020, the latrine coverage in marginal mixed farming, mixed farming and formal employment ranged between 89 and 98 percent compared to 84-96 percent in July to December 2019. However, in the pastoral livelihood zone mainly in Laikipia North, latrine coverage was 58 percent. Low latrine coverage in the pastoral livelihood zone was associated with pastoralism lifestyles. During community interviews, the households indicated they are aware of having latrines but they had not constructed them. Low latrine coverage in the pastoral livelihood zone resulted in the prevalence of water-borne diseases due to water source contamination. The proportion of caregivers practicing hand washing at four critical times remains a mirage especially in the pastoral livelihood zone.

**4.0 Education**

**Enrolment**

The enrolment in Term II (2021) decreased across all levels of education compared to Term I (2020). Enrolment in primary and secondary decreased by 2.3 and five percent respectively due to fear of Covid-19 spread, lack of school feeding programs and transfers to other schools. Table 11 compares enrolment for Term I 2020 with Term II 2021.

**Table 11: Enrollment**

Enrollment	Term II 2021 (current)			Term I 2020 (previous)			Comments (reasons for increase or decrease)
	No Boys	No Girls	Total	No Boys	No Girls	Total	
ECD	8311	8036	<b>16347</b>	10194	10990	<b>21184</b>	Lack of food, migration and fear of COVID-19
Primary	41956	41141	<b>83097</b>	42764	42275	<b>85039</b>	Fear of Covid-19 spread. No school feeding programs



Secondary	18465	18325	<b>36790</b>	19266	19478	<b>38744</b>	Lack of school fees, Teenage pregnancy. Transfers to other schools. Migration to other places.
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ECD centres have decreased by 33 percent from Term I 2020 to a total of 442 ECD centers with a total enrolment of 16,347 (Boys-8311 Girls-8036). The decrease is as result of closure of four public ECD and 18 private ECD centers. Laikipia County has a total of 294 primary schools with enrolment of 83,097 while secondary schools are 121 with enrolment of 36,790. Boys’ enrolment is more than girls’ enrolment across all levels by 275 in ECD, 815 in primary and 140 in secondary schools. Decrease in enrolment for girls in Secondary school may be attributed to increased pregnancy cases among female learners among other factors.

### Effects of COVID-19 on schools

No damage to school infrastructure was reported during the period under review. To enhance social distance in the tuition facilities, 5,068 classrooms and 365 science labs should urgently be constructed by well-wishers or government. Acute shortage of these facilities has led to congestion in our schools and negatively affecting education standard in our county. Many schools lack permanent and reliable source of safe water for human consumption. It is estimated that 1,157 water tanks for storing water in our schools should be provided to alleviate this challenge. This will also enhance hand washing among the learners. In some schools learners walk for a long distance looking for water which is a big threat to their performance in school.

Automated peddle machine for holding liquid soap and water placed along the classrooms is also required. Pedal operated waste collection bins for all the classrooms should be provided to enhance disposal of used face mask and other harmful waste products.

An estimated 6,929 teaching staff are required in our schools to handle expanded learning classrooms. 504 dormitories to enhance social distancing and at least three face masks for each learner should be provided. Each school should have secured and equipped isolation rooms for suspected COVID-19 cases. Psycho-social support to learners and members of the staff on COVID-19 related issues should continuously be enhanced in our schools. Stake holders and learners in the school should also be inducted on health operation protocols by Ministry of Public Health especially on health standards and safety measures.

**Table 12: Effect of Covid-19 to schools by livelihood zone**

Livelihood Zone	Effect on Enrolment			Infrastructure damage in schools used as quarantine centers	Estimated% of Learning continuity (e-learning by KICD) during pro-longed closure (e.g. 0-20%, 20-40%, 40-60%, Above 60%)			Food storage during prolonged closure (e.g. Good, Fair, Poor)	Cases of child abuse during pro-longed closure(e.g. child labour, physical violence, pregnancy, GBV etc.)	
	ECD	Primary	Secondary		ECD	Primary	Secondary		Boys	Girls
<b>Laikipia East</b>				NIL	(0-20%)	(0-20%)	(0-20%)			

<b>Laikipia Central</b>				NIL	(0-20%)	(0-20%)	(0-20%)			
<b>Laikipia North</b>				NIL	(0-20%)	(0-20%)	(0-20%)	Fair		
<b>Nyahururu</b>				NIL	(0-20%)	(0-20%)	(0-20%)			
<b>Laikipia West</b>				NIL	(0-20%)	(0-20%)	(0-20%)			
<b>TOTAL</b>				NIL	(0-20%)	(0-20%)	(0-20%)			

### Effects of Short Rains on Schools

A total of 108 schools were damaged due to effects of heavy down pour/ flooding as indicated in Table 13.

**Table 13: Number of schools destroyed by heavy down pour/ flooding per sub-county**

Name of sub-county	Number of ECD centers	Number of Primary schools	Number of Secondary schools	Total Number of Schools with damages.	Nature of damaged infrastructure E.g. damaged walls, roof, reading materials, toilets etc. (List from the most affected )
<b>Laikipia East</b>	0	0	1	1	Damaged walls, flooded toilets
<b>Laikipia Central</b>	0	10	0	10	Latrine overflow, collapsing of classrooms
<b>Laikipia North</b>	0	2	2	4	Sank toilets, Leaking roofs, flooded classrooms
<b>Nyahururu</b>	22	43	2	67	Damaged walls, roofs, learning resources and toilets
<b>Laikipia West</b>	0	3	2	5	Sunk toilets, mud wall administration block crumbled, wells flooded and damaged water pump
<b>TOTAL</b>	<b>22</b>	<b>58</b>	<b>7</b>	<b>108</b>	

### Trends of key food security indicators

**Table 14: Comparison of the Current Food Security Indicators with LRA 2020**

INDICATOR	LRA 2020 (August 2020)	SRA 2020 (Feb 2021)
Distance from source(km)	Pastoral 1.7km MMF 1.5km-2km, MF 1km	Pastoral: 2-3Km MMF: 1-2Km MF less than 1km
Waiting time to collect water at source (min)	Pastoral 2Minutes MMF 5-10minutes MF 0.5 Minutes	Pastoral less than 15 minutes MMF less than 10 minutes MF less than 10 minutes

Cost of water at source	Pastoral Kshs.5 MMF Kshs 5-10 MF Kshs 5	Average Ksh. 3-5 per 20 litres jerrycan
Consumption (Litres per person per day)	Pastoral 25 Litres MMF 30 Litres MF 40 Litres	Pastoral 15-20Litres MMF 15-20litres MF120-30Litres
Goat Prices	Ksh.4,274	4,000
Maize prices/Kilogram	Ksh. 43	Ksh. 30
Terms of Trade	117Kgs	133Kgs
Milk Production	Pastoral 6litres MMF 7litres MF 8litres	Pastoral 3 litres MMF 4 litres MF 5 litres
Migration	No migrations	Minimal in internal movement
Livestock Disease outbreak	No diseases outbreak across the livelihood zones.	Reported suspected cases of FMD in the pastoral areas.
FCS	Acceptable:58.4	Acceptable: 84.6
	Borderline: 39.2	Borderline: 14.3
	Poor: 2.4	Poor: 1.1
CSI	3.18 in August 2020	3.21

## 5.0 FOOD SECURITY PROGNOSIS

### 5.1 Prognosis Assumptions

Laikipia County food security prognosis for the next six months is based on the following assumptions:

- Availability of water sources and pastures for livestock is likely to attract out-migration from Isiolo and Samburu counties.
- Pastoralists are likely to migrate to Laikipia while running away from the current insecurity in Kapendo area of Baringo.
- Current conflicts in Olmoran and Sipili is likely to continue
- ToT are likely to remain favourable due to the good body conditions and reducing maize prices
- Due to undisrupted market conditions, traders will meet food gap in the Pastoral areas hence stable food security at household level
- The onset and performance of the long rains are likely to remain average based on the analog years.

### 5.2 Food Security Outcomes from February to April

Food consumption is likely to stabilize as food is expected as 90 percent of food supplies to the market is being sourced locally from the Mixed and Marginal Mixed farming livelihood zones. With sustained goat and sheep body condition hence good prices, and low maize prices, improved households' purchasing power will be maintained. Livestock in-migration in search of pasture and browse is likely to increase until March hence exerting pressure on the available forage. However, milk accessibility at household level is likely to improve hence improved nutrition status especially for under-fives. The month of April is likely to be the peak of the long rains hence improving food security. Households are not expected to apply irreversible coping strategies hence no change of livelihood zone is expected. Mortality rates are likely to remain within acceptable thresholds.

### 5.3 Food Security Outcomes from May to July

This period marks the period after the long rains. Food consumption is likely to improve due to improved dietary diversity. Harvest of early planted crops and early maturing crops is also expected thereby improving food consumption. Milk production and consumption is likely to improve due to availability of good forage hence improved nutrition status. Most households are expected not to engage in irreversible coping strategies hence no change of livelihood is expected. No unusual mortalities are expected as the security situation is likely to be stable.

## 6.0 CONCLUSION AND RECOMMENDATIONS

### 6.1 Conclusion

#### 6.1.1 Phase Classification

Laikipia County is classified under ‘Minimal’ Food Insecurity Phase (IPC Phase 1). The phase classification has been maintained since the previous assessment when the County was under the same phase due to availability of and access to food from harvests from the long rains season. In additional rains that were experienced at the end of December 2020 has significantly improved food security situation.

#### 6.1.2 Summary of the Findings

The current households stocks are 64 percent above the long term average, mainly from the long rains reason are likely to last for five months. Forage is good across all livelihood zone and it likely to last for the next three months. Body condition for cattle is good in the Mixed farming and Marginal Mixed but fair in the Pastoral zone. However, body condition of camel, goat and sheep is good across the county. Water sources were well replenished leading to reduce distance across the county. Milk production has improved to 3-4 litres in the Pastoral and Marginal Mixed. A kilogram of maize is currently selling at Ksh. 30 compared to the LTA of Ksh. 43 per Kg. A medium sized goat is selling at Ksh. 4,000. Terms of trade are favourable with households able to access 133Kgs of maize with sale of a medium sized goat compared to LTA of 108Kgs. Nutrition status of children is stable with the proportion of children at risk of malnutrition being 1.7 percent in the month of December, 2020. About 90 percent of food supplies to the market is being sourced locally from the Mixed and Marginal Mixed farming livelihood zones.

#### 6.1.3 Sub-County Food Security Ranking

**Table 15: Sub-County Food Security Ranking (Worst to best)**

Sub County	Main food security threat (if any)
1.Laikipia North	Suspected cases of FMD, 100 percent are relying on market purchases except Mukogondo East (Ethi), Sosian, Segera where 40 percent have with own produce, Fair pastures, Low milk production, Schools are sparsely populated hence longer distances in Lonyek, Ol-Kajulu, Murram in Baringo, Singuroi in Segere ward about 10Km, long distances to health facilities averaging 5-15km, high malnutrition rates
2.Laikipia East	Poor rainfall in Mukogondo West, Sosian East, FAW low crop production in Matanya, Umande, Ngobit, Thigitho yet its their main season (Expected production is 3 bags/ acre compared to LTA of 6 bags/acre

3.Laikipia West	Insecurity in Wangwaci in Olmoram ward & Mwenje in Githiga ward, high malnutrition rates in selected areas, Body condition for cattle: fair due to low land size.
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#### **6.1.4 On-going Non Food Interventions**

No food interventions were reported in the County during the period under review.

## On-going Non Food Interventions

**Table 16: On-going Non Food Interventions by Sector**

Sub County	Intervention	Ward	No. of beneficiaries	Implementers	Impacts in terms of food security	Cost	Time Frame
<b>Agriculture</b>							
LKP W,E &N	6	Beans and Sorghum vc	Farmers	COUNTY COORDINATING UNIT -service providers contracted	INCREASE IN PRODUCTION -INCREASED INCOME -ENHANCEMENT OF COMMUNITY RESILIENCE IN FOOD SECURITY		3 Yrs
LKP W	-SIPILI -KINAMBA -MUTANGA	GRAIN STORAGE-IDEAS-EU PROJECT	Farmers	CGL/EUROPEAN UNION	TO STABILIZE FOOD PRICES -ENHAUNCE INCOME -COMMUNITY EMPOWERMENT		BY 2020
ALL	ALL	Desert locusts surveillance and control		GoK FAO CGL Other Partners			ongoing

Water							
Immediate On-going Interventions including covid-19							
Sub County/ Ward	Intervention	Location	No. of beneficiaries	Implementers	Cost	Time Frame	Implementation Status (% of completion)
n/laikipia	Washing stations /points with soap and monitoring	All wards		Cgl/gok	-		ongoing

Tigithi	Equipping of Matanya dispensary	Matanya		cgl			40%
<b>Medium and Long Term On-going Interventions</b> (Including Interventions in response to COVID-19 pandemic)							
Tigithi w/p	Gravity mains and reticulation	solio		CGL/WSTF	140m	2months	92%
Laikipia north	Pipeline extensions	All locations	20,000	CGL GOK, CBOs, community	10m	-	2yrs
All wards	Providing water to all learning institutions	All locations	40,000	CGL GOK, CBOs, community	500m		Ongoing
Laikipia north	Equipping of Sirat primary borehole	Segera	600	CGL	Man-power, pumps, panels	Man-power	2 Months
Laikipia north	Construction of water tanks	Umande	700	CGL	funds, technical expert	Technical experts	3 Months
Laikipia east	Drilling and equipping of castle city borehole and excavate of water pans	Castle city Nturukuma	450 300	CGL	Funds, human resource, rig machine, excavators	Human resources	6 Months
Laikipia east	Equip Matanya dispensary borehole	Weru-ini	650	CGL	funds, human resource	Human resource,	1 Months
<b>Health and Nutrition</b>							

Sub County/ Ward	Intervention	Objective	No. of beneficiaries	Implementers	Cost (KES)	Time Frame	Implementation Status (% of completion)
ALL	Vitamin A Supplementation	To increase vitamin A coverage among children 6-59 months, hence reduce childhood morbidity and mortality	Female 34,860 and 35,140 Males.	MoH, UNICEF, Nutrition International.	2,600,208	Jan- Dec 2021	
ALL	Zinc Supplementation	To reduce severity and duration of diarrhea diseases	5331 Female and 5549 Males	MoH- CGL	220,907	Jan-Dec 2021	
ALL	Management of Acute Malnutrition (IMAM)	To treat and prevent complication of malnutrition	2415 Females and 2038 Males	MoH-CGL, UNICEF	2,559,326	Jan-Dec 2021	
ALL	IYCN Interventions (EBF and Timely Intro of complementary Foods)	To ensure proper growth and development among infants and young children hence reach their potential	15,702 Females and 15389 Males	MoH-CGL	2,559,326	Jan-Dec 2021	
ALL	Iron Folate Supplementation among Pregnant Women	To improve health and nutrition status among pregnant women and fetus	49,763 Females	MoH, UNICEF, Nutrition International.	28,053,540	Jan-Dec 2021	
ALL	Deworming	To reduce worm related illness among	17,837	MoH-CGL	142,696	Jan-Dec 2021	



		children, improve their immunity	Females and 17837 Males.				
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### Specific COVID-19 Interventions

Sub County	Intervention	Ward	No. of beneficiaries	Implementers	Impacts in terms of food security	Cost	Time Frame
<b>Agriculture</b>							
All	social distancing	All		Public Health Citizens			
All	hygiene guidelines	All		Public Health Citizens			
All	Installation of water containers with soap and detergents	All		Public Health Citizens			
All	Relief items to households affected	All		CGL Partners			
<b>Education</b>							
ALL	Provision of masks	ALL	18,500 in 60 schools	Ministry of Education	Stop spread of covid-19	TBD	Immediate
Laikipia central, Laikipia East, Laikipia North, Laikipia West, Nyahururu	Social distancing	ALL	15,488 in 80 schools.	Ministry of Education	Stop spread of covid-19	TBD	Immediate

<b>Livestock</b>							
<b>County</b>	<b>Sub County</b>	<b>Intervention</b>	<b>No. of beneficiaries</b>	<b>Implementers</b>	<b>Impacts on food security</b>	<b>Cost (Kshs)</b>	<b>(Time Frame)</b>
<b>IMMEDIATE</b>							
Laikipia	L/East	Provision of hand washing points at the markets.  Close monitoring to ensure buyers and sellers have face masks on.	All those involved in the trade.	County staff from livestock , Health and enforcement.	Livestock was a major source of livelihood for food and income.		continuous
		Surveillance and reporting on Desert locusts  Spraying where and when need arises.	General public in the affected areas.	County Government ,County staff, members of the public and DL scouts	No much destruction caused by the DL		Continuous
	Laikipia North	Training of scouts	6	FAO/DALF	positive		1 Wk
		Spraying	spatial	Various actors	positive		
	L/West	Sensitizing sellers & buyers to spread widely.	All those involved in the trade.	County staff from livestock , Health and enforcement.	Livestock was a major source of livelihood		Has been continuous

		Provision of hand washing points at the market.  Close monitoring to ensure buyers and sellers have face masks on.			for food and income.		
		Surveillance and reporting on Desert locusts  Spraying where and when need arises.	General public in the affected areas.	County Government ,County staff, members of the public and other stakeholders	No much destruction caused by the DL		Continuous
<b>MEDIUM AND LONG TERM</b>							
Laikipia	Laikipia East	Surveillance/Monitoring & reporting system	Regional	MOA/FAO,CGL and others	positive		continuous
	Laikipia North	Surveillance/Monitoring & reporting system	Regional	MOA/FAO,CGL and others	positive		continous
	Laikipia West	Surveillance/Monitoring & reporting system	Regional	MOA/FAO,CGL and others	positive		continous

### 6.3 Recommended Interventions

#### 6.3.1 Recommended Food Interventions

No food interventions have been recommended.

### 6.3.2 Recommended Non-Food Interventions

**Table 17: Proposed non-food interventions**

<b>Agriculture</b>							
<b>Sub County</b>	<b>Intervention</b>	<b>Ward</b>	<b>No. of beneficiaries</b>	<b>Proposed Implementers</b>	<b>Required Resources</b>	<b>Available Resources</b>	<b>Time Frame</b>
All	Assist vulnerable groups open up new lands	14 wards	1400	CGL Tractor owners	Cash		APR 2021
	Supply seed to vulnerable groups	14 wards	1400	CGL	Cash		APR 2021
	Supply fertilizer to vulnerable groups	14 wards	1400	CGL	Cash		APR 2021
	Excavate farm water pans for irrigation	15	300	CGL and partners	Funds		JUNE 2021
	Upscaling CA	15	1500	CGL	Funds		Ongoing
<b>Education</b>							
Laikipia East, Laikipia Central, Laikipia North, Nyahururu	Provision of water reservoirs eg plastic tanks.	ALL	13438 in 69 schools	Ministry of Education	TBD	NIL	Immediate
Laikipia East, Laikipia North, Laikipia Central, Laikipia	Provision of school meals.	All	30,226 in 220 schools.	Ministry of Education	TBD	NIL	Immediate

West and Nyahururu							
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<b>Livestock</b>							
<b>Sub County</b>	<b>Intervention</b>	<b>Ward</b>	<b>No. of beneficiaries</b>	<b>Proposed Implementers</b>	<b>Required Resources</b>	<b>Available Resources</b>	<b>Time Frame</b>
Laikipia East	Sensitization on the covid pandemic		All actors	CGL and National Government	PAS, staff i.e. CHVs,		Continuous until pandemic ends
	Installation of hand washing equipment at strategic points		All actors	CGL and National Government	Tapped container s with soap		Continuous until pandemic ends
Laikipia North	Sensitization on the pandemic		All actors	MOH, County Health Dept.	PAS, staff i.e. CHVs,		Continuous until pandemic ends
	Installation of hand washing equipment at strategic points		All actors	MOH, County Health Dept	Tapped container s with soap		Continuous until pandemic ends
Laikipia West	Installation of hand washing		All actors	MOH, County Health Dept	Tapped container s with soap		Continuous until pandemic ends

	equipment at strategic points						
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<b>Water</b>							
<b>Immediate recommended Interventions</b> (Including Interventions in response to COVID-19 pandemic)							
<b>Sub County/ Ward</b>	<b>Intervention</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>
All sub counties	Drilling and equipping of boreholes, desilting of existing pans and dams	All wards	120,000	CGL/GOK	Funds	Land human resources	Ongoing
“	Pipeline extensions	“	20,000	CGL/ GOK CBOs, NGOs	funds	Land human resources	Ongoing
<b>Medium and Long Term recommended Interventions</b> (Including Interventions in response to COVID-19 pandemic)							
Laikipia east	Construction of large capacity dams	Kahurura	60,000	CGL GOK	4b	Human resource, water	5yrs
Laikipia west	Human resource	4yrs	50000,	CGL, GOK	2b	Human resource	4yrs
Laikipia central	Construction of Pesi dam	Wiyumiririe	45,000	CGL/GOK	3.5B	Human resource	4yrs
Laikipia west	Construction of medium dams	Wangwachi Lobere, Soilo	25000	GOK/CGL	400m		

		Mukurweini					
Health and Nutrition							
Subcounty	Interventions	Location	No of beneficiaries	Proposed Implementers	Required Resources	Available Resources	Timeframe
Immediate							
All 3 sub counties	Provision of water treatment chemicals at community level	L. North and targeted areas in East & west	7500 HH	MOH – CGL NDMA	<b>50,400,000</b>	Human Resource	Jan-Dec 2021
All 3 sub counties	Carry out Active case finding at community level and refer the malnourished cases to health facility	The whole of Laikipia North & targeted areas in East & West	70,000	MOH – CGL NDMA	<b>2,636,800</b>	Human Resource	Jan-Dec 2021
All 3 sub counties	Enhance Health education in all health facilities	All 3 Sub-Counties	84 Health Facilities	MOH – CGL NDMA	-	Human Resource	Jan-Dec 2021
Medium-Long Term							
All 3 sub counties	Carry out OJT on identification and management of malnutrition among Health care providers	ALL	84 Facilities	GCL- MOH	<b>856,800</b>	HR	Jan-Dec 2021

All 3 sub counties	Carry out integrated outreaches in hard to reach areas in all sub counties	ALL	78 sites	GCL- MOH	<b>1,318,400</b>	HR	Jan-Dec 2021
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