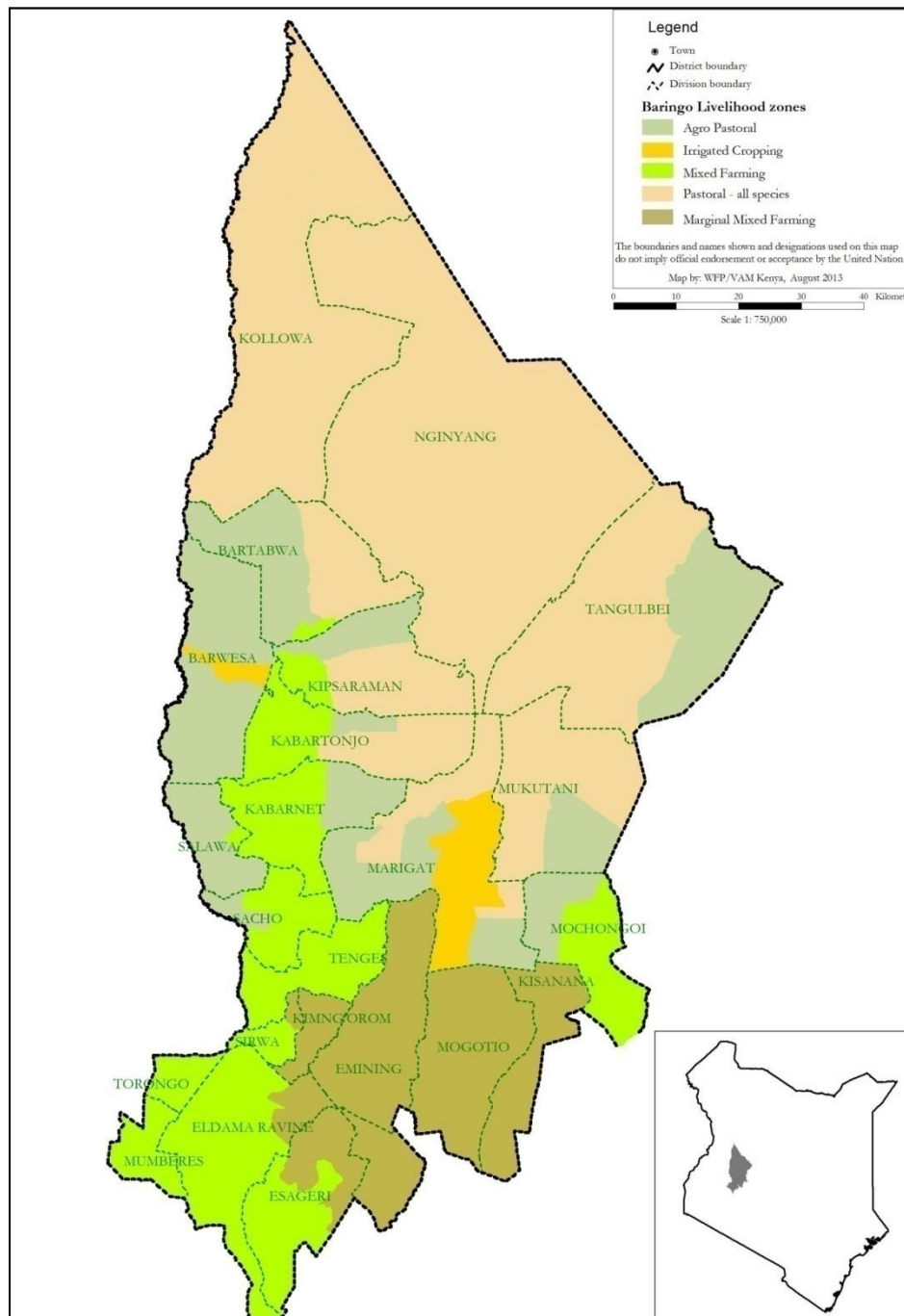


BARINGO COUNTY

2019 LONG RAINS FOOD AND NUTRITION SECURITY ASSESSMENT REPORT



A Joint Report by the Kenya Food Security Steering Group (KFSSG)¹ and Baringo County Steering Group

July 2019

¹ Lillian K. Marita (Ministry of Health) and Shamton Waruru (National Drought Management Authority (NDMA))

EXECUTIVE SUMMARY

The 2019 long rains assessment in Baringo County 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, education and health and nutrition sectors and other stakeholders. The assessment was carried out in the four major livelihoods namely; mixed farming, pastoral, agro-pastoral and irrigated cropping livelihood zones. The main objective of the short rains' assessment was to develop an objective, evidence-based and transparent food and nutrition security situation analysis following the long rains of 2019. Both quantitative and qualitative methods were used to carry out the situation analysis.

Rainfall performance for the long rains was near normal to normal, high food prices, livestock diseases and incidences of resource-based conflicts were the main food insecurity drivers. Food is currently available in the households particularly in the mixed farming livelihood zone as the 42 percent of the food stocks held in the county are largely in this livelihood. Livestock productivity is normal as evidenced by the good body condition of livestock and milk is available though below normal in the pastoral livelihood zones. Currently, households in the irrigated cropping, mixed farming and agro pastoral livelihood zones have access to food. Despite the increase in maize prices by 19 percent, goat prices have also increased by 15 percent when compared to the long-term averages. Consequently, the terms of trade are within the seasonal averages. Markets functions were normal and are well provisioned with food largely from other counties except for Loruk market where no activities are going on due to tension and fear of insecurity.

Distances to water sources for domestic consumption have remained within seasonal norms in all livelihood zones except a slight increase noted in the pastoral livelihood. Water consumption has reduced across the livelihoods. In the pastoral and agro pastoral livelihood zones, households are consuming 10-15 litres per person per day while those in the mixed farming and irrigated cropping livelihood zones are consuming more than 15 litres per person per day. Hand-washing and water treatment across the livelihood zones is minimal at less than 10 percent for each of the indicators and as such are affecting the utilization pillar of food security.

National Drought Management Authority (NDMA) surveillance data indicated that households having acceptable, borderline and poor food consumption as at July 2019 were 60.7, 34.5 and 4.9 percent respectively. The households who were not employing any food consumption related coping strategies were 17.2 percent and the remaining 40.7 and 42.2 percent used Stressed and Crisis coping strategies respectively. Regarding livelihood change, there were 48.5 percent not employing any coping strategy while another 39.9 and 11.2 percent were using Stressed and emergency coping strategies respectively. The Nutrition status is Serious in Baringo North and South where the Global Acute Malnutrition (GAM) rate was 9.3 percent and it was Critical, in Tiaty Sub county which had GAM rate of 20.9 percent. There were no unusual deaths reported and thus the Under Five Mortality Rate and the Crude Mortality Rate (CMR) were considered to be below the emergency cut offs. Baringo County is therefore classified as 'Stressed' (IPC Phase 2) in the agro pastoral, None/Minimal (IPC Phase 1) in the mixed farming and irrigated cropping livelihood zones and Crisis (IPC Phase 3) in the pastoral livelihood zones of Tiaty Sub-county.

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1.0 INTRODUCTION

1.1 County background

Baringo County borders Turkana and Samburu Counties to the North, Laikipia to the East, Nakuru and Kericho to the South, Uasin Gishu to the South West, and Elgeyo - Marakwet and West Pokot

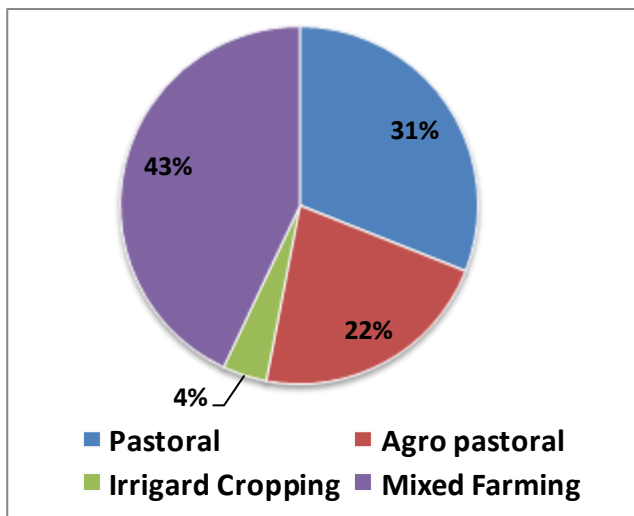


Figure 1: Proportion of Population per Livelihood

to the West. The area of the county is approximated at 11,015 square kilometers (Km²) and a population of 703,697 persons (Kenya National Bureau of Statistics, 2016 Projection). The county is divided into six (6) sub Counties namely:- Baringo North, Baringo Central, Baringo South, Mogotio, Tiaty and Eldama Ravine. There are five main livelihoods in the county which include, mixed farming, pastoral, agro-pastoral and irrigated cropping (Figure 1). The main hazards in the county across the livelihoods are drought, water shortages and variable/high food prices and conflicts. Other hazards are crop pests and diseases in the

irrigated cropping and the mixed farming livelihood zones.

1.2 Methodology and approach

The food and nutrition security assessment exercise is usually conducted twice a year 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. Primary and secondary data is used in the assessment process. Primary data is collected from the community in sample sites that would be representative of the four main livelihood zones. The data was collected through semi structured focus group discussions, key informant and market interviews.

Secondary data was collected through the checklists which were administered to the relevant departments for collection of quantitative data and gave sectoral briefs during the county steering group. Other data that was available to assist in the analysis included livelihood zone data, satellite data for rainfall, routine Demographic Health Information Systems (DHIS) data, National Drought Management Authority bulletins and SMART survey report among others. 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 multisectoral and multi agency 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 assessment in the county was done from 15th to 19th July, 2019.

DRIVERS OF FOOD AND NUTRITION SECURITY IN THE COUNTY

3.1.11 Rainfall Performance

Baringo County receives bimodal rainfall and is dependent on the long rains of March-April-May (MAM) which extends to July. The short rains season is in October-November and December. The onset of the season was late in the 3rd dekad of April compared to 3rd dekad of March normally. A total of 107.8 mm of rainfall was received compared to 297.4 mm normally. Majority of the county received 75-90 percent of normal with the southern parts of county particularly Mogotio and Eldama Ravine Sub County receiving near normal to normal rains of 90-110 percent together with some parts of Tiaty Sub County.

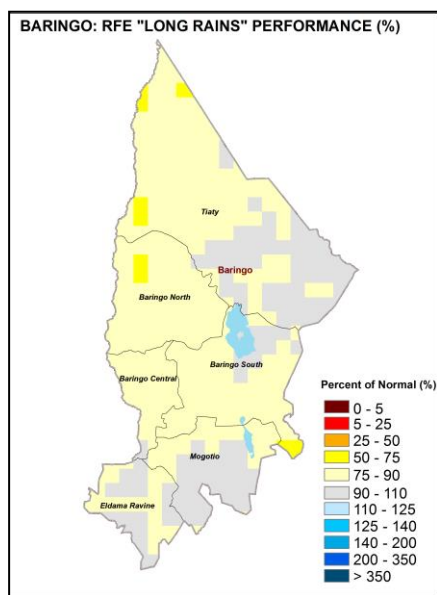


Figure 2: Rainfall performance as a percent of normal in Baringo County

Rains were erratic temporally and spatially they were unevenly distributed. The highest amount of rain was received in the 3rd dekad of April, thereafter rains were depressed. Trends of the vegetation cover index were below normal until the 1st dekad of July when it became above normal as a result of rains received in the month of May through June.

2.2 Insecurity/Conflict

There were insecurity incidences in Kasiela area Baringo South Sub County where cattle were stolen. Tensions are also high in areas of Chemoe, Kagir, Tuluk, Chemanangoi, Nawe, Natan and Ng'aratuko in Baringo North. The said tension has resulted in limiting access in Loruk area as the market is not optimally functional.

2.3 Other shocks and hazards

Livestock diseases were reported and specifically Camel disease known as Haemorrhagic septicaemia that led to the death of an estimated 200 camels in Tiaty Sub County. New Castle disease was also reported in the same sub county and led to the loss of 5000 poultry. Maize crop was affected by fall army worm as in 20 percent of the area planted however, measures have already been taken.

2.0 IMPACTS OF DRIVERS ON FOOD AND NUTRITION SECURITY

2.1 Availability

Pasture and browse are currently available in the mixed farming, irrigated cropping and agropastoral livelihoods while pasture is below normal in the pastoral livelihood zone. The available forage is expected to last until and extend into the next short rains season which starts in October. Livestock body condition is good for all livestock species in the irrigated and mixed farming livelihood zone but is fair in the agro pastoral and pastoral livelihood zones. Milk is available however, in the pastoral livelihood zones it was largely from camels. Households in the mixed farming livelihood zones have 55 percent of maize stocks. Supply of food stuffs in the markets are normal across the livelihoods and as such food is available in the county.

3.1.1 Crops Production

The long rains season in Baringo county is significant as the county is dependent on it. The main crops grown in the county under rain fed in the mixed farming livelihood zone are maize, beans, millets, Irish potatoes, cowpeas and sorghum. Other crops are horticultural crops (fruits and vegetables) and cash crops (Coffee, Cotton, Macadamia, and pyrethrum). Maize, beans and finger millet are the main crops in both the agro pastoral and the mixed farming livelihood zones. In addition to maize, tomatoes and watermelons are grown under irrigation and each contributes to 90 percent of cash income and 10 percent of food. Maize in the agro pastoral, mixed farming and the irrigated cropping livelihood zones contributes to 90, 60 and 20 percent food while it contributes to 10, 40 and 80 percent of cash income respectively. Cowpeas, finger millet, and beans contribute to 40 percent of cash income and 60 percent of food in the agro pastoral and mixed farming livelihood zones.

Table 1: Acreage and Crop production under Rain fed in Baringo County

Crop	Area Planted (Ha)		Production (90 kg bags)	
	2019 Long rains	Long Term Average (5 year) Long rains	2019 Long rains Projected/Actual	Long Term Average (5 year) Long rains
Maize	38,172	41,133	900,550	1,017,295
Beans	17,066	19,421	154,812	222,323
Finger millet	6,402	5,220	41,513	34,325

Area planted under rain-fed for maize and beans was 93 and 88 percent of the long term average respectively while that for finger millet was 12 percent above the long term average. The maize crop is at various stages ranging from weeding to tasseling as households planted at different times as a result of delayed onset of rains which also varied across the livelihood zones. Maize is projected to be 88 percent of the long term average while that for the beans is projected to be 69 percent of the long term average. The decrease in production is attributed to the late onset of the long rains as a result of which farmers planted in different times and thus some crop yield will be reduced. Finger millet production is likely to be 20 percent above the long term average. The increase in production for finger millet is due to the increase in the acreage planted and provision of certified seeds.

Table 2: Acreage and Production under Irrigation in Baringo County

Crop	Area Planted (Ha)		Production (90 kg bags)	
	2019 Long rains	Long Term Average (5 year) Long rains	2019 Long rains Projected/Actual	Long Term Average (5 year) Long rains
Maize	60	44	1460	436
Beans	18	24	360	480
Tomatoes	84	119	1820	2235
Water melon	32	85	640	1700
Cow peas	84	80	1260	1200

Seed Maize	2054	1524	78,052	57,150
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Crop farming under irrigation is done at Barwesa area and is largely for income, which fruits and vegetables as shown in Table 2. The maize grown is harvested while green as a source of income however, a large proportion of land is also put under seed maize. The acreage for maize and seed maize increased and was 36 and 34 percent above the long term average respectively. Area put under tomatoes reduced and was 70 percent of the long term average. Maize production increased and was more than three times of the long term averages while that for tomatoes reduced by 20 percent. The reduction in tomatoes was attributed to pests and diseases. Seed maize increased and is 30 percent above the short term average. The area under seed maize increased as more schemes were engaged in seed production like Lobo Lorwai irrigation scheme in Baringo South which had continuous supply of water.

3.1.2 Cereals stock

Table 23: Cereal Stocks in Baringo County

Commodity	Maize		Millet		Sorghum	
	Current	LTA	Current	LTA	Current	LTA
Farmers	90,878	164,600	1,324	1,646	257	645
Traders	30,951	38,135	587	651	253	292
Millers	25,668	16,948	158	22	0	0
Food Aid/NCPB	19,929	39,400	0	2,319	0	0
Total	167,426	259,083				

Maize stocks in the county are 65 percent of the long term average. The current maize stocks are from the previous harvest as the crop in the farms is due for harvest as from August. The households hold 55 percent of the long term average while traders have 81 percent of the stocks they would normally hold. Millers on the other hand have above average stocks by 51 percent above the long term average while National Cereals and Produce Board (NCPB) have half of the stocks when compared to the long term average. The millet stocks being held by the households and the traders were 80 and 90 percent of the long term averages respectively. The sorghum stocks held by the households were low at 40 percent of the long term average while the traders had 86 percent of the long term average. Overall, food is currently available in the county and the stocks are likely to last 2-3 months compared to 3-4 months normally.

3.1.3 Livestock Production

The main livestock species in Baringo County include; cattle, goats, sheep, honeybees, poultry and camels. Goats contribute 60 percent of the household income in the agro pastoral livelihood zone while sheep, cattle and chickens contribute to 25, 14 and percent respectively. In the irrigated livelihood zone, the livestock reared are goats, sheep and cattle. In this livelihood zone, goats and sheep contribute to 65 and 15percent of household income respectively. In terms of food, goats contribute to 10 percent while the chicken and cattle contribute to 25 and 60 percent respectively. In the mixed farming livelihood zone, cattle contribute to 70 percent of the household income with goats and chicken contributing 15 and 10 percent respectively. In the pastoral livelihood zones, the shoats (goats and sheep) give the highest proportion to income where goats contribute to 60 percent of the income and sheep contribute to 30 percent. Goats contribute another 60 percent to food in this livelihood zone.

Table 3: Contribution of Livestock Production to Food and Income in Baringo County

Livelihood zone	% contribution	
	Food	Income
Mixed farming	25	23
Irrigated cropping	25	8
Agro-pastoral	20	50
Pastoral	21	88

Pasture and browse situation

The pasture condition is good in mixed farming and irrigated cropping livelihood zones and fair to good in both agro-pastoral and pastoral livelihood zones. The browse condition is good across all livelihood zones. The forage quality is fair to good in mixed farming livelihood zones but fair in the other three livelihood zones of the county. Pasture is expected to last 1.5-3 months as compared to normal 3-4 months; with only pastoral zones having limited of access due to insecurity. Areas with access limitation to forage include Mukutani, Arabal, Kalabata, Saimo soi and Kapedo. The livestock are usually grazed by male youth and women. In other cases, the livestock are released to the fields themselves and come back later on the afternoon.

Table 4: Pasture and Browse Condition in Baringo County

Livelihood Zone	Pasture					Browse				
	Condition		Projected Duration to last (Months)		Factors limiting access	Condition		Projected Duration to last (month)		Factors limiting access
	Current	Normal	Current	Normal		Current	Normal	Current	Normal	
Mixed farming	Good	Good	2	3	None	Good	Good	3	4	None
Irrigated cropping	Good	Good	2	3	None	Good	Good	3	4	None
Agro-pastoral	Fair	Good	1.5	3	None	Good	Good	2	4	None
Pastoral	Fair	Good	1.5	3	Insecurity tensions	Good	Good	2	4	Insecurity tensions

Livestock Productivity**Livestock body condition**

The livestock body condition for all livestock species is good in mixed farming livelihood zones, fair to good in irrigated cropping and good in the agro-pastoral and pastoral livelihood zones. The current body conditions are attributed to fair quality forage. There is improved trend in body condition due to improving forage quality and the situation is likely to remain with the positive forecast by Kenya Metrological Department indicating continuation of the off season rainfall. The livestock body condition may lead to livestock prices upwards hence improving the farmers' purchasing power.

Table 54: Livestock body condition

Livelihood Zone	Cattle		Sheep		Goat		Camel	
	Currently	Normally	Currently	Normally	Currently	Normally	Currently	Normally
Mixed farming	Good	Good	Good	Good	Good	Good	N/A	N/A
Irrigated cropping	Fair to Good	Good	Fair to Good	Good	Fair to Good	Good		
Agro-pastoral	fair	Good	fair	Good	fair	Good	Good	Good
Pastoral	fair	Good	fair	Good	fair	Good	Good	Good

Tropical livestock units (Tropical Livestock Units) and birth rates

The present TLUs are three in poor households and 4.7 in the medium households (Table 5). There was slight decrease in TLUs as compared to normal as a result of delay in the kidding and lambing as a result of the experienced dry season as from March to May. The general birth rates were 2.5 across all livelihood zones. The current birth rate is low attributed to delayed conception as a result of previous poor performance of the rains that led to poor body condition. The deviations were due to low levels of forage and livestock body condition across the livelihood zones. The highest birth rates however, were reported in the mixed farming and irrigated cropping and lowest in agro-pastoral and pastoral livelihood zones.

Table 6: Tropical Livestock Units for Baringo County

Livelihood zone	Poor income households		Medium income households	
	Current	Normal	Current	Normal
Mixed farming	2.7	3	3.2	4
Irrigated cropping	2.4	3.5	3.9	5
Agro-pastoral	2.9	5	5	6
Pastoral	4.1	7	6.5	7

Milk Production and consumption

The milk availability slightly increased with improvement of forage condition and reduction in trekking distance. The increases resulted in decrease of milk prices from Ksh.60 to Ksh. 50 in mixed and irrigated cropping livelihood zones and from Ksh. 90 to Ksh. 60 in agro-pastoral and pastoral livelihood zones. Milk that is available in the pastoral livelihood zones is sourced from the mixed farming zones. Milk consumption increased to 1-2 litres in the period under review compared to what was reported during the short rains and largely near normal in the mixed farming, irrigated cropping and agro pastoral livelihood zones. In the pastoral livelihood zones, the milk consumption is 50 percent of normal.

Table 7: Milk Availability, Consumption and Prices

Livelihood zone	Milk production per HH(Lts)		Milk consumption per HH(Lts)		Prices(KSh.)	
	Current	LTA	Current	LTA	Current	LTA
Mixed farming	6	8	1-2	2	40-50	60
Irrigated cropping	6	8	1-2	2	50	60
Agro-pastoral	2.5	4	1-2	1.8	60	90
Pastoral	1.5	2	1	1.8	60	90

Livestock Migration, Diseases and Mortalities

The only reported migrations were within the county, where in Baringo North at Saimo soi and in Tiaty, livestock movements were reported and the animals are currently in Silale, Paka, Korossi hills and Mallaso. There were diseases reported in the county as indicated in the table 8. The disease occurrences were in the normal ranges. The mortality rates were at two percent across the livelihoods except in the pastoral-all species livelihood zones where mortality was 2.5 percent. The camels had three percent mortality rate due to eruption of *Hemorrhagic septicaemia*. Disease surveillance is ongoing in all the counties and vaccination in targeted sub-counties as per available resources.

Table 8: Livestock Diseases and Mortalities due to Diseases

Sub-county	Disease	Area Reported	Livestock	Livestock lost	Measures taken(Vaccinations)
Baringo Central	New Castle Disease	Across the sub county	Poultry	5,000	Vaccinations conducted in farms
	CCPP	Across the subcounty	Goats	Endemic	
	PPR	Few cases reported	Sheep & goats		
Tiaty	CCPP, PPR	Across the subcounty	Goats and Sheep	Endemic	Planned Vaccinations
	Haemorrhagic septicaemia	Across the subcounty	Camels	200	Planning for drug procurement then treatment
	FMD		Cattle camels		Planned Vaccinations
Mogotio	CCPP	Majimoto, Kamar, Simotwe, Sinende, Olkokwe, Oldebes, Lembus Mogotio, Eminining, Koibos,	Goats	Endemic	Vaccination done
	PPR	Few areas	Sheep and goats		Planned Vaccinations
	FMD	Re-current	Cattle		
	Blanthrax		Cattle		Vaccination done
Eldama Ravine	Plant poisoning	Majimazuri, Mumberes		6	Vaccination done
	Abortions	Ravine ward		8 cases reported	Vaccination done
	ECF	Ravine,Perkerra,L.kwen		27 cases reported	Vaccination done
	Blanthrax	Sub-county	Cattle		20,067 cattle

Sub-county	Disease	Area Reported	Livestock	Livestock lost	Measures taken(Vaccinations)
	Rabies	Ravine	Dogs	Cases reported. No deaths	50
Baringo south	CCPP	Kapkuikui and Lobo	Goats	No deaths	Treatment of affected stock
	Sheep & goat pox	Kimalel	Shoats		Vaccination
	Enterotoxaemia	Kimorok	Sheep and goats		1,000 Goats
	Heart water	EwalelSoi, Kimalel, KimondisBekibon, Kiserian	Goats		Awareness on prevention
	New Castle Disease	Marigat	Poultry		No vaccinations
Baringo North	CCPP	Across the subcounty (Endemic)	Goats	20 goats	Endemic
	PPR ,FMD, Red Water, LSD and Mange	Saimo Soi, Barwessa	Shoats, cattle	16 goats	Vaccinations against PPR are on going
	Enterotoxaemia	Sibilo	Cattle	20 cattle	Cases treated

Water for Livestock

The main sources of water include boreholes, permanent rivers, which are Kerio, Amaya, Pekerra, Molo, Arabal, Wasenges and Mukutani. The lakes include Bogoria, Baringo, Kamnarok and lake 94. The water pans were recharged between 50-70 percent but are still being recharged with the continued rains. The trekking distance decreased from 4-13 as compared to 4-10 in the last season. The watering frequency increased across all livelihood zones. The above dynamics have influenced positively; livestock body condition, milk production and also livestock prices. There was access limitation in the lakes due to crocodile hazards.

Table 95: Water for Livestock in Baringo County

Livelihood zone	Sources		Return trekking distance(Km)		Expected duration		Watering frequency (No of days per week)	
	Current	Normal	Current	Normal	Current	Normal	Current	Normal
Mixed farming	Streams, Rivers, springs, piped water, boreholes,	Streams, Rivers, springs, piped water, boreholes,	0.5-2	1-1.5	Throughout	Throughout	7	7
Irrigated cropping	Rivers, shallow wells and springs.	Rivers, shallow wells and springs.	0.5-2	1-1.5	Throughout	Throughout	7	7
Agro-pastoral	water pans, Boreholes, rivers, streams	Streams, water pans, Boreholes	4-10	3-7	2-3 months	3 months	7	7

Livelihood zone	Sources		Return trekking distance(Km)		Expected duration		Watering frequency (No of days per week)	
	Current	Normal	Current	Normal	Current	Normal	Current	Normal
Pastoral	Bore-holes, water pans, rivers	Water-pans, Bore-holes	4-10	3-7	2 months	2 months	7	7

3.2 Access

3.2.1 Market operations

The markets play a crucial role towards realization of the accessibility pillar of food security in terms of availing the food and income from the sales of the livestock. The main markets for livestock in the county include Kipsaraman, Barwessa, Loruk and Kinyach in Baringo North; Kolloa, Nginyang, Tangelbei and Amaya in Tiaty; Marigat, Kabel in Baringo South; Kaptara in Baringo Central; Majimoto, and Eming in Mogotio and Iloti, Kapchorua and Kapcholoi in Eldama Ravine sub-counties. There has been no market disruption at all markets in the county.

Market supply for food commodities is mostly from outside the County which is normal for this time of the year. The main food stuffs being traded are maize, beans and vegetables. Supply of food items were normal across the livelihood zones. Supply of livestock were normal across the livelihood zones except in Loruk attributed to tensions and unwillingness to sell. Traded volumes for livestock were below normal in some markets while they were normal in Marigat, Barwesa, Nginyang and Amaya

3.2.2 Markets prices and Terms of Trade

Maize price

The average price for a kilogram of maize in the county as at July, 2019 was Ksh. 56. The current

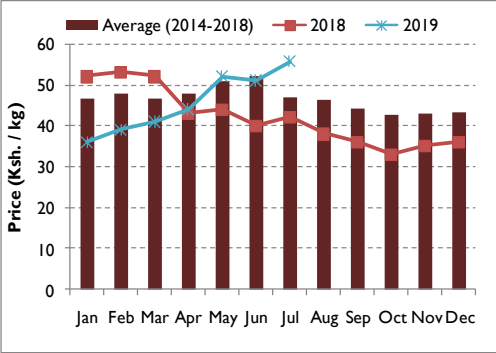


Figure 3: Maize Prices in Baringo County

price was nine percent above the price recorded in June 2019 and was 19 percent above the long term average of 2014-2018 (Figure 3). The price for July was 33 percent above the price recorded at the same time last year. The highest prices of Ksh.60 per kilogramme of maize were reported in the pastoral-all species livelihood zone while the lowest were recorded in the irrigated cropping livelihood zone at Ksh.42 per kilogramme. Maize prices have been on an upward trend as from February 2019 and remained below the long term averages recorded in the same period until May 2019 when the prices got above the long term averages (Figure 3). The

increasing price was attributed to declining stocks at household levels and at local retailers. The prices are likely to reduce slightly but remain above the long term averages for the next three months.

Goat price

The price of a medium sized goat as at July 2019 had increased and was Ksh. 2564 compared to Ksh. 2285 reported in June 2019. The current price is 15 percent above the five year average of 2014-2018 and 14 percent lower than what was reported in the same time in 2018 (Figure 4). The

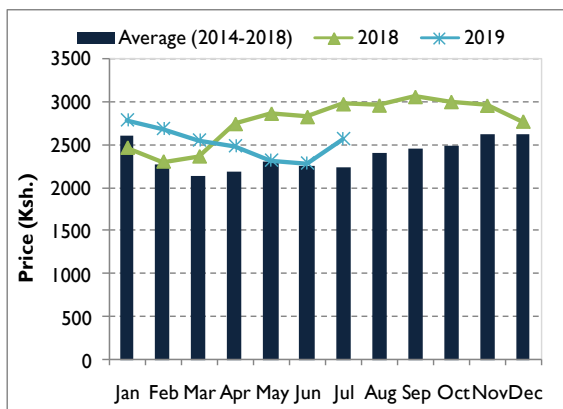


Figure 4: Goat Prices in Baringo County

trend of the prices was on a downward trend as from January however, as from July the prices picked an upward trend. The prices have been above or comparable to the long term averages in the period January to July. The decrease in prices was attributed to the deterioration of the body condition due to the delay in the onset of the long rains. The goat prices are likely to follow the normal trend remaining within the seasonal five year long term averages. There is likelihood of prices to slightly increase as from August for the next three months.

Terms of trade

The current terms of trade improved and were 12 percent above those reported in June 2019 although there percent below to the long term average. Currently, the sale of a goat can be exchanged for 46 kilograms of maize (Figure 5). The current terms of trade were 34 percent lower compared to those reported at a similar time last year where the sale of one goat could be exchanged for 70 kilograms of maize. The trend of the terms of trade have been on a downward trend since February 2019 although they remained above the long term average until May when they became comparable to the long term average (Figure 5). The trend could be attributed to the decrease in goat prices with a noted increase in maize prices across the livelihoods. 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.

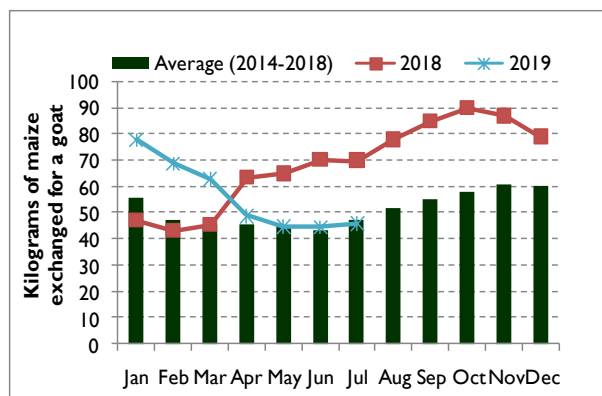


Figure 5: Terms of trade for Baringo County

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 69, 30 and 26 percent of cash income in the pastoral-all species, missed farming and agro pastoral livelihood zones respectively. In the mixed farming and agro-pastoral livelihood zones, food crop production, contributes to 25 and 20 percent respectively. In the mixed farming livelihood zone, cash crop production contributes to 15 percent of cash income while small businesses contribute to 10 percent. Additionally, in the agropastoral livelihood zone, poultry production contributes to 15 percent.

Other current sources of income for the households are charcoal burning and casual labour as noted during the community interviews. Currently, 24, 23 and 21 percent of the households are getting their income from the sale of livestock, casual labour, sale of crops respectively. 11 percent of the households are getting their income from petty trading and another 10 percent from formal employment at (West Pokot SMART Survey, June, 2019)

3.2.4 Water access and availability

The main sources of water for both livestock and domestic use include; Rivers, water pans, dams, lakes, streams, protected shallow wells, springs, swamps, boreholes and traditional river wells. Normally, Water sources are mainly concentrated in mixed farming livelihood zones where the potential is high and rainfall amounts are higher as compared to Pastoral and Agro pastoral livelihood which are rocky and poorly served by rivers. Generally, Mixed farming and Irrigated Farming zones Communities have more access to water than in Pastoral livelihood zones.

Water pans in the pastoral and Agro Pastoral livelihood areas of Tiaty sub county, Saimo Soi ward, Kinyach, Chemoe, Barsemoi, Majimoto, Kamar, Mbechot, Kapkelelwa, Bekibon, Bartabwa were recharged to between 30-40 percent of their normal capacity as compared to 80-90% normally and the water is likely to last for one to two months. In irrigated cropping and mixed farming livelihood zones, water pans were recharged up to 50 percent of their normal capacity. The water is expected to last for two to three months. The status of water levels in springs, rivers and water pans in all livelihood zones are unstable. Currently 80 percent of the boreholes are operational across all livelihood zones; however some few boreholes are not operational due to normal electromechanical break downs.

Ward/ Livelihood zone	Water Source (Three (3) major sources)	No. of Normal Operational	No. of Current Operational Sources	Projected Duration (Operational Sources)	Normal Duration that water last in months	% of full Capacity Recharged by the Rains	Locality of Non- operational Water Sources
Pastoral	Bore Holes	76	70	Over 6 Months	Over 6 months	stable	Ngo'oron Bh, Kreeze Bh, Kirim Bh , Ngoron, Sosionde , Silonga BH
	Water Pans	63	63	1-2 Months	3 - 4 Months	50% - 60%	
	Springs	10	10	3 - 4 Months	4 - 5 Months	30 % - 40%	
Agro - Pastoral	Bore Holes	56	52	Over 6 Months	Over 6 months	stable	Kadokoi, Sewa(Kisanana ward), Kimorok BH
	Water Pans	23	19	1-2 Months	3 - 4 Months	50% - 60%	
	Springs	18	18	3-4Months	Over 6 months	30 % - 40%	
Mixed Farming	Bore Holes	39	36	Over 6 Months	Over 6 months	stable	
	Springs	135	135	Over 6 Months	Over 6 Months	50% - 60%	
	Rivers	6	6	Over 6 Months	4 - 5 Months	40 % - 50%	
Irrigated Cropping	Rivers	6	6	3months	Over 6 months	90% -100%	
	Shallow Wells	8	3	3-4months	Over 6 months	Reducing Discharge	Perkerrra, Labos, Kailer, Longewan, Kampi Ukulima,
	Swamps	3	3	Over 3 Months		stable	

Distance to water sources and waiting time

According to the SMART survey findings, In Tiaty subcounty, the average distances to domestic water sources were varied with 34. 6 percent doing less than half a kilometer and another 48 percent doing 0.5- <2 kilometers. In Baringo North and South sub counties, majority of the households (58.7 percent) were covering less than 0.5 kilometers and another 35.3 percent covering more than 0.5- <2 kilometers to less than two kilometers. The remaining six percent reported to be covering more than two kilometers. The distances in the irrigated cropping and mixed farming livelihood zones remained within the seasonal norms of 0.5-1.5 kilometers. The duration of time spent queuing for water is projected to increase in pastoral and Agro pastoral livelihood zones if the situation will not improve due to high temperatures prevailing at the moment. The waiting time at the source in Mixed farming livelihood zone is between 3 - 5 minutes which is above normal while in pastoral and agro - pastoral areas it was between 5 and 7 minutes.

Waiting time varied with the households that were queuing for less than 30 minutes being 91.3 percent, 30-60 minutes were 6.5 percent and more than 60 minutes, 2.2 percent in Tiaty Sub County. In Baringo North and South sub-county, the proportion of households who were queuing for less than 30 minutes were 68.9 percent; 30 to 60 minutes, 15.6percent and above 60 minutes were 15.6 percent.

Cost of water and Consumption

The cost of water at the source is generally stable at Ksh. 3 and 5 across all livelihoods. Water consumption per person per day is normal at 15 – 20 litres per person per day in the irrigated cropping and more than 20 litres in the mixed farming livelihood zone. In the agro-pastoral livelihood zone, consumption remained normal at 10-15 litres per person per day except for some hotspots experiencing water shortages in Mogotio Sub County particularly in Kapyemit, Mugin, Kapnosigei, Eldebes, Kapkitur, Kamar, Kitecho, Molok, Maji Moto and Sirwa areas. In the pastoral livelihood zones consumption reduced and is currently 8-10 litres per person per day compared to the normal 10-15 litres per person per day. Households in pastoral and agro pastoral livelihood Zones reported persistence of water related diseases like Typhoid, Amoeba, diarrhea and Malaria. There was reported suspected water contamination following reports that some flower farms that are discharging their effluents directly into river Tilatil.

Ward 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
Pastoral	3 – 4	5-7	3 - 5	3 - 5	2 - 4	5-7	10-15	8-10
Agro Pastoral	3 –3.5	4-6	3 - 5	3 - 5	2 - 4	5-7	10-15	10-15
Mixed Farming	0.5 –1.5	0.5 – 1.5	3 – 5	3 – 5	2 - 3	3-5	>20	15-20
Irrigated Cropping	0.5- 1.5	0.5 – 1.5	3 - 5	3 - 5	1 - 2	1 - 2	15-20	15-20

3.2.5 Food Consumption

According to the NDMA Early Warning Bulletin, as at July, 2019, the proportions of households having acceptable, borderline and poor food consumption scores in the county were 60.7, 34.5 and 4.9 percent respectively.

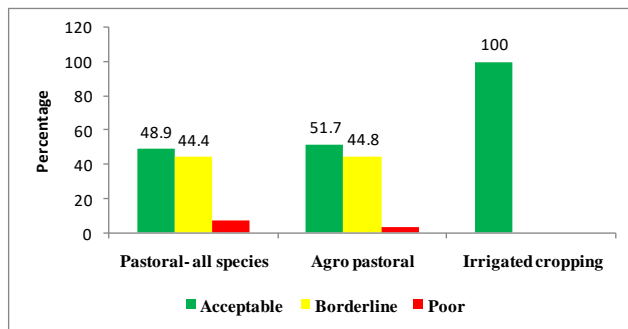


Figure 6: Food Consumption Scores per livelihood in Baringo County

In the irrigated cropping livelihood zone, all the households were having acceptable food consumption scores. In the agro pastoral livelihood zone, the proportion of households with acceptable, borderline and poor food consumption scores were 51.7, 44.8 and 3.4 percent respectively and had reduced from 93 percent who were reported to have acceptable food consumption scores in

June (Figure 6). In the pastoral livelihood zone, the proportion of households having acceptable food consumption scores had reduced to 48.9 compared to 55.6 percent reported in June. Those having borderline and poor food consumption scores in this livelihood were 44.5 percent compared to 35.5 percent reported in June, 2019. The proportion of households who were having poor food consumption scores was 6.7 percent. In Baringo County, the proportion of households having acceptable food consumption score reduced from 80 percent reported in January during the short rains assessment to the current 60.7 percent while that for households having borderline food consumption scores increased from 17 to 34.5 percent. A small proportion of the households (17.2 percent) were not employing any food consumption related coping strategies while the remaining 40.7 and 42.2 percent used stressed and crisis coping strategies. 70, 31.8 and 3.4 percent were employing Stressed coping strategies in the irrigated cropping, pastoral and agro pastoral livelihood zones respectively. Those not employing any coping mechanisms were 30 and 20.7 percent in the irrigated cropping and the pastoral livelihood zones respectively. It was noted that majority of the households (96.6 percent) in the agro pastoral livelihood zone were employing crisis strategies.

3.2.6 Coping strategy

Based on NDMA data, the mean coping strategy index (CSI) for the county in July, 2019 was 14.3 and was comparable to what was reported in June however, it reduced from 16.3 reported in May, 2019. When compared to the same time last year, the coping strategy index had reduced from 18.3. In the agro pastoral and pastoral livelihood zone, the coping strategy index was 27 and 14.5 respectively. The lowest coping strategy index was reported in the irrigated cropping livelihood zone at 4.3 percent.

According to data received from NDMA in July 2019, with regard to livelihood change, at the county level there were 48.5 not using coping strategies. Overall, the proportion of households employing Stressed and Crisis coping strategies were 39.9 and 11.2 percent respectively. In the agro pastoral livelihood zone, none were using any coping mechanism while in the pastoral livelihood zone 41.3 and 0.6 were employing stressed and crisis coping strategies respectively. In the irrigated cropping livelihood zone 90 percent indicated not using any coping strategy while the remaining 10 percent were using Stressed coping strategies.

According to the SMART survey preliminary results, 50 percent of the households reported employing food consumption related coping strategies in Baringo North and South sub Counties. In Tiaty Sub County, SMART survey results indicated that a proportion of 75 percent employed coping strategies. The CSI was 15.3 percent and is lower compared to 2018 similar time. The most frequently employed coping strategy across the livelihoods was restricting consumption by adults in order for the children to eat (SMART Survey, Baringo North and South and Tiaty).

3.3 Utilization

3.3.1 Morbidity and mortality patterns

The most prevalent diseases in the county were upper respiratory tract infections, malaria and diarrhea in which according to the survey carried out in Tiaty, 15, 10 and eight percent of the children under fives respectively were reported to have had those illnesses in the two weeks prior to the survey (SMART survey, Tiaty, 2019). Morbidity trends for both the under fives and the general population from January to June 2019, remained within the seasonal norms when compared to the same period in 2018 and 2017 (Figure 7).

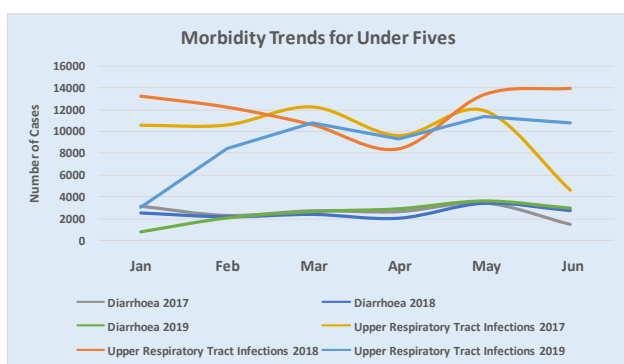


Figure 7: Morbidity trends for Under Fives in Baringo

Cases of dysentery reported in January to June 2019 increased by 50 percent and were 1403 cases compared to a total of 932 cases reported in the same period in 2018 and 829 cases in 2017. The increase in cases was attributed to water contamination as a result of a prolonged the dry period experienced in March through to May, 2019 and as such water sources were being utilized by both human and animals.

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 2019, was 70.1 percent and comparable to the same period in 2018 however, it was below the national target of 80 percent. Immunization coverage was highest in Marigat and Mogotio Sub counties standing at 92.0 and 91.3 percent respectively. All the other Sub counties had coverage below the national target and was particularly low in East Pokot and Tiaty sub Counties at 51.3 and 40.2 percent respectively (Table 2).

Table 6: Immunization Coverage Per Subcounty

Sub County	Percent of Fully Immunized Child (FIC)	
	2018	2019
Baringo Central	88.0	75.0
Baringo North	64.3	63.3
East Pokot	21.2	51.3
Koibatek	74.0	79.9
Marigat	89.0	92.0
Mogotio	89.7	91.3
Tiaty		40.2
County Average	70.2	71.0

Vitamin A coverage between January and June, 2019 for children aged 6-59 months was 59.8 percent compared to 50.0 percent reported during the same period in 2018 (DHIS data). The

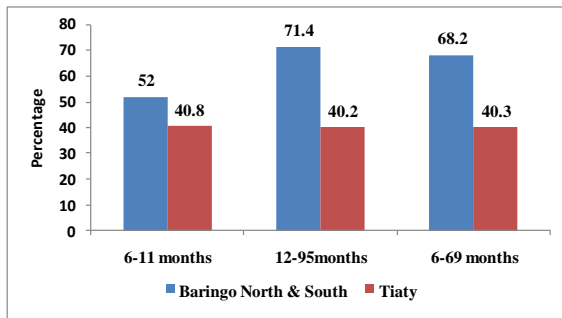


Figure 8: Vitamin A supplementation by Age

The increase in the coverage was attributed to the *Malezi Bora* exercise that was done in May of 2019 coupled with the uninterrupted supply of Vitamin A supplements. Children aged 6-11 months who were supplemented in Jan to June 2019 were 70.1 percent while those aged 12-59 months were 58.5 percent. According to the SMART survey done in Tiaty Subcounty in June 2019, Vitamin A supplementation coverage for 6-11 months was 40.8 percent while that for children aged 12-59 months were 40.2 percent for. Overall, the proportion of children aged 6-59 months who had

received Vitamin A supplementation once were 40.3 percent (Figure.8).

3.3.3 Nutritional status and dietary diversity

Meal consumption has remained normal across the livelihoods with households in the pastoral and agro pastoral livelihood zones consuming two meals per day and households in the irrigated cropping and mixed farming livelihood zone are consuming the normal three meals. Household dietary diversity information collected in Baringo North and South through the nutrition SMART survey, indicated that the proportion of households consuming >5 five food groups are 61 percent, a decrease from 73.4 percent reported at a similar time last year. Those households consuming 3-5 food groups was 37.7 percent compared to 23.3 percent in the same period in 2018. The households consuming <3 food groups was 1.3 percent in both years. In Tiaty Sub county, the proportion of households consuming >5 five food groups (28.2 percent); 3-5 food groups (60.8 percent) and <3 food groups were 13 percent. Nutrition status has deteriorated in the Sub County which is pastoral livelihood as the proportion of those consuming more than five groups had reduced in June 2019 compared to 38.6 percent reported in 2018.

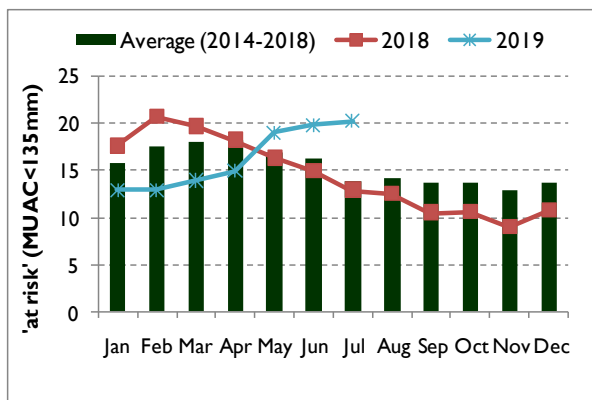


Figure 9: Proportion of Children at risk of malnutrition MUAC <135mm

The NDMA data indicated that the proportion of children under five years with MUAC (<135mm) was 20.2 percent in July 2019 and was noted to be 46 percent above the long term averages of 2014-2018. When compared to June 2018, the current proportion was 56 percent above however, this proportion had remained similar to what was reported in May 2018 (Figure 9). During the period January to June 2019, the proportion of children at risk of malnutrition based on mid upper arm circumference (MUAC) <135mm showed an upward trend as from March

and was above the long term averages as from May. The highest proportions of children at risk of

malnutrition were reported in Kapenguria, Komolion and Ribko wards in the pastoral livelihood zones where 42.4, 32.4 and 31.7 percent respectively. The high malnutrition rates in these wards are largely due to alcoholism as a result there is poor infant and child care practices.

The global acute malnutrition rate for Baringo North and South is 9.3 percent and severe acute malnutrition rate 2.3 percent (SMART survey Baringo North and South, June, 2019). The results indicate that there has been no significant change in the nutrition status when compared to a similar time last year when the GAM rate was 7.8 percent and thus it remains in the Serious Phase (IPC Acute Malnutrition Classification). In Tiaty Sub County, the global acute malnutrition status was 20.9 percent with a severe acute malnutrition rate of 3.5 percent. Based on the global acute malnutrition rates, there was a significant change in the nutrition status compared to the same time last year. The most likely cause of malnutrition are food insecurity coupled with poor infant and young children feeding practices and poor health seeking behaviour especially in pastoral livelihood zone.

3.3.4 Sanitation and Hygiene

The main sources of water currently are sub surface water sources as evidenced by 52.3 percent who reported use of water from sub surface water. In Tiaty Sub County and Baringo North Sub Counties, 76.2 and 52.3 percent of the households respectively reported drawing water from the open sources. Water treatment was being done by a dismal 4.4 percent in Tiaty Sub County while 28.6 percent in Baringo North and South. The most common treatment method used in Baringo North and South was boiling (71.1 percent) while in Tiaty most of the households used pot filters (59.1 percent) (SMART Survey, June 2019). The low water treatment rates may be the cause of the water borne diseases reported in the community.

Hand washing at the four critical moments was 2.2 and 10.1 percent in Tiaty and Baringo North and South respectively. Those who used soap and water were 24.7 percent in Tiaty. In Baringo North and South, those who did hand washing using soap and water were 69.5 percent. The county latrine coverage up to June 2019 was 44.1 percent with East Pokot Sub County having the lowest at 3.2 percent. Open defecation was high across the livelihoods as evidenced by the SMART Survey data where 93.3 percent of the households in Tiaty Sub County relieved themselves in the bush or open field. In Baringo North, 27.2 percent were reported to be relieving themselves in the bush or open field.

3.4 Trends of key food security indicators

Table 7: Food Security Trends in West Pokot County

Indicator	Short rains assessment, February, 2019		Long rains assessment, July, 2019	
	% of maize stocks held by households (agro-pastoral)	118%		
Livestock body condition	Agro Pastoral	Good to fair	Agro Pastoral	Fair
	Irrigated cropping	Good	Irrigated Cropping	Good
	Mixed Farming	Good	Mixed Farming	Good
	Pastoral-all species	Fair to poor	Pastoral-all species	Fair
Water consumption (litres per person per day)	Agro Pastoral	12-15lpppd	Agro Pastoral	10-15 litres per person per day
	Irrigated Cropping	20-25lppd	Irrigated Cropping	20-25 litres per person per day

Indicator	Short rains assessment, February, 2019		Long rains assessment, July, 2019	
		Pastoral- all species	12-15 litres per person per day	Irrigated
	Mixed Farming	15-20 litres per person per day	Mixed Farming	15-20 litres per person per day
Price of maize (per kg)	Ksh.36		Ksh. 55.7	
Distance to grazing	Mixed Farming	1-4kilometers	Mixed Farming	<1 Kilimetre
	Agro Pastoral	4-13	Agro Pastoral	1-2 kilometres
	Pastoral	4-13 kilometres	Pastoral	3-4 kilometres
	Irrigated Cropping	1-4 kilometres	Irrigated Cropping	
Terms of trade (pastoral zone)			46	
Coping strategy index	13.5 Agro Pastoral-18.8 Pastoral-14.7 Irrigated Cropping-2.6		County-14.3 Agro Pastoral-27 Pastoral-14.5 Irrigated Cropping-4.3	
Food consumption score	Acceptable	80 percent	Acceptable	60.7
	Borderline	17 percent	Borderline	34.5
	Poor	3 percent	Poor	4.9

3.0 CROSS – CUTTING ISSUES

4.1 Education

4.1.1 Enrolment

In Early Childhood Development Centers, there were 25,621 boys and 25,699 girls in term one, while in term two there were 26,134 boys and 24,947 girls . This indicates an increase of 513 boys (2percent) in term two compared to term 1 while for the girls it shows a decrease of 752 (2.93percent) . Enrolment in term II was comparable to term I attributed to lack of feeding programmes, pastoral migration especially in Tiaty, long distances to schools and ill health. There were 2.3 percent more boys in term two compared to girls. In Primary School there were 74,420 boys and 70,034 girls in term I, while in term II there were 75,289 boys and 70,640 girls. The enrollment in primary remained relatively the same for both boys and girls. Currently, school meals programme by National government, faith based organizations and other well-wishers may have contributed to the retention noted in term II. Overall, there are 3.2 percent more boys compared to girls.

In Secondary school, in term I, there were 22,674 boys and 22,757 girls while in term II there were 22,168 boys and 22, 895 girls. The number of boys increased by 2.2percent in term II compared to term 1 while for the girls remained relatively the same. There are 1.6 per cent more boys compared to girls in the secondary schools.

4.1.2 Participation and Retention

On average monthly attendance in early childhood development Center was 16,000 pupils in the five months per day this shows a decrease due to lack of School Feeding programmes. In Primary 50,000 pupils were in school in the five months per day. This shows an increase due to food support from well-wishers especially in Tiaty. While in Secondary 21,000 students were in school in the five months per day. This shows a decrease due to early pregnancies and boda boda business. Generally there were minimal dropouts in term two compared to term one 2019 and this was reflected in terms of sickness, transfers and effects of long distance to school from their homes.

4.1.3 School meals programme

There are two types of school meals programme in the county namely:-Regular School Meals Programme supporting 115 primary schools in Tiaty Sub County and Home Grown School Meals Programme in 336 primary Schools in Baringo North, Baringo South, Mogotio and Baringo Central. In total the interventions supports 80,704 beneficiaries (41,444 boys and 39, 260 girls). 336 Primary schools that are under HGSMP have not received food for Term two.

Inter Sectoral links where available

Few schools have access to water pipeline connected to boreholes, dam (Kirandich, Chemususu, Kimao, Bartabwa). Some schools do roof catchment water harvesting, however, some have water storage facilities but do not have gutters and the tanks have not been installed. Most school get their water from directly fetching water seasonal rivers, water pans, boreholes. Sanitation is not adequate in most schools as there are no adequate hand washing facilities and toilets are not adequate.

Girls in all primary schools in the County receive sanitary towels from the office of National government through the affirmative action fund which has a direct positive impact on girls' attendance in schools. School performance is affected by availability and access to food at the household level.

4.0 FOOD SECURITY PROGNOSIS

5.1 Prognosis Assumptions

- According to FEWS NET/USGS preliminary forecast, the short rains season (October - December 2019) are likely to be average with timely onset as at October.
- The county meteorological department indicates that there are likely to be above average rains in the county in the July and August season
- Based on the long term trends of prices (NDMA data), the staple food prices are expected to be stable and be on a downward trend but remain within the seasonal norms as maize harvests from seed maize are expected as from August while goat prices are likely to remain within the long term averages.
- Terms of trade are likely to remain low especially in the pastoral livelihood zone but remain within the seasonal normal precipitated by the changes in maize and goat prices as from August for the next three months.
- Based on analysis of the current forage condition and the expected rainfall, pasture and browse are 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.

5.2 Food security Outlook (August-October)

Pasture and browse conditions in the county are likely to be good following the anticipated July-August rainfall and as such the livestock body condition is expected to improve across all livelihoods. Improved livestock productivity in terms of availability of milk and meat at household

level is likely to be witnessed following anticipated minimal migrations. Water availability and accessibility is expected to improve across the livelihoods and households are likely to consume more than 15 litres per person per day.

In terms of food accessibility, it is likely that food is likely to be physically available in the markets and that the prices for maize which is the staple food are anticipated to remain stable following the anticipated harvest as from August. Livestock prices may increase as a result of good body condition of the livestock and thus the purchasing power of households is expected to remain favourable through the three months under review. Food consumption patterns are likely to be improve as food will be readily available and accessible during this time and as such the nutrition status for the children under fives is likely to improve. No significant changes are expected in the livelihood coping strategies. No significant changes are expected in the mortality rates for the children under five years of age and the general population. The food security situation is likely to improve and as such some of the households that are currently classified as Stressed (IPC Phase 2) are expected to move to None/Minimal (IPC Phase 1) as from October 2019

5.3 Food security Outlook (November - January)

Livestock body conditions and productivity are expected to remain above normal following the expected continued rains in the July- August rains that will sustain the good forage condition across the livelihoods. The average performance of the October-December rains is also likely to sustain the livestock productivity further leading to increased milk production making it available for consumption at the household level. Water resources are likely to be fully recharged and as such water is likely to be available and accessible to the households for domestic consumption.

Staple food prices are anticipated to remain stable as livestock prices slightly improve as per the seasonal trends. Consequently, terms of trade are expected to improve slightly and remain favourable for the livestock farmers enabling households to have good household purchasing power and access to food until December. In January however, the prices are likely to come down as a result of oversupply in the market as households are likely to be selling their animals to meet other household needs such as school fees. The proportion of households having acceptable food consumption scores are expected to increase following the available household stocks and favourable terms of trade. No significant changes are expected in the coping strategies and mortality rates. Nutrition status is likely to improve following availability of milk and other food at household level. More households that are currently classified as Crisis (IPC Phase 3) are expected to move to Stressed (IPC Phase 2) as at December 2019.

5.0 CONCLUSION AND INTERVENTIONS

6.1 Conclusion

6.1.1 Phase classification

The Phase Classification in the mixed farming and irrigated cropping livelihood zone is None/Minimal (IPC Phase 1) while the agro pastoral livelihood zone is 'Stressed' (IPC Phase 2). The pastoral livelihood zone particularly in Tiaty, it is classified in Crisis (IPC Phase 3).

6.1.2 Summary of Findings

The long rains were cumulatively near normal however, temporal distribution was poor and spatial distribution was poor. Crop production is projected to be near normal with harvests from seed

maize expected as from August. In the pastoral livelihood zone, food availability in the markets is short termly below normal however, this is expected to change following the anticipated harvests from the irrigated cropping livelihood zone. Currently, households in the mixed farming livelihood zones have maize stocks sufficient to last for the next three months. Terms of trade are average in the mixed farming, irrigated cropping and agropastoral livelihood zone but below normal in the pastoral livelihood zone thus households in this livelihood zone are having a challenge in financial accessibility despite the physical availability of food in the market. In areas of Loruk, in Baringo North however, both physical and financial access is a limiting factor as there are no market activities going on. Water availability, access and utilization is normal for the households in the mixed farming and irrigated cropping livelihood zones while consumption in the agro pastoral and pastoral livelihood zones is 10-15 litres per person per day a reduction from 15-20 litres per person per day. Livestock diseases reported in the county were endemic and thus are short-termly making households to be vulnerable by stressing the livelihoods. Food consumption patterns were good in the irrigated cropping, mixed farming and agropastoral livelihood zone as more than 80 percent of the households had acceptable food consumption scores. In the pastoral livelihood zone however, food consumption was borderline as more evidenced by the 35.3 percent who had borderline food consumption scores. Reduce coping strategy index indicated that households were employing stressed strategies and this is considered normal for time of the year. Nutrition status is still ‘Serious’ in Baringo North and South based on weight for height z-scores while it is at ‘Critical’ levels in Tiaty sub county in the pastoral livelihood zone. Utilization pillar is a challenge as evidenced by the low latrine coverage, poor sanitation practices and the low hygiene levels exhibited by the households.

6.1.3 Sub-county ranking

Sub County	Food security rank (Worst to Best) (1-10)	Main food security threat (if any)
Tiaty	1	<ul style="list-style-type: none"> - No pasture and browse - Inadequate water availability - Livestock diseases - High malnutrition rates - Poor sanitation and hygiene practices
Baringo North	2	<ul style="list-style-type: none"> - Livestock Migrations and Livestock deaths - Inadequate pasture and browse - Resource based conflicts - Erratic Rainfall
Baringo South	3	<ul style="list-style-type: none"> - Water quality - High malnutrition rates - Insecurity
Mogotio	4	<ul style="list-style-type: none"> - Good rainfall performance - Water availability and accessibility - High crop production
Baringo Central	5	<ul style="list-style-type: none"> - Good purchasing power - Water availability and accessibility - Livelihood diversified

Eldama Ravine	6	<ul style="list-style-type: none"> - Food availability, access and utilization - Good rainfall performance - Milk production is high
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6.2 Interventions

6.2.1 Ongoing Interventions

- **Food interventions**

There is regular school meals programme (RSMP) and home grown school meals programme (HGSM) in the county which benefits 80,704 pupils (41,444 boys and 39,260 girls). Food aid in all livelihood ones by the Government of Kenya and Kenya Red Cross Society (GOK/KRCS). A total of 4,660 households were reached with maize- 88,248 kilograms (kgs), Beans- 38,000 kilograms (38.0 metric tonnes) and Cooking Oil- 540 liters.

Non-food interventions

Intervention	Specific Location	Cost	No. of beneficiaries		Implementation Time Frame	Implementation stakeholders
HEALTH SECTOR						
			Male	Female		
Micro nutrients supplementation (Vitamin A, Zinc)	All health facilities, selected ECD & community Health Units All health facilities.	3,067,000	84,200	85,545	Routine	MOH supported by UNICEF, WVK & AfyaUzazi. BCG(DHS).
Management of Acute Malnutrition (IMAM)	100 health facilities Surge at 8 health facilities in East Pokot.	231	52,600	54,892	Routine.	BCG(DHS) supported by, UNICEF and WVK.
IYCN Interventions (EBF and Timely Intro of complementary Foods)	All health facilities and community units	1,000,000	52,600	54,892		BCG(DHS) supported by AfyaUzazi.
Iron Folate Supplementation among Pregnant and Lactating Women.	All health facilities offering ANC services	500,000		30,944	Routine.	BCG(DHS) supported by WVK, UNICEF
Deworming	All health facilities ANC	200,000	33,683		Routine.	BCG(DHS) supported by WVK, UNICEF & AfyaUzazi
AGRICULTURE SECTOR						
Integrated and sustainable food production systems	All wards	20m	20000 households		July – December 2019	Department of Agriculture, Livestock and Fisheries, Department of Water, WFP

Construction of grain store at Bartolimo	Kabartonjo	5M	1000 Households	2018/2020	Baringo County Government-Department of Agriculture
Provision of certified avocado seedlings	18 wards		5000 Households	2019/2020	State department of Irrigation and Baringo County Government-Department of Agriculture NIB-Perkerra
Control of FAW through sensitization and supply of demonstration Materials (Traps, pheromones, and chemical and spray)	All Wards	2M	20,000Households	2018/2020	Baringo County Government-Department of Agriculture Plant Protection services department (PPSD) FAO
Agribusiness Empowerment project	All wards	45M	90 youth groups in Agribusiness		WFP, Baringo County Government
Soil and water management- RLACC	Barwessa /Bartabwa wards	50 m	3000	2 yrs	MOALF/MOE
Farm Ponds Development	All wards	500m	10000 HH	Continuous	State Department of Irrigation, County Government Of Baringo
Rehabilitation of Kiboi irrigation scheme and construction of Kaptiony-Kiboi dam	Barwessa	750M	800	5years	MOALF
Distribution of 38,000 coffee seedlings	Kabarnet, Kapropita, Ewalelchapchap, Sacho, Tenges, Mogotio, Koibatek, Mochongoi	2 Million	8000	2018-2019	State department of crops development, Baringo county Government-Department of Agriculture
LIVESTOCK SECTOR					
Provision of Sahiwal bulls for upgrading purposes-10 bulls	county-wise	1.0M	1,200HH	Jul2019-Jul 2021	
Disease control (vaccinations against FMD, CPP, Blanthrax, PPR)	County-wise	30M	PPR-750,000 FMD-100,000 58,077 shoats	Mar,2019-Aug,2019	MOALF, CGB RPLRP
Provision of pasture seeds (1 Ton)	Baringo south, Baringo north, Tiaty, Baringo central, Mogotio	2.M	200HH	Mar,2019-Jul, 2019	MOALF, BCG
Provision of fencing Material to PFS (6)	Baringo South Baringo Central	2M	200HH	Mar,2019-Jul, 2019	MOALF, BCG

	Mogotio				RPLRP
Provision of incubators to groups and day old chicks to groups	Baringo South Baringo Central Mogotio	5M	10,200HH	Mar,2019- Jul, 2019	MOALF, BCG RPLRP
WATER					
Water trucking	Institutions	1.5 M	30 Institutions	1 -3 Months	BCG, GDC, WV, NDMA
BH rehabilitation	Community Water supplies	25M	3580HH	1 – 3 Months	BCG, NG, RCS, ACTED, ACTIONAID, GDC
Water Boozer servicing and repair	3 Sub counties	1M	County	1 – 3 Months	BCG, NG, NDMA
Capacity building on water management	County	1M	3 Sub counties	1 – 3 Months	KRCS, WV, ACTED, ACTIONAID, WFP, UNCEF
Water supplies Rehabilitation and upgrading	County	90M	2160 HH	1 – 6 Months	BCG, NG, KRCS, WV, UNCEF, WFP, CIM, NDMA
Rehabilitation of BHs	County	72M	1670 HH	1 Year	BCG, NG, KRCS, WV, UNCEF, WFP, CIM, NDMA
Drilling and Equipping of BHs	County	33M	2620 HH	1 Year	BCG, NG, KRCS, WV, UNCEF, WFP,
Capacity building on water management and Catchment protection	County	4.5M	2130 HH	1 Year	BCG, NG, KRCS, WV, UNCEF, WFP, CIM, NDMA
EDUCATION SECTOR					
Dairy Production	Kaptara Primary school	200,000	350 (195 Boys, 155 girls)	2019-2020	Board of management Ministry of Agriculture, Ministry of education
Mango production	Kaptara Primary school	500,000	450 (195 Boys, 155 girls)	2019-2024	Board of management Ministry of Agriculture, Ministry of education
Hay Production	Loruk Primary School	50,000	500 (Boys 260, 240 girls)	2019-2022	Board of management Ministry of Agriculture, Ministry of education
Apiculture	Chepnyorgin Primary	30,000	290 (150 Boys, 140 girls)	2019-2025	Board of management Ministry of Agriculture, Ministry of education

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

6.2.2 Recommended Interventions

• Food interventions

Sub county	Population	Proposed Percentage of people in need	Remarks/ Modality (Wards)
Tiaty	168,703	20-25%	CFA
Baringo North	118,797	10-15%	CFA
Baringo South	106,722	10-15%	CFA
Mogotio	60,962	5-10%	CFA
Baringo Central	98,918	0%	CFA
Eldama Ravine	149,594	0%	CFA

• Non-food interventions

Sub County /Ward	Intervention	No. of beneficiaries	Proposed Implementers	Required Resources	Available Resources	Time Frame
HEALTH SECTOR						
All	Mass screening	80 sites	BCG(DHS), AfyaUzazi, KRCS, WVK Beyond zero clinics Catholic mission	3M	240,000	July-Oct 2019
East Pokot, Baringo North, Marigat & mogotio	Integrated medical outreaches	40 hotspot sites	BCG(DHS), AfyaUzazi, KRCS, WVK Beyond zero clinics Catholic mission	5M	0.3M	July-Oct 2019
All	Purchase and distribute water treatment drugs		BCG(DHS), AfyaUzazi, KRCS, WVK	1.48M	480,000	July-Oct 2019
AGRICULTURE SECTOR						
ALL	Increase in provision of farm inputs to farmers (seed, planting and top dressing fertilizers)	8000HH	-MOALF	-Funds to buy seed and fertilizers -technical personnel to train farmers cost: 50 M	-technical personnel to train farmers	1 year Jan. - Nov. 2017
ALL	Water Harvesting for household food security- Farm ponds and equipping existing	10000HH	Ministry of Agriculture Livestock and Irrigation,	Funds, Technical personnel Cost:1bn	Technical personnel	2018-2022

	ones and irrigation schemes		Baringo County Government, WFP, Development partners			
ALL	Post –Harvest technologies promotion	20,000HH	MOALFI, Baringo County Government and stakeholders	Funds cost: 10m	Technical staff	One year
All	Support youth engagement in Agribusiness project	60 youth groups in Agribusiness	County Government of Baringo Department of Agriculture, Livestock and Fisheries, WFP,	Funds 24m	Technical officers	July – December 2019
ALL	Control of FAW through sensitization and supply of demonstration Materials and training (Traps, pheromones, and chemical and sprayers)	25000 Households	Baringo County Government-Department of Agriculture Plant Protection services department(PPSD) FAO	3Million	Technical Officers	July-December 2019
LIVESTOCK SECTOR						
- BaringoNorth -Tiaty -Baringo - South Mogotio	Provision of pasture seeds	1,500HH	BCG(MOALF),Nat. Govt.(RPLRP) NDMA	10M	-	Aug, 2019- Dec, 2019
Mogotio, Marigat(Blue tongue) All areas (FMD)	Disease control(vaccinations against, RVF,CCPP Disease surveilliance	Countywide	BCG, National government and Development partners	8M	2M	Aug, 2019- Dec, 2019
-Baringo North -Tiaty -Baringo - South Mogotio	Establishment of strategic livestock feed reserves; 3 in Tiaty, 2 in Baringo North 2 in Baringo south and 1 in Mogotio	41,500 HH	MOALF BCG NDMA(EU) Partners	54.088 M	-	Aug 2019- Dec,2012
All sub-county	Hay harvesting and baling machinery 1 per sub-county	41,500HH	BCG RPLRP KCSAP	60M	-	Aug 2019- Dec,2012
WATER SECTOR						
Community Water Supplies in Pastoral, Agro-Pastoral and Marginal mixed farming Zones	Rehabilitation / Servicing of pumping units	2640HH	BCG, NG, KRCS, WV, UNCEF, NDMA, WFP, ACTED, ACTION AID, ADS,	43M	-	1- 3 months

Community Water Supplies in Pastoral, Agro-Pastoral and Marginal mixed farming Zones	Roof Water harvesting structures 10,000ltrs PVC tanks	120 Vulnerable Institutions / Communities.	BCG, NG, KRCS, WV, UNCEF, NDMA, WFP, ACTED, ACTION AID, ADS, FINN CHURCH AID	12M	-	1-3 months
Community Water Supplies in Pastoral, Agro-Pastoral and Marginal mixed farming Zones	Stock piling of Fast-Moving Spares 23 community water supplies	1200HH	BCG, NG, KRCS, WV, UNCEF, NDMA, WFP, ACTED, ACTION AID, ADS	7M	-	1-5 months
Community Water Supplies in Pastoral, Agro-Pastoral and Marginal mixed farming Zones	Water Bowser servicing and repairs including Motor vehicle tyres provision	4 Sub counties	BCG, NG, KRCS, WV, UNCEF, NDMA, WFP, ACTED, ACTION AID, ADS	5M	-	1-5 months
Community Water Supplies in Pastoral, Agro-Pastoral and Marginal mixed farming Zones	Capacity building on WASH / Water Management and Catchment protection	Whole county	BCG, NG, KRCS, WV, UNCEF, NDMA, WFP, ACTED, ACTION AID, ADS, CIM	10 M	-	1-5 months
Across all livelihoods in most vulnerable Wards	Drilling and Equipping of 12 strategic BHs along migratory routes and settlement areas	2300HH	BCG, NG, KRCS, WV, UNCEF, NDMA, WFP, ACTED, ACTION AID, ADS, CIM	90M	15M	1 - 5 yrs
Community Water Supplies in Pastoral, Agro-Pastoral and Marginal mixed farming Zones	Construction and Rehabilitation of 10 potential water supplies	3800HH	BCG, NG, RCS, WV, UNCEF, NDMA, CIM, WFP	80 M	20M	1 – 5 yrs

Potential sites within the county to serve the low lands	Construction of 4Small dams for domestic and irrigation water use	12,000HH	BCG, NG, RCS, WV, UNCEF, NDMA, CIM, WFP	800M	30M	1 -5Yrs
Community Water Supplies in Pastoral, Agro-Pastoral and Marginal mixed farming Zones	Capacity building on Wash/ Water management/Resources Mobilization /Conflict resolution and management and Catchment protection	1600HH	BCG, NG, RCS, WV, UNCEF, NDMA, CIM, WFP	20M	-	1 - 5Yrs
EDUCATION SECTOR						
County wide	Roof water harvesting in schools	52 schools (10, 450 pupils and students)	Ministry of water, Ministry of Education. NDMA , Rift valley water works development Authority	6,760,000	1,300,000	2019-2020
County wide	School meals programme in primary schools	336 schools (80,704 pupils)	WFP, Ministry of Education	66,580,800		2019-2020
County wide	School meals and nutrition programme in ECDE	51,320 (25,621 boys, 25,699 girls)	WFP, Ministry of Education, County government, County educational and vocational training department	92,376,000	16,000,000	2019-2020