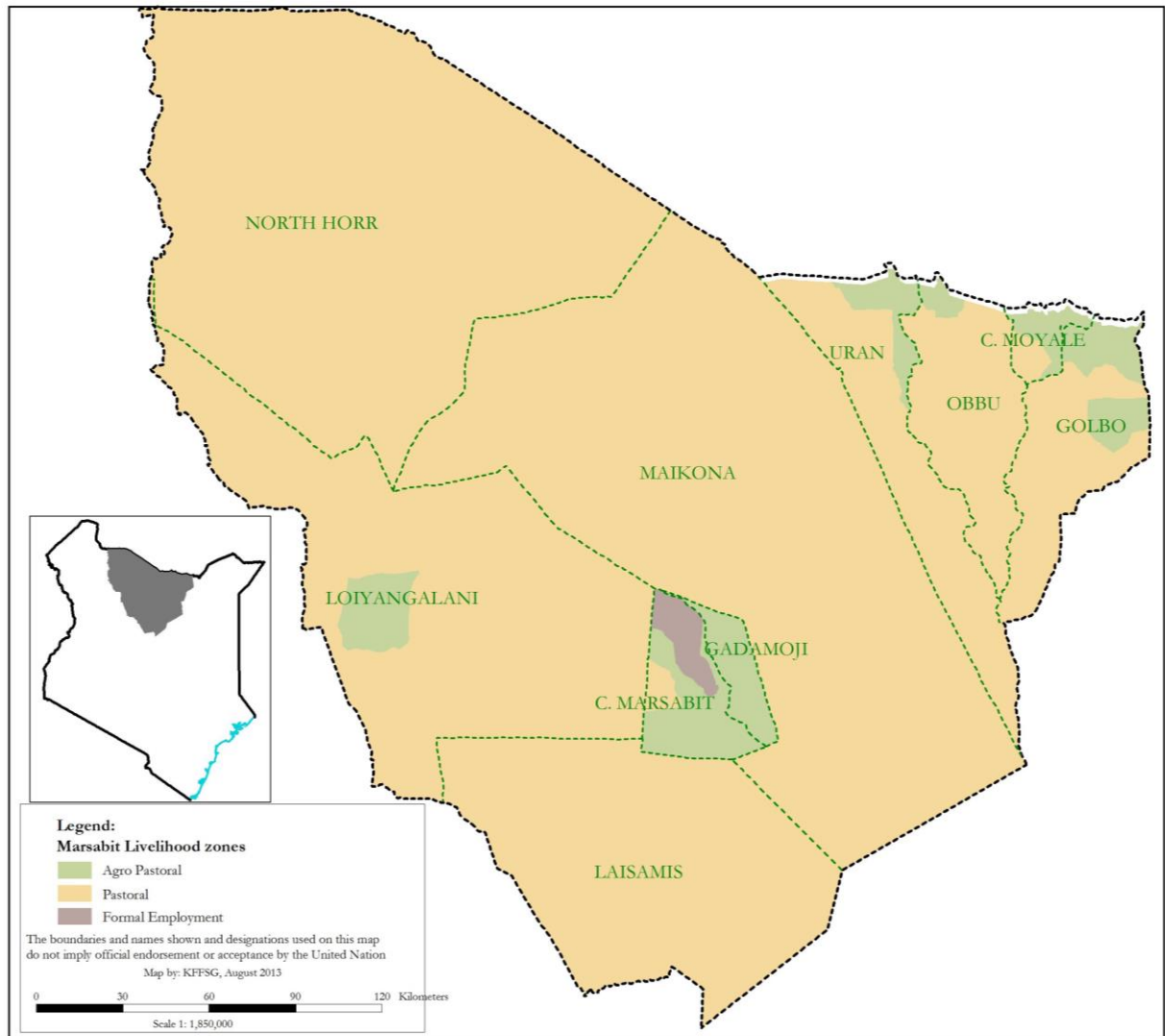


MARSABIT COUNTY 2019 LONG RAINS FOOD AND NUTRITION SECURITY ASSESSEMENT REPORT



A Joint Report by the Kenya Food Security Steering Group (KFSSG¹) and Marsabit County Steering Group (CSG)

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Table of Contents

1.0: INTRODUCTION	1
1.1 County background	1
1.2 Methodology and approach	1
2.0: DRIVERS OF FOOD AND NUTRITION SECURITY IN THE COUNTY	1
2.1 Rainfall Performance	1
2.2 Insecurity/ Conflicts	2
2.3 Other shocks and hazards	2
3.0: IMPACTS OF DRIVERS ON FOOD AND NUTRITION SECURITY	2
3.1 Availability	2
3.1.1 Crops Production	3
3.1.2: Cereal Stocks held in the County	4
3.1.3 Livestock Production.....	4
Impact on availability	9
3.2 Access	9
3.2.1. Market operations and Prices	9
3.2.4: Water availability and access	11
3.2.5 Food Consumption	14
3.2.6 Coping strategy.....	14
3.3 Utilization	15
3.3.1Morbidity and mortality patterns.....	15
3.3.2: Immunization and Vitamin A supplementation	16
3.3.3 Nutritional status and dietary diversity.....	17
3.3.4 Sanitation and Hygiene.....	18
3.4 Trends of key food security indicators	19
4.0: CROSS – CUTTING ISSUES	20
4.1. Education	20
4.1.1. Enrolment	20
4.1.2: Participation.....	20
4.1.3: Retention	20
4.1.4: School meals programme	21
4.1.5: Inter Sectoral links where available	21
5.0: FOOD SECURITY PROGNOSIS	22
5.1 Prognosis Assumptions	22
5.2 Food security Prognosis (August-October)	22
5.3 Food security Prognosis (November-January)	23
6.0: CONCLUSION AND INTERVENTIONS	23
6.1 Conclusion	23
6.1.1 Phase classification.....	23
6.1.2 Summary of Findings	24
6.1.3 Sub-county ranking	24
6.2 Ongoing Interventions	25
6.2.1 Food interventions	25
6.3 Recommended Interventions	26
6.3.1 Recommended Food interventions.....	26

EXECUTIVE SUMMARY

The 2019 Long Rains food security assessment was conducted jointly by the Kenya Food Security Steering Group (KFSSG) and Marsabit County Steering Group (CSG). The exercise covered all the livelihood zones in Laisamis, North Horr, Saku and Moyale Sub Counties. The assessment was conducted from 8th to 19th July 2019 using a multi-sectoral approach. Primary sources of data involved key informant interviews, Verbal situation briefs, visual inspection during transect drives as well as focus group discussions. The main objective of the 2019 long rains assessment (LRA) was to develop an objective, evidence-based and transparent food security situation analysis in the County following the Long rains season of 2019 taking into account the cumulative effects of previous seasons, and to provide recommendations for possible response options based on the situation analysis.

The main drivers of food and nutrition insecurity in the county are; Poor rainfall performance characterized by late onset and poor distribution, and insecurity driven by inter-tribal and resource-based conflicts along the Kenya-Ethiopia border. Food availability remains low in the County driven primarily by poor rainfall performance. mixed production for kales and tomatoes where they were 25 percent above and 50 percent below the long-term averages respectively. Cereal stocks with farmers are significantly below average and are mostly from food distributions while a majority of the stocks are with traders. Pasture is depleted in most of the Pastoral Livelihood Zone exception of the dry season fall back areas where it is fair to poor and projected to last 1 – 2 months while browse is fair expected to last two months. Milk production remains 0.25 – 1 litres across all the zones compared to a normal of 2 – 4 litres. Households are increasingly relying on markets due to the crop failure and low livestock productivity however, the staple food markets are well supplied with commodities. In terms of access, markets are accessible except in parts of North Horr sub county where they were disrupted by inter-clan conflict along the Kenya – Ethiopia border. Terms of trade were favorable for livestock keepers where the sale of a medium-size goat was able to purchase 72 kilograms (kgs) of maize compared to the LTA of 70 kgs. However, insecurity and conflicts have affected households in both livelihood zones through loss of human life, loss of livestock, limited access to markets, pasture and water as well closure of markets and learning institutions. Outbreak of Foot and Mouth Disease (FMD) and anthrax were also reported during the period under review. consequently, there has been less milk at the household level as well as unfit meat from the livestock.

With reduced milk at the household level, malnutrition has been on the rise as indicated by prevalence of global acute malnutrition from 12.4 percent in June 2018 to the current 18 percent. Water availability and accessibility for both domestic and livestock has declined in both livelihood zones as almost all the open water sources have dried up increasing both domestic and livestock trekking distances. According to the July 2019 SMART Survey, 10.4, 24.1 have a poor and borderline food consumption score respectively while 65.5 had an acceptable food consumption score compared to 2018 where there is a slight deterioration when 10.8, 18.6 and 70.6 percent of households had a poor, borderline and acceptable food consumption score respectively. The coping strategy index has also reduced from 16.46 in July 2018 to 11.57 in July 2019, an indication of an improving food security situation at the household level, associated with the current food interventions taking place in some sub counties. Marsabit is classified in Crisis (IPC Phase 3). However, Moyale sub-county is classified to be in Stressed (IPC Phase 2).

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's population is approximately 315,936 people (KNBS projections 2016), covering an estimated 75,750 square kilometres. The county is divided into four sub counties namely; Moyale, North Horr, Laisamis and Saku. There are three main livelihood zones

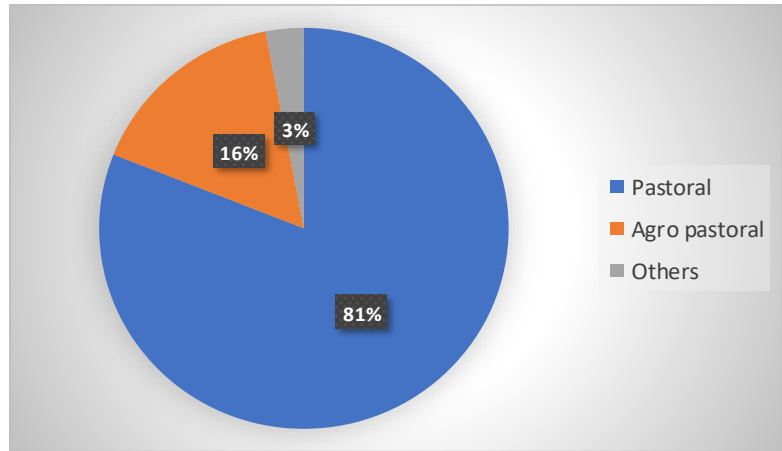


Figure 1: Population proportion by livelihood zone

which include: Pastoral livelihood zone constituting 81 percent of the county population; Agro-pastoral livelihood zone at 16 percent of the county population; and others having a combined population of three percent (Figure 1). The main source of cash income in the Pastoral and Agro Pastoral Livelihood Zones is sale of livestock and livestock products contributing 82 and 60 percent of cash income in the Pastoral and Agro-Pastoral Livelihood Zones respectively. Food crop production contributes 20 percent of cash income in the Agro-Pastoral Livelihood Zone while in the Pastoral Livelihood Zone, formal waged labour and petty trade contribute 11 percent of cash income. The percentage of population below the poverty line is 80 and 69 percent in the Pastoral and Agropastoral livelihood zones respectively.

1.2 Methodology and approach

The main objective of the long rains assessment was to develop an objective, evidence-based and transparent food security situation analysis following the long rains season of 2019 and taking into consideration the cumulative effects of previous three seasons, and to provide actionable recommendations for possible response options based on the situation analysis. The assessment was conducted from 8th to 19th July 2019 using a multi-sectoral approach, which involved checklist administration by county sector heads followed by initial briefings by the county food security group (CSG) and Kenya Food Security Steering group representatives. Other sources of secondary data included a SMART Survey and the Marsabit County 2019 Long Rains Mid-Season Food Security Assessment Report. The field data was collated, reviewed and triangulated to produce a food security assessment report, which was presented before the CSG for validation and approval.

2.0: DRIVERS OF FOOD AND NUTRITION SECURITY IN THE COUNTY

2.1 Rainfall Performance

Rainfall performance in Marsabit County was mixed with onset mostly late by up to four dekads across most of the County, however, in the northwestern parts and parts adjacent to Lake Turkana, the onset ranged from one dekad early to one dekad late. The rains were poorly

distributed in time with dry spells in mid- March and early April and were also poorly distributed in space. In terms of amounts received, the rains were mostly below normal where there were localized areas that received the lowest amounts of 25 – 50 percent of the average, 50 – 75 percent in the eastern portion of the county while the western part of the County received slightly better rains with the southwest parts receiving 75 – 90 percent of normal rains while the northwest parts on the Kenya-Ethiopia border received average rains at 90 – 110 percent of normal (Figure 2). The rains ceased one dekad early in the first dekad of May compared to the normal cessation in the second dekad of May.

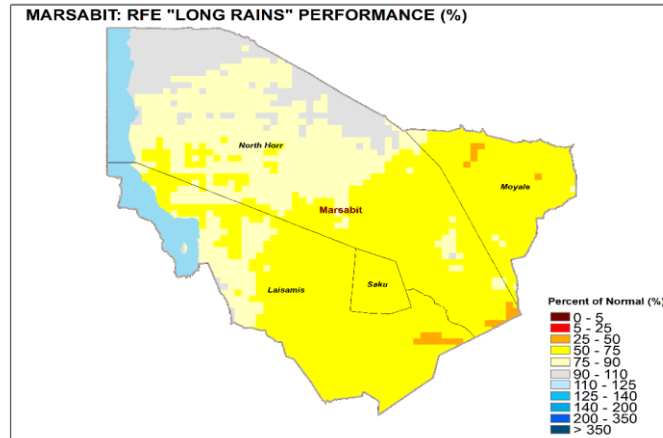


Figure 2: Rainfall performance as a % of normal

2.2 Insecurity/ Conflicts

The County has experienced a spate of conflict incidences since the beginning of the season, attributed to competition over forage and water for livestock and sporadic cases of cattle rustling and retaliatory attacks. Between March and May 2019, livestock were stolen and an estimated 25 lives were lost. In Dukana ward (Garwole) 250 households were displaced due to insecurity in Ethiopia and were hosted by communities in Dukana, Kubiadhi and Balesaru in Dukana ward. Communities in Balesaru lost close to 1200 small stock to Ethiopian raiders and approximately 3,000 heads of livestock from Dukana were lost as the result of a cattle raid. Cases of insecurity were also reported in Saku sub county (Boru Haro, Gabra scheme, Manyatta Jillo Gar Shaba and Konso Banchale) and Moyale sub county (Ele Bor). The conflicts hampered access to pastures, markets and water for both domestic and livestock.

2.3 Other shocks and hazards

Hazards

There was an outbreak of Kalazaar with 1,464 cases reported as at 8th July 2019 with 16 fatalities across all sub counties have been affected with 61 patients on active treatment in Laisamis (30), Loglogo Health Centre (10), Marsabit County Referral Hospital (21). There was total crop failure in the Agropastoral Livelihood Zones of Saku and Moyale, occasioned by the poor performance of the rains that affected households that rely on rain fed crops for both food and cash income, thereby eroding the households' purchasing power. Livestock diseases and deaths were also reported in Laisamis and North Horr, which affected household's tropical livestock units.

3.0: IMPACTS OF DRIVERS ON FOOD AND NUTRITION SECURITY

3.1 Availability

Availability is defined as the physical presence of a commodity at a certain place in a given time. In food security, it is one of the pillars and refers to the physical presence of food commodities in the market or household level, cross border imports, pasture and browse, stocks as well as expected or actual harvests.

3.1.1 Crops Production

Crop production contributes to 40 percent of food and 30 percent of income in the Agro-Pastoral areas of the County.

Rain fed crop production

The main crops grown in the County under rain-fed production are maize, beans and green grams while kales and tomatoes are grown under irrigation. The County is short rains – dependent as it is more reliable than the long rains even though less in terms of cumulative amounts. Long rains contribute to 20-30 percent and 20 percent to annual food production and cash income in the Agro-Pastoral Livelihood Zones of the County.

Table 1: Rain-fed Cropping

Crop	Area planted during 2019 Long rains season (Ha)	Long Term Average area planted during the Short rains season (Ha)	2019 Long rains season production (90 kg bags) Projected/Actual	Long Term Average production during the Short rains season (90 kg bags)
Maize	250	960	0	6920
Beans	60	400	0	2900
Green Grams	20	50	0	120

During the 2019 long rains, the area planted for the major crops was significantly below average at 60, 74 and 85 percent below average for green grams, maize and beans respectively (Table 1). For maize, about 250 hectares (ha) of land was planted (mostly early planted) though only 50 Ha managed to germinate due to the late onset and poor temporal distribution of rains across the County. The below average area under cultivation for the major crops can be attributed to the late rainfall onset and below average rainfall amounts resulting in late land preparation and planting, farmers also opted not to plant crops on their farms due to delayed onset of rains, wilting of germinated crop due to dry conditions, inter-tribal conflicts around Sagante Ward in Saku sub-county restricting access to farms and lack of certified seeds for pulses in the local markets

Table 2: Irrigated Cropping

Crop	Area planted during 2019 long rains season (Ha)	Long Term Average area planted during the Short rains season (Ha)	2019 long rains season production (90 kg bags) Projected/Actual	Long Term Average production during the Short rains season (90 kg bags)
1. Kales	20	12	120 MT	96
2. Tomatoes	4	10	3	6

For the irrigated crop, the area under kales production is 20 hectares and 67 percent above the long-term average of 12 hectares as a result of establishment of several micro-irrigation schemes across the County, rehabilitation of Walda and Maduadi Micro irrigation farms, support for establishment of kitchen gardens by the County Department, non-governmental organizations, Kenya Wildlife Service and Kenya Forest Services. The acreage under tomatoes is four hectares which is 60 percent below the three-year averages due to poor rains and poor recharge of water reserve. Kales production is 25 percent above LTA due to the significantly increased acreage under production in Moyale, North Horr and Laisamis Sub Counties compared to Saku that received lower rainfall amounts, and increased promotion of micro irrigation and kitchen gardens in the three sub-counties. However, tomato production was 50 percent of the LTA due to insufficient water for irrigation, higher water requirements compared to kales compounded by lack of irrigation support (Table 2).

3.1.2: Cereal Stocks held in the County

Table 3: Cereal Stocks

Commodity	Maize (90 kg bags)		Rice (50 kg bags)		Beans (90 kg bags)		Chick peas (50 Kg bags)		Sorghum (50 kg bags)		Millet (50 kg bags)	
	Current	LTA	Current	LTA	Current	LTA	Current	LTA	Current	LTA	Current	LTA
Farmers	180	6500	600	800	100	2500	4,120	580	13,000	120	0	0
Traders	4000	5000	3000	4000	2400	3000	280	400	200	200	50	50
Food Aid/ NCPB	0	-	0	0	0	0	0	0	0	0	0	0
TOTAL	4,180	11,500	3600	4800	2500	5500	4,400	980	13,200	320	50	50

Food stocks remain below average in the County due to below average production except for food commodities distributed as part of resilience building. Maize stocks with farmers were almost negligible and at one percent of the average due to widespread crop failure of the long rains crop. Stocks held with the traders were 20 percent below the average because of significantly reduced local supply due to crop failure necessitating dependence on imports from outside the county. However, Strategies for Northern Development (SND) through the Sustainable Food Systems Programme supported by World Food Programme have distributed 19,794 (50Kg) bags of Sorghum and 4,093 (50Kg) bags of chick peas in the 1st and 2nd week of July to 9,168 HH within the County (Table 3). There are no millers in the County and the National Cereals Produce Board (NCPB) warehouses mostly stores relief food destined for different parts of the County.

3.1.3 Livestock Production

The main types of livestock kept are camels, cattle, goats, sheep and donkeys. Livestock production is the main source of income in the county. It contributes about 80 percent of household income in the Pastoral Livelihood Zone and 60 percent in the Agro Pastoral Livelihood Zone.

Pasture and browse situation

Pasture is currently depleted in all the wet season grazing areas in Pastoral and Agropastoral Livelihood Zones except for a few areas which are traditionally dry season grazing areas. Pasture is available along the borders of Kenya and Ethiopia (Dukana, Illeret, Darade, Ellebor and Eledimtu). However, cross-border cattle rustling incidences have hindered access to good pasture

in the aforementioned dry-season grazing areas and similarly, there exists small pockets of pasture around Leyai - Badassa, Hurri Hills and Adadi areas that are inaccessible due to cattle rustling, lack of water in addition to inaccessible protected forest reserves in Saku sub-county. Bush encroachment and emergence of unpalatable species of plants is also hindering growth of pasture in most parts of Moyale sub-county. Some households in Saku sub county are coping with lack of pasture by purchasing bales of hay for their herds. Due to the crop failure in the Agro Pastoral Livelihood Zones crop residues are unavailable to contribute to livestock feed as they do normally. In the dry season grazing areas where pasture is available, it will last for the next 1-2 months (late July to late August) against the normal three months to September attributed to inadequate rainfall and above normal livestock in-migrations. Notably, pasture in the dry season grazing areas remain boosted by the spill-over effect of the exceedingly good cumulative amounts of the 2018 long rains. As livestock migration progressively intensifies into these areas, forage will dwindle increasing the likelihood of occurrence of resource-based conflicts.

Table 4: Pasture and Browse condition

	Condition (pasture)		How long to last (Months)		Factors Limiting access	Condition (browse)		How long to last (Months)		Factors Limiting access
	Current	Normal	Current	Normal		Current	Normal	Current	Normal	
Pastoral	Depleted	Good	0 (1-2 in the dry season/ fall back areas)	3	Insecurity, Water,	Fair	Good	2	4	Insecurity, Water
Agro-pastoral	Depleted	Good	0 (1-2 in the dry season/ fall back areas)	3	Water, Insecurity, restricted access,	Fair	Good	2	4	Insecurity, Water

Browse situation is generally fair in all the livelihood zones with exception of the Agro-Pastoral areas of Moyale sub-county (Sololo, Uran, MadoAdhi, Wahegodha, Kinisa, Loglogo and Godoma) where it was good, which is normal at is time of the year. The current available browse is projected to last for two months compared to three months normally (Table 4).

Livestock Productivity:

Livestock Body Condition

In both livelihood zones, the body condition of cattle was fair to poor compared to good at this time of the year and evident in most parts of North-Horr, Saku sub counties and Moyale lowlands. However, most cattle concentrated around Hurri Hills, Buraraat, Uran, Sololo, Olturot, Civicon were in good body condition. Generally, the body condition of goats was good to fair across all livelihood zones but reported good body condition in Olturot and Gatab in Laisamis Sub County and Hurri Hills in North Horr sub county. However, in Saku sub-county goats were in fair to poor body condition.

Sheep were in fair body condition across all the livelihood zone except for North Horr Sub County where they were in poor body condition and in Hurri Hills where are in good body condition. Normally the body conditions are usually good at this time of the year. Camel were in

good to fair body condition across all the livelihood zones compared to the normal good body condition mainly attributed to lack of pasture and browse, increased trekking distance to pasture and water points and insecurity that has restricted access to forage along the Kenya/Ethiopia border. In parts of North Horr, Balessa and Gas camels were in fair to poor body condition. Livestock body conditions for all species are expected to deteriorate further in the next 1-2 months as quality and quantity of forage and water diminishes resulting in declines in livestock watering frequency and increased trekking distances to water and pasture.

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 while the middle income had 5-8 compared to 10-15 normally. In the Pastoral Livelihood Zone, poor income households had 2-5 tropical livestock units compared to 4-7 normally while the middle income had 8-10 compared to 15-20 normally (Table 5). The reduced TLUs were associated with livestock losses during the 2016/2017 severe drought and consecutive failure of the 2018 short rains and 2019 long rains.

Birthrates are slightly above normal across the livelihood zones especially for camels and goats during this season. caused by extraordinary good cumulative long rains of 2018 with an exception of Dukana ward where birthrates were still below normal. However, despite the increased birth rates, there is no notable change in TLUs which was caused by a lapse in livestock generation interval and considerable slaughter of calves in the pastoral areas of Moyale and North Horr sub-counties.

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

There were abnormal reported deaths of about 60 percent of goat kids in Obbu ward in Moyale because kidding occurred during the short dry spell in late February followed by late onset of the long rains.

Milk Production and Consumption

Milk production in the Pastoral Livelihood Zone was 0.25-1 litres compared to 2-4 litres normally (Table 6). Milk is currently available in about 10 percent of the households and is solely produced by camels. Lactating herds have migrated and are not available near the homesteads to provide milk to the households and the smaller milking herd closer to the households are experiencing declining productivity due to declining forage and increased trekking distances. Majority of households in the Pastoral and Agro Pastoral Livelihood Zones consumed less than half a litre of milk compared to 1-2 litres normally. Processed or powdered milk was used in some households with purchasing power. Milk retailed at an average of Ksh.90-120 per litre across the livelihood zones in a few centres compared to Ksh.60 normally. High cost of milk is attributed to mass migration of livestock to grazing areas resulting in unavailability. Milk production and consumption is anticipated to worsen further as the lean season progresses

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	0.25-1	2-4	<0.5-1	1-2	90-120	60
Agro-pastoral	0.25-1	3	<0.5	2	90-120	60-100

Livestock Migration

Currently 90 percent of cattle, 80 percent of small stock and 70 percent of camel have migrated to dry season grazing/ fall back areas. According to reports, 70, 80, 85 and 95 percent of livestock in Laisamis, Saku, Moyale and North Horr sub-counties respectively have migrated to abnormal grazing areas in search of pasture and water and the situation is likely to intensify in the next 1 month as the long dry spell progress (Table 7).

Table 7: Migratory routes

SUB COUNTY	ROUTE: FROM	ROUTE: TO
Laisamis	Laisamis, Korr, Merille and Logologo	<ul style="list-style-type: none"> Gudas, Soriadi, Dedertu, Sabarwawa (Samburu) and Kom (Isiolo).
	Ngurnit, Illaut, and South Horr	<ul style="list-style-type: none"> Baragoi in Samburu County.
	Sarima	<ul style="list-style-type: none"> Karumbe and Kamesesil in Mt Kulal. Losam and Likayo in Samburu county
	Moite	<ul style="list-style-type: none"> Lochalgoro, Halgore Darade and Sarima
North-Horr		<ul style="list-style-type: none"> Darade, Sarimo, Bulluk, Sabare, Balesaru, Burrarat, Shurr and Hurrihills
	Maikona, Turbi, Bubisa, and Burgabo	<ul style="list-style-type: none"> Hurrhills, Hawaye, Shurr, Lalesa Waso (Isiolo County).
	Dukana ward and Balesa	Sabare, Elhadi, Bulluk, Alaftisi and Tao
Moyale	Golbo and Butiye wards	<ul style="list-style-type: none"> Wajir North (Lakole, Basir, Arbijan, Bute) Southern Ethiopia Waso in Isiolo County
	Obbu ward	<ul style="list-style-type: none"> Sololo, Badanrero, Uran, Rawana

		<ul style="list-style-type: none"> southern Ethiopia
Saku	Saku sub-county	<ul style="list-style-type: none"> Jaldesa, Kubiqallo, Baragoi, Shurr, Uran, Sololo and Dukana.

Livestock Diseases and Mortalities

In Moyale sub county there was increased population of stray dogs in populated human settlements like Moyale and Sololo scavenging for food at slaughterhouses increasing a risk of rabies. There was an outbreak of Pasteurellosis in cattle from Amballo where 16 heads of cattle died in Malbeballi sub location. Cases of Helminthiasis were widespread in the Moyale especially in the animals watering in the water pans. In North Horr Sub county, Peste des Petits Ruminants (PPR) was widespread while outbreak of Anthrax was reported in sheep and goats causing deaths of 27 sheep and goats with reports of two cases of the cutaneous form of the disease being transmitted to human beings in Laisamis sub-county, foot and mouth disease (FMD) was reported in Mt. Kulal and along the Samburu and Marsabit borders while Contagious Caprine Pleuropneumonia (CCPP) and PPR was widespread in the county. In Saku sub county the prevalent diseases were CCPP and PPR in sheep and goats and Newcastle in poultry. Others include Enterotoxaemia and plant poisoning. There was reported deaths of 346 sheep and goats in Hurri Hills following one-day heavy rain on 27th March in Shankeera village. With increased livestock numbers in the dry season grazing areas, disease incidences like FMD are already being reported and are expected to increase in the next 1-2 months.

Water for Livestock

The current main source of water for livestock is boreholes, shallow wells and springs. In areas where in-migration has occurred, pressure on the available water resources has increased because of increased concentration of livestock. Due to poor recharge of water sources, 95 percent of water pans have dried up across all the livelihood zones which is not normal. All water pans in Saku sub-county have already dried up. In Moyale sub- county, few water pans were partially recharged and expected to last for only the next one month because of huge livestock concentration. In the Agro-Pastoral areas of Saku sub-county, shallow wells and springs currently are low yielding and households majorly in Sagante ward are purchasing water for livestock. Shallow wells in Laisamis sub-county are expected to last for the next 1-2months whereas the existing shallow wells in North Horr sub-county are saline and contaminated thus not fully functional. Return trekking distances to water are 20-40 km in the pastoral livelihood zones compared to the normal 10-15 while in the agro-pastoral areas, the return trekking distances were 10-20 km compared to the normal 5-10 kilometres. The return trekking distances are expected to increase as the long dry spell continues. Longer livestock trekking distances were noted in North Horr sub-county with other areas especially Turbi/ Bubisa ward, Maikona ward and North wards posting abnormal trekking distances greater than 50km. Watering frequencies were very low across the livelihood zones except for agro-pastoral areas of Moyale sub-county where watering frequencies were normal. On average cattle were watered after two- three days against the normal 1-2 days; sheep and goats 3-4 days against the normal 1-2 days and camels after every 8-12 days against the normal four across the livelihood zones (Table 8). Watering frequencies have considerably reduced due to increased trekking distances compared to similar periods in most areas. The water points on the Ethiopian side and Illeret are not accessible due to

insecurity. With the progression of the long dry spell, livestock watering frequencies are expected to decline to an all-time low.

Table 8: 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 month	2-3	Cattle: 2-3 Small stock: 3-4 Camel: 8-12	Cattle: 1-2 Sheep and goats: 1-2 Camel: 4
Pastoral	20-40	10-15	Most have dried up	2	Cattle: 2-3 Small stock : 3-4 Camel: 8-12	Cattle: 1-2 Sheep and goats: 1-2 Camel: 4

Impact on availability

Significant vegetation deficit and depletion of open water sources across the livelihood zones have negatively impacted on livestock body condition, resulting in lack of milk at the household level as most of the livestock have migrated to fall back areas. As a result of milk deficit, the nutrition of the households is at stake.

3.2 Access

3.2.1. Market operations and Prices

Major markets for food commodities are Marsabit and Moyale. Major market for livestock are Merille, Jirime (Marsabit) and Gurumesa (Moyale) with Illaut, Korr, Turbi, Olturot, Karare, Kurungu, Damballa Fachana acting as feeder markets for livestock. However, Damballa Fachana, Turbi, Forolle feeder markets are non-operational due to insecurity incidences. Food commodity markets are operational across the County but are not normal mainly due to reduced supply from local production after the poor long rains season performance resulted in total crop failure. This has driven increased reliance on food commodity supplies from outside the county from 60 – 70 percent normally for maize to 85 – 95 percent currently in the agropastoral markets of Saku and Moyale. Currently, the entire population is depending on markets for food commodities against a normal of 60-70 percent at this time of the year and are expected to continue to do so until the short rains harvest expected in February 2019. Sources of cereals and pulses are Meru, Isiolo, Nairobi, Ethiopia and Nyahururu.

In the pastoral livelihood zones, market operations remained normal with a total dependence by households on them for staple food commodities except in Dukana, North Horr, Ileret, and Maikona Wards in North Horr sub-county where insecurity brought about by inter-tribal conflict between the Gabbra and Borana from the neighboring Ethiopia disrupted market operations and restricted access to staple food and livestock commodities. Generally, the main markets are stable in terms of availability and access except for El-hadi and Balesa in North Horr sub County where there are inadequate supplies due to poor transport infrastructure.

Maize prices

The current average maize prices is Ksh 48 per Kg which is slightly above the LTA of Ksh 46 (Figure 3). The price is however 15 percent above that of same time in 2018. Lower maize prices were recorded in Saku and Moyale sub counties retailing at Ksh 40 - 50 attributed to cross border inflows from Ethiopia. A 10 percent price increase was noted in North Horr Sub County due to limited supplies from Ethiopia which was occasioned by tension and insecurity incidences in Dukana and Forolle. Highest maize prices were recorded in El Molo (Laisamis sub County) where a kilo retailed at Ksh 80. Traders reported holding 60-70 percent of the normal stock due to scarcity of maize from major markets. As a result, a gradual increase in price is expected from July until adequate stock is available in the markets.

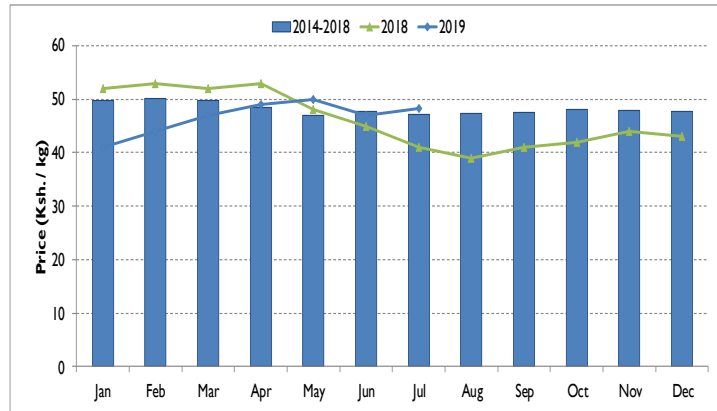


Figure 3: Trends in maize prices

Goat Prices

In the month of June, goat prices in Marsabit were at Ksh 3,482 for a medium sized goat and remained stable compared to May but 13 percent below 2018 prices. The price has marginally reduced to Ksh.3464 in July. (Figure 4). Stability in price has been attributed to relatively favourable body conditions. The current price is five percent above the five-year average due to the lingering positive effects of the 2018 long rains that has seen goat body conditions remain fair thus better prices. The price is also 22 percent below that of same time in 2018. Higher goat prices were recorded in Moyale livestock market with prices ranging between Ksh 4500-5500 whereas North Horr sub-county posted the lowest goat prices ranging between Ksh.2500-3000. The above-average prices are driven by fair browse in Moyale, Laisamis and Saku sub-counties and poor browse in North Horr sub-county. Higher than normal migration where approximately 85 percent of livestock have migrated outside the County has also resulted in reduced volumes of livestock to the market driving above average prices.

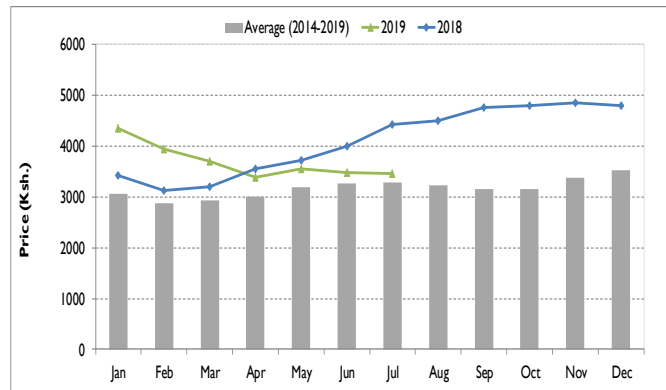


Figure 4: Trends in goat prices

Pasture is depleted in wet season grazing areas and more than 80 percent of livestock have migrated to drought fall back areas. Quality and quantity of browse and pasture in these areas is fair to poor respectively and expected to last 1-2 months against the normal 3-4 months. The declining forage both in quality and quantity will negatively affect livestock body condition and livestock prices.

Terms of Trade

The terms of exchange (TOT) in terms of kilograms of maize bought from the sale of a goat in the month of July was 72 kilograms, which was within the LTA and 33 percent below that of same period in 2018 (Figure 5). The above average terms of trade is due to the above average goat prices and relatively stable maize prices resulting in above average household purchasing power and increased household food access. Higher goat prices and lower maize prices experienced at a similar time in 2018 explains the decrease in TOT when compared to current period. TOT is better in the Agro Pastoral Livelihood Zones of Moyale and Saku than pastoral livelihood zones occasioned by higher livestock prices and lower maize prices. As the livestock body condition deteriorates, goat prices are expected to decrease while maize prices are expected to gradually increase thus reducing the terms of trade and household purchasing power.

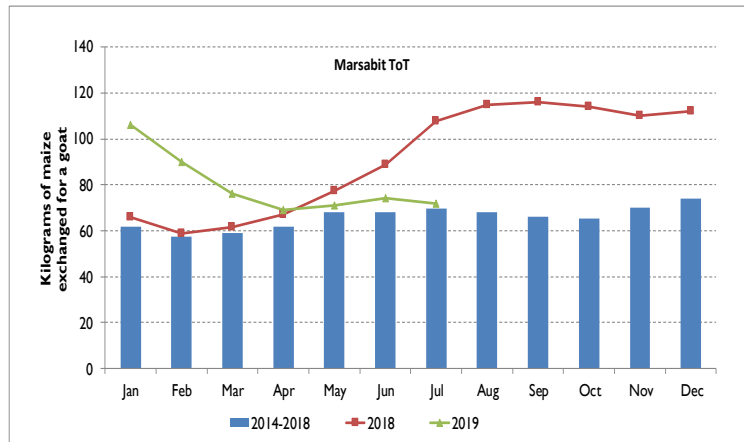


Figure 5: Trends in terms of trade

3.2.4: Water availability and access

Major Water Sources

The major water sources in the County include boreholes, water pans, shallow wells, rock catchment dams, underground tanks and springs (Figure 6). The only major current water sources that support large number of people and livestock across all the major livelihood zones are boreholes and shallow wells. However, 10 boreholes out of the total 111 boreholes in the County have broken down due to prolonged continuous pumping hours.

The boreholes that have broken down are: Kubi Bagasa, (Saku Sub-County), Gas, Malalba, Shegel Airstrip (North Horr Sub-County), Qate and Rawana II (Moyale Sub-County) and Merille I, Civicon, Thurusi I and Arge I (Laisamis Sub-County). Currently, only the status of boreholes is normal. Most of the open water sources have dried up due to poor recharge from the March April May rains. Recharge levels to these open water sources was 10-30 percent of their capacities except isolated areas in Moyale Sub-County that received torrential rains where the water pans still have water remaining. Water in these pans is expected to last until mid-August.

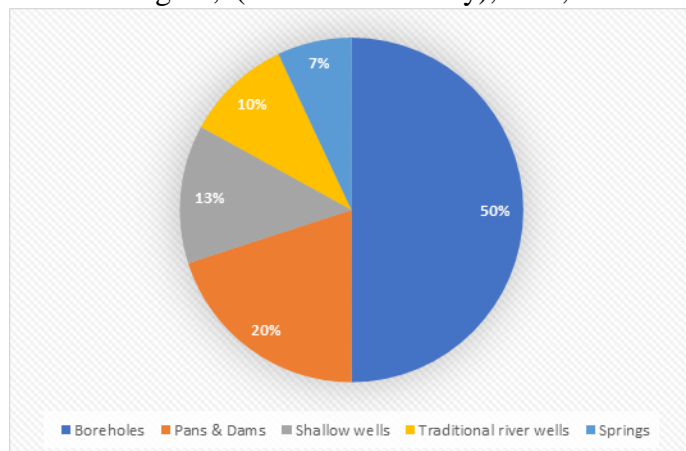


Figure 6: Current water sources

Water rationing has already started in the agro-pastoral zones of Saku and Moyale sub counties and in some other hotspots across the County.

Areas that face acute water shortage are Boru Haro, Gar Qarsa, Qachacha, Manyatta Jillo, Jillo Schemes, Wario Duba, Kubi Dibayu, Galgallo Halake, Golole1, Golole 2, Huka Adhi, Kukub Tiro, Dub Goba, Wario Guyo, Malka Lakole, Kubi Bagasa, Manyatta Daba, Manyatta Chorora, Manyatta Turkana, Parkishon, St. Theresa Primary School, Dibayu High School and Kiwantja Ndege in Saku Sub-county. In North Horr sub-county, Kob Dertu, Malabot, Gorich, Arilo Manyatta, Qorqa Diqa, Lag Sadhen Manyatta, Konon Gos, Chari Ashe, Kalesa, Yaa Sharbana, Qatamur, Anchacha, Bisiq, Tigo, Hurri Hills, Kubi adhi, Dololo Bojji, Tulu qarsa, Shankera are the areas that are experiencing acute water shortage. Likewise, in Moyale sub-county, Elle Borr, Elledimtu, Laqi, Antut, Adadi, Gadakorma, Dambala Fachana, Mayie, Kukub, Illadu, Guyotimo, Gola) are also experiencing the same. Area affected in Laisamis Sub county include Namarei, Lekushula, Lependera and Kambinye.

Due to the longer distances being trekked in some areas in the pastoral livelihood zones, most households have resulted strategies aimed at minimizing the amount of water being carried to the households. Only water meant for cooking and drinking is being taken to the households, thus explaining the amount being carried by donkeys. All the other chores including washing and bathing are being done at the water points.

During the assessment, it was noted that some major water points now serve large number of people and livestock than they use to handle before because other rain dependent sources have all dried up. Example of such water points include Oltorot, Ririma, Gudas and Sori Adhi II boreholes in Laisamis Sub-County currently serve large population of livestock and settlements from because of large migration to these places from other areas. On an average these boreholes now serve between 4,000-6000 users per day as opposed to 3,000-5,000 users during the normal dry season.

Other major water points with similar challenges include Kinisa, Wolda, Bori, Dadach Elele Boreholes and Ramata Earth Pan. These water points are in Moyale Sub-County. They currently serve between 10,000-15,000 livestock per day up from 5,000-6000 livestock they normally serve during similar period last year. For North Horr Sub-County, the major water points having similar challenges are Demo, Burgabo, Kambi Nyoka and Lag Ila Worabesa Boreholes which currently serve between 4,000-6000 heads of livestock per day up from 2,500 -3000 heads of livestock during similar period last year. In Saku, Dirib, Jaldesa and Kubi Qalo Boreholes currently serve over 5,000-6000 users per day up from 3,500-4,500 normally. The reason for the large variation is because all other rain dependent water sources have not been recharged because of long rain failure and therefore many users, both livestock and people now access water from these high yielding strategic boreholes.

Distance to water sources

The average return trekking distance is between 2 –10 kilometres in both agro-pastoral and pastoral zones except for few settlements that are within closer proximity to functional boreholes or water kiosks whose average return trekking distance is between 0.5 - 2 kilometres. As yields in more shallow wells and springs declines, more people are likely going to trek for longer distances to perennial water sources to access domestic water. Longer distances of 10-15 kilometres are being experienced in parts of Moyale Subcounty and Laisamis sub-county. Return

household water distances were between 10-15 kilometres with exceptionally longer trekking distances of upto 30 kilometres observed in Lekushu, Lependera in Laisamis Sub-County, Hurri Hills, Kubi Adhi, Konon Gos Malabot and Kalesa in North Horr Sub-County and Elledimtu in Moyale Sub-County.

Due to the longer distances being trekked in some areas in the Pastoral Livelihood Zones, most households have resorted to strategies aimed at minimizing the amount of water being carried to the households. Only water meant for cooking and drinking is being taken to the households, thus explaining the amount being carried by donkeys. All the other chores including washing and bathing are being done at the water points. As the lean season progresses, the return trekking distances are expected to increase as the remaining open water sources dry out.

Waiting time at the source

The current waiting time in the agro-pastoral was 30-60 minutes against the normal of 15-30 minutes. In the pastoral areas, waiting time was 30-90 minutes compared to normal of 20-30 minutes. Longer waiting time was recorded in Lekushula, Moite and Lependera in Laisamis sub-county where households waited for 6-7 hours, El Isacko Malla, Anchacha, Qatamur, Shankera in North Horr sub-county where households waited for 6-8 hours and Golbo ward in Moyale sub-county where households waiting time averaged 7hrs. In the Agro-pastoral areas of Moyale sub-county (Uran and Sololo wards) households waiting time was low at 5-15 minutes which is normal. Generally, households waiting time at the water source is currently high due to overconcentration of livestock and human at the existing water sources. The trend is expected to worsen as the lean season progresses. Several households are also accessing water from water bowsers where waiting time is 0.5-3 hours

Cost of Water

The cost of water at the source averaged Kenya Shillings (Ksh.) 3-5 per 20 litre jerrican across the livelihood zones which is normal. Water from the boreholes was sold across the County while the cost of water was free for the few recharged water pans and shallow wells. Cost of water was high in the agro pastoral areas of Marsabit Central, Hurri Hills and Moyale Township where vendors sold water at Ksh.30-50 per 20 litre jerrican. The cost was also high in at Ksh. 40-50 per 20 litre jerrican in areas that face acute water shortage and where water trucking is being carried out. Generally, at this time of the year households do not always pay for water since most of the open water sources are always recharged save for Moyale and Marsabit towns where water is commercialized. As the long dry spell progresses, cost of water is likely to increase to an average of Kshs.5-10 for only the boreholes across the livelihood zones which is quite unusual because of the increase in the number of users occasioned by drying up of earth pans and decreasing recharges in shallow wells and springs.

Water Consumption

The average water consumption across the livelihood zones was 10-15 litres per person per day (lpppd) against the normal 15-20 litres per person per day. However, in the pastoral areas of North Horr sub-county (Gas, El Boru Magadho, El Isacko Malla, Forole, Yaa Sharbana in Elhadi, Kalesa, Hurri Hills and Tigo) water consumption per person per day 8-10 lpppd. Also parts of (Golbo, Obbu and Butiye wards) in Moyale sub-county, parts of Sagante Jaldesa ward in Saku sub-county, Lependera and Lekuchula in Laisamis sub-county registered low water consumption due to scarcity as the sources have dried and the alternative ones are far apart.

Generally, water consumption in litres per person per day is expected to reduce further as the lean season progresses.

3.2.5 Food Consumption

According to July 2019 SMART Survey 10.4 percent of households in the County had a poor food consumption score (FCS), 24.1 percent borderline food consumption scores while 65.5 percent had an acceptable food consumption score as shown in Figure 7. The implication is that 10.4 percent of households are consuming staples and vegetables every day and are seldom consuming any protein rich food such as meat and dairy while 24.1 percent are consuming staples and vegetables every day, accompanied by oil and pulses a few times a week (Figure 8). The majority are consuming staples and vegetables every day, frequently accompanied by oil and pulses and occasionally meat or dairy product. In comparison with July 2018 SMART Survey, a slight deterioration has been noted as 70.6 percent of the households were having an acceptable food consumption score while 18.6 percent had borderline food consumption score with the remaining 10.8 percent having a poor food consumption score. Saku and Laisamis sub counties are the worst affected with 41.8 percent and 38.2 percent of the households respectively having borderline food consumption scores while 20.2 and 14.1 percent of households in Saku and Laisamis) have a poor food consumption score.

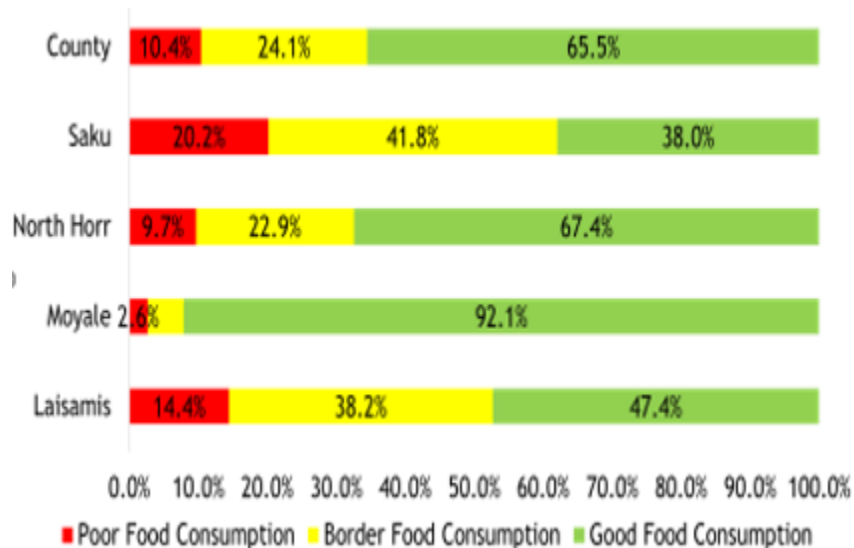


Figure 7: Food consumption scores

3.2.6 Coping strategy

Different households are using different strategies to cope with food gaps. Among the strategies currently being employed are consumption coping strategies that comprise skipping of meals and giving preference to children during mealtimes, skipping meals and reducing meal portions. According to the July 2019 SMART Survey, the coping strategy index for the households was 11.57 compared to 16.46 for the same period in 2018 (Figure 8). The reduction implies less application of coping strategies and can be attributed to food distribution

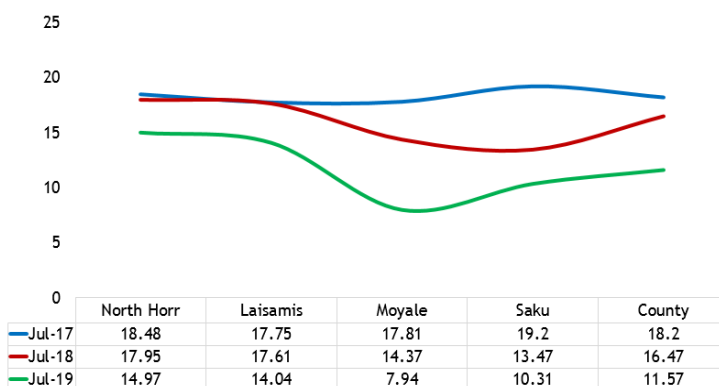


Figure 8: Trends in coping strategy index (CSI)

through various resilience building programmes where households are currently using less severe coping mechanisms as compared to the same period in the previous year. Households are mostly employing consumption-based coping mechanisms to bridge the food gaps.

3.3 Utilization

3.3.1 Morbidity and mortality patterns

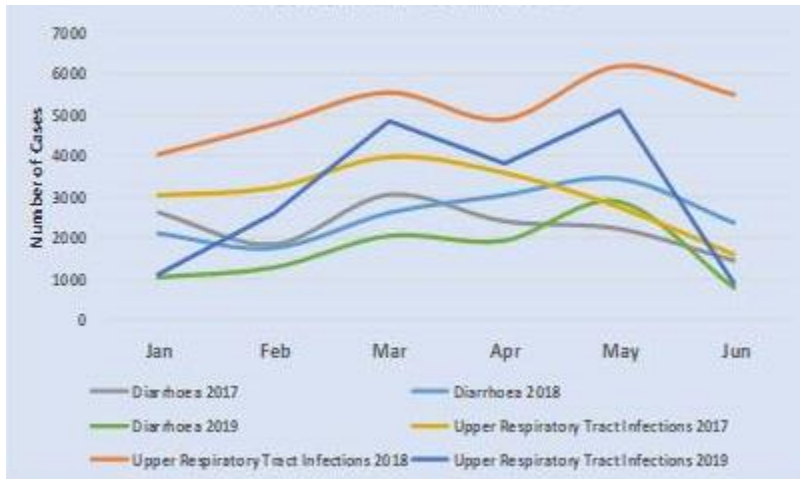


Figure 9: Morbidity trends for U5

presence of some rain and reduced winds hence reduced dust and also a reduction of outreaches in the same period. However, the cases recorded in June is below that the same period in 2018 and 2017. The lower numbers reported for February, April and June may be partly attributed to reduced access to services following reduction in outreach coverage. Across the years, Moyale accounted for the highest proportion of all morbidity, which is attributed to the high population and generally better access to health services. Variations within sub counties were reported with a sharp increase in Laisamis (38.6 percent of all the cases). A similar trend was observed in Saku

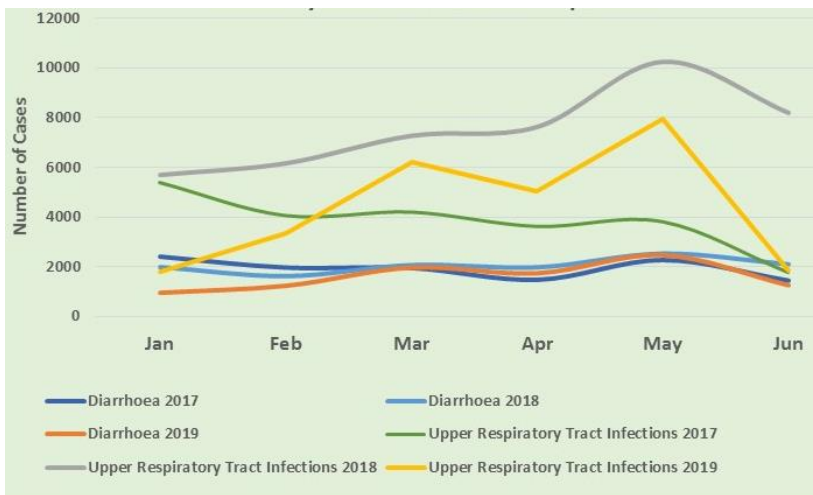


Figure 10: Morbidity trends for the General Population

Upper respiratory tract infections (URTI) diarrhoea and malaria cases remain high among children under the age of five years. The cases have been generally higher than the cases reported in 2017 but lower than those recorded in 2018. The trend was characterized by spikes and drops as shown in Figure 9, specifically in March and May for URTI, attributed to a lot of cold wind and dust being blown in the air, and the drop in April was due to presence of some rain and reduced winds hence reduced dust and also a reduction of outreaches in the same period. However, the cases recorded in June is below that the same period in 2018 and 2017. The lower numbers reported for February, April and June may be partly attributed to reduced access to services following reduction in outreach coverage. Across the years, Moyale accounted for the highest proportion of all morbidity, which is attributed to the high population and generally better access to health services. Variations within sub counties were reported with a sharp increase in Laisamis (38.6 percent of all the cases). A similar trend was observed in Saku with five percent increase in cases of URTI from 14.3 percent for the same period in 2018). Diarrhoea cases have been stable from January to June 2019 and following the seasonal norm as compared to the same period in 2018 and 2017.

In the case of the general population, the same causes of morbidity were noted. There was a similar trend to the URTI cases as for the under-fives for 2019, though the cases were lower than cases

recorded for the same period in 2018 (Figure 10). There were fewer cases of Diarrhea and Malaria reported in 2019 compared to 2018 and 2017. The number of URTI cases reported for the same period increased in 2019 compared to 2017. The lower numbers reported may be partly attributed to reduced access to services especially between February and April 2019 following reduction in outreach coverage.

Analysis on proportionate contribution to county caseload showed an increase in cases of URTI in Saku compared to the same period in 2018 and 2017 at 31.3percent compared to 19.6percent and 22.7percent in 2018 and 2017.

Similarly, a slight increase in diarrhoea cases was reported in Moyale, Saku and Laisamis compared to the same period in 2017. In Badanrero, Turbi, Godoma, Dabel in Moyale and Hulahula, Logologo, Oltorot in Laisamis sub counties. The community reported an upsurge of Diarrhoea and other water borne diseases. The epidemic diseases were lower for the period under review in 2019 compared to the same period in 2018, attributed to less favourable disease thriving conditions that were witnessed in 2018 as a result of enhanced rainfall performance.

There was an outbreak of Kalazaar in the county with a total of 1,464 cases as at 8th July 2019. Out of these, 353 cases were positives by RDT and fifteen deaths (CFR 4.5percent). 61 patients on active treatment 30 in Laisamis, 10 in Loglogo Health Centre, and 21 in Marsabit County Referral Hospital. Interventions have been taken by both national and county governments in order to address the outbreak including an advance team from the Ministry of Health (Field Epidemiology and Laboratory Training Program) supported the county to carry out field investigations.

The national government has provided technical guidelines and fact sheets while the county health departments is undertaking the following measures:

- (a) Detection, confirmation and managing of cases
- (b) Sourcing, procuring Kala-azar commodities
- (c) Capacity building on case management for clinicians and other health worker
- (d) Capacity building for laboratory personnel on Visceral Leishmaniasis algorithm and DAT
- (e) Mapping and characterization of health facilities in 3 endemic sub counties (Laisamis, North Horr and Saku)
- (f) Prevention and control measures of IRS in affected areas during earlier outbreaks
- (g) Enhanced Visceral Leishmaniasis surveillance activities

However, the crude mortality rate (CMR) and under five mortality rate (U5MR) from January to June 2019 have remained below the alert thresholds at 0.19 deaths /10,000/day for 2018 and 2019.

3.3.2 Immunization and Vitamin A supplementation

From a comparison of the SMART survey 2018/2019 results, the percentage of fully immunized child (FIC) coverage for the county dropped from 84.3 percent from January to June 2018 to 70.3 percent for the same period in 2019, was attributed to health workers strike, out of stock of vaccines and reduced outreaches that coincided with the period under review.

There was an increase in coverage for Oral Polio Vaccine OPV1 from 69.1 percent to 75.5 percent, and OPV3 from 67.5percent to 74.2percent. Measles coverage at 9months increased from 66.0 percent to 70.6percent, the trend was the same for Measles coverage at 18 months which increased from 48.9percent to 57.0percent. (Source 2018/2019 SMART survey

respectively). This could be attributed to improved documentation, defaulter tracing and referral system by community health volunteers (CHVs).

Vitamin A supplementation coverage (6-11 months) for the county from January to June 2019 was above the national target at 84.0 percent compared to the same period in 2018 which was at 77.7percent. The same was noted for children 12-59 months where the coverage increased from 26.2 percent in 2018 to 43.8 percent in 2019 (Source SMART survey 2018/ 2019). The increase may be attributed to improved documentation and supported Malezi bora campaign both for the last and this semester.

The proportion of children (12-59 Months) dewormed according to a comparison of July 2018 and July 2019 SMART Surveys show an increase in 2019 compared to 2018 as shown in Table 9 below.

Table 9. The proportion of children (12-59 Months) dewormed for various sub counties

County/ Sub County	The proportion of children (12-59 Months) dewormed	
	July 2018	July 2019
County	72.4	80
Moyale	69.3	72.1
North Horr	65.5	86.7
Laisamis	73.4	82.3
Saku	82.8	84.7

The increase may be attributed to improved documentation and supported Malezi bora campaign both for last semester and this semester.

Of all children that were ill, 75 percent of the children sought medical assistance, with 77.8 percent of them seeking services from a public clinic (July 2019 SMART Survey) and this was a reduction as compared to 2018 where out of 75 percent of children who were ill, 82.0 percent sought medical services from public clinics. This reduction is due to migration where households moved far away from the static health facilities (in 2019 which had less rain compared to 2018) with their livestock reducing access to medical services. Another reason is non-operational health facilities like Badanrero (which is lacking a Nurse but currently 1 CHV offering services) and Adadi which is yet to be functional. In Laisamis the families from Lekuchula community are having challenge of seeking health services due to long distance from the village to the facility, approximately 14 kilometres to and fro, as a result they start their initial treatment with herbs.

The Agro-Pastoral Livelihood Zones (Saku and Moyale) which experienced more rain compared to pastoral zones (North Horr and Laisamis) had higher incidences of morbidity than in pastoral zones, which could be due to poor water, hygiene and sanitation (WASH) indicators in county as the major cause of high morbidity.

3.3.3 Nutritional status and dietary diversity

Only a few of the households across the livelihood zones are consuming two meals per day, compared to the normal three during time of plenty. Majority of the households are consuming one meal per day (Turbi, Dukana, Qargasa, Dub gobba, Qorka, Korr, Lekuchula, compared to the normal three attributed to scarcity of food at household level.

The level of malnutrition is much higher (county GAM rates of 18.0percent July 2019 smart survey) as compared to same time last year (GAM rates of 12.4 percent in July 2018 smart survey) as shown in figure 11. As explained earlier there was good rainfall in 2018 which resulted in adequate pasture hence good livestock production which resulted to increased milk

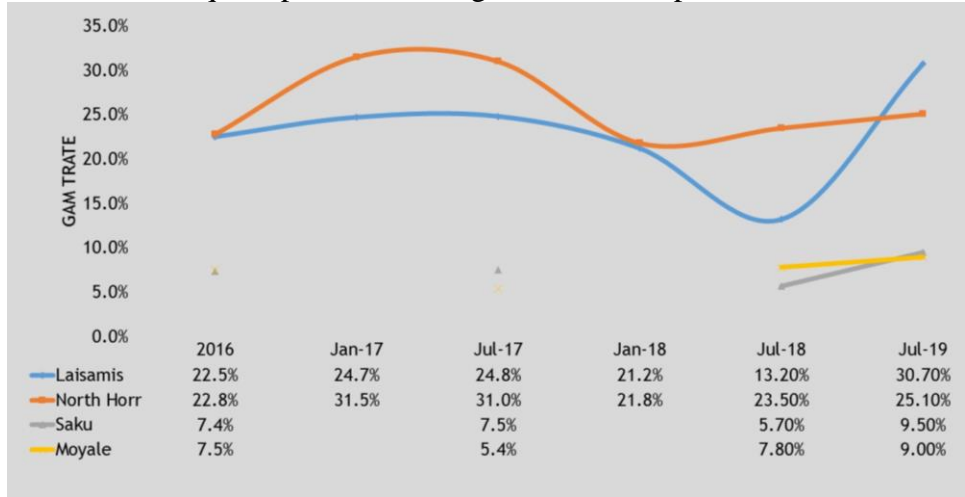


Figure 11: Trends in GAM rates (2016-2019)

thus good health and nutrition of children in 2018.

This year, inadequate rainfall performance has resulted in crop failure and poor or lack of pastures leading to livestock migration denying the households the much-needed milk, which forms an important part of diet especially for

children < 5 years. In some parts across the county during the LRA (Badanrero, Turbi, Logologo, and Hulahula) poor sanitation and hygiene has led to increased cases of morbidity especially diarrhoea, dysentery, typhoid, which later result to poor food intake, intestinal worms, gastrointestinal disorders and eventually leads to malnutrition. Other major contributory factors to acute malnutrition in Marsabit include insecurity along the borders/ interclan conflicts, inadequate childcare and feeding practices, poverty and high food insecurity.

3.3.4 Sanitation and Hygiene

According to the July 2019 SMART Survey, the main sources of water for domestic use were boreholes, public taps, water kiosks, unprotected wells and open water sources. The main water treatment methods involved boiling and use of water treatment chemicals. In terms of proportion 30.6, 22.6, 17.5 and 15.9 percent of households in North Horr, Moyale, Saku and Laisamis sub counties respectively reported to be treating water. However, during the field interviews, majority of the community reported not treating their water due to either lack of the water treatment chemical or lack of preferred brand of water treatment chemicals (health facilities were either giving Purr or Aqua tabs). Cases of diarrhea and waterborne diseases reported in the county could be attributed to use of contaminated water due to low water treatment.

Over 90 percent of households across the livelihood zones collect and store water in closed containers and 75 percent of the county reported to be aware of hand washing practices. Water contamination was mostly noted in the open water sources especially in the pastoral zones. Cases of livestock sharing water sources with humans was also noted as a possible source of contamination in Badanrero and Turbi.

Majority of the households across the livelihood zones especially in North Horr and Laisamis dispose of household waste in the bushes and *laggas* with a very small proportion doing so in the pit latrines and dumping sites. The county latrine coverage is still low with the lowest being 24.1

percent and 38.2 percent in Laisamis and North Horr respectively while Moyale and Saku reported 89.5 percent and 71.9 percent respectively.

Handwashing at four critical times is poor across the county with 17.0 percent, 6.7 percent, 7.4 percent for North Horr, Laisamis and Saku respectively, However Moyale sub-county reported to be doing better at 52.0 percent.

3.4 Trends of key food security indicators

Table 10: Food security trends in Marsabit County

Indicator	Short rains assessment, Feb 2019			Long rains assessment, July 2019		
Percent of maize stocks held by households (Agro-Pastoral Livelihood Zone)	29 percent of LTA			0.03 percent of LTA		
Livestock body condition	Good-Fair for all species			Camels & Goats- Good-Fair, Cattle and Sheep- Fair		
Water consumption (litres per person per day)	Less than 10 Litres			10-15		
Price of maize (per kg)	41			48		
Distance to grazing	Pastoral	15-30		Pastoral	20-40	
	Agropastoral	10-20		Agropastoral	10-20	
Terms of trade (Pastoral Livelihood Zone)	106kgs			72 kgs		
Coping strategy index	19.42			18.38		
Food consumption score	Pastoral					
	Acceptable	Borderline	Poor	Acceptable	Borderline	Poor
	68.1 %	29.4%	2.5%	65.5%	24.1%	10.4%
	Agropastoral					
	Acceptable	Borderline	Poor			
	79.1%	19.8%	1.1%			

4.0: CROSS – CUTTING ISSUES

4.1. Education

4.1.1. Enrolment

There are a total of 290 ECDE centres, 188 primary schools and 38 secondary schools with enrolment as shown in Table 11 below.

Table 11. Enrolment

Enrollment	Term I 2019			Term II 2019		
	№ Boys	№ Girls	Total	№ Boys	№ Girls	Total
ECD	8,651	8,872	17,523	8,965	8,965	17,930
Primary	26,035	25,552	51,587	26,376	25,822	52,198
Secondary	4,109	3,646	7,757	4,459	3,585	8,042

There is a slight increase in enrolment at all levels of learning from Term I to Term II. Moyale sub county recorded stable enrollment while Saku sub county recorded increase in enrolment attributed to an enrollment drive by UNICEF. Despite an overall increase in enrollment in primary schools, Laisamis and north Horr sub Counties recorded a drop out in second term when compared to first term. The drop out is largely attributed to lack of the SMP, migration with parents and insecurity incidences in North Horr.

4.1.2: Participation

School attendance is slightly below normal estimated at 85-90% with frequent absenteeism noted in most schools. This was attributed to:

- Lack of School Meals Programme in all primary schools across the County.
- Insecurity particularly schools along the Kenya/Ethiopia border and Marsabit Central Sub County e.g. Kubiqallo, Lagdima and Garwole primary schools.
- In some schools, the boarding wings have been closed down, especially Torbi and Forole due to insecurity.
- Migration of learners with livestock.
- Poor lesson attendance as learners trek long distance for lunch which may not be available at home.
- Negative cultural practices, like initiation, marriage ceremonies, rite of passage.

4.1.3: Retention

Numerous cases of dropout were reported in most schools with higher numbers in lower primary pupils. In the ECDE sector, more girls dropped out than the boys. In primary school sector, no gender was adversely affected more than the other by the dropout. Reasons for drop out are identified in Table 12 below.

Table 12: Reasons for dropping out

	Reasons for drop out
ECDE	<ul style="list-style-type: none"> • Learners have migrated with their parents as they search for pasture • Insecurity • Herding small stocks
PRIMARY	<ul style="list-style-type: none"> • Insecurity in Saku and North Horr sub counties. • Lack of School Meals Programme in all schools • Herding of small stock. • Migration in search of water and pasture • Household chores (fetching water and caring for siblings)..

4.1.4: School meals programme

All the 290 ECDE centres were provided with ECDE meals from the month June, while all 182 public primary schools had no School Meals Programme (SMP). However, at the beginning of this term 86 primary schools in three sub counties (Moyale, Chalbi and Laisamis) received meals that only lasted for 50 days. The schools in the other four sub counties (Sololo, Marsabit Central, North Horr and Loiyangalani) did not receive SMP for the whole year.

In May, the Ministry of Interior and Coordination of National Government provided some schools with relief food that lasted for about one (1) week and they were. St. Peters, Garqarsa, Malabot and Hula Hula primary schools.

During the term, all the learners across the County have missed meals in ECDEs and Primary schools at different times. This is due to;

- Lack of timely supplies
- Lack of water for cooking meals as water harvested from roofs has dried up.
- Lack of firewood for cooking

Lack of SMP has increased the costs of running boarding schools since lunch has to be provided for the boarders.

Water scarcity is rampant and about 60 percent of primary schools/ECDE centres are currently facing serious water scarcity with the most affected schools located in Saku, Moyale and Chalbi regions.

4.1.5: Inter Sectoral links where available

Garwole and Lagdima primary schools which also double up as ECDE centres have remained closed due to insecurity. Other centres like Forole, Orto Hills, Kubi Qalo suffered partial withdrawal of learners. Saku and North Horr Subcounties currently have a primary school and an ECDE centre each closed. Ididho ECDE has relocated to Huri Hills and Chief Gufu Orge's village ECDE relocated to Kob Adhi area due to insecurity. Learning has been disrupted on various occasions in Forolle, Dukana and Sagante due to recurring conflicts.

A number of schools in conflict prone areas are housing IDPs as shown in Table 13 below.

Table 13: Schools hosting IDPs

School hosting IDPs	Boys	Girls	total
Dukana Girls ECDE	2	0	2
Dukana primary	4	0	4
Garqarsa	2	0	2
St.Peters	3	3	6
Total	9	3	12

In some schools like El Isack Mala, Kamotonyi Primary, Ndikir Primary, Elbesso Primary learners share classes due to inadequacy of classes. In fact, almost all ECDE classes are shared by PP1 and PP2 learners across the County.

5.0: FOOD SECURITY PROGNOSIS

5.1 Prognosis Assumptions

- According to North American Multi-Model Ensemble (NMME) climate forecasts, most parts of the country are likely to experience hotter-than-normal **land surface temperatures** during dry season months of July through September.
- **Maize prices** are expected to remain within average in the main towns of Moyale and Marsabit but in the smaller markets further from the main markets, maize prices are expected to follow seasonal trends and be maintained at above average levels driven by high demand as the drought intensifies and by continuously rising transport costs.
- Despite being within average currently, **goat prices** are expected to decline to below average levels from August through early October as the livestock body conditions are anticipated to impact the market price as they tend to below average in some areas despite sustained demand for goats. Projections indicate that prices could decline to 25 percent below average during the period.
- Based on low birth levels and low conception levels from February to May, which will consequently result in low births in the October-January period, milk production is expected to be below average throughout the scenario period.
- According to NMME climate forecasts, the **October to December 2019 short rains** season is most likely to be average based on uncertainty in the El Nino forecast.
- Driven by declining forage and water resources, **atypical migration** is expected to continue through October as livestock move out of the County to neighboring Samburu, Isiolo and across the border to Ethiopia despite recent conflict in search of forage and water. Normal migration patterns are likely to resume by early December as they return to the wet season grazing areas close to homesteads.
- As livestock continue to move to and congregate in dry-season grazing areas through November, **resource-based conflict** is expected to escalate which will likely result in loss of livestock and restricted access to grazing areas and disruption of livelihood activities such as livestock keeping and trade. However, conflict is expected to decline to typical levels by December when normal migration patterns are resumed.

5.2 Food security Prognosis (August-October)

From August, declining livestock body conditions and value coupled with reduced labor demand and significantly below-average milk productivity is expected to significantly reduce household

income from livestock production. Staple food prices are likely to remain stable boosted by incoming supplies from Ethiopia through Moyale but as livestock body conditions continue to decline driven by declining forage and water resources and increasing trekking distances, livestock prices are expected to decline to below average levels from mid-August reducing the goat-to-cereals terms of trade. In addition to below average milk availability and consumption, poor households will likely face constrained household food access and engage in increased sales of livestock to marginally meet their minimum food needs, depleting their already low livestock holdings yet to recover from the 2016 - 2017 drought. Relatively minimal in number of livestock deaths are expected due to drought and disease considering the smaller proportion of 10 – 20 percent left around the homesteads. Households however are likely to increase dependence on non-livestock related income sources such as petty trade, charcoal and firewood sales, remittances from relatives, regular and emergency safety nets in order to mitigate larger food gaps. Reduced access to milk due to migration and almost negligible milk production and consumption from the smaller milking herds is set to keep acute malnutrition prevalence at a Critical (GAM WHZ 15-29.9 percent) level in the County. Many households in parts of North Horr and Laisamis sub counties are expected to only marginally meet their minimum food needs by means of intensive application of both consumption and livelihood coping strategies and will face Crisis (IPC Phase 3) outcomes with Saku and Moyale sub counties also facing intensified food insecurity and outcomes due to failed crop and depleted household stocks.

5.3 Food security Prognosis (November-January)

The forecasted average October 2019 short rains are expected to drive regeneration of rangeland resources livestock are likely to return to wet season grazing areas by early November. Improved forage and water resources will drive better livestock body conditions and prices improving household purchasing power and food access. Expected below normal livestock births will result in below average milk sales and consequently, below average overall livestock-related income. In the agropastoral areas, crop production activities like planting and weeding are expected to provide income to households from October improving purchasing power and household food consumption. A reduction in both consumption and livelihood coping strategies is expected from early November as household income increases from casual labor and livestock sales. Households are expected to bridge food consumption gaps but still remain unable to afford essential non-food expenditures. Acute malnutrition levels will seasonally fluctuate but remain Critical (GAM WHZ 15-29.9 percent) in North Horr and Laisamis sub-counties but remain at Alert (GAM WHZ ≥ 5 to 9.9 percent) levels in Saku and Moyale mostly driven by low milk consumption, disease outbreaks and poor child-care practices. Driven by increasing household income, household food security is projected to improve to Stressed (IPC Phase 2), but some poor households with limited income generating capacity will continue to face food gaps and will remain in Crisis (IPC Phase 3).

6.0: CONCLUSION AND INTERVENTIONS

6.1 Conclusion

6.1.1 Phase classification

Currently, the food security situation in the county is unstable and on a declining trend. Moyale sub county is classified in the Stressed (IPC Phase 2) implying that households are having minimally adequate food consumption gaps but are unable to afford some essential nonfood expenditures without engaging in stress coping strategies. However, the rest of the County is

classified in Crisis (IPC Phase 3), with households having food consumption gaps that are reflected by high or above usual acute malnutrition.

6.1.2 Summary of Findings

The 2019 long rains onset was late and the cessation was early resulting in a shortened season. Spatial distribution was uneven while temporal distribution was poor. Maize stocks at household level are three percent of the LTA due to successive poor seasons. Pasture is depleted except in the fall back areas where it is expected to last for 1-2 months. Browse is expected to last for the same period in areas where it is still remaining. Availability of water for both livestock and domestic use is mainly from boreholes, vendors, water trucking and few remaining water pans. Increased distances to water sources due to drying up of most water sources as well as water rationing from piped schemes has compromised water consumption. Terms of trade are favourable to the pastoralists. Nutritional status for children below five years is on a worsening trend due to poor dietary diversity at household level.

6.1.3 Sub-county ranking

Table 14: 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"> • Long Return trekking distances for domestic water • Most open water sources dry • No pastures, fair -poor browse • Higher trekking distances for livestock • Normal migratory routes for livestock • 0.5-1 litre milk consumption • Conflict incidences – Darade, Forole, Idido, Chari Ashe • 23.5 GAM prevalence • Endemic livestock diseases • High food prices • Insecurity issues • Low sales from livestock • Limited access to markets • Intra and in-migration of livestock • Low milk availability
Laisamis	2	<ul style="list-style-type: none"> • Long trekking distances to water sources • Inadequate water • Poor pasture and browse • Insecurity incidences in Merille and Sarima • 30.7% GAM. • Livestock diseases: FMD in Mt Kulal, PPR • High food commodity prices

		<ul style="list-style-type: none"> • Low market volumes • Low milk availability
Saku	3	<ul style="list-style-type: none"> • Total crop failure • Low milk production • Water scarcity and high cost of water • Livestock migrations • 5-10 km livestock trekking distances • Depleted pastures • Endemic livestock diseases: • Insecurity incidences
Moyale	4	<ul style="list-style-type: none"> • Total crop failure • No household Stocks • Inadequate water for domestic use • Poor water quality • Unusual deaths of kids (Obu) • GAM rates of 9.0% • Fair-Poor pasture • Insecurity

6.2 Ongoing Interventions

6.2.1 Food interventions

Table 15: Ongoing food interventions (1)

Intervention	Objective	Specific Location	Cost	No. of beneficiaries	Implementation Time Frame	Implementation stakeholders
Agriculture						
Provision of food stuff	Increased food availability	13	10M	9,168 households	Ongoing	WFP/SND

Table 16: Ongoing Interventions (2)

Sub County	Population Range	Mode of intervention
North Norr	25-30	GFD
Laisamis	25-30	GFD
Saku	15-20	GFD
Moyale	10-15	GFD

290 ECDE centres were provided with ECDE meals from the month June 2019.

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

6.3 Recommended Interventions

6.3.1 Recommended Food interventions

Table 17: Recommended food interventions

S/No	Sub County	Population Range	Mode of intervention
1	North Norr	30-35	GFD
2	Laisamis	30-35	GFD
3	Saku	20-25	GFD
4	Moyale	15-20	GFD

7.0: ANNEXES

7.1: Ongoing Nonfood Interventions

Table 18: Ongoing Non-Food Interventions

Intervention	Objective	Specific Location	Cost	No. of beneficiaries	Implementation Time Frame	Implementation stakeholders
Agriculture						
Provision of food stuff	Increase food availability	13	10M	9,168 households	Ongoing	WFP/SND

Extension services	Improve resilience among farmers	13	0.3M	3000 farmers	On going	CGM
Promotion of Kitchen Gardening	Improve Vegetable availability	13	6M	1000 Households	ongoing	CGM, GIZ, NRT, WHH, SM, KFS, KWS
Operationalization of Logologo and Walda Irrigation Farms	Increase availability of Vegetables and Household income	2	10M	200 Households	Ongoing	CGM, GIZ, KRC
Water and Sanitation						
Water trucking	Enhance water availability and accessibility	<ul style="list-style-type: none"> Sagante/Jaldesa Ward- Boru Haro, Gar Qarsa, Qachacha, Manyatta Jillo, Jillo Schemes, Wario Duba, Kubi Dibayu, Galgallo Halake, Golole 1, Golole 2, Huka Adhi, Kukub Tiro, Dub Goba, Wario Guyo, Malka Lakole, Kubi Bagasa Central/Mountain Ward- Public institutions (St. Theresa, Dibayu High School, Kiwantja Ndege) Manyatta Daba Manyatta Chorora Manyatta Turkana Karare Ward- Parkishon, Karare Town, Hula Hula 	10,000,000	10,000	Ongoing	County Government of Marsabit
Water trucking	Enhance water availability and accessibility	<ul style="list-style-type: none"> Ilhadu, Maeyi, Kukub, Ariya, Damballa Fachana, Adadi Oga, Bori Junction, Funan 	20,000,000	10,000	Ongoing	County Government of Marsabit

	bility	Nyata,Godhe,Antut,Lagi,Osmole,Funan Qumbi,Elle Borr,Elle Dimtu,Gadha Korma,Somare				
Water trucking	Enhance water availability and accessibility	<ul style="list-style-type: none"> • North Horr Ward-Kob Dertu,Malabot/Gorich • Maikona Ward-Kalesa,Yaa Sharbana,Qatamur • Dukana Ward-Elhadi 	25,000,000	12,000	Ongoing	County Government of Marsabit
Water trucking	Enhance water availability and accessibility	<ul style="list-style-type: none"> • Namarei,Lekushula,Lependera,Kambinye 	20,000,000	12,000	Ongoing	County Government of Marsabit
Health and Nutrition						
Management of Acute Malnutrition (IMAM)	The OTP and the SFP treatment helps improve the Nutrient status of malnourished children and women.	All Sub Counties	72,473,896	2,463 SAM & 10,156 MAM	continuous	MoH,UNICEF,THS-UC, Beyond Zero, Concern, WVK, FHK,GIZ,NHP plus, Sign of Hope, TBI, KRCS,WFP
IYCN Interventions (EBF and Timely Intro of complementary Foods)	Reduction in Morbidity and Mortality rates hence more productivity on their day to day	All Sub Counties	5,741,889	12,259 children < the age of 1 year.	continuous	MoH, CGM, UNICEF,THS-UC, Beyond Zero, Concern, WVK, FHK,GIZ,NHP plus, Sign of Hope, TBI,

	activities hence a improved food security.					KRCS
Iron Folate Supplementation among Pregnant Women	Improve the micronutrient status of the women of reproductive age for improved pregnancy outcomes.	All Sub Counties	6,059,792	13,549 Pregnant women	continuous	MoH, UNICEF, THS-UC, Beyond Zero, Concern, WVK, FHK, GIZ, NHP plus, Sign of Hope, TBI, KRCS
Vitamin A Supplementation	Improve the Micronutrient status of the community. Infections prevention	All Sub Counties	3,989,747	47,774 children between 6 to 59 months	continuous	MoH, UNICEF, Concern, WVK, FHK, GIZ, NHP plus, Sign of Hope, TBI, KRCS
Education						
Water tracking	- Enhance access, participation, retention and performance	Hekima primary /ECDE	XX	473 Households	Ongoing	County Government of Marsabit
water tracking	- enhance ECDE	Adadi and Elle Borr Primary schools/ ECDE centres	XX	448 Househ	Ongoing	County Government of

	meal cooking - Enhance access, participation, retention and performance				olds		Marsabit
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7.2: Recommended Nonfood interventions

Table 19: Recommended Non-Food Interventions

Sub-county	Intervention	Location	No. of targeted beneficiaries	Proposed Implementers	Required Resources	Available Resources	Time frame
Agriculture							
All	Provision of certified DTC seeds	13	3000 HH (Farmers)	CGM	Improve food production in the next season	5M	Sep – Oct 2019
All	Ploughing for Vulnerable farmers	8	2000 HH (farmers)	CGM	Increase land under crop production	3M	Aug-Oct 2019
All	Establishment of Micro water harvesting Structures	8	5000 HH (Farmers)	WFP, CGM, SND, KWS	Increased food crop production	20M	Aug- Oct 2019
All	Establishment of Micro Irrigation Scheme	3	400 HH (Farmers)	GIZ/GFA, CGM	Increase food production	30 M	Aug- Oct 2019
Livestock Sector							
Countywide	Stock piling of strategic Livestock vaccines, drugs and equipment	Dukana, North Horr, Maikona & Turbi Korr, Kargi, south horr, Laisamis & Loglogo Golbo, Obu,	120,000 heads of Camel 400,000 Goats 300,000 Sheep 100,000	County Government, NDMA, Pacida, FH Kenya, RPLRP, Concern WW,	17,500,000	NIL	Aug-Dec 2019

		Butiye & Heilu Manyatta Sagante and Karere	heads of cattle	Caritas, VSF Germany.			
Countywide	Mass vaccination, treatment, Deworming and vector control	Dukana, North Horr, Maikona & Turbi Korr, Kargi, south horr, Laisamis & Loglogo Golbo, Obu, Butiye & Heilu Manyatta Sagante and Karere	120,000 heads of Camel 400,000 Goats 300,000 Sheep 100,000 heads of cattle	County Government, NDMA, Pacida, FH Kenya, RPLRP, Concern WW, Caritas, VSF Germany.	7,883,600	NIL	Aug- Dec 2019
Countywide	Enhanced disease surveillance	Dukana, North Horr, Maikona, Turbi & Illeret Korr, Kargi, south horr, Laisamis & Loglogo Golbo, Obu, Butiye & Heilu Manyatta Sagante and Karere	120,000 heads of Camel 400,000 Goats 300,000 Sheep 100,000 heads of cattle	County Government, NDMA, Pacida, FH Kenya, RPLRP, Concern WW, Caritas, VSF Germany.	5,600,000	NIL	Aug- Dec 2019
Countywide	Provision of Livestock feeds and mineral supplements	Dukana, North Horr, Maikona & Turbi Korr, Kargi, Laisamis & Loglogo Golbo, Obu, Butiye & Heilu Manyatta Sagante and Karere	400,000 Goats 300,000 Sheep 100,000 heads of cattle	County Government, NDMA, Pacida, FH Kenya, RPLRP, Concern WW, Caritas, VSF Germany.	200,000,0 00	NIL	Aug-Dec 2019
Countywide	Provision of water for livestock	Dukana, North Horr, Maikona, Turbi Korr, Kargi, Laisamis & Loglogo Golbo, Obu & Butiye Sagante and Karere	50,000 goats 20,000 sheep 30,000 heads of cattle	County Government NDMA PACIDA RPLRP Concern WW	4,000,000	NIL	Aug – Dec 2019
Water and Sanitation							
Entire county	Water trucking	All water scarce wards	42,000	County Govt of Marsabit and other	34,000,00 0	4,000,00 0	June- Dec,2019

				stakeholders			
Countywide	Support to BRRT, Loaders and Drivers M&E	All wards in need of support		County Govt of Marsabit and other partners	9,200,000	1,000,000	June-Dec,2019
County wide	Fuel subsidy for strategic boreholes	All strategic boreholes	55,000	County Govt of Marsabit and other partners	4,300,000	0	Dec,2019
Countywide	Desilting and protection of earth pans	All strategic pans	25,000	County Govt of Marsabit and other partners	20,000,000	1,000,000	Dec,2019
County Wide	Medium sized dam	<ul style="list-style-type: none"> Sagante/Jaldesa in Saku Uran in Moyale Kargi in Laisamis Kubi Adhi in North Horr 	20,000	County Govt of Marsabit and other partners	80,000,000	0	June-Dec,2019
County Wide	Drilling and equipping of more boreholes	County Wide	24,000	County Govt of Marsabit and other partners	100,000,000	0	June-Dec,2019
Health and Nutrition							
All Sub Counties	Support quarterly exhaustive 2 stage screening by MUAC & Weight for Height in all hot pots.	All children < 5 years & PLW(38,280) in 100 outreach site and 50 health facilities in North Horr, Laisamis , Moyale & Saku.		MoH, CGM, UNICEF,TH S-UC, Beyond Zero, Concern, WVK, FHK,GIZ,N HP plus, Sign of Hope, TBI, KRCS	3,310,000	Nil	Continuous
All Sub Counties	Scaling up health and nutrition emergency response through continuation of integrated	100 sites for North Horr, Laisamis , Moyale & Saku alongside all the health facilities(84)	15,765 Children <5 years and 2,280 PLW in all 130 outreach sites and 84 health	MoH, CGM, UNICEF,TH S-UC, Beyond Zero, Concern, WVK, FHK,GIZ,N HP plus, Sign of	14,900,000	4,290,000	Continuous

	outreach support in all mapped areas based on the priority ranking and the emerging issues e.g. displacements from floods and conflict/emerging diseases i.e. Kalaazar		facilities.	Hope, TBI, KRCS			
All Sub Counties	Provision of RUTF, RUSF, CSB, Resomal, F75 and F100 for treatment of Malnourished children and Women.	North Horr, Laisamis, Moyale & Saku	15,765 Children <5 years and 2,280 PLW in all 130 outreach sites and 84 health facilities.	MoH, CGM, UNICEF, TH S-UC, Beyond Zero, Concern, WVK, FHK, GIZ, NHP plus, Sign of Hope, TBI, KRCS	69,392,120	69,391,800	Continuous
All Sub Counties	Capacity strengthening on Integrated Management of Acute Malnutrition (IMAM) and LMIS for all newly recruited Nutritionist and Nurses.	Across the county.	Training of 90 newly recruited health workers (Nutritionist and CHAs) in Laisamis, Saku, Moyale and North Horr on IMAM.	MoH, CGM, UNICEF, TH S-UC, Beyond Zero, Concern, WVK, FHK, GIZ, NHP plus, Sign of Hope, TBI, KRCS	4,303,200	Nil	Jul-Aug 2019
Laisamis	Procure and supply vector control chemicals and equipment	Laisamis, Logologo, Laisamis and Korr areas of Laisamis sub county.	spray 500 households	MoH, CGM, UNICEF, TH S-UC, Beyond Zero, Concern, WVK, FHK, GIZ, N	3,000,000	Nil	Aug-2019

	for household spraying			HP plus, Sign of Hope, TBI, KRCS			
Education							
Moyale, Saku, North Horr & Laisamis	provision of SMP	all 182 primary schools County wide	52,198	Ministry of Education	42,687,430	None	
(countywide)	Water tracking to ECDE centres, primary & secondary schools	all water stressed ECDE centres, primary & secondary schools (At least 6 per Ward= 120 Schools	39,085	County govt of marsabit	7,008,000	None	
Moyale, Saku, North Horr & Laisamis	Provision of hand washing facilities	-all 290 ECDE centres		Ministry of Education	2,360,000	None	
(countywide)	Distribution of plastic water storage tanks to ECDEs, primary and secondary schools in water stressed areas.	-all 182 pry schools	70,128	County govt of marsabit		None	