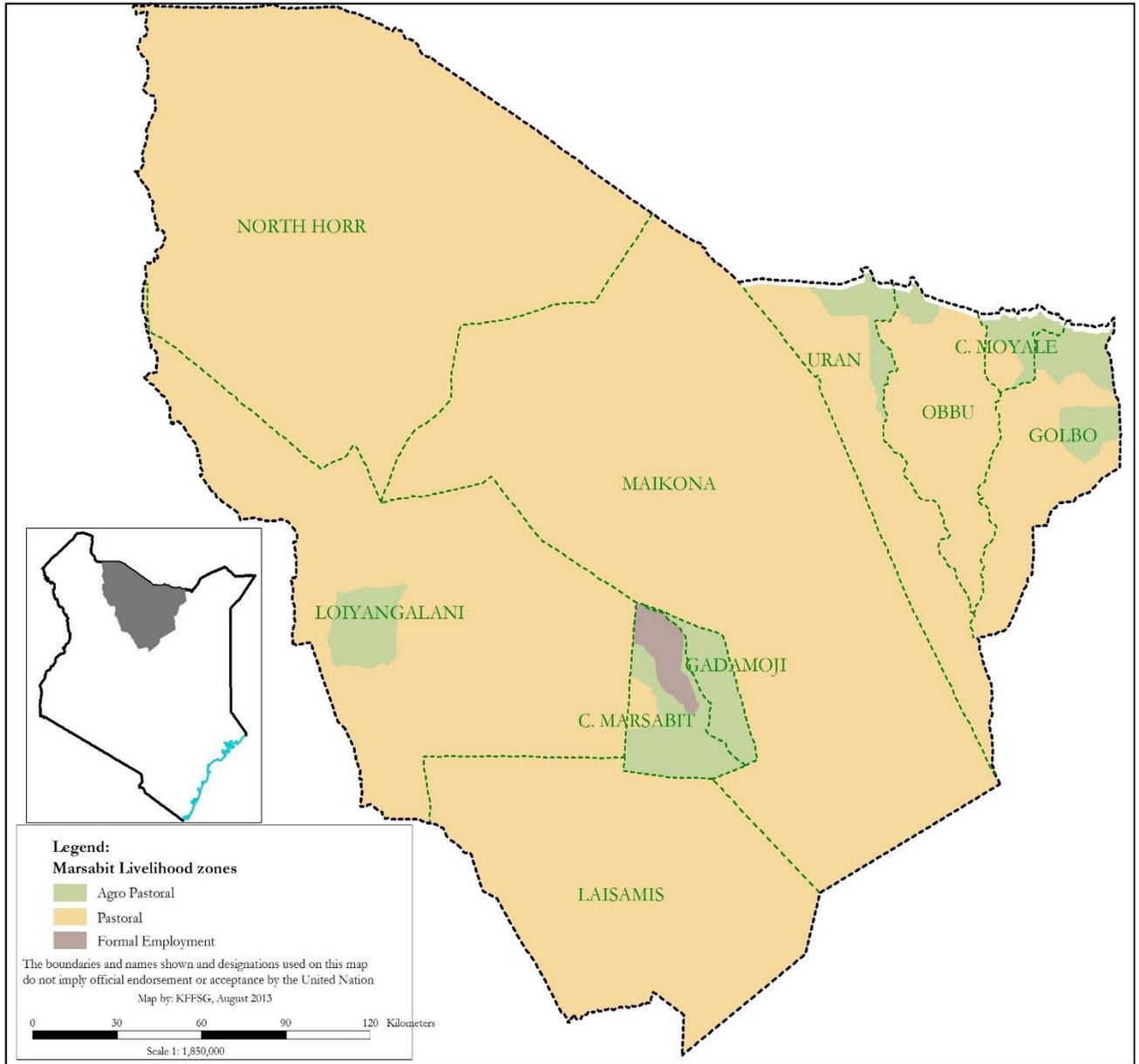


**MARSABIT COUNTY
2018 SHORT RAINS FOOD SECURITY ASSESSEMENT REPORT**



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

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Executive Summary

The short rains food security assessment was carried out in the county through the support of Kenya Food Security Steering Group in conjunction with the county steering group. The assessment is bi annual and mainly covers the agro pastoral and pastoral 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 October-December (OND) 2018 rains.

The situation analysis was done using both quantitative and qualitative methods and provided recommendations for responses. The 2018 short rains were below average resulting to a decline in crop performance in the agro pastoral livelihoods. The rains marginally improved livestock productivity. Pasture regeneration was below average, however the effects of the March to May 2018 long rains which was above normal sustained the situation. Other drivers of food and nutrition insecurity included; recurring insecurity and resource based conflicts and pests and diseases for both crops and livestock. Livestock body conditions were good to fair across all the livelihood zones. Distances to household water sources increased compared to the long term average resulting to less than 10 litres of water per person per day household consumption.

Market operations were normal. The prices of staple food were below the five-year average while goat prices were above the long term average. Morbidity trends in the season for the most prevalent diseases in the county was upper respiratory tract infections which increased by 92 percent compared to the same period in 2017. In January 2019, 79.1 and 68.1 percent of the households in the agro pastoral and pastoral livelihood zones had acceptable food consumption scores respectively, compared to 54.4 and 67.9 percent in the same period in 2018. In pastoral livelihood zones, reduced coping strategy index (rCSI) in January 2019 was stable at 18, while the index worsened in agro pastoral areas from 17.3 in January 2018 to 21.3 in the same period in 2019. The crude mortality rate for both under-fives and general population was below the alert levels. Marsabit County is classified in Stressed Food Insecurity (IPC Phase 2).

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1.0 INTRODUCTION

1.1 County Background

Marsabit County is located in the Northern part of Kenya and borders Turkana County to the West, Samburu County to the South, Wajir County to the East and Ethiopia to the North. The county covers an estimated area of 75,750 square kilometres (km²) with a population of 315,936 people (KNBS projections 2016). The county is divided into four administrative sub-counties namely Moyale, North Horr, Laisamis and Saku. There are two main livelihood zones in the county with pastoral

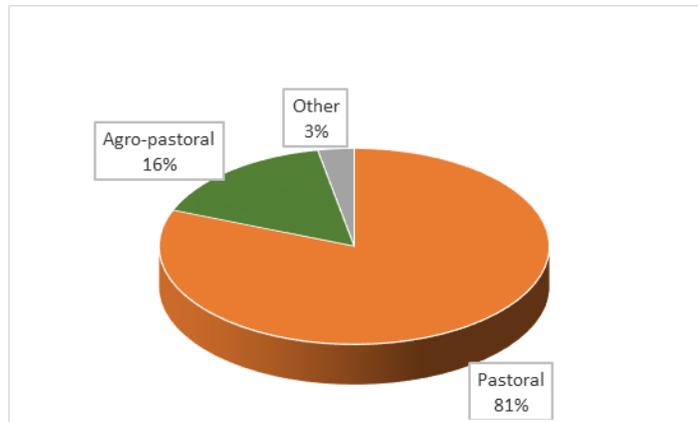


Figure 1: Population by livelihood zones

constituting 81 percent and agro-pastoral with 16 percent of the population. Other livelihood zones represent three percent of the population (Figure 1). The main source of cash income is livestock production contributing 82 percent in the pastoral livelihood zone and 60 percent in the agro-pastoral livelihood zone. Food crop production comes second in the agro-pastoral livelihood zone contributing 20 percent of cash income while in the pastoral zone, formal waged labour and petty trade contribute to 11 percent of cash income.

1.2 Methodology and Approach

The main aim of short rains assessment was to develop an objective, evidence based and transparent food and nutritional security situation following the performance of short rains in October to December 2018. The analysis took into account the cumulative effect of previous seasons and provided recommendations for possible response options based on the situation analysis. The assessment exercise was conducted from 11th to 22nd February 2019. A multi-sectoral and multi-agency approach lead by Kenya Food Security Steering Group and technical experts from the Departments of Agriculture, Livestock, Water, Education and Health and Nutrition from the National and County Steering Group including non- governmental organizations (NGOs) from both the National and County level were involved. The process involved compilation of various secondary data such as livelihood, nutritional smart surveys, NDMA monthly surveillance bulletins, sectoral reports, price data among others. Technical departments presented their quantitative data through filled checklists and also gave sectoral briefs during the county steering group meeting.

Field teams were constituted to represent various sectors and partners in the county. Primary data was collected through field semi-structured interviews with officials and experts, market interviews, community interviews and or focal group discussions held across the county, visual inspection techniques were used in collection of data. Sampling was done based on various criteria such as below or average rainfall performance, conflict areas, sites that had never been visited before, farming/livestock areas, livelihood zones, markets, hospitals, schools, water stress areas, livestock concentrations areas among others. Transect drives and interview sites covered all the livelihoods in the county. A minimum of eight interview sites were sampled across all the

livelihood zones. The data was collated, analyzed and triangulated together with the secondary data. The analysis unit was livelihood and the integrated food security phase classification (IPC) protocols were used in the classification of the severity and identification of the causes of food insecurity in the county.

2.0 DRIVERS OF FOOD AND NUTRITION SECURITY IN THE COUNTY

2.1 Rainfall Performance

The onset of the short rains was normal and timely in the second dekad of October. The central part of the county received 51-75 percent of the normal rainfall. The areas around the central part of the county received 76-90 percent of the normal rainfall. Parts of Moyale and Laisamis sub-county (Logologo, Laisamis, South Horr, Arapal and Mt. Kulal) received 91-110 percent of the normal rainfall. Parts of Lontolio and Laisamis received over 110 percent of the normal rainfall. The rainfall station in Moyale recorded 98.9 millimeters of rain in eight days. In Marsabit Mountain, 73.6 millimeters of rains were received in seven days. The spatial and temporal distribution of the rainfall was uneven and poor (Figure 2). The cessation of the short rains occurred in the second dekad of December across the county which was normal.

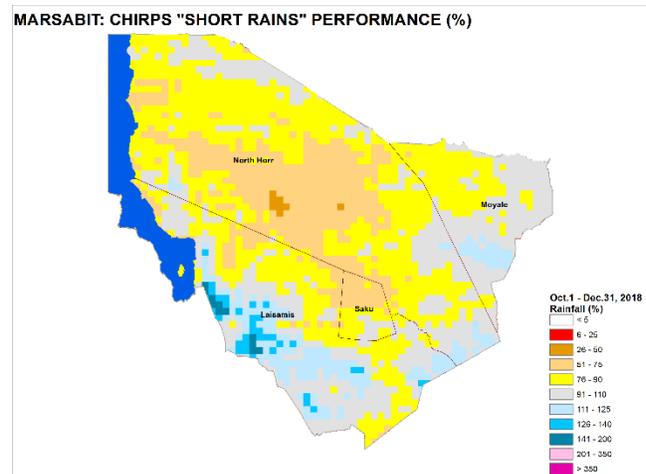


Figure 2: Rainfall Performance

2.2 Insecurity/Conflict

Resource based conflicts were reported in Saku Sub county (Jaldesa, Kubi Qallo and Sagante), North Horr (Ele Dimtu, Ele Bor, Idhidho, Turbi, Forole and Bales Saru), Moyale Township and settlements along Kenya/Ethiopia Border. In Loiyangalani, Samburu and Turkana herders confronted over rangeland resources resulting to deaths of two Turkana herders. In Sarima, South Horr, at Laga Saba, fall back region for livestock during dry season, access to pastures was limited due to fear of the livestock being stolen by the rival community. Households displaced in Garworle and settled at Konon Idha were in need of food and water. At south west of Dukana Buluk water, point a fall back for nomadic herders frequent livestock thefts has resulted to conflicts between Gabra, Dasnach, Borana, Arbore and Hamer communities. The conflicts adversely affected pasture and water access and also led to loss of human life in Saku.

2.3 Other Shock and Hazards

About 115 camels and 298 small stock died as a result of drinking water from contaminated wells in El-Hadi-North Horr sub-county. Outbreaks of Fall Army Worm in maize and massive destruction of crops by Elephants in Karare Ward were reported resulting in a declined maize production. High morbidity was reported due to increased epidemic and water-borne diseases in humans. (Table 1).

Table 1: Epidemic and water-borne diseases in human

Disease	July to December 2018
Measles	3
Dysentery	1,032
Diarrhea	20,026
Malaria	1,321
Typhoid	2,364

3.0 IMPACTS OF DRIVERS ON FOOD AND NUTRITION SECURITY

3.1 Availability

Livestock production contributes to food availability in the County. Livestock productivity is determined by the availability and condition of forage, livestock body condition and ownership. In crop production, food stocks and market reliance contribute to availability of food at household level.

3.1.1 Crop Production

The short rains contribute to 70-80 percent of annual crop production while long rains only account 20-30 percent. Food crop production contributes 20 percent of cash income in the agro-pastoral livelihood zone. The main crops grown under rain fed were maize, beans and green grams. Maize contributes 30 percent to food and 22 percent to cash income in the agro-pastoral livelihood zone while beans contribute 20 percent to food and cash income each. The area under rain maize and beans reduced by 17 and 20 percent respectively compared to the long term averages (LTA). The reduction was attributed to the limited access and high cost of labour clear bush and weed during land preparation resulting to late land preparation as well as lack of certified seeds for pulses. The area under green grams increased by 100 percent compared to the LTA following the provision of certified seed by the county government. The production of maize is projected to decline by 60 percent compared to the LTA. The actual production of beans declined by 20 percent compared to the LTA (Table 2). The projected decline in maize and actual decline in beans was associated with inadequate and poorly distributed rainfall thereby affecting the physiological maturity especially in Saku and Moyale sub counties. Insufficient and untimely weeding operations and expensive farm labour, outbreaks of pests such as Fall Army Worm in maize and massive destruction of crops by Elephants in Karare Ward as contributed to declining crop harvests. The production of green grams increased by 13 percent compared to the LTA due to increased acreage.

Table 2: Rain Fed Crop Production

Crop	Area planted during 2018 short rains season (Ha)	Long Term Average area planted during the short rains season (Ha)	2018 short rains season production (90 kg bags) Projected/Actual	Long Term Average production during the short rains season (90 kg bags)
1.Maize	800	960	2,750	6,920
2. Beans	320	400	2,320	2,900
3.Green grams	100	50	136	120

The main crops grown under irrigation are tomatoes and kales. The area under tomatoes and kales declined by 40 and 12.5 percent respectively compared to the LTA. The decline in the area planted was associated with the stalling of Kurungu Irrigation Scheme and due to the constant

break down of the intake at the irrigation system. The projected production is expected to decline by 46 and 30 percent compared to LTA respectively. The decline is associated with stalled irrigation farms as a result of the breakage of piping and low water discharge. Production of tomatoes and kales is also expected to decline due to non-operational greenhouses, inadequate skills in greenhouse management, lack of herbicides/chemicals and certified seeds.

3.1.2 Cereals Stock

There are low volumes of stocks held in the county. Stocks held by farmers and traders declined by 71 and 23 percent compared to the LTA as a result of reduced production (Table 3). Maize stocks held by farmers are expected to marginally increase once harvesting has been completed. Most households rely on markets for the purchase of cereal stocks.

Table 3: Stocks held in the county

Commodity	Maize		Rice		Sorghum		Millet		Total	
	Current	LTA	Current	LTA	Current	LTA	Current	LTA	Current	LTA
Farmers	2,600	10,000	550	900	30	60	20	25	3,200	10,985
Traders	4,000	5,500	1,500	1,650	50	100	30	40	5,580	7,290

3.1.3 Livestock Production

The main livestock reared are cattle, goats, sheep, camels and donkeys. The main source of income in the county was livestock production. Livestock production contributes about 80 percent of cash income in the pastoral livelihood zone and 60 percent of cash income in the agro-pastoral livelihood zone.

Pasture and Browse Situation

Pasture conditions were fair across all the livelihood zones compared to good to fair normal (Table 4). Pastures were fair in the pastoral areas of Lontolio, Merille, Korr, Kargi, Sarima, Loiyangalani and Laisamis in Laisamis Sub County. However, pastures were of good conditions around Mt. Kulal, South Horr and Olturot. In the pastoral areas in North Horr, especially in Kalacha, Maikona, Balesa, Dukana, El-Besso, Gas and Malabot, pastures were of poor conditions. However, pastures were fair in Shurr, Turbi, Huri Hills. The invasion of the non-palatable *Calotropis Procera* in North Horr and Laisamis has reduced available pastures, while tree locusts have reduced amount of browse available. Infestation of armyworm/grasshoppers were reported in parts of the pastoral livelihood zone especially in Ndikiri. Access to pastures and browse was limited in the dry season grazing areas of Sarima, South Horr and Laga Saba due to insecurity.

Livelihood zone	Pasture					Browse				
	Condition		How long to last (Months)		Factors Limiting access	Condition		How long to last (Months)		Factors Limiting access
	Current	Normally	Current	Normally		Current	Normally	Current	Normally	
Pastoral	Fair	Fair	3	3	Insecurity, Water, Disease	Good	Good	3	4	Invasion by grasshoppers
Agro-pastoral	Fair	Good	3	3	Water, Insecurity	Good	Good	4	4	None

Livestock Productivity

Livestock Body Condition

In the pastoral and agro pastoral livelihood zones, the body condition of cattle was good to fair compared to good at this time of the year. Livestock body condition for cattle was fair in southern parts of Laisamis sub-county, Dukana and Elhadi in North Horr sub-county and parts of Karare in Saku sub-county which was attributed to long distances from dry grazing areas to water points. The body condition of goat, sheep and camel was good across the livelihood zones (Table 5). Livestock body conditions are expected to worsen in one month due to diminishing pastures and browse, reduced water availability and increased trekking distances.

Table 4: Livestock Body Conditions

Livelihood zone	Cattle		Sheep		Goats		Camel	
	Current	Normal	Current	Normal	Current	Normal	Current	Normal
Pastoral	Fair	Good	Good	Good	Good	Good	Good	Good
Agro-pastoral	Good	Good	Good	Good	Good	Good	Good	Good

Tropical Livestock Units (TLU) and Birth Rates

In the agro pastoral livelihood zone, poor income households had 1-2 tropical livestock units compared to 2-4 normally (Table 6). The reduced TLUs was associated with livestock losses during the 2016/2017 period as well as previous drought where significant livestock deaths. Birthrates were normal in sheep, goats and camels during the short rains season. However, it was important to note that current birth rates were attributed to a better previous long rains season.

Table 5: Tropical Livestock Units

Livelihood zone	Poor income households		Medium income households	
	Current	Normal	Current	Normal
Agro-pastoral	1-2	2-4	5-8	10-15
Pastoral	2-5	4-7	8-10	15-20

Milk Production and Consumption

In the pastoral livelihood zone, milk production was 1-2 litres compared to 2-4 litres normally (Table 7). Higher milk production was reported in the dry grazing areas. A few lactating stocks especially camels and goats were available near homestead to provide milk to the households. Households in the pastoral and agro pastoral livelihood zones consumed less than one litre of milk compared to 1-2 litres normally. Processed or powdered milk was used in some households. Milk retailed at an average of Ksh.60-80 per litre across the livelihood zones. However, in Moyale, Marsabit, Laisamis and parts of Karare, milk retailed at Ksh.70-100 per litre. The increase in milk prices was occasioned by the migration of livestock to the dry grazing areas.

Table 6: Milk Production and Consumption

Livelihood zone	Milk Production (Litres)/Household		Milk Consumption (Litres)per Household		Prices (Ksh)/Litre	
	Current	LTA	Current	LTA	Current	LTA
Pastoral	1-2	2-4	0.5-1	1-2	100	60
Agro-pastoral	0.5-1.5	3	>0.5	2	70-120	60-100

Livestock Migration

Livestock migration to dry grazing areas has been reported across all the livelihood zones which was normal at this time of the year. In Laisamis sub-county, livestock migrated towards Korr-Lontolio to Merille while others were reported to have migrated to Korr-Oldonyo Mara-Mt. Kulal and Koya. Livestock also moved from Laisamis to Soriadi and Gudas while other moved from Kargi to Maikona and from Loiyangalani to Moite. There were movements from Laisamis ward towards Baragoi, Sabarwawa, Sereolipi, Archer's post and Wamba in Samburu County whereas others have migrated towards Belesabiliqo conservancy in Isiolo County. Other migratory routes in Moyale sub-county included Korondile (Wajir County) through Dabel-Bute (Wajir County) through Watiti-Golbo ward. Other livestock have moved from Southern Ethiopia towards Uran, Obbu, Butiye and Golbo wards. In North Horr sub-county, livestock from Elhadi, Balesa and Dukana migrated towards Ito, Tao, Garwole and Bales Saru while those in Elbesso, Qorqa, Malabot, Gas have moved to Sarima. Livestock moved in search of pasture and water, escape disease incidences and avoid conflict-prone areas which was normal at this period.

Livestock Diseases and Mortalities

Diarrhoea cases were reported in sheep and goats across the livelihood zones. *Peste des Pettis Ruminants* (PPR) was reported in North Horr and Saku sub counties resulting in calves/goats scoured leading to acute deaths. Foot and Mouth was reported in Loiyangalani/Kulal ward and Ngororoi part of Laisamis areas. Contagious Caprine Pleuropneumonia (CCPP) as well as sheep and goat pox became endemic in sheep and goats. Tick borne diseases and parasitic infections were reported across the livelihood zones. Tsetse fly infestation was reported in Ngororoi areas. Abortions in camel were also reported in Shurr (North Horr). The veterinary department and other partners continued to carry out disease surveillance and collection of samples for laboratory analysis and disease diagnosis, treatment across the livelihood zones. Mortalities were normal across all livestock types except in camels due to disease incidences. In El-Hadi-North Horr sub-county, 115 camels and 298 small stock were reported to have died as a result of drinking water from contaminated wells.

Water for Livestock

The main water sources were boreholes, shallow wells and springs in pastoral livelihood zone and water pans and boreholes in the agro-pastoral livelihood. Water pans/dams and some shallow wells dried up due to below average recharge resulting in pressure on boreholes. Some boreholes were salty thereby used for livestock only. The return distance to water for livestock doubled across the livelihood zones. Distances increased to 15-30 km from 10-15 km normally in the pastoral livelihood zone while in the agro-pastoral livelihood distances increased to 10-20 km from 5-10 km normally (Table 8). The return distances are likely to increase further due to drying up of water sources as result of high concentration of livestock. Livestock in North Horr (Elhadi, Elbesso, Hurri Hills, Anchacha, Kubiadhi) and Laisamis areas trekked longer distances up to 20 km due to dried up water sources and far dry grazing areas. High concentration of livestock was observed in Kalacha, Ririma borehole, Parkison water point, and Ngororoi springs. On average cattle were watered after every two days; sheep and goats three days and camels after every seven days across the livelihood zones. Water frequencies have decreased due to increased trekking distances compared to similar periods. In Forole areas (Ele Dimtu, Ele Borr and Idhidho), herders from either side of Kenya and Ethiopia have concentrated around Ala Borr and

Forole water points (borehole) where cases of livestock theft and livestock strays were reported. Conflicts adversely affected access to water, especially in Kenya and Ethiopia borders.

Table 7: Water for Livestock

Livelihood zone	Return trekking distances (Km)		Expected duration to last (Months)		Watering frequency (Days)	
	Current	Normal	Current	Normal	Current	Normal
Agro-pastoral	10-20	5-10	>1	2	Cattle: 2 Sheep and goats: 4 Camel: 7	Cattle:1 Sheep and goats: 3 Camel:6
Pastoral	15-30	10-15	1-1.5	2	Cattle: 2 Sheep and goats: 4 Camel:12	Cattle:1 Sheep and goats: 3 Camel:9

3.1.4 Impact on availability

Despite deterioration of rangeland resources which resulted to livestock migration and increase resource based conflicts, near normal milk production is likely to enable households to meet their minimum foods need through May 2019. However, households will continue to rely on market supplies.

3.2 Access

Sufficient access to food is determined by performance of market in the county. Household purchasing power is influenced by prices of maize and goats. Access of food also determines the food consumption patterns. Inter-annual assistance programs continue to support poor households to access food.

3.2.1 Markets Operations

The main markets in the county for food commodities include Moyale and Marsabit in the agro-pastoral livelihood zone and Laisamis and North Horr in the pastoral livelihood zone. Main livestock markets are Moyale, Jirime and Merille. Others include Forolle, Arge, Turbi, Illaut, Korr and Olturot. Market operations remained normal across all livelihood zones in the county. The county government and other partners have continued to support the development of marketing infrastructure in the county through modernization of Merille and Moyale markets. Markets were well provisioned and traded volumes were normal. However, El Hadi and Balesa markets were poorly provisioned due to poor roads. Fish production at the Lake Turkana in Loiyangalani and El Molo Bay reduced compared to previous season due to increase winds at the lake where fish hide in the bottom of the lake. Staple foods included maize, rice and beans. Food commodities mainly maize supplies came from the terminal markets of Meru, Nyahururu and the neighbouring Ethiopia market. Cattle, sheep and goats were the main livestock sold in the markets. Low traded volumes of livestock were experienced in the markets as a result of hoarding driven by above average livestock body conditions. The key items purchased by households included sugar, beans, tea leaves, cooking oil and milk. A kilogram of sugar and beans was selling at Ksh.100 and 100 respectively.

3.2.2 Market Prices

Maize price

The average price of maize for the month of January 2019 was Ksh.41 per kg which was comparable with the LTA of Ksh. 50 per kg. The maize prices were below the 2018 prices by 21 percent as well as 18 percent below the LTA (Figure 3). The reduction in maize prices was attributed to improved maize harvests in Moyale sub-county (Uran and Sololo Ramata wards) and increased supplies from Nyahururu, Meru and Ethiopia. Favourable maize prices were recorded in Moyale, Sololo, North Horr and Dukana with prices ranging between Ksh.30-35 per kg. Higher prices were recorded in Korr, Merille and Farakoen with prices ranging between Ksh.50-60 per kg while in Layeni in Loiyangalani, maize was sold at Ksh.80-100 per kg.

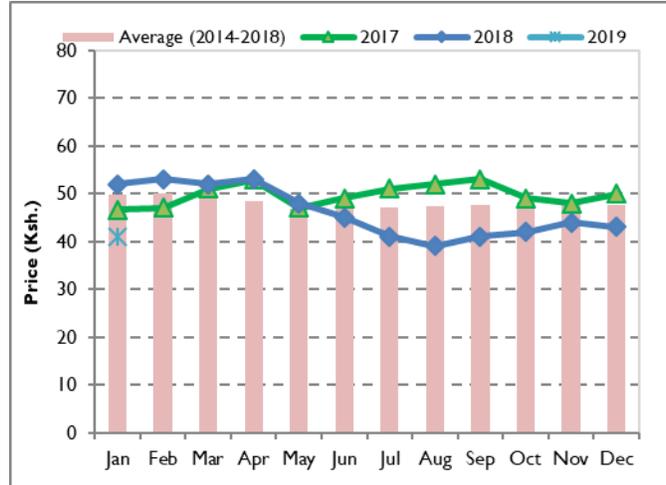


Figure 3: Maize prices in the county

Goat price

The average goat prices in January 2019 was Ksh. 4,350 which was 42 percent above the LTA and 27 percent above the same period in 2018 (Figure 4). The increase in goat prices was attributed to increased demand for goats, improved livestock activation and livestock market system strengthening activities that were undertaken across the livestock markets within the county which stimulated strong linkages between livestock traders and primary and secondary markets. The prices of goats recorded a steadily upward trend from the month of March. Goat prices are likely to reduce gradually due to deteriorating body conditions.

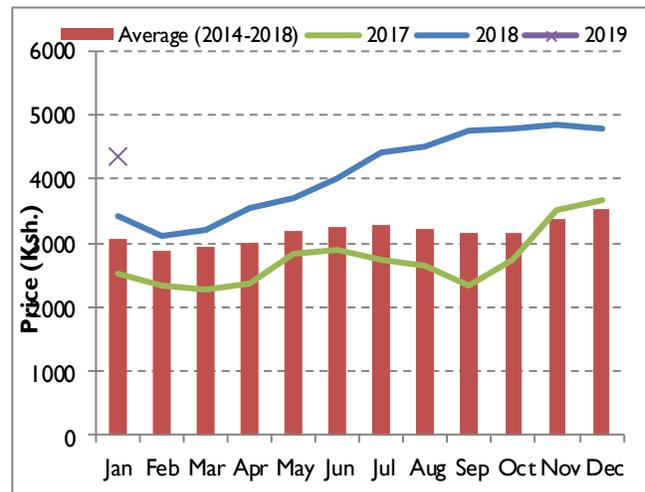


Figure 4: Goat prices in the county

Terms of trade

The average terms of trade for the county were favourable for the pastoralists where households were able to purchase 106 kilograms of maize from the sale of an average size goat (Figure 5). In January 2019, the terms of trade were 72 percent above the long term averages and 61 percent above the 2018 prices

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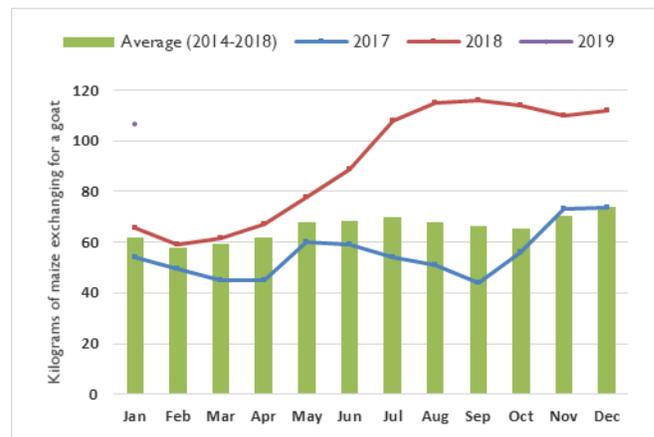


Figure 5: Terms of Trade in the county

in the same period. The increase was mainly attributed to increased goat prices and relatively stable maize prices over the same period.

3.3.3 Income sources

The main source of cash income across all the livelihood zones was livestock production. Livestock production contributed 82 and 60 percent to cash income in pastoral and agro pastoral livelihood zones respectively (Table 9).

Table 8: Proportion of incomes sources

Livelihood zone	% Cash Income Contribution				
	Livestock Production	Food Crop Production	Cash crop production	Casual Wage	Petty Trade
Pastoral	82	-	-	1	4
Agro pastoral	60	20	10	5	-
Others	-	-	-	20	30

Other sources of income include cash transfers that support vulnerable households (Table 10).

Table 9: Cash transfer in the county

Sub County	Hunger Safety Net Program	Older Persons Cash Transfer Programme (OPTC)	Cash Transfer for Orphans and Vulnerable Children (CT-OVC)	Persons with Severe Disabilities Cash Transfer (PwSD-CT)
Moyale	6,167	1,826	876	283
Laisamis	5,530	902	737	127
Saku	2,863	1,050	791	183
North Horr	5,288	946	783	236
Total	19,848	4,724	3,187	829

3.2.4 Water availability and access

Major Water Sources

The major water sources in the county include boreholes, water pans, shallow wells and springs across the livelihood zones (Figure 6). Boreholes and springs are most commonly used in pastoral livelihood zones of Laisamis and North Horr. In the agro-pastoral livelihood zone, roof catchments, earth pans and shallow wells are the main water sources of Saku and Moyale. The recharge levels to open water sources were generally low at 20-30 percent in the agro pastoral livelihood zone of Moyale and Saku counties. About 50 percent of water pans have dried up in Moyale promoting households to trek for longer distances. Most shallow wells are un-protected, silted and subjected to pollution such as in Songa, Barambante, Elhadi, Elgade, Kamotonyi and Merille.

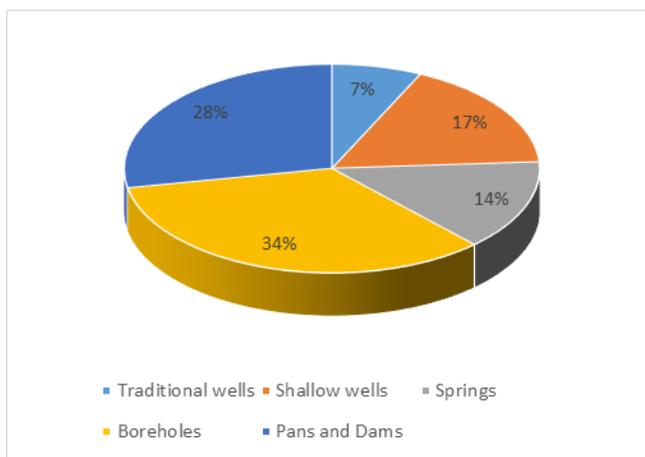


Figure 6: Major sources of water in the county

There are non-operation water sources as result of breaking down of boreholes. Shallow wells are non-operation due to siltation during rainy season and contamination causing deaths such as recent camel deaths at Elhadi. Other water pans in Serekopo in Belesa Saru, Dukana were breached and destroyed by flash floods during the long rains. Due to low recharge levels and depletion of 85 percent of the sub-surface water sources, water trucking was currently being undertake. In Saku sub-county water trucking was done in the following areas: Parkison, Kambinye, Boru Haro, Qilta, Qachacha, In Moyale sub-county it was done in Elle Dimtu, Elle Borr, Funan Qumbi, Ti funan Hida, Amballo, Badanrero, Maeyi, Laqi, Watiti, Godhe, while in North Horr sub-county Kubiadi, Kobb, Dertu, Kalesa, Yaa Garra, Yaa Sharbana, Huri hills, Toricha, Qatamur, Anchacha, Tigo and Laisamis sub-county (Lependa, Namerie Soito and institutions)t. About eight strategic boreholes have broken down across the county due to increased livestock concentration such as Indikir, Soriadi in Laisamis sub-county, Lalesa and Shegel in Saku sub-county and Dabel in Moyale sub-county. Water tracking has been hampered by non-operational water boozers (Table 11).

Table 10: Water Availability in the county

Sub-County/ 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
Saku Sub-County	Boreholes	12	9	Continuous	Continuou s	50%	LagDima, Kubi Bagasa, Parkishon
	2. Earth Pans/Dams	25	3	1 months	2 months	70%	
	Springs	5	5	Continuous	Continuou s	60%	
Moyale Sub-County	Borehole	36	31	Continuous	Continuou s	100%	Godoma, Makutano (New) Damballa Fachana ,Karburi and Lataka (All new)
	Shallow Wells	150	120	Continuous	Continuou s	100%	
	Dams/Pans	56	33	2 months	1 month	100%	
North Horr Sub-County	Borehole	31	31	Continuous	Continuou s	100%	
	Underground Tanks	50	20	Continuous	Continuou s	100%	
	Earth Pans	17	1	2 months	1 month	100%	
	Shallow Wells	420	320	Continuous	Continuou s	100%	
Laisamis Sub-County	Boreholes	29	23	Continuous	Continuou s	100%	Indikir 1&11, Koya, kargi Gangeisa, soriadhi 1, Merille
	Springs	7	6	6 months	Continuou s	100%	
	Earth Pans/Dams	15	2	2 months	1month	100%	

Distance to water sources

The return trekking distances to domestic water sources ranged from 3-8km in the agro-pastoral livelihood zone compared to 3-5km normally (Table 12). Areas in the agro-pastoral livelihood zones with longer distances to domestic water sources were Manyatta Jillo Boru Haru, Dirib Gombo and Karare in Saku sub-county, Hurri Hills in North Horr sub-county with distances of 15-20 km. The current distances to domestic water sources in the pastoral livelihood zone ranged from 2-7 km except in North Horr sub-county (Dololo Boji, Diid Gola, Kubiadhi, Tullu Qarsa, Yaa Gara, Tigo, Kalesa, Anchacha and Bisik) and Laisamis sub-county (Namarei, Faraokoen, Lapedera, Ndikir, Guyotimo, Golla, Amballo, Ele Dimtu and Ellebor) where household's trekked for over 15 km to access to water. A few water pans and shallow wells were noted in areas of Badanrero, Mansile, Bori, Kinisa and Misa in Moyale sub-county, Elhadi, Kalacha and Dukana in North Horr sub-county and Soriadi and Ririma in Laisamis sub-county. In Godoma Didiko of Moyale sub-county, households have started trekking towards Wajir (Ogomdi) in search of domestic water.

Table 11: Water availability and access

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)		Projected duration of water in weeks
	Current	Normal	Current	Normal	Current	Normal	Current	Normal	
Agro-pastoral	3-8	2-4	3-5	2-5	30-60	15-45	6-8	10-20	1-2
Pastoral	2-7	2-4	2-5	2-5	30-45	15-30	8-10	10-20	1-2

Waiting time at the source

The current waiting time in the agro-pastoral was 30-60 minutes against the normal of 15-45 minutes. In the pastoral areas, waiting time was 30-45 minutes compared to normal of 15-30 minutes (Table 12). Waiting time was longer in Guyotimo, Gola, Bori, Mansile Kinisa in Moyale sub-county where households waited for 3-4 hrs, Burgabo and Elhadi in North Horr sub-county (5-7 hrs), Boru Haro in Saku sub-county (5 hrs). In the agro-pastoral areas of Mado Adhi, Wahegogha and Uran, household waiting time was 5-10 minutes. In the fisher folk areas of Loyiangelani, the waiting time was 10 minutes due to the existence of piped water.

Cost of Water

Water in the in agro-pastoral livelihood zone was sold at Ksh.3-5 per 20 litre jerrican of water compared to Ksh.2-5 normally as result of rationing. In agro pastoral areas in Moyale Township, Marsabit Central and Hurri Hills vendors sold water at Ksh.40-50 per 20 litre jerrican. In pastoral areas, water was sold between Ksh.2-5 per 20 litres jerrican which was normal (Table 12). Generally, water from the borehole was sold between Ksh. 2-5 per 20 litre jerrican across the livelihood zones. The cost of water was free for the sub-surface water sources of pans and shallow wells. However, in Dukana the cost of water was Ksh.10 per 20 litre jerrican which was very expensive and unsustainable to households. Similarly, in areas where water trucking was being done, a 20 litre jerrican was sold at Ksh.40-50.

Water Consumption

The average water consumption across the livelihood zones was 6-8 litres per person per day against the normal 10-20 litres per person per day (Table 12). However, in the agro-pastoral

areas of Wahegodha and Madoadi in Moyale sub-county household water consumption was 10-12 litres per person per day compared to normal 10-20 litres per person per day. In the pastoral livelihood zone, the average water consumption ranged from 8-10 litres per day compared to normal 10-20 litres per person per day with exceptions of Godoma Didiqo, Dabel, Guyotimo, Gola in Moyale sub-county where a person consumed less than five litres per person per day. Generally, water consumption per person per day was better in the pastoral areas than the agro-pastoral livelihood zone.

3.2.5 Food Consumption

According to NDMA Bulletin of January 2019, 79.1 and 19.8 percent of the households in the agro pastoral livelihood zone had acceptable and borderline food consumption score respectively compared to 67.9 and 18.5 percent in the same period in 2018 (Figure 7). In the same period of 2019, 68.1 and 29.4 percent of the households in the pastoral livelihood zone had acceptable and borderline food consumption scores respectively compared to 54.4 and 42.8 percent in the same period of 2018. The stability in acceptable food consumptions implied

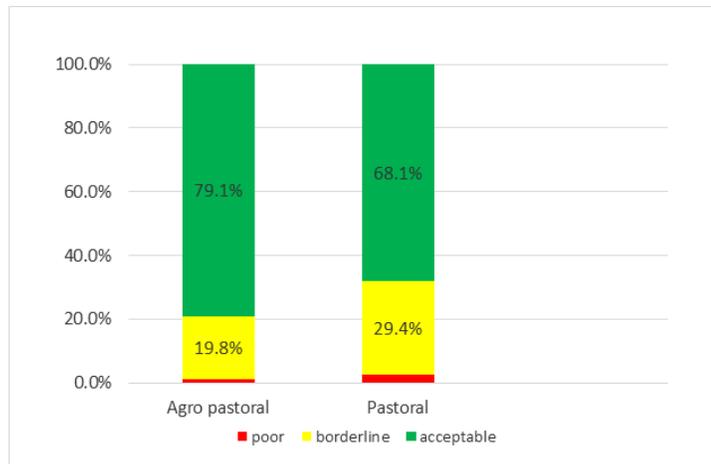


Figure 7: Food consumption score

that both agro-pastoral and pastoral livelihood zones consumed staple and vegetables accompanied by the frequency of four days per week consumption of oil and pulses.

Milk Consumption

Households in pastoral and agro pastoral livelihood zones consumed less than one litre of milk compared to 1-2 litres normally as result of migration of livestock to dry grazing areas. Other households use either processed or powdered milk.

3.2.6 Coping Strategy

The mean coping strategy index (CSI) for January 2019 was 19.42 compared with 18.95 in the same period in 2018 displaying a relatively stable trend. The index implied that no significant change in the number and or frequency of consumption based coping strategies employed by households. The reduced consumption based coping strategy index (rCSI) in January 2019 for pastoral livelihood zones was stable at 18, while the index worsened in agro pastoral from 17.3 in January 2018 to 21.3 in the same period in 2019. In NDMA surveillance sentinel sites in Loiyangalani, Golbo and Dukana employed high rCSI of 28.4, 25.7 and 23.3 respectively implying that those households adopted more severe coping mechanisms. The households employed reduced consumption based coping mechanisms such as reduced portion or size of meals, reliance on less preferred food, borrowing and reduction in the frequency of food consumption. Households in the pastoral livelihood zone continue to rely on market purchases to access food due to above average purchasing power as a result of high livestock prices against low maize prices.

3.3 Utilization

3.3.1 Morbidity and Mortality Patterns

The most prevalent diseases for children under five years and the general population for the period July to December 2018 was upper respiratory tract infections (URTI). The prevalence of URTI in under five children in the period under review increased by four and 92 percent compared to compared to the similar period in 2016 and 2017 respectively (Figure 8). The increase was attributed to cold weather experienced during the rainy season. Among the general population, the prevalence of URTI increased by 18 and 126 percent compared to the similar period of 2016 and 2017. Prevalence of diarrhea during the period under review was associated with poor water, sanitation and hygiene practices across the county and perennial conflict witnessed along the border limiting access to water.

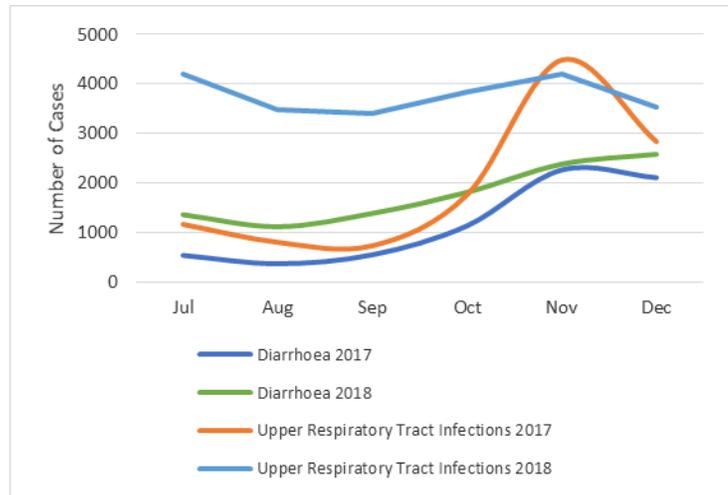


Figure 8: Prevalence of URTI and Diarrhoea among the under five

Malaria cases in the period under reviewed declined by 65 and 81 percent compared to the same period of 2016 and 2017 (Figure 9). The county being a non-malaria prevalent area, henceforth, the previous year malaria outbreak was reported in Loiyangalani, Dukana and El Molo Bay which increased the cases in the consecutive years though the disease was contained. In July to December 2018, there has been increased cases of Dysentery, Diarrhea and Typhoid by 16, 67 and 37 percent respectively compared to a similar period in 2017. The increase in epidemic and water-borne diseases was associated with contaminated open water sources during the short rains season as well as the continued practice of open defecation leading to contamination of water sources. The crude mortality rate was at 0.19 deaths/10,000/day and 0.13 U5 deaths/10,000/day for under-fives and general population respectively.

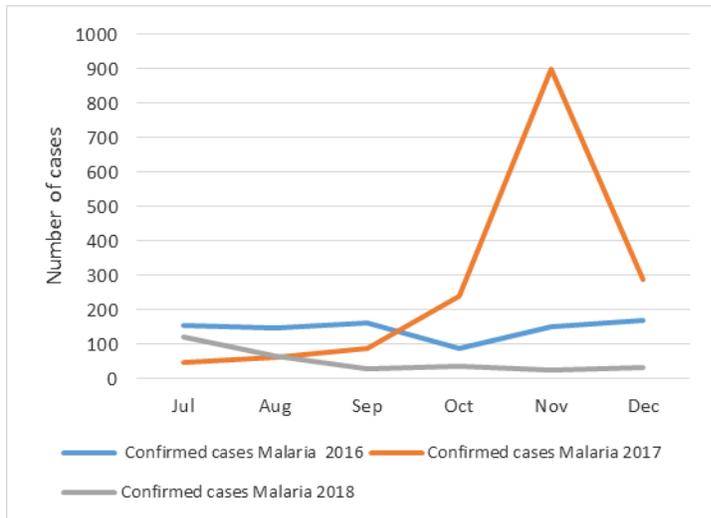


Figure 9: Prevalence of malaria cases in under fives

3.3.2 Immunization and Vitamin A Supplementation

The proportion of fully immunized child in the period July to December 2018 increase to 84.8 percent from 61.8 percent which was above the national target of 80 percent. The proportion

measles coverage at nine months increased to 97.9 percent from 69.7 percent. The increase in the proportion of fully immunized child and measles coverage was as a result of accelerated services during the Malezi Bora and increased workforce recruited by the county government (75 nutritionists and 160 community health assistants) who improved health services delivery at community and partners support. The proportion of vitamin A supplementation improved across all ages of children which was attributed to accelerated access to health services and outreach programs (Table 13). During community interviews, it was noticed that vitamin A coverage was low in Balla, Mbarambate, Elgade and Olgodha due to lack/inconsistent health outreaches, children not taken to clinic past first measles dose at nine months and long distances from the health facilities such as Mbarambate facility was 15 km.

Table 12: Proportion of Vitamin A Supplementation

Year	Children 6-11 months	Children 12 to 59 months	Children 6 to 59 months
January to July 2018	127.1%	77.0%	82.0%
January to July 2017	85.5%	50.3%	53.9%

3.3.3 Nutritional Status and Dietary Diversity

According to surveillance data from NDMA the proportion of children under five years with MUAC (<135mm) was 14.1 percent in January 2019 compared to 20.8 percent in the same period in 2018 (Figure 10). The proportion of children at risk of malnutrition was 37 percent below the LTA of 2014-2018. The downward trend indicated improving nutrition status for the children under five years of age as a result of access and availability of food increasing food and meal frequencies, especially across the livelihood zones. The information from the District Health Information System (DHIS) indicated that the proportion of children who were underweight has been declined from 27.7 percent in July 2017 to 21.4 percent in a similar period in 2018.

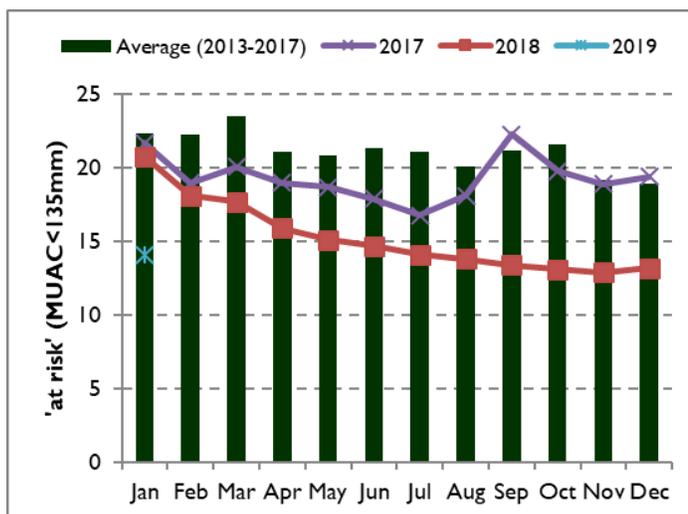


Figure 10: Proportion of children at risk of

According to MIYCN, Knowledge, Attitude and Practice, WASH and Livelihood End Line Survey (KAP) conducted in November 2018, revealed that 97.1 percent practice exclusive breastfeeding compared to 75.7 percent in the previous survey (October 2017). On the timely initiation of breastfeeding, 93.2 percent breastfed within one hour after birth. Care givers reported that children had 2-3 meals per day with feeding frequency depended on food availability. Complementary feeding started early, this was attributed to cultural beliefs, workloads for mothers/care givers and inadequate milk and or inadequate feeding by the breast feeding mothers. On dietary diversity in 6-23 months' children, the minimum dietary diversity (MDD) was 17.6%, minimum meal frequency 14.8% while the minimum dietary diversity was 4.5% as at November 2018

3.3.4 Sanitation and Hygiene

According to SMART (KAP data was secondary data from SMART survey) survey, households that treated their drinking water improved from 21.7 percent to 30.5 percent. Significant improvements in water treatment by the use of chemicals has been influenced by increased awareness on WASH practices and support by county government and other partners. The use of chemicals such as PUR or aqua tabs are most commonly used by most households. Hand washing at four critical times was 26.3 percent improving from 16.9 percent in 2017 while accessibility to sanitation facilities improved from 50.1 percent to 52.0 percent. Latrine coverage was 52 percent. The limited access to sanitation facilities was a result of frequent mobility of most households and limited behavior change towards acquiring and use of these facilities.

3.4 Trends of key food security indicators

Table 13: Food Security Trends

Indicator	Long Rains Assessment, July 2018	Short Rains Assessment, Feb 2019
% of maize stocks held by households (agro-pastoral)	66 % below the LTA	71% declined compared by the LTA
Livestock body condition	Good across all species	Good to fair
Water consumption (litres per person per day)	15-20 litres	< than 10 litres
Price of maize (per kg)	Ksh.41	Ksh.41
Distance to grazing	Agro pastoral: 2-4	Agro pastoral: 10-20
	Pastoral: 3-5	Pastoral: 15-30
Terms of trade (kg)	108	106
Coping strategy index	18.95	19.42
Food consumption score (NDMA)	Pastoral: Acceptable:76.3	Pastoral: Acceptable:68.1
	Borderline:23.3	Borderline:29.4
	Poor:0.4	Poor:2.5
	Agro Pastoral: Acceptable:72.7	Agro pastoral: Acceptable:79.1
	Borderline:19.3	Borderline:19.8
	Poor:8	Poor:1.1
Proportion of children at risk of malnutrition (MUAC <135mm)	14.1	14.1

4.0 CROSS – CUTTING ISSUES

4.1 Education

4.1.1 Enrolment

Enrolment in primary increased by 16 percent for both boys and girls from Term III 2018 to Term I in 2019 which was attributed to the availability of school meals program in schools (Table 15). There was an 18 percent increase in enrolment in secondary for boys from Term III 2018 to Term I 2019 which was associated with increased awareness creation on the importance of education. Enrolment of girls in secondary schools increased by four percent as a result of enrolment drives. Enrolment in Early Childhood Development and Education (ECDE) increased by six and 10 percent for both boys and girls in III 2018 to Term I in 2019. The increase in ECDE was a result of the feeding program. Increase in ECDE and primary enrolment is attributed to school feeding and ECDE meals programs, National and County Governments' enrolment drives to ensure school going children are enrolled in schools, Livestock Marketing

Systems Education advocacy which made 60 girls re-join primary education in Heilu and Golbo wards, improved infrastructure and establishment of new learning centres and increase in secondary schools' enrolment is due to 100 percent transition policy of the Government.

Table 14: Enrolment in Term III 2018 and Term I 2019

Enrollment	Term III 2018			Term I 2019 (includes new students registered and drop-outs since Term III 2018)			Comments (reasons for increase or decrease)
	Nº Boys	Nº Girls	Total	Nº Boys	Nº Girls	Total	
ECD	8,936	8,751	17,687	9,485	9,590	19,075	Increased enrolment due to the availability of feeding program
Primary	22,403	21,963	44,366	26,035	25,552	51,587	Increase due to the availability of SMP
Secondary	3,559	3,594	7,153	4,189	3,727	7,916	High increase was attributed to the 100% transition

4.1.2 Participation

The average monthly school attendance was stable across the ECDE, primary and secondary which was attributed to the availability of feeding program/school meal program, enrolment drives conducted by national and county and high increase attributed to a 100 percent transition (Table 16).

Table 15: Participation in Schools

Indicator	Term III 2018						Term I 2019				Comments (reasons for increase or decrease)
	September 2018		October 2018		November 2018		January 2019		February 2019		
School attendance	Nº Boys	Nº Girls	Nº Boys	Nº Girls	Nº Boys	Nº Girls	Nº Boys	Nº Girls	Nº Boys	Nº Girls	
ECD	9,169	8,961	9,158	8,958	9,173	8,955	9,485	9,590	9,485	9,590	Increased enrolment due to the availability of feeding program
Primary	21,954	21,524	21,954	21,524	21,954	21,524	25,514	25,041	25,514	25,041	increase due to the availability of SMP-enrolment drive conducted
Secondary	3,488	3,522	3,488	3,522	3,488	3,522	4,105	3,652	4,105	3,652	High increase attributed to a 100% transition

4.1.3 Retention

There was no significant drop out reported in the county. Participation in schools was stable from time to time. Absenteeism in school for ECDE, primary and secondary schools was as a result of lack of food in school (delay in delivery of food), households not valuing schooling and insecurity/violence.

4.1.4 School meals programme

There are 182 primaries and 291 ECDEs schools in the county (Table 17). About 30,825 pupils and 19,075 ECDE benefitted from the School Meal Program. In some schools' pupils were not able to get their meals due to food delivery delays and lack of water to cook the food and all the learners in the County have missed meals at different times. About 84 schools do not have SMP in North Horr and Laisamis affecting 20,762 pupils and school management is forced to look for food from well-wishers.

Table 16: School meal program

Sub county	No. of Primary schools	ECDEs with a feeding program	Total beneficiaries (SMP)	Total beneficiaries (ECDES)
Saku	34	53	12,334	4,348
Moyale	64	83	18,491	6,227
North Horr	37	91	0	4,544
Laisamis	47	64	0	3,956
Total	182	291	30,825	19,075

Stand-alone ECDEs were not attached to any primary schools. Schools in North and Laisamis had no school meals as their food was not procured.

4.1.5 Inter-Sectoral linkages

About 160 schools do not have hand washing facilities while 164 schools do not have drinking water or functional source within 100 metres. There were inadequate water storage facilities across most schools in the county. More than 70 percent of the schools do not have hand washing facilities and where available, some of them are not functional. Some schools like Kamotonyi, Ndikir and Elbesso learners shared classes due to the shortage of the rooms. ECDE classes were shared by Pre Primary (PP1 and PP2) learners. In most schools, the teaching staff is inadequate. Toilets facilities in most schools are not separated for teachers, boys and girls. School going age are not enrolled in schools due to far trekking distances to the nearest school.

5.0 FOOD SECURITY PROGNOSIS

5.1 Prognosis Assumptions

The food security prognosis is based on the following assumptions:

- According to Kenya Meteorological Services, the county is likely to receive normal to above normal (enhanced) rainfall. Most parts of north pastoral of Kenya are likely to remain generally dry during the month of March. Near-normal to below normal rainfall is expected over most parts of the country. The cumulative performance of long rains (March to May 2019) is most likely to pick during the months of April and May.
- Livestock migration is likely to increase towards March and may lead to resource-based and intercommunal conflicts between livestock herders over the pasture, water.
- Towards March the livestock body condition is likely to deteriorate thereby affecting livestock productivity thereby declining household purchasing power.

5.2 Food Security Outlook

5.2.1 Food Security Outcomes (March, April and May)

Food security between February and March is likely to deteriorate further with the dry season before the onset of March to May long rains forecasted to be above average. Increase livestock migration and resource-based conflicts are likely to be experience towards the end of February thereby disrupting livelihood activities in the dry season grazing areas. Increased in return trekking distances from dry grazing areas and water sources are expected to affect the livestock body conditions, leading to decreased milk productivity. With the onset of the March to May long rains, rangeland resources are likely to be replenished. Water-borne diseases are likely to increase thereby increasing the malnutrition prevalence. Replenished pasture and browse conditions are likely to attract livestock from dry grazing areas eventually initiating the productivity of livestock such as calving and lambing. Above-average goat-to-maize terms of trade are likely to maintain household food access. Improved household purchasing power is likely to be improved as a result of livestock body conditions. Milk consumption is likely to increase. Above-average terms of trade, household food availability and access are likely to enable most poor households to meet their minimum acceptable diets. Households are gradually rebuilding their livelihoods from the previous drought. Household food security is likely to be Stressed (IPC Phase 2).

5.2.2 Food Security Outcomes (June, July and August)

Livestock productivity is likely to increase to near average thereby increasing the availability of milk at the household level. Maize prices are likely to remain stable with the harvesting of the short cycle or early maturing food crops supplementing household food availability. Dietary diversity and food consumption are likely to improve towards May. The food security situation is likely to improve to None (IPC Phase 1) in the agro pastoral livelihood zone and remain Stressed (IPC Phase 2) in the pastoral livelihood zone.

6.0 CONCLUSION AND INTERVENTIONS

6.1 Conclusion

The 2018 October to December short rains were erratic and below average. The short rains deficits have negatively impacted on rangeland resources as well as cropping activities which is likely to decline food security situation. Several key factors need to be monitored which include; recurrent resource based conflicts, high concentration of livestock and migration of livestock in search of pastures and water, epidemic human and livestock diseases (FMD, LSD and PPR) and malnutrition levels and human wildlife conflicts.

6.1.1 Phase classification

The County is currently classified in Stressed (IPC Phase 2) across the livelihood zones.

6.1.2 Summary of Findings

The performance of short rains was below normal, uneven and poorly distributed with limited significant impact in food security situation across the livelihood zones. There was reduced stocks resulting to household's reliance to market supplies. Livestock productivity was near normal across the livelihoods. Market operations are normal across all livelihoods. Availability and access of water declined henceforth boreholes remain the permanent source of water for both

households and livestock. Water trucking has significantly increased across all the livelihoods. The terms of trade were favourable across all the livelihood zones. Majority of the households in both pastoral and agro pastoral livelihood zones (79.1% and 68.1% respectively) had acceptable food consumption patterns. The mean coping strategy index was relatively stable. Households water treating improved from 21.7 percent to 30.5 percent. Significant improvements in malnutrition status (GAM) rates reduced from 16.9 percent in the previous year to 12.4 percent.

6.1.3 Sub-County Ranking

Table 17: Sub county ranking

Sub County	Food Insecurity Rank (1-10 from worst to best)	Main Food Security Threats
North Horr	1	<ul style="list-style-type: none"> • Return trekking distances 2-5 km, Water trucking in Yaa Gara, Kubi Adi, Torich, Kalesa, Dololo Boji, Katamur, Anchacha, Tigo • 90% of open water sources are dry while 95 % boreholes operational • Water consumption and waiting time normal except a few areas • Pasture: Fair at fall back areas and poor in other areas • Higher trekking distances for livestock • Normal migratory routes for livestock • Good livestock body condition • 0.5-1 litre milk consumption • Conflict incidences – Darade, Forole, Idido, Chari Ashe • 23.5 GAM with hotspots are North Horr, Gas, Balesa, Elgade, Dukana, Burgabo, Elhadi, Illeret, Kalacha • 66 % Open Defecation • Scale down of outreaches – 33 outreaches • PPR, CBPP, CCPP, LSD at Barambate. Camel deaths in El Hadi and Diarhoea in small stock in ElGade • Good food prices and fair livestock prices • No SMP in all 47 Schools
Laisamis	2	<ul style="list-style-type: none"> • Return trekking distances 3-8 km. Water trucking in Namarei, Farakoren, Lapedera, Ndikir • 90% of pans are dry. 90% boreholes operational • Water consumption and waiting time normal • Pasture: Fair at fall back areas and poor in other areas • Armyworm infestation on browse at Ndikir, • Livestock within their normal migratory routes • Return distances 10-20 km for grazing • Good livestock body condition with Production 0.5 -1 litres • Resource-based conflict at Koya, Kom, Sarima, Soriadi, Cheri Ashe • 13.2 GAM. • Olurot and Kargi reported ALARM threshold in IMAM surge while Loiyangalani at ALERT stage • Scale down of outreaches (67 sites dropped) • 82% Open Defecation • Livestock diseases: FMD in Mt Kulal, PPR • High food commodity prices and fair livestock prices • No SMP in all 37 schools

Moyale	3	<ul style="list-style-type: none"> • Stocks reduced by 70% in Anona, WayeGogha, Masile, Uran, Bori, • 50 % dry pans dry. 1 borehole breakdown. • Water trucking- Golbo. 2-6 km return trekking for HH distances. • 5-10 return trekking distances for livestock • Fair pasture • Good livestock body condition • Favourable commodity and livestock prices • Admission trends which are higher than normal -7 facilities • Diarrhoea cases accounting for 61% of all the cases reported in the County 2018 • Integrated populations from Ethiopia • Insecurity • Livestock diseases-abortions • Suspected cases of RVF
Saku	4	<ul style="list-style-type: none"> • 55% reduction in maize production –GoroRukesa, Dirib Gombo, Leyai, Karare • 80% pans dry, Breakdown of 3 boreholes, • Water trucking • 3-8 km Return distances. Extreme areas like Kambinye 10 km • 5-10 km livestock trekking distances • Fair pasture condition • Good livestock body condition • Admission trends high in -Hula and Kubi Qallo • 2 litres/HH/Day. Ksh 60 per litre • Livestock diseases: CCPP and PPR • Favourable commodity and livestock prices • Insecurity incidences

6.2 Ongoing Interventions

6.2.1 Food Interventions

Table 18: Food Interventions

Sub County	Interventions	No. of beneficiaries	Implementers	Remarks
North Horr, Saku, Moyale and Laisamis	School meal program	49,900	Ministry of Education and County Government of Marsabit	98 primary schools benefit with school meal program targeting 30,825 beneficiaries and 291 ECDEs with 19075 beneficiaries

Other food interventions included provision of 10,000 tons of assorted food items to the displaced Yaa Gara community in the North Horr by Constituency Development Fund (CDF) and 700 kg of milk replacers was provided by county Government of Marsabit to orphaned camels.

6.2.2 Non-Food Interventions

Table 19: Non-food interventions

Intervention	Objective	Specific Location	Activity target	Cost	No. of beneficiaries	Implementation Time Frame	Implementation stakeholders
Agriculture							
Provision of early maturing maize seeds. 8 MT, Beans 6 MT, cowpeas 2 MT, Green Grams 2MT Distributed	Increase food production by Availing certified early maturing seeds to vulnerable farmers for	Agro pastoral zones	About 3,000 farm families reached	4M	3000	Sept–Oct 2018	County Government
Rehabilitation of Walda Irrigation Farm	Increase crop production through irrigation	Moyale (Sololo)	100 HH	3M	68 HH	Oct 2018–Jan 2019	KRC/county Government
Provision of assorted farm inputs, pumps, agro chemicals, herbicides	Reduced crop loss through improved weeds, pests and disease control	Saku Moyale Laisamis North Horr	500 Farmers	1.5M	300	Sept–Nov 2018	County Government
Health and Nutrition							
Vitamin A Supplementation	Improve the Micronutrient status of the community . Infections prevention	All sub counties	47,774 children between 6 to 59 months	3,989,747	47,774 children between 6 to 59 months	2018-2019	MoH, UNICEF, Concern, WVK, FHK, GIZ, NHP plus, Sign of Hope, TBI, KRCS
Zinc Supplementation	Improve the Micronutrient status of the community .	All sub counties	All children with diarrhoea		All children with diarrhoea	2018-2019	MoH, UNICEF, THS-UC, Beyond Zero, Concern, WVK, FHK, GIZ, NHP plus, Sign of Hope, TBI, KRCS
Management of Acute Malnutrition (IMAM)	The OTP and the SFP treatment helps improve the Nutrient status of malnourish	All sub counties	2,463 SAM & 10,156 MAM	72,473,896	2,463 SAM & 10,156 MAM	2018-2019	MoH, UNICEF, THS-UC, Beyond Zero, Concern, WVK, FHK, GIZ, NHP plus, Sign of Hope, TBI, KRCS, WFP

	ed children and women.						
IYCN Interventions (EBF and Timely Intro of complementary Foods)	A community with good or high rates of MIYCN status means that the Morbidity and Mortality rates will be low hence they will be more productive on their day to day activities hence improved food security.	All sub counties	12,259 children < the age of 1 year.	5,741,889	12,259 children < the age of 1 year.	2018-2019	MoH, UNICEF, THS-UC, Beyond Zero, Concern, WVK, FHK, GIZ, NHP plus, Sign of Hope, TBI, KRCS
Iron Folate Supplementation among Pregnant Women	Improve the micronutrient status of the women of reproductive age for improved pregnancy outcomes.	All sub counties	13,549 Pregnant women	6,059,792	13,549 Pregnant women	2018-2019	MoH, UNICEF, THS-UC, Beyond Zero, Concern, WVK, FHK, GIZ, NHP plus, Sign of Hope, TBI, KRCS
Deworming	Worm's infestation reduces nutrient absorption and therefore compromising the nutrition status of both children and adults.	All sub counties	41,612 children between 1 & 5 yrs	2,753,758	41,612 children between 1 & 5 yrs	2018-2019	MoH, UNICEF, THS-UC, Beyond Zero, Concern, WVK, FHK, GIZ, NHP plus, Sign of Hope, TBI, KRCS
Food Fortification	Improve access and	All sub counties	3,678 children	8,945,805	3,678 children	2018-2019	MoH, UNICEF, THS-UC,

(MNPS-micronutrient powder supplementation.	intake of Micronutrient of importance by children.		n between 6 to 24 months		between 6 to 24 months		Beyond Zero, Concern, WVK, FHK,GIZ,NHP plus, Sign of Hope, TBI, KRCS
Livestock							
Restocking with breeding Galla goats	Improve breeding of goats	North Horr Laisamis	3210	19.0M	3210	2018-2019	FHI & Concern WV, PACIDA & CONCERN
Disease surveillance	Prevent livestock diseases and improve health	All sub counties	8000	10.0M	8000	2018-2019	GoK, County government and partners
Water							
Construction of Badanoth, Qachacha water pan and other County water projects	Improve household access for water	Moyale (Golbo)	10,000	6.0M	10,000	2018-2019	GoK, County government of Marsabit and partners -WSTF
Construction of Bakuli (V)	Improve household access for water	Marsabit	17000	1.4B	17000	2018-2019	GoK, County government and partners
Water trucking	Improve access to water	Parkison, Kambinye, Boru Haro, Qilta, Qachacha, Elle Dimtu, Welle Dimtu, Elle Borr, Funan Qumbi, Ti funan Hida, Amballo, Badan arero, Maeyi, Laqi, watiti and Godhe. Others Lependa, Namerie, kubi adi,kobbertu,kalesa,yaa Garra,Yaa sharbana,Huri hills,Toricha Qatamur	20,000	10.0M	20,000	2018-2019	GoK, County government and partners
Education							
School meal program	Improve access,	Saku	182	20.0M	51587	2018-2019	GoK, County government and

	retention and nutritional of school going pupils						partners
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6.3 Recommended Interventions

6.3.1 Food interventions

Table 20: Food Recommended Interventions

Sub county	Pop (KNBS Projected pop in 2016)	Pop in need (% range Min-Max)
North Horr	81,593	25-30
Laisamis	71,256	20-25
Moyale	112,629	15-20
Saku	50,458	10-15
Total	315,936	

6.3.2 Non-food interventions

Table 21: Non-Food Recommended Interventions

Sub County	Intervention	Wards	No. of beneficiari es	Proposed Implementers	Required Resources	Availabl e Resourc es	Time Frame
Peace Building Initiatives							
All sub counties	Peace Building, Strengthen Cohesion	All wards	5000	CGM, GOK and other partners	3.5M	-	2019-2020
Agriculture							
Saku, Moyale, North Horr	Support vulnerable farmers with certified seeds	All wards	3000	CGM/NGO's	5M	4M	March 2018
Saku, Moyale, North Horr	Expansion of land under cultivation through subsidized tractor services	All wards	2000 Acres	CGM/WFP	2M	1.2M	Feb-March 2019
Saku, Moyale, North Horr	Continued support to water harvesting for crop production	All	5,000,000 M3 of water to be harvested for crop production	CGM/WFP/KCS AP	80M	50M	Feb 2019
Health and Nutrition							
Laisamis, Moyale and	Conduct Exhaustive 2 stage screening by	Laisamis, Moyale and Saku	32,148 Children 6-59 months & 8,032	MOH, UNICEF, GIZ, Concern, KRCS, NHP+, FHK, WVK,	1.7M		Mid-March 2019

Saku	MUAC at the community and Weight for Height at the facility/ outreach site for all children < 5years and PLW in Laisamis, Moyale and Saku.		PLW	Malteser International, Sign of Hope, THS-UC and Beyond Zero.			
All sub counties	Scale up/sustain emergency nutrition services through integrated outreach services in selected hot spots in Illeret, Kalacha, North Horr, Turbi and Dukana.	All sub counties	32,148 Children 6-59 months & 8,032 PLW	MOH, UNICEF, Concern, KRCS, Sign of Hope, TBI and FHK	36.7M		Up to May 2019
All sub counties	Sustain Vitamin A supplementation and deworming for children 6-59 months and 12-59 months respectively.	All sub counties	49,226 Children 6-59 months	MOH, UNICEF, GIZ, Concern, KRCS, NHP+, FHK, WVK, Malteser International, Sign of Hope, THS-UC and Beyond Zero	2.0M		By June 2019
All sub counties	Roll out Micronutrient powders distribution for all children 6-24 months.	All sub counties	16,161 children 6-24 months	MOH, UNICEF, GIZ, Concern, KRCS, NHP+, FHK, WVK, Malteser International, Sign of Hope, THS-UC and Beyond Zero	8,500,000 (Excluding the cost of purchasing the Micronutrient Powders)	6,500,000	February to December 2019
Livestock							
Moyale & Saku (goats) North Horr & Laisamis (camels)	Restocking with breeding camels & goats	Moyale & Saku (goats) North Horr & Laisamis (camels)	2200	GoK, County government and partners	20.0M	-	2019-2020

All sub counties	Livestock feed supplements	All sub counties	15 wards	GoK, County government and partners	80.0M	-	2019-2020
All sub counties	Livestock Disease surveillance, treatment and vaccinations	All sub counties	All sub counties	GoK, County government, RPLRP and partners	50.0M	-	2019-2020
Water							
All sub counties	Rehabilitation of boreholes, water pans and dams	All wards	5000	GoK, County government of Marsabit and partners	10.0M	-	2019-2020
All sub counties	Desilting and protection of earth pans and dams	All wards	5000	GoK, County government of Marsabit and partners	10.0M	-	2019-2020
All sub counties	Rehabilitation of shallow wells	All sub counties	5000	GoK, County government of Marsabit and partners	5.0M	-	2019-2020
All sub counties	Water trucking	Boru haro, Qachacha, Kukub Tiro, Dub Goba, Goro Rukesa, Gar Qarka, Manyatta jillo, Parkishon, Ogicho, Karare Town, Lkartinya, Nagayo, Nyayo Road, Kiwanja Ndege, Manyatta Ginda, karartina, Dakabarricha, Kubi Adhi, Elhadi, Forole	30,000	GoK, NDMA, ENNDA, County government of Marsabit and partners	30.0M	-	2019-2020
Education							
North Horr and Moyale	Water trucking to schools	North Horr and Moyale sub county	51587	GoK-MOE, County government and partners	12.0M	-	2019-2020
County wide	School meal program	County wide	51587	GoK-MOE, County government and	50.0M	-	2019-2020

				partners			
County wide	Food for fees	County wide	1000 secondary students	GoK-MOE, County government and partners	20.0M		2019-2020