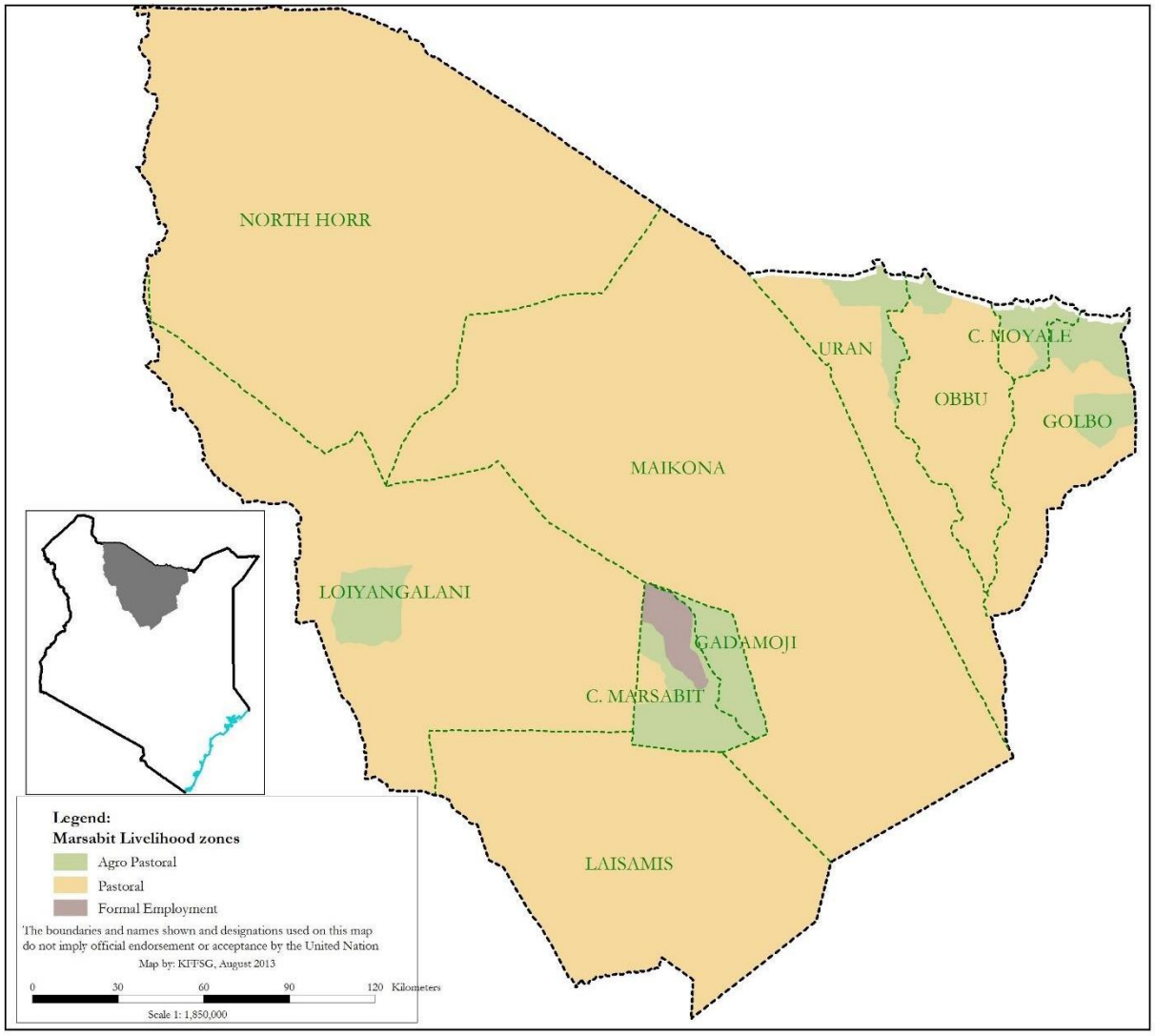
MARSABIT COUNTY
2023 LONG RAINS FOOD AND NUTRITION SECURITY ASSESSEMENT REPORT



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 2023 Long rains food and nutrition security assessment was undertaken from the 10th to 21st July 2023 by Marsabit County Steering Group (CSG). The overall objective of the assessment was to conduct an evidence based and transparent food and nutrition security situation analysis following the 2023 long rains taking into account the cumulative effects of the previous failed rainy seasons, and provide recommendations for possible response options. The assessment was based on the four pillars of food security namely; food availability, access, utilization and stability. It also looked at the contributing factors, outcomes and impacts on each sector. Various interventions that addressed the issues arising in each sector: agriculture, livestock, water, health and nutrition, education, peace and security, markets and trade were identified. Primary data was collected from the community and triangulated by the secondary data for validation of the findings. The main drivers of food and nutrition insecurity in the county were above average rainfall performance, fall army worm infestation, high food commodity prices, livestock diseases and floods. Most parts of the County recorded cumulative enhanced seasonal rainfall of 141-350 percent of the normal rains. The above normal rainfall had a positive effect on crop and livestock production, water accessibility and availability. Maize yield is expected to be near normal due to the outbreak of Fall Army Worm (FAW), use of non-certified seeds, late planting and floods. Pasture condition is good to very good in all the livelihood zones. Livestock mortalities resulting from floods were approximated at 1,099 heads of cattle, 367 camels and 3,842 small stocks. High incidences of diseases were observed among goats at 44 percent, Camels at 25 percent and Sheep 15 percent. Mass abortions especially among small ruminants were reported in the entire Moyale sub county. Influx of cattle from Ethiopia into North Horr sub-county increased the risk of Foot and Mouth Disease and Lumpy Skin Disease. Laisamis sub-county recorded widespread helminthiases and parasite infestation in all livestock species Livestock Body Condition Score (BCS) is good-very good for all species in all the livelihood zones compared to good-fair normally. Birth rates (kidding, lambing, calving) are currently below normal because all the livestock species are pregnant and calving in cattle and camel expected in January and April 2024 respectively. Milk production and consumption is currently below normal. Average return livestock trekking distances is 1-8 km against a normal of 5-15 km in all the livelihood zones. Average maize price is Kshs. 83/kg which is 63 percent above normal. Goats to maize ratio is 58 kilograms which is 21 percent below average. Open water sources were sufficiently recharged at 80-100 percent. Average household return water distances are 2-10 km against a normal of 5-10 km. Waiting time at water sources were 30-45 minutes and average water consumption per person per day is 10-15 litres. Across the livelihood zones, 32-35 percent of households reported having poor food consumption score (FCS), while 49 percent of the households had borderline food consumption. Approximately 31 percent of households applied Emergency livelihood coping strategies mostly begging to access food or money to buy food. According to SMART survey of July 2023, the global acute malnutrition (GAM) rate, for North Horr, Laisamis, Saku and Moyale sub-counties were 22.5 percent, 18 percent, 10 percent and 6.8 percent respectively thus the GAM rate significantly improved from “Critical” in January 2023 to “Serious” in July 2023. Overall Marsabit County is classified in Crisis (IPC Phase 3) characterized by large high food consumption gaps with projected Integrated Phase Classification remains at Crisis (IPC 3).

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1.0 INTRODUCTION

1.1 County Background

Marsabit County is located in the northern part of Kenya bordering Turkana County to the west, Samburu County to the south, Wajir County to the east and Ethiopia to the north. The county covers a total area of 70,961.2 KM^2 with a projected population of 515,000 persons (Kenya National Bureau of Statistics, 2019 Population Census). Administratively the county is divided into four sub counties namely Moyale, North Horr, Laisamis and Saku. The county has three main livelihood zones which include Pastoral livelihood zone constituting 81 percent of the county population, Agro Pastoral livelihood zone comprising of 16 percent of the population and others having a combined population of three percent (Figure 1). The sale of livestock and livestock products are the main sources of cash income in the Pastoral and Agro Pastoral livelihood zones contributing 82 and 60 percent of cash income 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 proportion of population that is below the poverty line was 80 and 69 percent in the Pastoral and Agro Pastoral livelihood zones respectively.

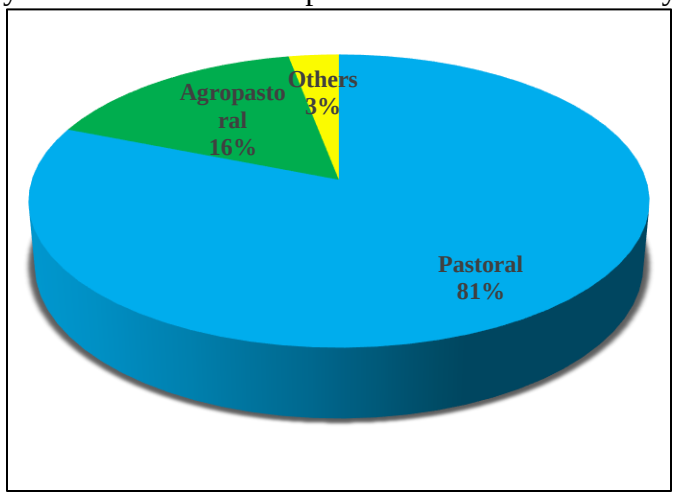


Figure 1: Proportion of the population by livelihood zones

1.2 Methodology and Approach

The food and nutrition security assessment is a biannual exercise with the main objective being to develop an objective, evidence based and transparent food and nutrition security situation analysis following the performance of 2023 long rains and considering the cumulative effects of the previous rainy seasons for provision of immediate and medium-term recommendations for appropriate response interventions. The assessment applied a faceted multi-sectoral and multi-agency approach comprising of representatives from the Technical CSG Members and various non-state actors. Valid quantitative and qualitative approaches were used in the exercise during primary data collection from the communities through focus group discussions, key informants and market interviews carried out in the pastoral, agropastoral and fisherfolk livelihood zones. The sectoral checklists were administered to the relevant sectors who provided the quantitative seasonal data as well as technical briefs during the CSG meetings. The secondary data from the county were provided through use of livelihood zone data, satellite data for rainfall, routine Demographic Health Information Systems (DHIS) data, prices and Mid Upper Arm Circumference (MUAC) data, National Drought Management Authority (NDMA) Monthly Bulletins, Food Security Outcome Monitoring (FSOM), Food Security Outlooks, SMART survey report among others. The data collected was then collated and triangulated as well as analyzed based on livelihood zones. The assessment exercise was carried out from 11th to 20th July 2023 covering the three livelihood zones in the county with a sampling frame to ensure adequate representation of each of the livelihood zones. The sampled sites in the southern parts included Karare, Tirgamo, Farakoren, Ballah, Ririma, Kargi, Olturot, Loiyangalani, Gas, Elboru Magadho,

Qorqa and Shegel. In the northern side, the sampled areas included Dirib, Qarqasa, Kambinyoka, Godoma, Laqi, Gadakorma, Waye, Ellebor, Forole, Dukana and Hurri Hills. Thereafter, the team compiled a draft county report whose preliminary findings were presented to the CSG on 20th July 2023 for validation and adoption. The integrated food security phase classification (IPC) protocols were applied in the classification of the severity and identification of causal factors of food insecurity.

2.0 DRIVERS OF FOOD AND NUTRITION SECURITY IN THE COUNTY

2.1 Rainfall Performance

The onset of the long rains was early than expected as it occurred in the second dekad of the month of March as opposed to the forecasted first dekad of April. Moyale sub-county, Northern parts of North Horr sub-county and areas bordering Lake Turkana belt recorded cumulative seasonal rainfall of 141-200 percent of normal rains (Figure 2). Additionally, Saku sub-county, Southern parts of North Horr sub-county and eastern parts of Laisamis sub-county received 201-350 percent of the normal rains. Cumulatively, Moyale recorded significantly above average seasonal rainfall amounts totaling to 591.8mm against a normal of 347.1mm. Similarly, Marsabit Mountain received remarkably above average seasonal amounts of 585.4mm compared to a normal of 370.1mm. A clear spatial trend is recognized whereby the north-eastern parts of the North Horr Sub-County received significantly higher amounts of rainfall than south-western part (near Lake Turkana). This pattern is partially validated and confirmed by ground-based weather station, indeed Dukana and Balesa weather stations recorded higher amounts of rainfall compared to the rainfall recorded by Gas weather station. Moreover, GPM dataset estimated higher rainfall values than weather stations, spanning from 1,000mm (in the surrounding area of Dukana) and almost 700mm (in the surrounding area of Balesa) to more than 300 mm (in the surrounding area of Gas). Distribution of the long rains was good and even both spatially and temporally and cessation occurred in the last dekad of May as opposed to the normal second dekad.

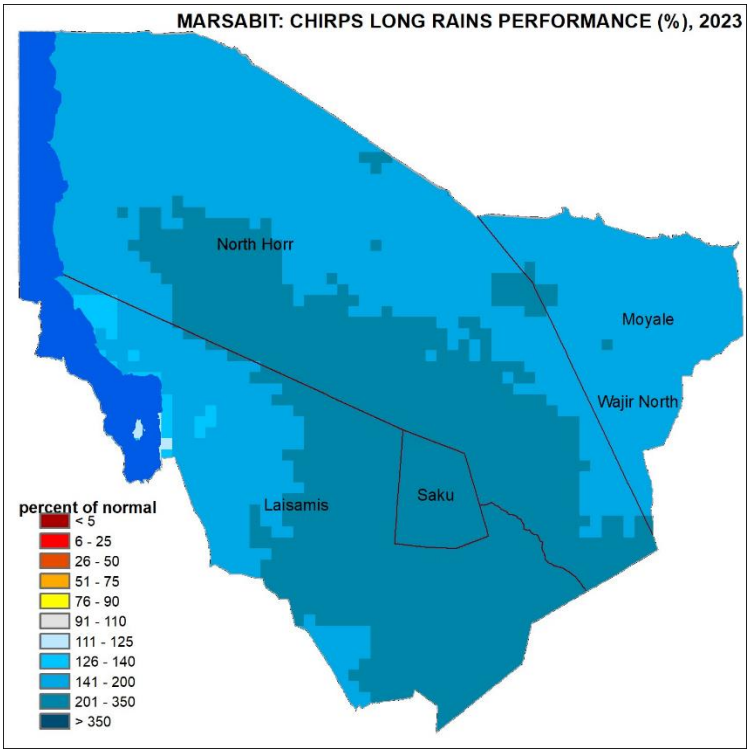


Figure 2: Rainfall Performance in the County

2.2 Shocks and Hazards

Fall Army Worm Infestation

Saku sub-county experienced low incidence of Fall Army Worm Infestation (FAW) in the maize crop at 1-2 plants per metre square and 1-2 caterpillars per plant. In Sololo, Moyale sub-county

the incidence of the FAW infestation is high in the farms visited at 4 plants per metre square and 3-8 caterpillars per plant. Control measures were put in place to avert crop damage that might have led to reduction in the expected yields and even total crop loss. There was presence of pod borers in legumes and African bollworm in maize though not in substantial numbers but control measures applied reduced maize crop damage.

High Food Commodity Prices

Compared to a similar period last year, the price of maize has increased by 40 percent in the agro pastoral livelihood compared to 60 percent increase in the pastoral livelihood for the same commodity. Similar trends apply to other staple food commodities. Exceptionally high maize prices were reported in parts of Laisamis and North Horr sub-counties where a kilogram was retailing at Kshs.160 and that of beans at Kshs.230. Above average maize prices were primarily driven by the cumulative effect of previous poor seasons which negatively affected crop production thus reducing availability in local markets amongst other factors such as macro-economic challenges and spill-over effects of the Ukraine-Russia crisis.

Floods/Flash Floods

An estimated area under crop of 360 acres out of 628 acres (prepared and planted) were affected by the flash floods where seeds were washed away and quite a number of farms filled with silt spread all over burying the planted seeds. This implied that 57 percent of the cultivated area might have reduced crop yields if the situation persists and this will impact negatively on food security as farming is the main livelihood for affected households. Approximately 1,099 heads of cattle, 367 camels and 3,842 small stock were lost due to the floods across the County and 2,684 houses damaged.

Livestock Disease Outbreak

The endemic livestock diseases reported in Marsabit County include contagious caprine pleuropneumonia (CCPP), goat pox, Peste des Petits Ruminants (PPR) for sheep and goats. In camels the diseases reported include Hemorrhagic fever and trypanosomiasis while cattle diseases include bovine ephemeral fever Anaplasmosis and Babesiosis. Generally, the main livestock diseases reported across the County in the month under review include; Contagious Caprine Pleuropneumonia (CCPP) 14 percent, Haemorrhagic septicemia 12 percent, Peste des Petit Ruminants (PPR) 12 percent, Brucellosis 11 percent, Helminthiasis 11 percent, Enterotoxaemia 4 percent and Rabies 3 percent. High incidences of diseases were observed among goats at 44 percent, Camels at 25 percent and Sheep 15 percent. Majority of the syndromes reported and their frequency distribution are Gastrointestinal 27 percent, Respiratory 21 percent, Abortion 13percent, Hemorrhagic 13percent, Sudden Deaths 9percent and Cutaneous/Skin Lesions 10 percent. Currently, no outbreak of livestock diseases has been reported. However, increased cases of Hemorrhagic septicemia in camels reported mainly In Moyale, North Horr and Laisamis sub-counties. Mass abortions especially among small ruminants were reported in the entire Moyale sub county. Sudden deaths in sheep have also been reported in Gadakorma and Walda areas in Moyale suspected to be enterotoxaemia. Disease control measures being applied include vector control, deworming and prophylactic treatment of animals.

3.0 IMPACTS OF DRIVERS ON FOOD AND NUTRITION SECURITY

3.1 Availability

Farmers maize stocks are projected to be below the long term average due to expected near average harvest in the agro-pastoral areas of Moyale and Saku sub-counties. Forage resources were good in pastoral livelihood zone while in the agro pastoral livelihood zone it was generally very good. In both livelihood zones the forage biomass (pasture& browse) will be available for consumption by livestock until the next rainy season.

3.1.1 Crop Production

The long rains season is a critical season in the county as its performance has significant impact on household food security status. Unlike the short rains season which is normally the most suitable for crop production in Marsabit County contributing more than 40percent of the county food security and 30 percent income in the agro pastoral livelihood zones in a good season, enhanced rainfall across the agro pastoral livelihood zone led to good performance of the crops grown. Both cereals and legume crops performed better in Moyale than Saku because Moyale received more rains than Saku.

Rain Fed Crop Production

Area under production of maize, beans and green grams recorded an increase of 33 percent, 14 percent and 37 percent respectively above the Long-Term Average (LTA). This was driven by the good performance of the March-April-May (MAM) rains in addition to the provision of seeds during the drought response by the County Government of Marsabit and partners (PACIDA, Welthungerhilfe, CARITAS and FAO). Concern Worlwide supported in ploughing of Hurri Hills in North Horr sub-county where a total of 45 acres of land were ploughed and WFP supported with extension services and development of post-harvest management guidelines as well as storage facilities for cereals and pulses. Additionally, area under green grams production increased as a result of the adoption of the crop by the farmers as early maturing and drought tolerant.

Table 1: Rain Fed Crop Production

Crop	Area planted during 2023 long rains season (Ha)	Long term average (5 year) area planted during the long rains season (Ha)	2023 long rains season production (90 kg bags) Actual	Long term average production (5 year) during the long rains season (90 kg bags)
1.Maize	640	480	2700	3000
2.Beans	285	250	1190	1152
3.Green grams	96	70	288	360

Although more land was opened up for crop production, a slight decline in production for maize and green grams is anticipated. Near normal harvest of maize and green grams is expected while the harvest of beans is projected to be normal. The yields of maize will not be above average as expected due to the outbreak of Fall Army Worm (FAW) which resulted to approximately 10 percent of yield reduction coupled with the use of non-certified seeds which led to cases of head smuts reported in Moyale and this impacted negatively on the maize yields. There was late planting by quite a number of households in Saku sub-county due to an earlier prediction of the MAM

season likely failing which discouraged the agro-pastoralists from timely cultivation of farms in addition to inadequate planting seeds. Yields were also negatively affected by flooding in areas of Heillu Manyatta, Golbo and Sololo wards in Moyale sub county.

Irrigated Crop Production

The area for kales, tomatoes and spinach planted reduced by 12 percent, 50 percent and 37 percent respectively while production reduced by 28 percent, 50 percent and 20 percent respectively compared with the LTA because farmers were not well prepared. The production of these crops is done mainly by 80 percent of the youth while the rest are women but 95 percent of women undertakes retail marketing for purchase of food at the household level.

Table 2: Irrigated Crop Production

Crop	Area planted during 2023 long rains season (Ha)	Long Term Average area planted during the long rains season (Ha)	2023 long rains season production (90 kg bags) Projected/Actual	Long Term Average production during the long rains season (90 kg bags)
1.Kales	16	18	112MTs	144MTs
2.Tomatoes	3	6	6MTs	12MTs
3.Spinach	4	6	48MTs	60MTs

3.1.2 Cereal Stocks

Maize, rice and green grams held by farmers increased by 25 percent, 50 percent and 62 percent respectively of the LTA whereas rice recorded a decline by 23 percent of LTA. The stocks held by traders decreased by 22 percent and 8 percent for maize and rice respectively whereas sorghum and green grams stocks posted an increase by 87 percent and 40 percent respectively. Households are currently holding stocks due to good harvests from the crops planted during the MAM season.

Table 3: Cereal Stocks in the County

Commodity	Maize (90kg bags)		Rice (90 kg bags)		Sorghum (90kg bags)		Green-gram (90kg bags)	
	Current	LTA	Current	LTA	Current	LTA	Current	LTA
Farmers	1500	1200	350	450	180	120	195	120
Traders	2500	3200	2300	2500	150	80	140	100
Millers	0	0	0	0	0	0	0	0
Food Assistance	0	0	0	0	10,200	0	2,000	0
NCPB	0	0	7000	0	0	0	0	0
Total	**4000**	**4400**	**9000**	**2950**	**10,530**	**200**	**2335**	**220**

Traders are purchasing their commodities from external markets especially Nairobi, Meru and Ethiopia. Households are mainly depending on supplies from the markets and food assistance from Government relief supplies, World Food Programme and Non-State actors. Stocks held by the NCPB are for food assistance from WFP mainly Maize and Sorghum and relief from County Government of Marsabit and the National Government.

3.1.3 Livestock Production

Introduction

Livestock production is the main source of income in Marsabit County contributing 82 percent of household income in the pastoral livelihood zone and 60 percent in the Agro-pastoral livelihood zone. The main livestock types kept include camels, cattle, goats, sheep and donkeys. Alternative livestock related livelihood sources include poultry, bee keeping and pasture production. The County livestock population is approximated to 1.5 million sheep and goats, 130,759 cattle, 233,328 camels, 74,266 donkeys, 83,992 chickens and 5,332 bee hives based on the County estimated livestock population (KNBS December 2022).

Despite above average long rains, livestock sector experiences low productivity due to the effect of the previous severe protracted drought and endemic livestock diseases. Other social factors include poor rangeland management, poor market linkages and resource-based conflicts The aforementioned challenges have a negative impact on livestock production with considerable socioeconomic impacts along the livestock value chains. The severe drought of 2021-2022 was the worst in history which led to very high livestock drought mortalities resulting in high livestock losses, especially small ruminants which are a high priority in value chains and an immediate source of livelihood majority households in the county.

The prolonged drought had adversely affected livestock sector in the County with observable impacts on household livestock herd dynamics, income and health. Mortality rates compared to the previous droughts were highest among cattle, sheep and goats. The estimated average last drought attributable mortalities for cattle were 54percent, sheep 36percent, goats 32percent and camel 24percent.

Impacts of Hazards and Shocks

In the period under review, livestock sector has been in the recovery phase from severe and protracted drought following timely onset of the long rains in most parts of the county. During this recovery process, pasture and browse regeneration was recorded in all the livelihoods. As a result of the significantly highly enhanced rains in most of the County, livestock mortalities associated with the effects of torrential rains and flash floods were reported especially in North Horr and Moyale sub counties.

Due to the already poor livestock body condition as at the onset of the long rains, livestock deaths driven by abrupt change of weather was high. The areas that reported flash floods in Moyale Subcounty were; Dambala Fachana, Bori, Sololo Uran, Nanna, Godoma and Yaballo while in North Horr Subcounty were; North Horr, Turbi, Dukana, Balesa, El-Hadi, Hurri Hills, Kalacha, Forole, Maikona, Elbeso, Elgade and Illeret. The livestock mortalities resulting from floods were approximated at 1,099 heads of cattle, 367 camels and 3,842 small stocks.

Mortality rates are very low and attributed to other causes including diseases and wildlife predation while the frequency of livestock migration to other areas has significantly declined. However, influx of cattle from neighbouring Ethiopia into Maikona, Dukana wards of North Horr sub-county and Uran, Golbo and Obbu wards of Moyale sub-county, increases the risk of Foot and Mouth Disease (FMD), Lumpy Skin Disease (LSD) and other transboundary diseases. Generally, the main

livestock diseases reported during the period under review include; Brucellosis, Peste des Petit Ruminants (PPR), Contagious Caprine Pleuropneumonia (CCPP), Hemorrhagic Septicemia (HS), Heart water, Trypanosomiasis and Rabies. There are reports of high number of abortions especially amongst small stock whose causes is yet to be identified thus requires further investigations.

Camel death suspected to be as a result of Hemorrhagic Septicaemia was reported from Obbu ward and sudden death of Camels was reported in Loglogo of Laisamis ward too. The affected animals presented with swollen lymph nodes, respiratory distress and anorexia. There is a report of an outbreak of an acute camel disease in Turbi suspected to be hemorrhagic septicemia with increasing mortality rates. The presenting clinical symptoms are mainly dullness, fever and lymphadenopathy. Sudden deaths among sheep were reported in Waye, Anona, Walda, Bori and Amballo in Moyale sub-county suspected to be enterotoxaemia while increased incidence of respiratory syndromes was reported among goats across the County.

Widespread cases of caprine pleuropneumonia (CCPP) which is endemic in Marsabit county was reported across the County. Trypanosomiasis in camel were also reported in Bori, Godoma, Yaballo, Dabel, Uran and Waye of Moyale sub-county, Hurri Hills and Forole of Maikona ward of North Horr sub-county, Olturot of Loiyangalani ward and Kargi of Kargi ward of Laisamis sub-county. Deaths in kids and lambs was reported in Mansile, Bori, Dambala Fachana, Waye and Funanqumbi of Moyale sub-county, Korr and Kargi of Laisamis sub-county.

There are also widespread cases of suspected rabies outbreak in the County especially in Maikona and Forole of Maikona ward, Turbi of Turbi Bubisa ward of North Horr sub-county and Jirime and Badassa of Marsabit Central ward. In recent months, human fatalities/death due to rabies infection after bites by rabid dogs have been reported from all the aforementioned areas. The effect of a combination of all the above-described factors has a negative effect on the recovery efforts to rehabilitate livestock assets in the pastoral and agropastoral livelihood zones.

Mechanisms that have been put in place to contain Hazards/Shocks

Department of Agriculture, Livestock and Fisheries in collaboration with NDMA and development partners reviewed the contingency plans for drought intervention to incorporate effect of change on the hazards and shocks. The main interventions for livestock production include restocking of affected households with resilient livestock species mainly the goats. Other interventions include improved pasture production and storage through community fodder farms and establishment of bee apiaries for commercial honey production and income generation and enhanced livelihoods diversification. Livestock health interventions were vaccination against PPR, CCPP, Sheep Pox, Goat Pox and Lumpy Skin Disease and treatment of clinical cases, deworming and vector control.

Pasture and Browse Condition

Pasture condition is good in the pastoral livelihood zone and very good in the agro pastoral livelihood zone compared to fair at this particular time of the year. Pasture/herbaceous layer surpassed the browse layer biomass production. However, forage biomass production in the Gas, Loiyangalani, Oldonyo Mara, Civicon and Olturot in Laisamis sub-county was poor. These areas experienced feeds deficit driving pastoral herds to migrate to dry season fall back areas. The available pasture in the areas that's received good rains is likely to last more than 3 months compared to less than1 month in those areas mentioned to be having feed deficit. In both livelihood

zones the forage biomass (pasture and browse) will be available for consumption by livestock until the next rainy season.

Table 4: Pasture and Browse Condition

	Pasture					Browse				
Livelihood zone	**Condition**		**How long to last (Months)**		**Factors Limiting access**	**Condition**		**How long to last (Months)**		**Factors Limiting access**
	Current	**Normal**	**Current**	**Normal**		**Current**	**Normal**	**Current**	**Normal**	
Pastoral	Good	Fair	2-3	2	Insecurity, water shortage	Fair – Good	Fair	3 mo.	3 mo.	Insecurity, water shortage
Agro Pastoral	Very Good	Fair	2-3	2	Predation	Good	Fair	3-4 mo.	3 mo.	Insecurity

Continuation of the long dry spell is likely to result in declining, pasture forage quality while the green biomass is expected to dry up. Insecurity incidences were reported in isolated areas of Saku (Badassa/Songa), North Horr (North Horr/Illeret) and Laisamis (Loglogo/Isiolo border) thus hindered access to pasture and browse. Equally, water scarcity water in Ballah of Korr ward, El-Boji, Gandile, Burarat, Yaa Gara and Mangudo of Maikona ward, Kubi Adhi, Garwole, Diid Golla, Yaa Shabana and Kalesa of Dukana ward, Qorqa and Konon Gos of North Horr ward and Laqi of Obbu ward limited livestock access to water.

A large proportion of the county is covered by wood bush at 60percent. Invasive species such *Prosopis juliflora, Acacia reficiens, Acacia Seyal, Capparis tomentosa, Solanum incanum* and *Lantana camara* have reduced rangeland pasture production. In the Pastoral livelihood zones of North Horr, Maikona and Dukana wards, Prosopis juliflora has interrupted accessibility of forage by livestock. In North Horr ward (Bura area) has a large chunk of land covering 15 km radius covered by *Prosopis spp. Prosopis juliflora* is also widely distributed in Laisamis subcounty Pastoral zones of Korr/Ngurnit, Loglogo ward, Laisamis and Loiyangalani wards. Acacia reficiens and Acacia Seyal spreads all over the landscape across all wards.

In Saku subcounty invasive species include *Capparis tomentosa, Solanum incanum and Lantana camara* in all the 3 wards. *Prosopis juliflora* is invasive in the Agro-Pastoral zones; in Bori and Qate of Butiye ward. The invasive plants inhibit growth of pastures and browse by competing for water and space while some of these species are poisonous if ingested by animals in large amounts and can cause livestock mortalities. This will eventually result in poor animal production with negative effect on marketing, income generation and food security. *Prosopis juliflora* is also invasive in Moyale subcounty. The estimated coverage of these invasive species are 35,000 Hectares of *Prosopis juliflora,* 70,000 Hectares of *Acacia reficience* and 60,000 Hectares of Acacia Seyal. National strategy on bush control and management of invasive species is in place but not implemented.

Pasture Conservation Status

Given the current good pasture condition and production across the county, pasture conservation activities by individual farmers are ongoing. Agropastoral farmers under rainfed farming are reserving portion of their farms with pasture for dry season. However, under irrigated farming (Kalacha) fodders farmers have been harvesting and baling hay. In the pastoral livelihood, across the sub counties-livestock keepers have put in place grazing bylaws to rest and conserve dry season pastures. Pasture production and conservation has resumed in Hurri hills practiced by organized groups and individuals. Commercial fodder production is ongoing although the prices are very poor due to availability of alternative sources of fodder for animals. Commercial producers have invested in harvesting, bailing and storage for sale in the future.

Table 5: Baled Hay Status in the County

Sub County	No. of Hay Stores	Storage Capacity (Total number of bales)	No. of Bales currently being held	Average Weight per bale (in Kgs)	Average price per bale (Kshs.)	Comments – e.g. percentage held by farmers and other Institutions
Moyale	5	10,000	2,300			20% by private & 80% by public
Laisamis	2	2,000	0	-	-	100% by community groups
Saku	9	25,000	1,850	13	300	100% private farmers
North Horr	7	30,000	10,000	12-15	200	100% community groups
Total	**23**	**67,000**	**14,150**	**13**	**250**	

Under irrigated farming (Kalacha) hay baling is going on. Under rainfed few farmers have harvested while the majority are waiting for the moisture content of grass to drop to acceptable levels required for harvesting. The following partners supported, WFP/SFS, Centre for Research Drylands and NAWIRI. Due to availability and plenty of pasture, utilization of conserved pastures/hay by farmers and other institutions is at a low of less than 10percent. Factors limiting the utilization of conserved pastures/hay are low demand and high availability of standing pastures.

Livestock Productivity

Livestock Body Condition

Livestock Body Condition Score (BCS) for all species across the county are LBCS 4-5 which is above average when compared to LBCS 3-4 normally. The good to very good livestock body condition is attributed to succulent pasture, water availability and existence of crop residues in the agropastoral areas of Moyale and Saku sub-counties. In addition, the good pasture that drastically regenerated within the season is not under over use pressure due to the few remaining livestock after the protracted severe drought. The current body condition status has a positive effect on livestock productivity.

Table 6: Livestock Body Condition

Livelihood zone	Cattle		Sheep		Goat		Camel	
	Current	Normal	Current	Normal	Current	Normal	Current	Normal
Pastoral	BCS 4-5	BCS 3-4	BCS 4-5	BCS 3-4	BCS 4-5	BCS 3-4	BCS 4	BCS 3
Agro-pastoral	BCS 5	BCS 3-4	BCS 4-5	BCS 3-4	BCS 4-5	BCS 3-4	BCS 4	BCS 3

Note: BCS – Livestock Body Condition Score
BCS 1–Very Poor (Emaciated), BCS 2–Poor, BCS 3–Fair, BCS 4–Good and BCS 5–Very Good

Livestock body condition will likely remain good in the next 3 to 6 months due to availability of feed reserves in the form of standing dry pasture, green browse biomass and elevated probability of enhanced short rains. Milk availability at household level is poor due to minimal births mainly amongst the small stock. Milk production will likely peak in January 2024 (expected calving in cattle) at the household level will probably reduce the risk of malnutrition especially among children under five years of age and the elderly who depend on milk either as the main diet or as supplement food.

Birth Rate

Livestock breeding (mating, gestation and birth) is seasonal for all species and is largely dependent on availability of quality forage and water. Most parts of the county have experienced good rains with some having above average rains during the long rain season resulting in adequate forage and good livestock body condition. The birth rates (kidding, lambing, calving) are currently below normal because all the livestock species are pregnant. The current low births are attributed to the prolonged severe drought that resulted in the loss of breeding stock. However, the birth rates among sheep and goats were recorded in some pockets of Laisamis sub-county. In the next 2 to 3 months, lambing and kidding is expected to reach its peak across the County with most mature breeding cattle have mated and are likely to calve down in January 2024. Conversely, calving in camels will coincide with the next long rains season of 2024. In the next 3 and six months, the buildup of herd sizes and livestock population is expected with mating of more breeding females.

Tropical Livestock Units (TLUs)

The TLUs among poor income households in the pastoral and Agro-pastoral livelihood zone is 1-2 while that of medium income household zones is 2-3 TLUs in pastoral and Agro-pastoral livelihood zones respectively. There was observed decrease in TLUs resulting from drought related high mortalities and very low birth rates among goats and sheep. The TLUs have been on a declining trend over the period of 5 years due to reducing production factors including water and pasture scarcity driven by failure of five consecutive rainfall failures. Coping strategies for reduced TLUs are seeking for food assistance, cash transfer and crop farming in the agropastoral areas. Other strategies include restocking and adoption of alternative livelihood sources e.g., rearing of indigenous poultry, bee keeping and informal employment.

Table 7: Tropical Livestock Units by Household Income

Livelihood zone	Poor income households		Medium income households	
	Current	Normal	Current	Normal
Pastoral	1-2	6-10	2	16-20
Agro- pastoral	1-2	3-5	2	7-8

The population of all species of livestock for both poor and middle-income households has been on a declining trend since the last good year (2018). However, the rate of decline varies among species, being higher in cattle and sheep than goats and camel attributed to the feeding habits since the latter are browsers. The TLUs are expected to improve in the recovery phase of the drought with improved births and other recovery measures adopted by different households of individual or government/partners assisted restocking. Below normal tropical livestock tropical units have led to a reduction in traded volume in the market thus constrained household purchasing power.

Milk Production and Consumption

Currently, the main sources of milk in the county are goats, sheep and packet milk. Milk production depends on the livestock breeding status, forage and water availability. In the period under review, milk production and availability are low mainly occasioned by very low birth rates and reduced household flock size. However, milk production is expected to gradually increase to an average of 1litre per household per day in the next 2-3 months across the livelihood with expected peak of kidding, lambing and persistence of adequate pastures and water availability.

Table 8: Milk Production, Consumption and Cost

Livelihood zone	Average milk Production (Litres)/Household/day		Average milk consumption (Litres) per Household/day		Prices (Kshs)/Litre	
	Current	Normal	Current	Normal	Current	Normal
Agro-pastoral	0.5	1.5	0.75	1.5	120-140	90
Pastoral	0.75	1-1.5	0.75	1	120-160	90

The main factors affecting milk production, consumption and prices at the household level include low population of non-lactating animals and constrained household purchasing power. Majority of households across all the livelihood zones are still relying on powdered milk and packet milk purchased from retail shops. Fresh raw milk is also being hawked in major trading centers reportedly being transported from Nanyuki and Meru. Milk prices are; powder milk Kshs. 2,500 per 2kg tin, raw milk from Nanyuki Kshs. 150 per litre, packaged fresh milk and locally produced raw milk 120-160 per litre.

Migration

Generally, there was minimal livestock migration compared to moderate movement of livestock at this time of the year. Current migration patterns indicate that majority of livestock which had initially moved within and outside the County have already returned back to their traditional satellite grazing areas. However, there were migration in some pockets of North Horr and Laisamis sub-counties attributed to insecurity incidences. Currently, livestock in the pastoral and agro-pastoral livelihood zones are in their normal wet season grazing areas. The proportion of cattle, camels, sheep and goats that have migrated are less than 5percent. The low migration of livestock

is normal since the relative distances to water and pastures has been significantly reduced following sufficient rains received in most parts of the county. In the 3-6 months, most of the livestock are expected to remain within their traditional grazing areas due to continued availability of forage and water across the livelihood zones coupled with the elevated probability of enhanced forecasted short rains.

Livestock Diseases and Mortalities

The endemic livestock diseases reported in Marsabit County include contagious caprine pleuropneumonia (CCPP), goat pox, Peste des Petits Ruminants (PPR) for sheep and goats. In camels the diseases reported include Hemorrhagic fever and trypanosomiasis while cattle diseases include bovine ephemeral fever Anaplasmosis and Babesiosis. Generally, the main livestock diseases reported across the county in the month under review include; Contagious Caprine Pleuropneumonia (CCPP) 14percent, Haemorrhagic septicemia 12percent, Peste des Petit Ruminants (PPR) 12percent, Brucellosis 11percent, Helminthiasis 11percent, Enterotoxaemia 4percent and Rabies 3percent. High incidences of diseases were observed among goats at 44percent, Camels at 25percent and Sheep 15percent. Majority of the syndromes reported and their frequency distribution are Gastrointestinal 27percent, Respiratory 21percent, Abortion 13percent, Hemorrhagic 13percent, Sudden Deaths 9percent and Cutaneous/Skin Lesions 10percent. Currently, no outbreak of livestock diseases has been reported. However, we have increased cases of Hemorrhagic septicemia in camels reported mainly In Moyale, North Horr and Laisamis sub-counties. Disease control measures being applied include vector control, deworming and prophylactic treatment of animals.

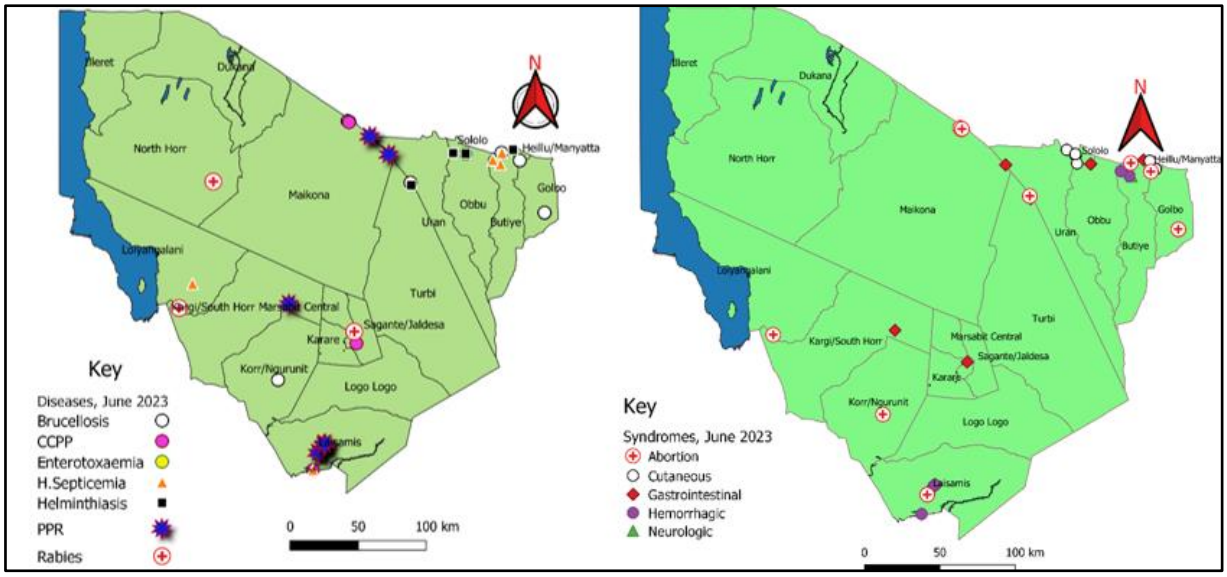


Figure 3: Spatial distribution of reported livestock diseases

In Moyale sub-county, Camel disease outbreak caused deaths of 45 camels from 9 herds were reported in Bori location (Bori main, Bori junction and Dadach Lakole). Majority of the affected camels are adults, those that calved recently and lactating ones. The symptoms observed among these cases include inappetence, swollen lymph nodes, dullness and deaths within 2-3 days. The

differential diagnosis was hemorrhagic septicemia, trypanosomiasis and heartwater. However, no outbreak investigation has not been done. Mass abortions especially among small ruminants were reported in the entire sub county. Majority of the affected areas: Garse, Yaballo in Golbo ward; Funanqumbi, Ellebor in Uran, Amballo, Badanrero in Obbu ward. Sudden deaths in sheep have also been reported in Gadakorma and Walda areas in what appears to be enterotoxaemia. Deaths of sheep and goats with signs suggestive of Peste des Petits Ruminants are reported in Ellebor, Elledimtu and Funanqumbi. Respiratory cases are common especially with small ruminants all over the sub county. Cases of contagious caprine pleuropneumonia is endemic in the area and now precipitated by setting in of cold season.

North Horr sub-county reported isolated cases of diarrhoea and sudden death, suspected of enterotoxaemia and Peste des Petit Ruminants (PPR) were reported in Dukana ward while abortions and Contagious Caprine Pleuropneumonia (CCPP) were reported in Shurr, Turbi and Forole mainly among the goats. Influx of cattle from Ethiopia into Forole, Mangudo and Burarat increased the risk of Foot and Mouth Disease (FMD) and Lumpy Skin Disease (LSD). Laisamis sub-county recorded widespread helminthiases and parasite infestation in all livestock species. Tick borne diseases e.g., Anaplasmosis and Babesiosis were also reported. Increased incidences of pneumonia among goats and cattle were recorded mainly in Mt. Kulal. Karare ward of Saku sub-county recorded increased abortions and respiratory syndromes among the goats.Following good performance of the long rains, the livestock drought mortality rates declined. Currently mortalities are being observed particularly highest among goats and Camel. The areas where livestock mortalities are reported include the pastoral zones of Laisamis, North Horr and Moyale sub counties. However, Moyale Sub County reported high mortalities especially among camel. The mortalities being observed are attributable to endemic and opportunistic livestock diseases following the climatological changes.

Water for Livestock

The current main sources of water for livestock across all livelihood zones are; Water pans, shallow wells, boreholes which are generally the normal sources at this particular time of the year. The average current return trekking distances are less than 8Km with exception of parts of Dukana (Yaa Shabana, Garwole, Kubiadhi, Diid Gola) and Maikona (Gandile, Burarat, Mangudo, Yaa Gara) wards of North Horr sub-county and Korr-Ngurnit ward of Laisamis sub-county.

Table 9: Water Availability and Access

Livelihood zone	Sources		Return average distances (km)		Expected duration to last (months) for each source	
	Current	Normal	Current	Normal	Current	Normal
Agro Pastoral	Borehole Water Pans Shallow wells	Water pans, Ground water Water tracking	1-3	5-10	Water Pans likely to coincide with the next season	2-3 months
Pastoral	Water Pans, Flood waters Water pools	Shallow wells Water pans Boreholes	3-8	10-15	Water Pans likely to coincide with the next season	2-3 months

In the agro-pastoral livelihood zones, return average livestock trekking distances is 1-3km against a normal of 5-10km. Additionally, return average livestock trekking distances is 3-8Km against a normal of 10-15km. The existing water sources have variations in time duration they are likely to

last. The duration of the open water sources is likely to coincide with the onset of the next rainy season in all the livelihood zones.

Watering Intervals

The watering frequency for cattle in both livelihood zones is a normal of 1-3 days in the pastoral livelihood zone and 1-2 in the Agro-pastoral livelihood zone. Watering frequency for camels is 7 days in both pastoral and agro-pastoral livelihood zones which is within a normal range of 7-12 in the pastoral and 7-14 in the Agro-pastoral zones. Small ruminants are being watered after 3 days in both pastoral livelihood and Agropastoral livelihood zones which is within the normal range of 3-4days. Cattle can now water every 1 -2 days due to available water in the water pans and dams, while the small stock can stay up to month without water due to rush pastures and browse.

Table 10: Watering Intervals by Species (livestock water after no. of days per week)

Livelihood zone	Cattle		Camels		Goats		Sheep	
	Current	Normal	Current	Normal		Current	Normal	Current
Pastoral	2-3	1-3	10-16	4-6	4-6	2-3	4-6	2-3
Agro-pastoral	2-3	1-2	7-10	4-5	3-4	1-2	3-4	1-2

It was been observed that the watering frequency has increased and the duration between watering cycles decreased. The observed variation in watering frequency is attributed to decreased distances between pastures and water sources and the increased number of water sources. There will be an upward trend in trekking distances/watering frequency due to gradual increase in grazing distances as animals deplete wet season pastures.

3.1.4 Impact on Availability

The performance of the long rains season coupled with cumulative effect of previous poor rainy seasons impacted positively on livestock productivity in all the livelihood zones. It resulted to good regeneration of forage resources leading to good-very good livestock body conditions and shorter livestock trekking distances across the livelihood zones.

3.2 Access

The traded volumes for food commodities were near average. However, livestock volumes traded were significantly below average due to low livestock volumes in the markets. Water consumption in both livelihood zones was good due to high recharge of water points, shorter waiting time at water sources, reduced trekking distances as well as minimal breakdown of strategic boreholes. Food Consumption Score (FCS) deteriorated across the livelihood zones when compared to a similar period in 2022. Additionally, consumption coping strategies remained in the crisis phase as households engaged more on severe coping mechanisms to access food or money to buy food.

3.2.1 Market Operations

Main food commodities traded in the county were sourced from Nairobi, Meru and Ethiopia with no market disruptions during the long rains period. The market operations are within normal as the consumers can easily access the commodities in the markets within the livelihood zones. However, local supplies to some markets in the pastoral were constrained by limited supplies. Food commodities supplies to the market are sourced externally from Nairobi, Meru and Ethiopia and the cost of the staple commodities is high compared to normal situation due to macro-economic challenges and high inflation. Most household's purchasing power reduced due to loss of the livelihood assets from the previous severe drought and this negatively affected the volumes

of commodities traders can stock. The main livestock markets are Moyale, Sololo, Dambala Fachana in Moyale sub county; Turbi, Forole, Dukana in North Horr Sub County; Jirime for Saku Sub County and Merille, Korr, Olturot, Illaut for Laisamis Sub County. The three main livestock species traded include Cattle, Camel and Shoats (sheep and goats). The following livestock markets; Moyale, Korr, Illaut, Merille, Arge, Sololo, Dambala Fachana, and Jirime are operational but on low volumes sine the population of livestock has declined significantly. In addition to the Moyale market, an alternative market for livestock is Bula Adhi in Ethiopia. Limited marketing of livestock is reported to be carried out in open places in towns, water points and grazing areas. The medium cattle average selling price is in the range of Kshs.30,000-35,000. Other than Moyale and Merille markets the rest of the active markets reported minimal sales though with an improving trend. Nevertheless, few cases of pastoralist selling significant percentage of herd is reported but still the number is less than 5percent.

Likely scenarios expected in market operations in the next six months include;

- Anticipated reduction in livestock volumes traded in the market. Considering current low population of livestock and the need to reserve some animals for breeding purpose, the number of livestock brought to the market is expected to be very low in some markets.
- High livestock prices; This is attributed to good body condition for most of the livestock brought to market. There is, however, unexpected scenario of market experiencing high livestock prices, especially for healthy animals. These animals are either fattened at home or have come from areas with fair browse. The prices in this case, go above normal market price due to high demand for animals with good body condition. Normally, a highest price of medium size goat always averages at Kshs.5,500 but the current prices are ranging between Kshs.4,000 -Kshs.6,000.
- Gradual decline in the prices of cereals and pulses due to the expected harvest towards end of July in addition to likely increased market injections from the external markets.
- Market closure. With the highly anticipated outbreak of RVF in Moyale subcounty after the issuing of an alert, some livestock markets might be closed on quarantine imposition to control transmission of the disease.

No distress sales were reported in the livestock market. From March to July 2023, there has been a gradual increase in the volume of livestock with the highest volume observed in the months of June and July, driven by improved livestock body condition and increased livestock demand.

Market Supplies and Traded Volumes

Market supply sources for Merille market includes local livestock within Merille region, Illaut and Kargi. Majority of livestock come from Samburu County that is Baragoi, Oldonyo Uasin and Archer's post area. However, high volume of camel come from Kargi-Ririma areas. For the case of Moyale and Jirime market supply of livestock is from Sololo, Badan rero, Ethiopia. Jirime market supply sources include; Shurr, Kambi Nyoka and Turbi. Alternative market to Merille, Moyale and Jirime market is Lolkuniany in Samburu County and Isiolo livestock market. Compared to normal time of the year the volume of livestock traded is low but is expected to improve with the progression of drought recovery.

Table 11: Livestock Sales and Volumes

Livelihood Zone	Name of the main market	Main livestock sold	Number of livestock or volumes traded for the last one month		Main sources of supply		Comment on type and number of traders buying the livestock currently; and compared to Normal
			Current	Normal	Current supply source (Name)	Normal supply source	
Pastoral	Merille	Camel	282	800	Korr/Ngurnit ward, Kargi/ South Horr, Laisamis	Korr/Ngurnit ward, Kargi/ South Horr, Laisamis	Number of traders purchasing camels have reduced
		Cattle	321	1020	Samburu County	Korr/Ngurnit, Kargi/ South Horr, Laisamis, Loglogo, Loiyangalani	Traders have reduced
		Sheep & goats	14,812	18,000	Merille, Laisamis, Korr and Illaut	Korr/Ngurnit, Kargi/ South Horr, Laisamis, Loglogo, Loiyangalani	Traders have reduced
Agro-pastoral	Moyale	Sheep & goats	4028	7000	Dabel and Sololo	Dabel, Badan rero, Ambalo, Godoma, Nana and Ethiopia	Number of traders have reduced
		Cattle	710	800	Bute, Ethiopia	Dabel, Badan rero, Ambalo, Godoma, Nana and Ethiopia	Number of traders has reduced
		Camel	420	700			
	Jirime	Sheep & goats	1075	3000	Shurr, Kambi Nyoka, Turbi, Kalacha	Shurr, Kambi Nyoka, Turbi, Kalacha, Dukana, Karare, Moyale	Number of traders has reduced
		Camel	15	30			
		Cattle	74	240			

Livestock Products and Feeds Prices

Main livestock product sold in markets is meat. There is no mention of milk or milk product across the areas visited attributable to livestock losses.

- The market offers a variety of livestock feeds, which are primarily found in agrovet stores and designated feed processors like Moyale animal feeds. However, certain livestock feeds, like hay, are currently unavailable in the market due to the abundance of good pasture.
- Markets currently holds a volume of Layers mash ranging from 300-500 bags, which is a higher quantity compared to the previous season. This increase can be attributed to the growing number of pastoralists who have entered the poultry production business in the area. The average price for a 50kg bag of Layers mash ranges between Kshs.3,400-3,800.

3.2.2 Market Prices

Maize Prices

Average maize price is Kshs. 83/kg which is 63percent above normal when compared to the five-year average price of Kshs.51/kg as illustrated in (Figure 4) below. Above average maize prices were driven by reduced market supplies as a result of low production from the external markets coupled with macro-economic challenges. Equally, the current maize price of Kshs.83 is higher than similar period last year price of Kshs.70 by 19percent. Moyale and Dukana commodities markets posted favourable maize prices ranging between Kshs.55-60/kg accelerated by supplies from the neighbouring Ethiopia market. However, most of the food commodities markets in Laisamis and North Horr sub-counties recorded surged maize prices of Kshs.110-120/kg denoting 112-131percent above the short-term average. With the expected harvest of maize in the agropastoral areas of Moyale and Saku sub-counties, maize prices are likely to gradually reduce in the 3-6 months although will still remain elevated above the five years average.

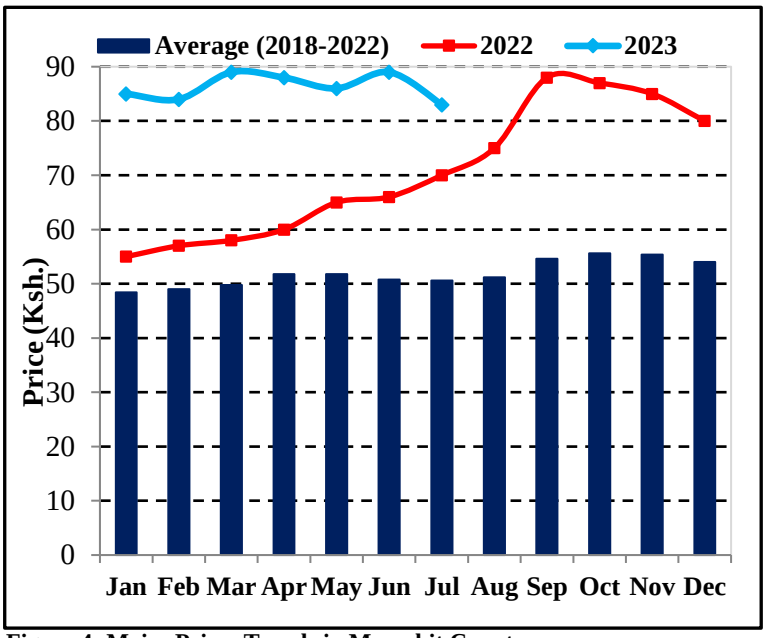


Figure 4: Maize Prices Trends in Marsabit County

Goat Prices

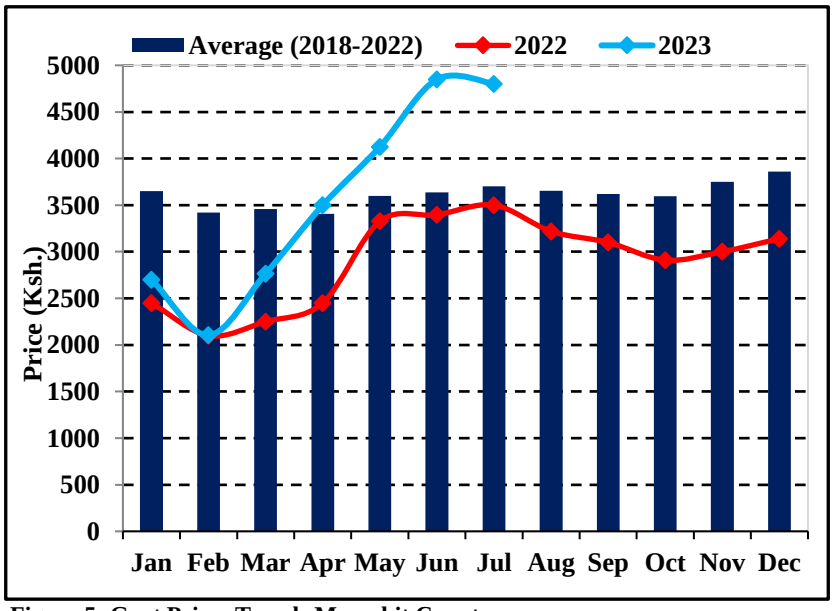


Figure 5: Goat Prices Trends Marsabit County

The price of a goat is Kshs.4,800 which is above normal in comparison to the five-year average price of Kshs.3,703 as shown in Figure 5. Additionally, the current goats' price is above June 2023 price of Kshs.3,500. Above normal goat prices in the reporting period were driven by largely good goat body condition in all the livelihood zones. Moyale and Merille livestock markets posted recorded goat prices averaging at Kshs. 6,500 with monthly traded volumes averaging at 14,812 and 4,028 goats and sheep respectively. In the next 3-6 months, goat prices are expected to

improve further in all the livelihood zones driven by continued good body condition and elevated chance of next season rainy seasons being highly enhanced.

3.2.3 Terms of Trade (ToT)

From (Figure 6) shown below, terms of trade are 58 kilograms of maize in exchange for the sale of a medium sized goat thus below the five years average terms of trade. Current terms of trade of 58 kilograms are below normal by 21percent. Terms of trade for the pastoral livelihood zone was poor because of surged maize prices in most of the food commodities markets of North Horr and Laisamis sub-counties. Favourable terms of trade were recorded in Moyale and Dukana attributed normal maize prices (increased maize supplies from the neighbouring Ethiopia) in addition to above average goat prices. In the next 3-6 months, goats-to-maize ratio is expected to improve in all the livelihood zones driven by expected maize reduction in addition to increased goats' prices.

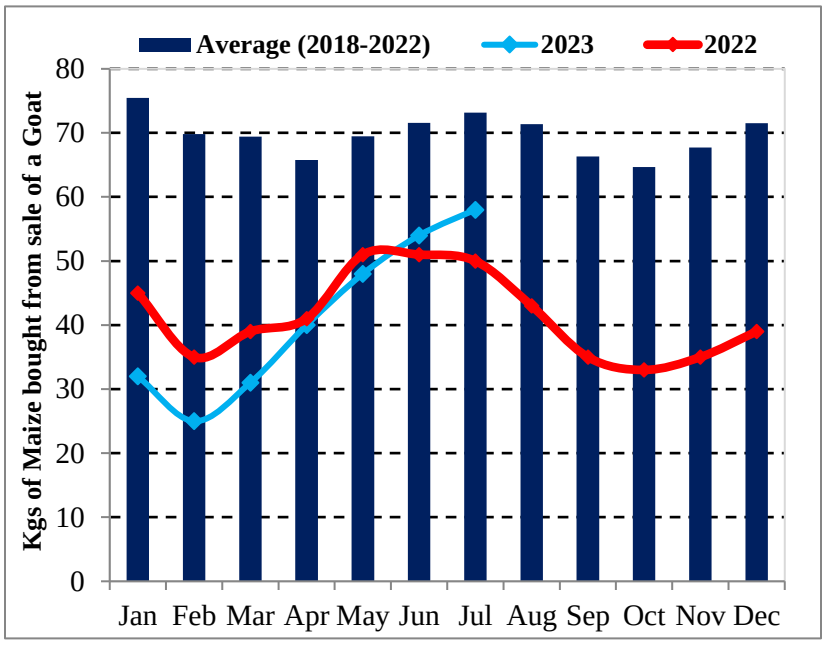


Figure 6: Terms of Trade Trends in Marsabit County

3.2.4 Income Sources

Livestock production is the main source of income in the county (Table 13). Livestock production contributes 82 and 60 percent to cash income in Pastoral and Agro Pastoral livelihood zones respectively. Food crop production contributes 60 percent to cash income in the Agro Pastoral areas.

Table 12: Sources of Income in the County

Source of Income	Contribution to cash income by livelihood (%)		
	Pastoral All Species	Agro pastoral	Formal Employment
Livestock production	82	60	-
Food crop production	-	20	-
Casual waged labour	1	5	20
Small businesses	3	-	-
Formal waged labour	7	-	10
Petty trading	4	-	30
Cash crop production	-	10	-

3.2.5 Water Access and Availability

Major Water Sources

The main water source utilized for both human consumption across the livelihood zones at 51 percent. Other water sources applied by the communities in the month under review were boreholes, shallow wells, springs, traditional river wells and seasonal rivers at 16 percent, 12 percent, 8 percent, 7 percent and 6 percent respectively. When compared with similar period, water pans are usually the normal water sources. Following the above normal MAM 2023 rainfall performance across the County, open water sources were sufficiently recharged (80-100percent). Due to massive livestock loss in the last protracted severe drought, minimal concentrations at major water points are currently being experienced across the County. Most open water sources are expected to last for the next 2-3 months in all the livelihood zones and likely to coincide with the onset of the short rains.

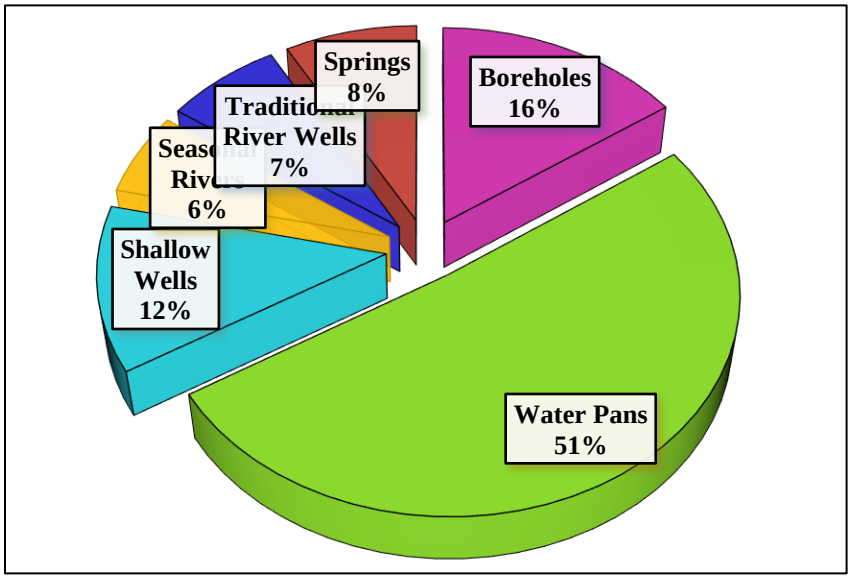


Figure 7: Main Sources of Water across Marsabit County

However, most water pans in the larger county have challenges of siltation, contamination, lack of protection, breaching and lack of clear mechanism for water management. Boreholes are the major sources of water during the dry season. Few isolated cases of borehole break down have been reported during the assessment. The major one was the Laisamis Water Supply in Laisamis Sub-County and Qolob in Moyale Sub-County. As the long dry spell continues, some boreholes could require rehabilitation, repairs and servicing. Table (14) below shows boreholes that have high concentration of population of household and livestock water users. It is worth noting that the concentration is lower during this period than the previous seasons due to large number of livestock death and migration to other neighbouring counties or to Ethiopia. However, the coping capacities of the communities have immensely been overwhelmed by the dry spell and request for fuel subsidy has been a common intervention sought by various local communities in various parts of the County. According to the USGS Water Point Viewer, water availability is above average across most monitored water points in Marsabit County which are more than 50.9percent of the long-term median water level (Good) to between 73.5 to 75.9percent of the long-term median water level.

Table 13: Most Concentrated Water Points

Most Concentrated Water Points				
Sub-County	**Actual Name of the Water Point**	**Normal No. Served**	**Current No. Being Served**	**Reason(s) for Variation**
Saku	Girisa Water Pan	350 HH	500 HH	This is a large water pan within a good pasture reserve that has attracted migration of livestock particularly from those who initially migrated to Isiolo and other areas during the past drought emergencies.
	Dololo Dokatu	360 HH	450 HH	This is a major borehole within a good pasture reserve which currently serves large number of pastoralists that migrated back from Merti area of Isiolo County.
	Jaldesa Borehole	430 HH	470 HH	It's a high yielding strategic borehole that support large number of people and their livestock that have started migrating back to this site.
Laisamis	Ririma	400 HH	440 HH	Supports large number of livestock from as far as Samburu County. It is the only major borehole in that vicinity.
	Tupcha			No open water sources currently available to support the people and their livestock
	Laisamis Water Supply	670 HH	900HH	The break- down of Laisamis I Borehole Water Supply led to influx of people to Laisamis II Borehole Water Supply
North Horr	Lalesa	300 HH	700 HH	There is a large influx of pastoralist to this site from Shurr, Bubisa, Hawaye and from those who initially migrated elsewhere during the past drought emergencies.

Distance to Water Sources

Average return trekking distance ranges between 0-3.5Kms in the agro-pastoral areas of Moyale and Saku sub-counties and between 0-2.0Kms for pastoral livelihood zone of Laisamis and North Horr sub-counties. When compared to similar period, household water distance of 0-3.5Kms in all the livelihood zones is within the normal household water distances of 0.5-5.0Kms driven by good recharge of surface water sources. However, longer return household trekking distances greater than 10km were reported in hotspots areas of Parkishon in Saku sub-county, Ballah, Olturot and Elmolo Manyatta (Laisamis sub-county), Gas, Barambate, El Boru Magadho, Yaa Mangudo, Yaa Gara, Tigo and Kalesa (North Horr Sub-County), Gada Korma and Laqi (Moyale Sub-County).

Table 14: Water Access and Utilization

Sub-County	**Return Distance to Water for Domestic Use (Km)**		**Cost of Water at Source (Kshs. Per 20litres)**		**Waiting Time at Water Source (Minutes)**		**Average Water Consumption (Litres/person/day)**	
	Current	**Normal**	**Current**	**Normal**	**Current**	**Normal**	**Current**	**Normal**
Agropastoral	0-3.5	1.0-5.0	0-5	5-10	30-45	45-60	10-15	15-20
Pastoral	0-2.0	0.5-2.0	0-5	5-10	30-45	45-60	12-15	15-20

Waiting Time at the Source

The waiting time at water sources were within the normal ranges of 30-45 minutes for both pastoral and agro-pastoral livelihood zones. With the current low population of livestock across the larger County and good recharge of open water sources, minimal congestions are reported at major communal water sources across the County. However, some pockets within Laisamis sub-county reported longer waiting time ranging from 60-120 minutes at the boreholes. These hotspots include Laisamis Water Supply and Korr in Laisamis sub-county.

Cost of Water

Cost of water at the source across the livelihood zones ranges between Kshs.5-10 at boreholes. Water is free at all major open water sources across the larger County. However, high cost of water in some pockets was recorded. For example, in Elmolo villages in Loiyangalani (Laisamis Sub-County), Gas (North Horr Sub-County) water was Kshs.175-250 per 20litre jerrycan owing to the high salinity of the available water sources. The Elmolo villages currently depend totally on water from Lake Turkana which is saline.

Water Consumption

The agro-pastoral livelihood zone reported an average water consumption per person per day within the range of 10-15 litres while the areas within the pastoral livelihood zone reported an average water consumption per household per day within the ranges of 12-15 litres against the normal of 15-20 litres per person per day. Water consumption was higher in the agro-pastoral areas than the pastoral livelihood zone because of better water recharge of sub-surface water sources. While water consumption per household per day across the larger County is nearly within the normal ranges of 15-20 litres per person per day, acute shortages of safe, clean drinking water is reported in Elmolo villages of Layeni and Komote in Loiyangalani (Laisamis Sub-County) and also in some few hotspots in North Horr Sub-County such as Gas, Elboji/Elgade and parts of Illeret with consumption being less than 5litres per person day.

3.2.6 Food Consumption

Average food consumption score (FCS) across the County is 27.3 as shown in Figure 8. 34.4 percent of households having poor food consumption whereas those having borderline and acceptable food consumption being 49 percent and 16.6 percent respectively across the livelihood zones. Across the livelihood zones. Results from both NDMA surveillance data and SMART survey indicates that 23-29 percent of households consumed staples and vegetables every day and never or very rarely are consuming protein rich food such as meat and

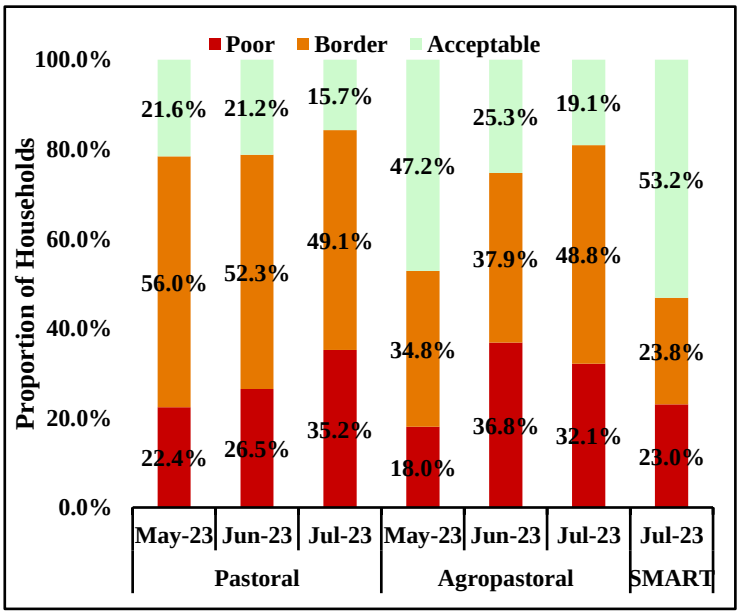


Figure 8: Food Consumption Trends in Marsabit

dairy Notably, emergency food security outcomes are expected to persist as households are yet to recover from the depleted livelihood assets in addition to the lapse of most of the humanitarian programmes that had initially cushioned households against food shortages.

Milk Consumption

Average milk consumption is 0.75 litres per household per day in all the livelihood zones against a normal of 1-1.5 litres per household per day. Majority of households across all the livelihood zones are still relying on powdered milk and packet milk purchased from retail shops. Fresh raw milk is also being hawked in major trading centers reportedly being transported from Nanyuki and Meru. Milk prices are; powder milk Kshs. 2,500 per 1kg tin, raw milk from Nanyuki Kshs. 150 per litre, packaged fresh milk and locally produced raw milk 120-160 per litre. Below normal milk consumption will likely gradually increase the malnutritional levels of children below the age of five years across the livelihood zones.

3.2.7 Reduced Coping Strategy

Approximately 51 percent and 46 percent of households in the pastoral livelihood zone were using stressed and crisis coping strategies (Figure 9) respectively when they lacked food or money to purchase food. Additionally, 84.5 percent and 15.5 percent of households in the agropastoral livelihood zone applied stressed and crisis reduced consumption based coping mechanisms respectively, signifying food consumption deficits at the household level in all the livelihood zones. Based on the SMART survey results, 13.5 percent, 52.4 percent and 34 percent of the households sampled applied minimal, stressed and crisis or worse off coping mechanisms respectively. Households are likely to employ more severe reduced coping mechanisms to address large food consumption gap mainly in the pastoral livelihood zone.

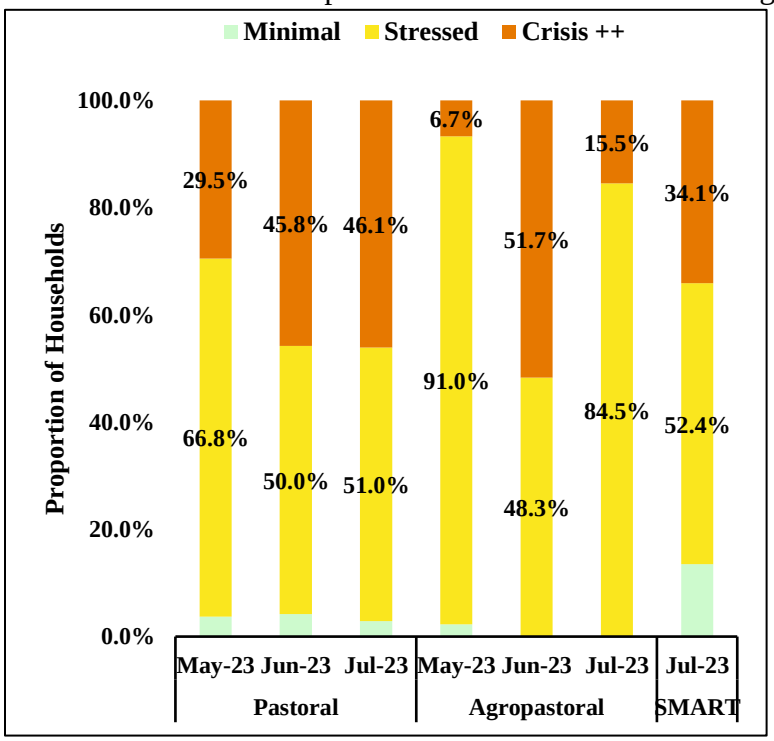


Figure 9: Consumption based coping strategies_Marsabit County

3.2.8 Livelihood Coping

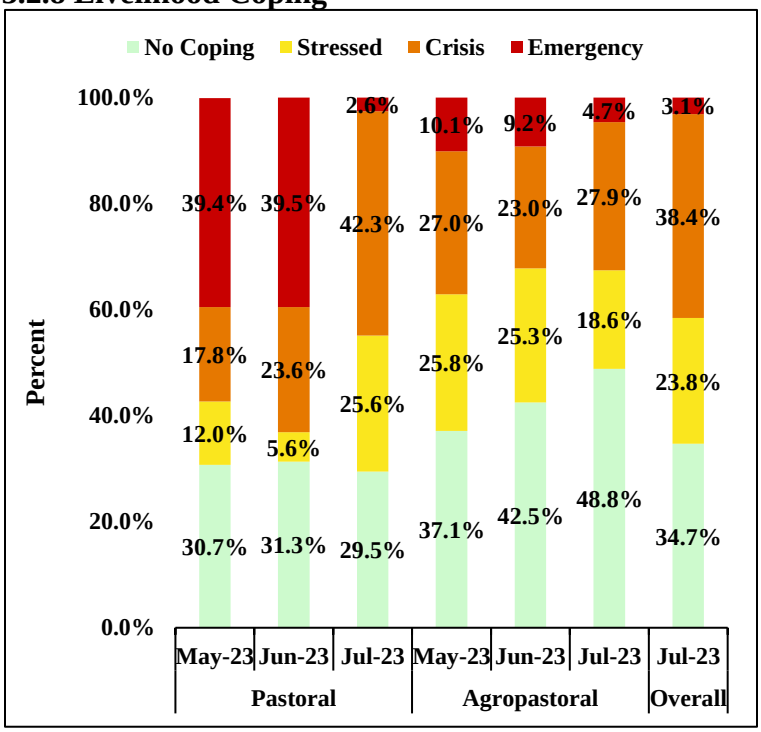


Figure 10: Livelihood Coping Strategies across the livelihood zones

About that 49 percent and 30 percent of households didn't apply any of the livelihood coping strategies in July because they did not lack food or money to buy food in the agropastoral and pastoral livelihood zones respectively (Figure 10). Equally, 18.6 percent and 25.6 percent of households in the agropastoral and pastoral livelihood zones correspondingly applied stressed livelihood coping mechanisms by majorly reducing health and veterinary expenses and sale of productive assets. Overall, 38.4 percent of households applied livelihood coping strategies by mostly reducting non-food expenditures. In the next 3 months, households in the agro pastoral livelihood zone are likely to use stressed livelihood coping strategies (expected harvest) while those in the pastoral livelihood zone will continue to employ stressed livelihood coping to address household food inadequacies.

3.2.9 Household Hunger Scale

From Figure 11, majority of the households across the County experienced moderate hunger as indicated by 47.9 percent of the sampled households. Laisamis sub-county exhibited the largest proportion of households who witnessed moderate hunger at 63.8 percent for the last one month. North Horr sub-county recorded the largest proportion of households who experienced severe hunger for the last one month at 9.3 percent. Due to scale down of direct interventions across the County, proportion of households experiencing moderate and severe hunger likely to increase mainly in the pastoral livelihood zones of North Horr and Laisamis sub-counties.

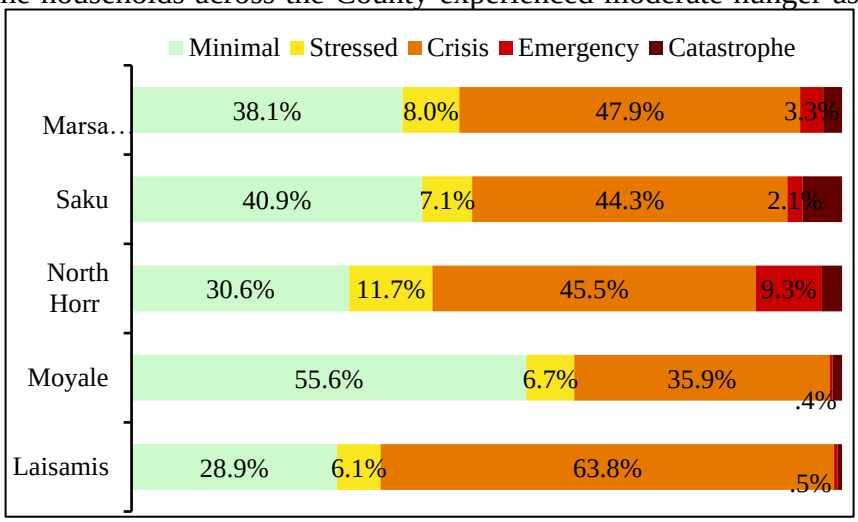


Figure 11: Household Hunger Scale across Marsabit County

3.3 Utilization

Morbidity increased in both children under-fives and general population. The malnutrition level improved from critical in January 2023 to serious in July 2023 based on Global Acute Malnutrition (GAM). However, sanitation and hygiene remained poor across the livelihood zones.

3.3.1 Morbidity Patterns

The most common diseases reported during the period under review include Upper Respiratory Tract Infections (URTIs), diarrhea, urinary tract infection, and pneumonia in both the general population and the under-fives across the livelihood zones. According to the Kenya Health Information System (KHIS) data set, the prevalence of diarrhea showed an increasing trend in the year 2023 as compared to the same period in 2022 across the population with the highest peak observed during the month of May 2023. For the children under-fives, diarrhea cases remained highest in Moyale for both the years 2022 and 2023 recording 5857 and 5798 respectively with the lowest numbers recorded in the Saku sub-county. For the general population, the caseload increased by 16percent in 2023 showing a similar trend with the under-fives.

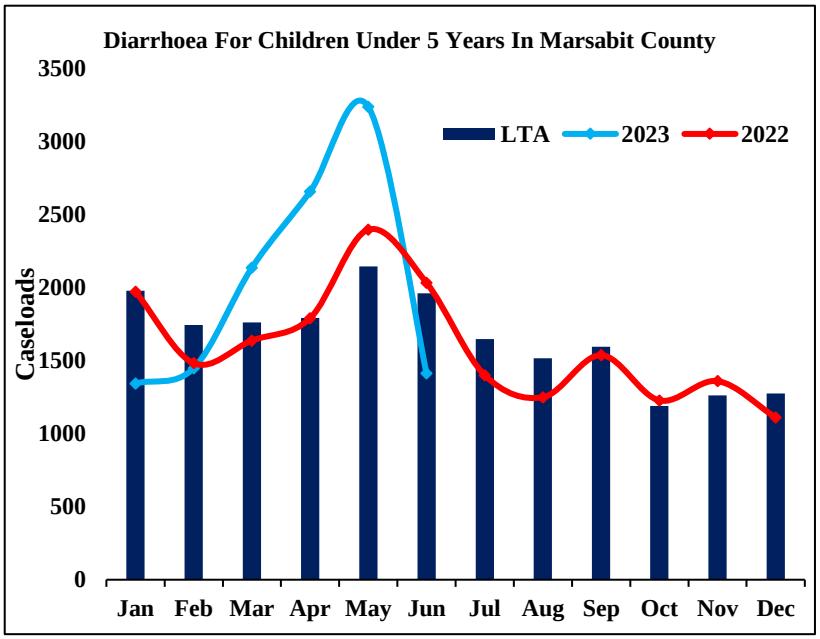


Figure12: Diarrhoea Caseloads Under Fives in Marsabit County

The overall county-level increase in diarrhea can be attributed to the fact that most of the households are utilizing water from pans at 51 percent across the livelihood zone. Additionally, torrential rainfall amounts recorded in most parts of North Horr and Moyale sub-counties coupled with flash floods led to contamination of water sources through the depositing of carcasses, human waste, and siltation as well as cases of toilets collapsing and submerging. Along with this, just 30.9 percent of the households had good water treatment practices, and only 30.3 percent practiced handwashing at four critical times. During the current reporting period, health facilities also received essential drugs improving case diagnosis and reporting, unlike last year when most of the facilities recorded stock out.

There was an increase in URTI cases for children under five years during Jan-June 2023 when compared to a similar period in 2022. Within the sub-counties, a uniform trend was observed apart from North Horr which had a slight caseload decrease in 2023 at 3,476 from 3,772 in 2022. Moyale was leading in both years in URTI for under five years with 7,296 and 7,462 cases respectively while the North Horr sub-county had the least cases. At the health facility level, the Jirime dispensary had the highest number of cases at 1209 in 2023 while Illeret health center had the highest number of cases in 2022 at 1,246. With respect to the general population (over five), the caseload almost doubled during this reporting period when compared to the year 2022. Saku posted the highest caseload in URTI at 8,493 and 18,786 in the years 2022 and 2023 respectively. Dakabaricha dispensary led in the 2022 similar period with 2,229 cases while in 2023, ISMC hospital in Saku registered the highest cases of URTI at 1,606.

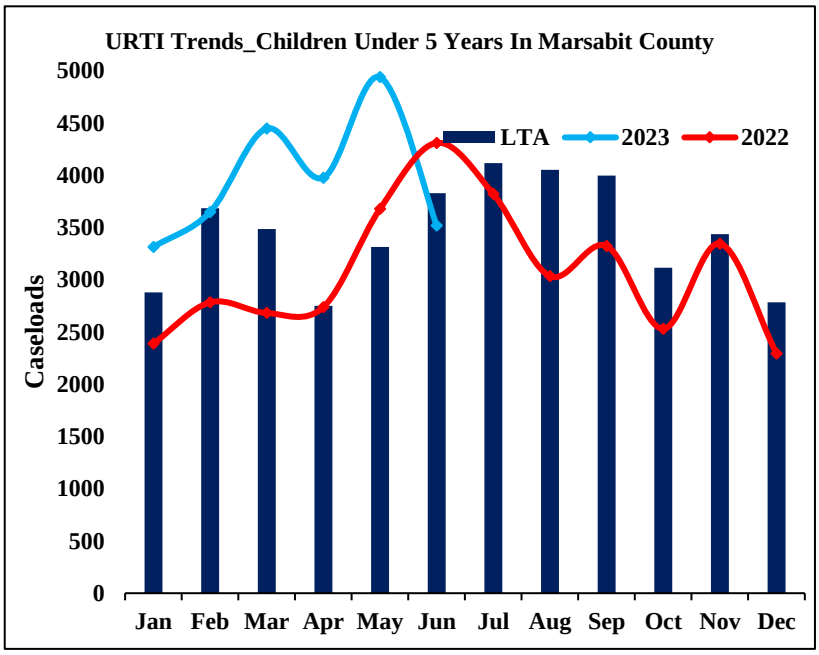


Figure13: URTI Caseloads Under Fives in Marsabit County

An increase in malaria cases was observed amongst the general population and under-fives during this reporting period. Despite the county being classified as a non-malaria endemic zone, high cases were recorded in the month of May 2023. The disease was serious in the Kargi area which after investigation it was realized that Malaria was the cause of the mysterious disease. The county responded in collaboration with the national government and partners. Due to the increase of cases, KEMRI deployed a team to Laisamis sub county to research on the disease and the study detected new malaria vector known

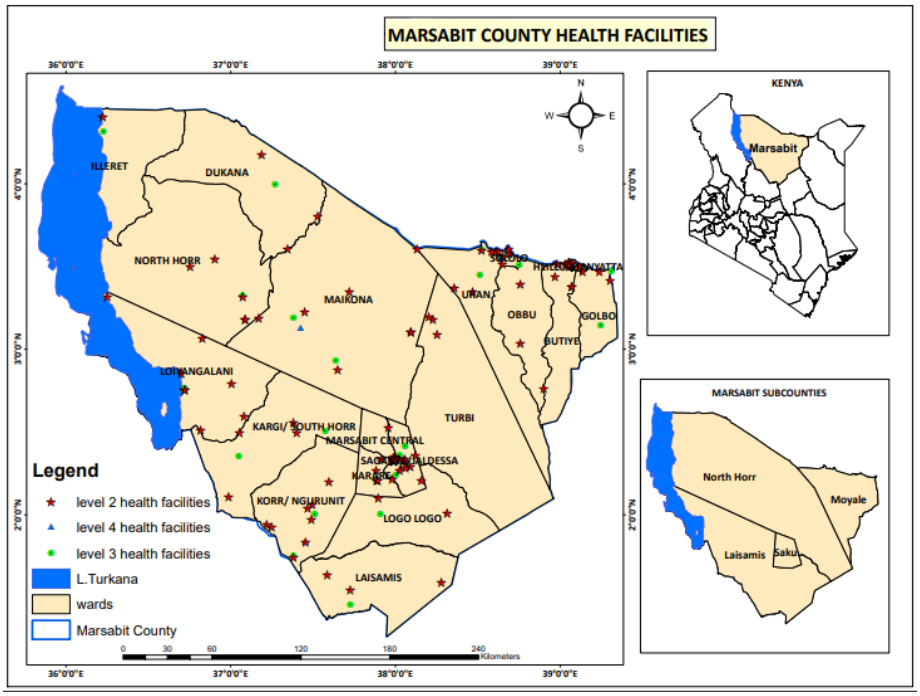


Figure 14: Average Distance to the Nearest Health Facility

as *Anopheles Stephensi* where samples were confirmed through laboratory at KEMRI**.** From (Figure 14) shown above, average distances within facilities in Saku sub county are within 5km recommended by WHO. In the other sub counties, distances between facilities are more than 5km apart from Moyale and Sololo townships in Moyale subcounty. These areas that are far apart are usually covered through integrated outreaches supported by the county government of Marsabit and development partners.

3.3.2 Immunization and Vitamin A Supplementation

The proportion of OPV 1OPV 3 Measles 1 and Measles 2 in the year 2023 improved compared to the same period 2022 attributed to high coverage of outreach sites which are over 90 percent as well as improvement in security situation. Proportion of fully immunized children at 1 year reduced compared the two reporting periods i.e., registering 60 percent in 2022 and 45.2 percent in 2023 respectively. When compared to the national ministry of health target of 90 percent, performance for immunization for the period was below the targets. This could have contributed to the country stocking out of the Rotavirus vaccine that determines the status of being fully vaccinated. Cold chain breakdown in some facilities also contributed to poor performance as vaccines could not be availed in those facilities.

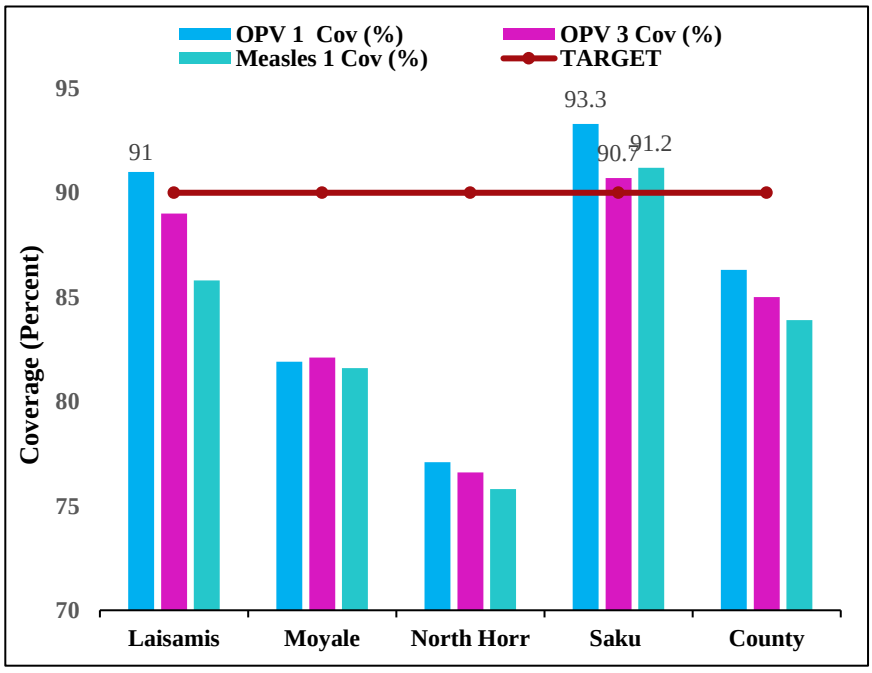


Figure 15: Sub-counties Immunization Coverage Under 1Year_Smart Survey

Generally, Saku is the only subcounty that managed to reach the recommended immunization coverage of 90 percent. All sub-counties recorded an increase for under one Measles coverage in 2023 when compared to a similar period in the year 2022. This can be traced to sustained integrated outreaches by the county government and the partners as all the sub counties were

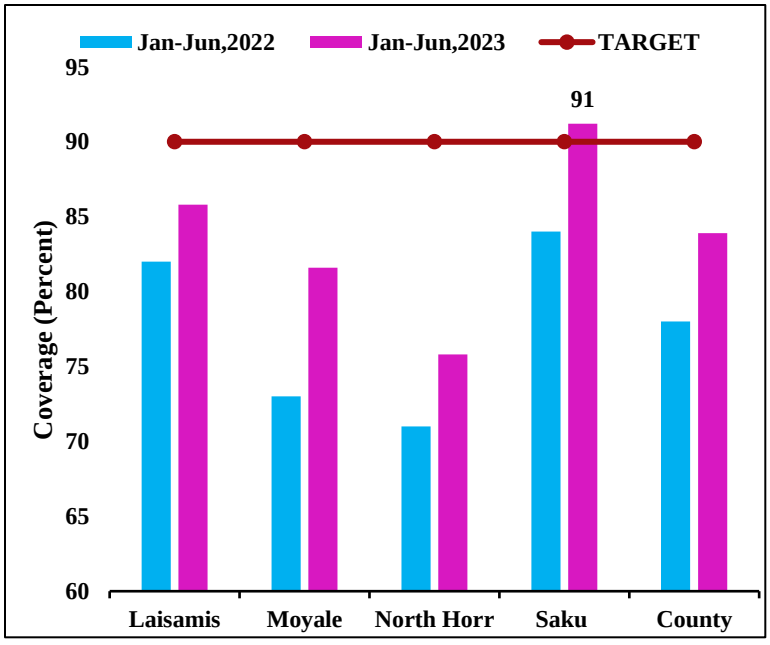


Figure 16: Sub-counties Measles 1 Coverage_Smart Survey

supported. The improvement in the security situation has also helped in this improvement. Even though there was improvement in the indicators, some health facilities still experience breakdown of cold chains hampering the full potential of these facilities.

Notably, there is an increase in Vitamin A supplementation coverage among children 6-59months at 88percent in June 2023 compared to 71.6percent in the same period in 2022. On the other hand, VAS among 12-59 is at 88.7percent in June 2023 compared to 81.7percent in June 2022. Moreover, the January 2023 SMART survey revealed coverage of 81.7percent for 6-11 months and 88.7percent for 12-59 months which further confirmed a significant increase over time. Both indicators attained a target coverage of 80percent however, the supplementation did not cover all children as required by the guideline. The lack of reaching all children could be contributed to poor documentation, data integration, data capture, and reporting challenges at the facility level. Additionally, some facilities are not comprehensively using the data capture tools especially, the immunization tally sheet, with some lacking child welfare registers and mother-child booklet-an important tool for verifying data from the SMART survey VAS indicator. There were accelerated activities in the semester of January - June 2023 aimed at improving the VAS coverage. These include, the exhaustive mass screening exercise conducted in February 2023 was conducted in all health facilities within Marsabit County integrated with Vitamin A supplementation (VAS), integration of VAS in outreaches and blanket supplementary feeding program in Laisamis and North Hoor and further Malezi bora activities were also conducted in May/June 2023 across the County.

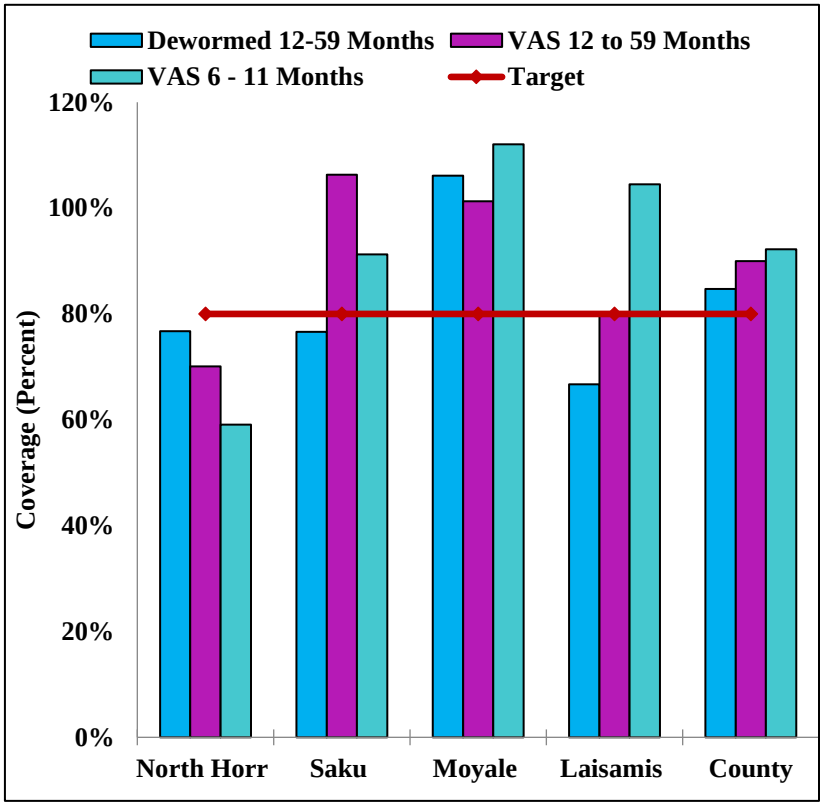
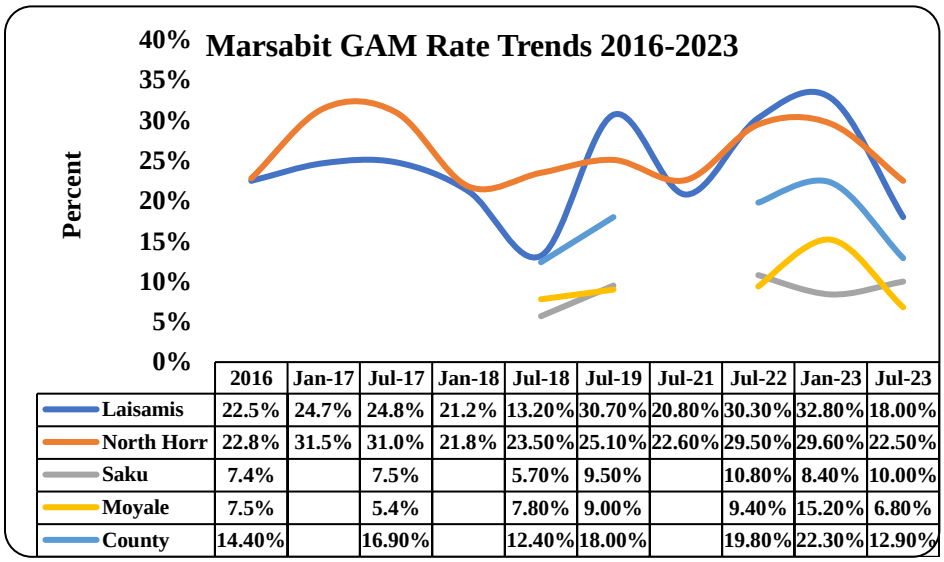


Figure 17: Vitamin A Supplementation across Sub-Counties

3.3.3 Nutritional Status and Dietary Diversity

Nutritional Status of children below the age of five years has significantly improved in all sub-counties with exception of in Saku which has indicated a deterioration. The county's overall global acute malnutrition rate in June 2023 stood at 12.9 percent compared to 19.6 percent in July 2022 . Specifically at the sub county level, the June 2023 SMART survey result revealed that North Horr GAM rate is 22.5 percent compared to 29.7 percent in July 2022 , Laisamis 18.0percent compared to 30.3 percent July 2022, Moyale 6.8percent compared to 9.4 percent in July 2022 and Saku Sub County at 10 percent from 10.6 percent in July 2022.



	2016	Jan-17	Jul-17	Jan-18	Jul-18	Jul-19	Jul-21	Jul-22	Jan-23	Jul-23
Laisamis	22.5%	24.7%	24.8%	21.2%	13.20%	30.70%	20.80%	30.30%	32.80%	18.00%
North Horr	22.8%	31.5%	31.0%	21.8%	23.50%	25.10%	22.60%	29.50%	29.60%	22.50%
Saku	7.4%		7.5%		5.70%	9.50%		10.80%	8.40%	10.00%
Moyale	7.5%		5.4%		7.80%	9.00%		9.40%	15.20%	6.80%
County	14.40%		16.90%		12.40%	18.00%		19.80%	22.30%	12.90%

Figure 18: Marsabit County GAM rate Trends

On the other hand, surprisingly, the prevalence of global acute malnutrition by Mid Upper Arm Circumference (MUAC) has shown a deteriorating situation in North Horr and Saku sub counties. The county GAM by Muac is at 4.8 percent in June 2023 compared to five percent in June 2022. In Laisamis sub-county, the GAM by MUAC was at four percent June 2023 and 7.3 percent in July 2022. Additionally, Moyale sub-county posted GAM rate of three percent in June 2023 compared to four percent in July 2022. However, North Horr and Saku exhibited an increase in the GAM by MUAC with Saku increasing from 4.3 percent inJuly 2022 compared to 6.8 percent in June 2023. Similarly, North Horr sub-county recorded a GAM rate of 5.6percent in June 2023 from four percent in July 2022.

The June 2023 SMART survey result shows that Marsabit County is in serious (IPC Phase 3) at 12.9 percent. However, there are variations in sub-counties with Moyale being at alert phase (6.8%), Saku at serious(10%), Laisamis at Critical(18%) and North Horr at critical (22.5%). Significant improvement in malnutritional levels is attributed to ongoing blanket supplementary feeding programme, upscale of outreaches among other food/cash interventions. A total of 2,741 severely malnourished (SAM) children 6-59 months have been reached from January to June 2023 out of projected total and target caseload of 9,266 and 6,949 respectively. The SAM coverage is 29.6 percent against coverage and 39.4percent against coverage target. A total of 11,825 Moderately malnourished children 6-59 months have been reached from Jan- June 2023 out of the projected total and target caseload of 36,454 and 18,227 respectively. The MAM coverage is 32.4 percent against coverage and 64.9 percent against coverage target.

3.3.4 SAM and MAM Admissions

A total of 2,741 severely malnourished children 6-59 months have been reached from January to June 2023 out of projected total and target caseload of 9,266 and 6,949 respectively. The SAM coverage is 29.6 percent against coverage and 39.4 percent against coverage target. A total of 11,825 Moderately malnourished children 6-59 months have been reached from Jan- June 2023 out of the projected total and target caseload of 36,454 and 18,227 respectively. The MAM coverage is 32.4 percent against coverage(of 18,227) and 64.9 percent against coverage target(of 18,227).

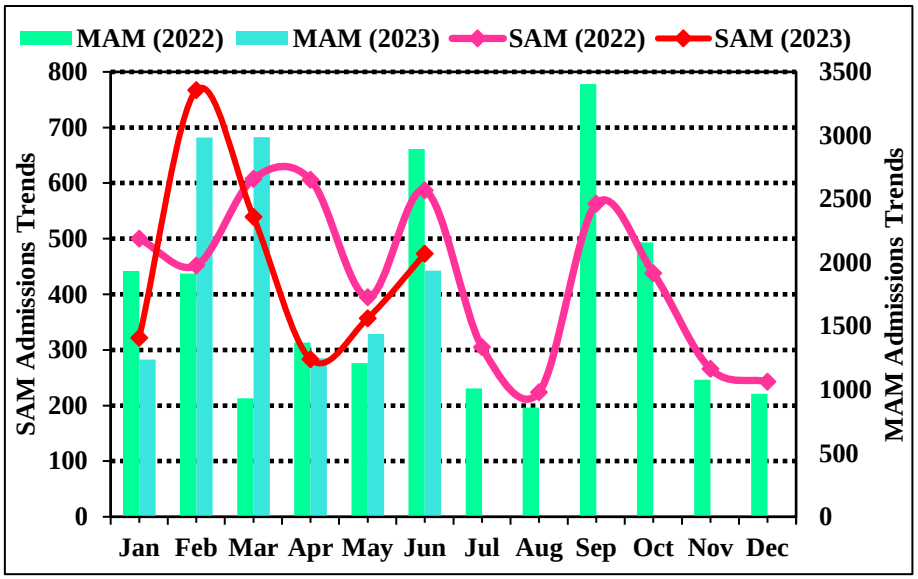


Figure 19: SAM and MAM Admission Trends across Marsabit County

3.3.5 Sanitation and Hygiene

The June 2023 SMART survey results also showed 46 percent of Marsabit County met minimum standards for water access of a trekking distance of less than 500m, with Sub County being at 49 percent, 50 percent, 40 percent and 48 percent of households in Moyale, Saku, North Hoor and Laisamis Sub Counties respectively. A remarkable improvement from 34 percent in Moyale, Saku 66 percent, North Hoor 32 percent and Laisamis 38 percent sub-counties in January 2023, showing the positive impact of the long rains. Water treatment is one of the most effective and inexpensive interventions for preventing diarrheal diseases and pneumonia. Across the county, the percentage of households treating water is 31 percent with the main water treatment methods used by households being boiling at 34 per cent and chemicals at 83 percent respectively. Predominantly, the handwashing awareness is high with practice remaining low. The July 2023 SMART survey results revealed, 54 percent, 82 percent, 70 percent, and 57 percent of households in North Horr, Moyale, Saku, and Laisamis respectively being aware of handwashing practices. However, the proportion of the households that practice handwashing at four critical times remained low at 30 percent overall and 19 percent, 35 percent, 18 percent, and 33 percent in North Horr, Moyale, Laisamis, and Saku respectively despite exhibiting a significant improvement from 15 percent in North Horr, 46 percent in Moyale, 13 percent in Laisamis and 33 percent Saku. Regarding sanitation services in Marsabit County, the latrine coverage stands at 49.2percent with latrine coverage disparity witnessed across the sub counties. Only 19 percent, 36 percent, Saku 62 percent, and 88 percent of households in Laisamis, North Hoor, Saku and Moyale Sub Counties respectively have access to latrines. The data revealed an improvement from January 2023 SMART survey results from 14 percent in Laisamis, 23 percent in North Horr, 75 percent in Saku and 74 percent in Moyale Sub County. The field visit in pastoral livelihood revealed that the majority use open defecation as a mode of human waste disposal with a majority of households

reporting challenges to latrine adoption due to the cost of construction material, lack of appropriate tools to dig the pits, and cultural practices like nomadism and attitudes such as non-sharing with in-laws. In the agropastoral livelihood zone of Moyale, the majority of households are using pit latrines without slab/open pit whereas most households in the Saku sub-county are using both pit latrines without slab/open pit and pit latrines with slab.

3.4 Trends of Key Food Security Indicators

Table 15: Key Food Security Indicators

Indicator	Short Rains Assessment, January 2023	Long Rains Assessment, July 2023
Livestock body condition	Cattle-Very-Poor Sheep-Poor Goat-Fair-Poor Camel- Fair-Poor	Cattle- Good-Very Good Sheep-Good-Very Good Goat-Good-Very Good Camel- Good
Water consumption (litres per person per day)	Pastoral:3-5L/p/d Agro-pastoral: 5-7L/p/d	Pastoral:12-15L/p/d Agro-pastoral: 10-15L/p/d
Price of maize (per kg)	Ksh.85	Ksh.83
Price of Goat (Kshs.)	Kshs.2,700	Kshs.4,800
Distance to grazing	Agro Pastoral: 10-15 Pastoral: 30-50	Agro Pastoral: 1-3 Pastoral: 3-8
Terms of trade	32	58
Coping strategy index	Mean:19.1 Agro-pastoral:16.5 Pastoral:22.8	Mean:16.8 Agro-pastoral:13.5 Pastoral:17.9
Food consumption score (NDMA)	**Pastoral** Poor: 19.1% Borderline: 40.5% Acceptable: 41.4% **Agro Pastoral** Poor: 21.2% Borderline: 40.3% Acceptable: 38.5%	**Pastoral** Poor: 35.2% Borderline: 49.1% Acceptable: 15.7% **Agro Pastoral** Poor: 32.1% Borderline: 48.8% Acceptable: 19.1%
Global Acute Malnutrition (GAM rates)	Saku: 8.6% Moyale: 15.2% North Horr: 30.0% Laisamis: 32.6%	Saku: 10.0% Moyale: 6.8% North Horr: 22.5% Laisamis: 18.0%

3.5 Education

3.5.1 Access-Enrollment

There are 362 ECDE centres in Marsabit County with a total enrollment of 21,296 learners in the County in the current term. Of this, 10,698 are boys and 10,598 are girls. The enrollment increased by 290 learners (159 boys and 131 girls) over the previous term. The number of primary schools in the County is 181 with a combined enrolment of 61,887 pupils (30,798 boys and 31,089 girls) in the current school term. There is an increase of 2,451 pupils over the previous term. When disaggregated by gender, the enrollment increased by 1,226 boys and 1,225 girls. The secondary level has 45 secondary schools with a total enrollment of 12,471 students in the second term, of

whom 5,997 students were boys and 6,474 were girls. This marks an increment in enrollment by 54 learners. The enrollment of boys increased by 62 students over the previous term, while that of girls dropped by 8 students. There are 588 schools in the County with a total enrollment of 95,654 learners in the current term. Of this 47,493 were boys and 48,161 were girls. This is an increase of 2,795 learners over the previous term (1,447 boys and 1,348 girls). Generally, enrollment trends are on the rise at the three levels of learning. This may be due to:

- The current prevailing peace across the County.
- Decline in herding due to loss of livestock and less migration, hence parents allowed more children to attend school.
- Enrollment drives conducted brought more learners to schools.
- The return of learners who migrated with the livestock to neighbouring counties during the biting drought, such as Samburu and Isiolo.
- Availability of water.

Table 16: Enrolment in Schools

Levels	Sub County	Number of Centres	Term II, 2023			Term I, 2023		
			Boys	Girls	Total	Boys	Girls	Total
ECDE	Moyale	92	3,917	3,654	7,571	3,873	3,612	7,485
	Laisamis	104	2,052	2,267	4,319	1,941	2,174	4,115
	Saku	54	1,674	1,708	3,382	1,673	1,712	3,385
	North Horr	112	3,055	2,969	6,024	3,052	2,969	6,021
	Total	**362**	**10,698**	**10,598**	**21,296**	**10,539**	**10,467**	**21,006**
Primary	Laisamis	48	5,299	6,439	11,738	4,409	5,556	9,965
	Saku	33	6,135	6,236	12,371	6,135	6,236	12,371
	North Horr	36	6,053	6,305	12,358	5,717	5,977	11,694
	Moyale	64	13,311	12,109	25,420	13,311	12,095	25,406
	Total	**181**	**30,798**	**31,089**	**61,887**	**29,572**	**29,864**	**59,436**
Secondary	Moyale	17	2,481	2,115	4,596	2,472	2,110	4,582
	Laisamis	9	443	618	1,061	393	631	1,024
	Saku	12	2,128	2,886	5,014	2,128	2,886	5,014
	North Horr	7	945	855	1,800	942	855	1,797
	Total	**45**	**5,997**	**6,474**	**12,471**	**5,935**	**6,482**	**12,417**
Grand Total		**588**	**47,493**	**48,161**	**95,654**	**46,046**	**46,813**	**92,859**

The following factors may have hindered children's enrollment, attendance and participation in certain parts of the County:

- Lack of SMP in the school
- Inadequate food at home
- Child labour such as herding for boys and household chores for girls
- Learners who come to school from far away areas do not return to school in the afternoon after going home for lunch
- Moranism
- Migration in Laisamis sub-County, especially around Elbarok and Ballah areas which received depressed rainfall
- Parents' inability to rain school fees e.g., to pay for cooks and buy firewood.
- Challenges of accessing schools, where children have to cover over 7 km to access a learning centre (Elboji in North Horr sub-county).

- Pupils from Komote Island could not access school after the rising water level cut off the island.

3.5.2 Types of School Feeding Program

In-kind School Meals Program

The types of School Meals Programme (SMP) offered in Marsabit County are:

i. Partner/well-wisher supported School Meals Programme.
ii. Marsabit County ECDE SMP.
iii. In-kind School Meals programme.

The only type of SMP currently offered in the county is the Partner/well-wisher-supported SMP. Welt Hunger is currently supporting 9,740 ECDE learners (4,889 boys and 4,841 girls) in 141 centres with 34,090kgs of fortified Corn Soya Blend (CSB+). Welthungerhilfe will continue to support the learners for the next three terms, i.e. up to the first term of 2024. Other partners/well-wishers that supported SMP are Impact Kenya, Catholic Mission and Winds of Change (Lake Turkana Wind Project)

The impact of the availability of the SMP on learning continuity is that:

- It saves the learners time to trek home for lunch.
- Increase learners' retention/attendance.
- It increases learners' concentration span and reenergizes the learners.
- Increases learners' performance.
- Enhances syllabus coverage
- It enhances the continuity of learning during the afternoon, which is usually interrupted if lunch is not available.

The County Government usually supports the County ECDE SMP. The programme is intended to benefit ECDE learners. The County ECDE SMP provides fortified Corn Soya Blend [CSB+] which is served as a mid-morning snack to learners. The programme is currently not offered in the County. A total of 11,556 ECDE learners (5,809 boys and 5,747 girls) in 221 centres are currently not on County ECDE SMP or any other school feeding programme. While the food is expected to last up to the end of the term, the current remaining stock is expected to last for one or two weeks or be completely depleted. This is because the ration is shared with the pupils in the lower primary where the ECDE centre is within a primary school.

The Ministry of Education supports the In-Kind School Meals programme (ISMP). The Programme benefits primary school pupils. Under ISMP cereals, pulses, vegetable cooking oil and iodized salt are provided as food commodities. The ISMP is currently not offered in most schools. The Ministry of Education has not supplied food commodities during the current school term. However, some primary schools still cook food for their pupils from the balance of the previous term. Where the SMP is not offered, children are sent home for lunch. Most children may not find lunch at home due to inadequate food supply at homes. Such learners do not return to school in the afternoon, thereby disrupting learning. Thus, 61,887 pupils (30,798 boys and 31,089 girls) pupils in 181 primary schools are not on SMP or any other school meals programme this term.

When learners from the two levels of learning are combined, a total of 73,443 learners (36,607 boys and 36, 836 girls) in 402 learning institutions are not on County ECDE SMP or SMP or any other school meals programme. Cash Transfer [CT], expanded school Meals Programme and Community Supported School Meals Program [CSSMP] are not offered in the county.

The impact of the lack of school meals programme on learning continuity are: -

- Interrupted learning for learners who trek long distances for lunch to their homes.
- Divided attention of learners.
- Low attendance.
- Low participation in learning.
- Low retention.
- Poor syllabus coverage.
- Low performance.

Various stringent measures have been put in place to enhance food quality and safety. These include:

- Sensitization of school centre managers on proper food handling and storage.
- Assessments/inspections on the safety of school meals.

Water Availability in Schools during the season (Term II, 2023).

The main sources of water for schools are rainwater harvesting, water pans, boreholes, water pumps, buying from commercial browsers and taps. Most schools have functional rainwater-harvesting infrastructure i.e., gutters, tanks and taps. The normal to above normal March-May [MAM] rainfall has replenished these school reservoirs, including earth pans. Schools, therefore, have sufficient water that may last up to the middle of the third term. However, some schools did not harvest the rainwater to their full capacity despite having sufficient water storage infrastructure. This was occasioned by the damaged water harvesting infrastructure such as gutters. Such schools are experiencing rapid depletion of the water resource and in the next few weeks may not have access to clean and safe water. Around Ndikir and Ballah where the rainfall was below average, schools have already exhausted their water reservoirs. The preparation of food has already stopped. Since the school cannot afford to buy water from commercial bowsers and water trucking is not forthcoming, the school depends on children bringing water from their homes.

Cross-Cutting Issues that Promoted or Affected Learning in Term II 2023

Main health issues that affected school-going children during the season include fever/malaria, cold/flu [URTI], stomach ache, diarrhoea and vitamin and nutrient deficiencies. Intervention measures to remedy the situation includes the provision of fortified CSB+ porridge and health education. Affected children were referred to the nearest health facility for treatment. Deworming and vitamin A supplementation was carried out by the officers from the health department. HPV vaccination for girls is also an ongoing intervention. The effect of these health issues on learning continuity includes absenteeism, illness, low syllabus coverage and below-average performance.
No cases of COVID-19 have been reported among school-going children and teachers. Hence no cases of learning interruptions were reported during the season.

In terms of sanitation and hygiene situations in schools, all schools have functional latrines. Most schools have inadequate toilets. The toilet-pupil ratio in most schools exceeds 1:60. Moreover, most toilets are also dilapidated, some have no doors or are almost full, making them difficult for use by learners. Though inadequate, most schools have handwashing facilities. The facilities are consistently not in use. The impact of inadequate toilets and hand washing facilities on learning continuity includes lateness for learning sessions due to long queues, improper human waste disposals, low hygiene levels and the likelihood of open defecation.

During the term, no school-going boys and girls received dignity kits and sanitary towels from the Ministry of Education. However, participants in the Gadhis Gamme Girls Camp organized by Mama Guyo Care during the previous term were provided with sanitary towels. In addition, Food for the Hungry [FH] and World Vision provided sanitary towels to girls within the areas of their operations. The effect of the non-provision of sanitary kits to girls on learning continuity includes absenteeism, dropout, poor performance, low self-esteem and even engaging in illicit sexual activities to raise money for the purchase of the kits.

Different child protection concerns affected both boys and girls during the season. They hindered the children from effectively participating in learning and retention. They include: -

i. Child labour which manifests as Boda boda operation, Charcoal burning, herding livestock, prospection for gold, cheap labour for loading fish on trucks and fetching firewood and water for sale.
ii. Discrimination: where school-going "morans" feel superior to the younger ones. Ndikir primary reported mistreatment of school-going 'morans' at home in favour of the other morans by denying them food.
iii. Gender Based Violence (GBV). Though minimal, GBV manifests as forced child marriages, teenage pregnancies and female genital mutilation
iv. Recruitment into violent gangs: Though not reported, it may not be just assumed.

Intervention measures to protect the school children include reporting to local administrators, especially the chiefs and sensitization on child protection by SIF in Parkishon.

3.6 Child Protection

3.6.1 Child Migration

There was affirmation that there is a trend of children moving from their homes to unknown or known places. From the 20 informants 60percent of them confirmed that children were affected by the drought and moved to the neighboring counties and others went cross border to Ethiopia. The reasons for migration were; in search for pasture, work for livelihood, violent in homes and lack food.

3.6.2 Child Marriage

Child marriage is an illegal practice condemned by the sexual offences act, Children Act 2022 and National and Regional statutes. In Marsabit county, there are still pockets of child marriage which was confirmed by the respondents. 45percent of the respondents confirmed that there were girls who were married to due to forced marriage by parents to acquire wealth, defilements, due to poverty at home and lose of livelihood due to drought.

3.6.3 Teenage Pregnancies

Confirmation of respondents on teenage pregnancy indicated that the practice is very common. Many children are married off at an early age. The confirmation was at 67percent of all the respondents. The reason for teenage pregnancies were through defilement, forced marriage, transactional sex and poor parenting and negligence.

3.6.4 Children with Disability

It was widely reported that there are a good number of children living with disability in the communities. When there are difficulties such as emergencies, starvation and other thrilling

conditions, these children face a lot maltreatment such as sexual abuse, abandonment, neglect, physical and emotional abuse. Some are chained and left alone for long hours as caregivers search for livelihoods.

4.0 FOOD SECURITY PROGNOSIS

4.1 Prognosis Assumptions

The prognosis will likely depend on the following assumptions:

- According to the preliminary KMD forecast, in addition to WMO and other global producing centers, and based on historical analogs of El Niño events, the 2023 October to December short rains will likely be above average in most parts of the country (with the southern and eastern parts of the country most likely to experience above average rainfall). There is more than 90 percent probability that El Niño will continue during the remaining part of the year and may extend into early 2024. El Niño effects are more pronounced during the OND season and is associated with above average rainfall over Kenya during this season. A positive IOD is associated with above average rainfall in Kenya during the OND season. The IOD is currently neutral and is projected to become positive in August and remain positive in September and throughout the OND season. The land surface temperatures are forecast to be above average.
- Elnino forecast during the OND is expected to enhance favourable conditions conducive for the outbreak and spread of Rift Valley Fever (RVF) in January 2024 Marsabit County.
- Rangeland resources will gradually decline from August through Mid-October. However, the forecast above average October to December short rains will regenerate forage and water resources to above-average levels, persisting through January 2024.
- Expected harvest in the agro-pastoral area and injections from the external markets will likely reduce the maize prices but will still remain above average due to compounding factors of depreciation of Kenya currency and high inflation.
- The peak for kidding and lambing expected from August through September. However, calving in cattle and camel likely to occur in January and April 2024 respectively. Livestock birth rates will improve due to expected conception rates resulting from sustained good body conditions.
- Livestock body conditions and productivity are expected to remain in good body condition throughout the scenario period due to the effect of the good performance of the last short rains. Livestock body conditions likely improve further from November through January 2024. Additionally, livestock birth rates will continue to be below average due to poor conception rates resulting from sustained poor body conditions.
- Overall prevalence of acute malnutrition is expected to shift from Serious in July to Critical (GAM > 15percent) throughout the scenario period, driven by scale down of direct interventions and persistence of large food consumption gaps. Ongoing humanitarian blanket supplementary feeding programme in North Horr and Laisamis sub-counties will prevent worse off nutrition outcomes.
- NDMA HSNP III cash transfer, WFP's Lisha Jamii Programme among other social protection interventions from Partners are set to continue through October, providing cash/food rations to cushion monthly household food gaps.

4.2.1 Food Security Outlook

Outlook August-October 2023

Despite likely persistence of good forage and water resources, below-average goat-to-maize ratio, high staple food prices, and a slow recovery of livestock herd sizes and livelihoods following the protracted drought are expected to keep households reliant on humanitarian assistance, driving Crisis! (IPC Phase 3!) in the agro-pastoral livelihood zone of Moyale and Saku sub-counties due to expected harvest and household foods in the pastoral areas of North Horr and Laisamis sub-counties occasioned by negligible recovery of livelihood assets. Influx of cattle from Ethiopia into North Horr sub-county will likely increase the risk of Foot and Mouth Disease and Lumpy Skin Disease. Livestock body condition will gradually deteriorate to good condition and milk production likely to marginally increase driven by expected peak in kidding rate, slightly increasing household access to milk consumption. Reduced income from milk and livestock sales will drive households to rely on non-livestock-related income such as remittances, charcoal and firewood sales, and safety nets, which will cumulatively be below the average. High staple food prices and the high cost of living will force households to rely on. The prevalence of acute malnutrition will likely increase to Critical (GAM WHZ >15percent) level through the scenario period due to crisis-emergency food consumption indicators and scale down of direct food and nutrition interventions.

Outlook November 2023- January 2024

From November 2023 to January 2024, above average October to December rainfall forecast is expected to support further significant recovery of forage and water resources, sustaining livestock in the wet season grazing areas, and further improvement in livestock body conditions and prices. There is a likely occurrence of onset of calving in cattle but will remain below average due to inadequate breeding herds, improving milk production and household milk consumption. Conversely, calving in camels will coincide with the next long rains season of 2024. Buildup of herd sizes and livestock population is expected with mating of more breeding females. However, high staple food prices are expected to continue constraining access to food from markets, especially for poor households that will likely continue to apply consumption and livelihood-based coping strategies indicative of Stressed (IPC Phase 2) and Crisis (IPC Phase 3) to minimize food consumption gaps. With the highly anticipated outbreak of Rift Valley Fever across the County, some livestock markets might be closed on quarantine imposition to control transmission of the disease. The prevalence of acute malnutrition will likely remain Critical (GAM> 15percent) but be on a declining trend owing to progressive enhancement of food access but will likely remain elevated due to high seasonal morbidity levels, including increased malaria and diarrhea during the rainy season, below average food access from the cumulative impact of the drought and chronic factors that slow down recovery. Overall, at least 20 percent of the population is likely to face food consumption gaps and be in Crisis (IPC Phase 3) as households slowly recover their livestock herd sizes and access to typical food and income levels.

5.0 CONCLUSION AND INTERVENTIONS

5.1 Conclusion

Onset of the long rains was early than expected as it occurred in the second dekad of the month under review as opposed to the forecasted first dekad of April. Moyale sub-county, Northern parts of North Horr sub-county and areas bordering Lake Turkana belt recorded cumulative seasonal rainfall of 141-200percent of normal rains. Additionally, Saku sub-county, Southern parts of North Horr sub-county and eastern parts of Laisamis sub-county received 201-350percent of the normal rains. Distribution of the long rains was good and even both spatially and temporally and cessation occurred in the last dekad of May as opposed to the normal second dekad. Area under production of maize, beans and green grams recorded an increase of 33percent, 14percent and 37percent respectively of the Long-Term Average (LTA). Available pasture in the areas that's received good rains is likely to last more than 3 months compared to less than1 month in those areas mentioned to be having feed deficit. In both livelihood zones the forage biomass (pasture and browse) will be available for consumption by livestock until the next rainy season. A large proportion of the county is covered by wood bush at 60percent. Invasive species such Prosopis juliflora, Acacia reficiens, Acacia Seyal, Capparis tomentosa, Solanum incanum and Lantana camara have reduced rangeland pasture production. Birth rates (kidding, lambing, calving) are currently below normal because all the livestock species are pregnant. The current low births are attributed to the prolonged severe drought that resulted in the loss of breeding stock. Majority of households across all the livelihood zones are still relying on powdered milk and packet milk purchased from retail shops. Fresh raw milk is also being hawked in major trading centers reportedly being transported from Nanyuki and Meru. Milk prices are; powder milk Kshs. 2,500 per 1kg tin, raw milk from Nanyuki Kshs. 150 per litre, packaged fresh milk and locally produced raw milk 120-160 per litre. The endemic livestock diseases reported in Marsabit County include contagious caprine pleuropneumonia (CCPP), goat pox, Peste des Petits Ruminants (PPR) for sheep and goats. In camels the diseases reported include Haemorrhagic fever and trypanosomiasis while cattle diseases include bovine ephemeral fever Anaplasmosis and Babesiosis. Water consumption in both livelihood zones was good due to high recharge of water points, shorter waiting time at water sources, reduced trekking distances as well as minimal breakdown of strategic boreholes. Food Consumption Score (FCS) deteriorated across the livelihood zones when compared to a similar period in 2022. Additionally, consumption coping strategies remained in the crisis phase as households engaged more on severe coping mechanisms to access food or money to buy food. Considering current low population of livestock and the need to reserve some animals for breeding purpose, the number of livestock brought to the market is expected to be very low or none in some markets. Despite improvement in goats-to-maize ratio, terms of trade expected to remain below the five-year average. Enrolment of boys increased by 62 students over the previous term, while that of girls dropped by 8 students. There are 588 schools in the County with a total enrolment of 95,654 learners in the current term. Of this 47,493 were boys and 48,161 were girls. This is an increase of 2,795 learners over the previous term (1,447 boys and 1,348 girls). Emergency food security outcomes are expected to persist as households are yet to recover from the depleted livelihood assets in addition to the lapse of most of the humanitarian programmes that had initially cushioned households against food shortages. The June 2023 SMART survey result shows that Marsabit County is in serious (IPC Phase 3) at 12.9percent. However, there are variations in sub-counties with Moyale being at alert phase(6.8percent), Saku at serious(10percent), Laisamis at Critical(18percent) and North Horr at critical (22.5percent).

5.1.1 Phase Classification

Both pastoral and agropastoral livelihood zones are classified as Crisis (IPC Phase 3) phase of food insecurity whereas the overall indicative phase for the whole county is Crisis (1PC Phase 3). Majority of the households in all the livelihood zones are likely to remain in the "**Crisis" (IPC Phase 3)** during the projected period.

5.1.2 Summary of Findings

The main drivers of food and nutrition insecurity in the county were good rainfall performance, fall army worm infestation, high food commodity prices, livestock diseases and floods. Most parts of the County recorded cumulative enhanced seasonal rainfall of 141-350percent of the normal rains. The above normal rainfall had a positive effect on crop and livestock production, water accessibility and availability. Maize yield is expected to be near normal due to the outbreak of Fall Army Worm (FAW), use of non-certified seeds, late planting and floods. Pasture condition is good to very good in all the livelihood zones. Livestock mortalities resulting from floods were approximated at 1,099 heads of cattle, 367 camels and 3,842 small stocks. High incidences of diseases were observed among goats at 44percent, Camels at 25 percent and Sheep 15percent. Mass abortions especially among small ruminants were reported in the entire Moyale sub county. Influx of cattle from Ethiopia into North Horr sub-county increased the risk of Foot and Mouth Disease and Lumpy Skin Disease. Laisamis sub-county recorded widespread helminthiases and parasite infestation in all livestock species Livestock Body Condition Score (BCS) is good-very good for all species in all the livelihood zones compared to good-fair normally. Birth rates (kidding, lambing, calving) are currently below normal because all the livestock species are pregnant and calving in cattle and camel expected in January and April 2024 respectively. Milk production and consumption is currently below normal. Average return livestock trekking distances is 1-8Km against a normal of 5-15Km in all the livelihood zones. Average maize price is Kshs. 83/kg which is 63 percent above normal. Goats to maize ratio is 58 kilograms which is 21 percent below average. Open water sources were sufficiently recharged at 80-100percent. Average household return water distances are 2-10Km against a normal of 5-10Km. Waiting time at water sources were 30-45 minutes and average water consumption per person per day is 10-15 litres. Across the livelihood zones, 32-35 percent of households reported having poor food consumption, while 49 percent of the households had borderline food consumption. Generally, 31 percent of households applied emergency livelihood coping strategies mostly begging to access food or money to buy food. According to SMART survey of July 2023, the global acute malnutrition (GAM) rate, for North Horr, Laisamis, Saku and Moyale sub-counties were 22.5 percent, 18 percent, 10 percent and 6.8 percent respectively thus the GAM rate significantly improved from "Critical" in January 2023 to "Serious" in July 2023. Overall indicative phase for Marsabit County is Crisis (IPC Phase 3) characterized by large high food consumption gaps with projected Integrated Phase Classification (IPC 3) from August 2023.

5.1.3 Sub-County Ranking

Table 17: Sub-County Ranking

Sub County / Ward / Location	Livelihood Zone	Sub-County Ranking (1=Most Food Insecure, 4=Least Food Insecure)	Current Main Food Security Threats
North Horr	Pastoral	1	▪ 141-350% of normal rains ▪ Non recovery of livelihood assets ▪ Exceptionally high food commodity prices ▪ Low traded volumes of livestock ▪ Contagious Caprine Pleuropneumonia (CCPP) and abortions in goats. ▪ Likelihood occurrence of Foot and Mouth Disease and Lumpy Skin Disease ▪ Outbreak of Haemorrhagic Septicaemia in Camel ▪ Possibility of Rift Valley Fever ▪ Resource based conflict-Illeret and North Horr ▪ Below normal production and consumption ▪ Below target Vitamin A supplementation ▪ Poor handwashing at four critical times (81.2%) ▪ Open defecation at 64.5% ▪ 70.7% prevalence of ARI amongst under-fives ▪ 32.2% households in emergency food consumption ▪ 49.3% households consuming less than 3 food groups ▪ 53.1% of households in Crisis+ consumption based coping strategies. ▪ 79% of the households lacked food or money to buy food ▪ 45.5% of the households experienced moderate hunger. ▪ Critical GAM rate (22.5%) ▪ Adoption of emergency livelihood coping strategies ▪ CMR (deaths per 10 000/day - 0.22 (0.10-0.50) ▪ U5MR (deaths in children <5/10 000/day- 0.00 (0.00-0.00)
Laisamis	Pastoral	2	▪ 141-350% of the normal long rains ▪ Exceptional high food commodity prices ▪ Poor market integration ▪ Non recovery of the livelihood assets ▪ Widespread helminthiases and parasite infestation ▪ Increased incidences of pneumonia among goats and cattle ▪ Below normal milk production and consumption ▪ Adoption of crisis-emergency livelihood coping strategies ▪ 88.4% prevalence of ARI amongst under-fives

			▪ Below target Vitamin A supplementation ▪ Poor handwashing at four critical times (86.8%) ▪ Open defecation at 81.3% ▪ 17.8% households in emergency food consumption ▪ 63% households consuming less than 3 food groups ▪ 14.2% of households in Crisis+ consumption based coping strategies. ▪ 75% of the households lacked food or money to buy food ▪ 63.8% of the households experienced moderate hunger. ▪ Critical GAM rate (18%) ▪ CMR (deaths per 10 000/day - 0.28 (0.10-0.74) ▪ U5MR (deaths in children <5/10 000/day- 0.17 (0.02-1.27
Saku	Agro Pastoral/ Pastoral	3	▪ 201-350% of the normal long rains ▪ Below normal rainfed crop production ▪ Low livestock traded volumes ▪ Abortions and respiratory syndromes among the goats. ▪ Non recovery of the livelihood assets ▪ Below normal milk production and consumption ▪ Adoption of crisis livelihood coping strategies ▪ Below target Vitamin A supplementation ▪ 73.1% prevalence of ARI amongst under-fives ▪ Poor handwashing at four critical times (66.7%) ▪ Open defecation at 37.8% ▪ 23.3% households in emergency food consumption ▪ 31.9% households consuming less than 3 food groups ▪ 43.3% of households in Crisis+ consumption based coping strategies. ▪ 72.4% of the households lacked food or money to buy food ▪ 44.3% of the households experienced moderate hunger. ▪ Serious GAM rate (10%) ▪ CMR (deaths per 10 000/day - 0.22 (0.11-0.46) ▪ U5MR (deaths in children <5/10 000/day- 0.00 (0.00-0.00)
Moyale	Pastoral/ Agro Pastoral	4	▪ 141-200% of the normal long rains ▪ Low livestock traded volumes ▪ Non recovery of the livelihood assets ▪ Mass abortions among small stock (60%) ▪ Deaths of sheep and goats with signs of PPR ▪ Respiratory cases among small ruminants ▪ Below normal milk production and consumption ▪ 53.8% prevalence of ARI amongst under-fives ▪ Adoption of crisis livelihood coping strategies

			▪ Poor handwashing at four critical times (65.2%) ▪ Open defecation at 11.9% ▪ 17.3% households in emergency food consumption ▪ 37.1% households consuming less than 3 food groups ▪ 23.8% of households in Crisis+ consumption based coping strategies. ▪ 53% of the households lacked food or money to buy food ▪ 35.9% of the households experienced moderate hunger. ▪ Alert GAM rate (6.8%) ▪ CMR (deaths per 10 000/day - 0.32 (0.10-0.98) ▪ U5MR (deaths in children <5/10 000/day- 0.19 (0.02-1.41)

5.2 Ongoing Interventions

5.2.1 Food Interventions

Table 18: Food Assistance-Ongoing Interventions

Sub County	Ward	Intervention	No. of beneficiaries	Implementers	Impacts in terms of food security	Cost (Kshs)	Time Frame
Saku, Moyale, North Horr and Laisamis	Karare, Central, Sagante/Jaldesa, Maikona, South Horr/Ngurnit, , Loglogo, Sololo, Uran, Butiye, Golbo, Heillu/ Manyatta.	Provision of 376.406 Metric Tonnes of assorted food stuff to 20,354 households as part of drought response intervention. Monthly ration/household are 56.75kg Sorghum, 8.1kg Split Peas & 4.5 litres Veg Oil).	20,354 households	County Government of Marsabit and WFP through Strategies for Northern Development (SND)	Enhanced food supply during periods of stress	256M	Continuous
Saku	Sagante Jaldesa and Marsabit Central	CITAM supported E-voucher food transfers worth Kshs.9,000 per households.	1,500 households	CITAM	Enhanced food supply during periods of stress		Ongoing
Saku, Moyale, North Horr and Laisamis	All wards	20,453 phase 3 HSNP beneficiaries receiving Kshs.5,400 totaling to Kshs.110, 446,200.	20,453 Households	NDMA	Enhanced food supply during periods of stress		Continuous

Saku, Moyale, North Horr and Laisamis	All wards	12,500 beneficiaries (scalability component) each household received Kshs.2,700 per month.	12,486 Households	NDMA	Enhanced food supply during periods of stress		Ongoing
North Horr	Maikona and Turbi/Bubisa	Households with cash transfers (Kes 5000 totaling to Kshs.2,000,000.	400 households	Welthungerhilfe	Enhanced food supply during periods of stress		Ongoing
Laisamis	Loiyangalani Kargi/South Horr	Targeted vulnerable households. Each household receiving Kshs. 6, 282 per month.	1,365	World Vision	Enhanced food supply during periods of stress		Ongoing
Laisamis and North Horr sub-counties	Maikona Korr/Ngurunit	Church World Service (CWS) providing monthly rations of 50kg maize flour,10kg beans, 3L cooking oil, 0.5kg iodized table salt and 5kg Corn Soya Blend per household (provided only to 1000 households with pregnant and lactating months).	2,000	Church World Sevice	Enhanced food supply during periods of stress		Ongoing
North Horr	Maikona, Illeret and Turbi/Bubisa wards	PACIDA targeting 1,250 vulnerable households with food ration	1,250	PACIDA	Enhanced food supply during periods of stress		Ongoing

5.2.2 Non-Food Interventions

Table 19: Non-Food on going Interventions

Sub County	Ward	Intervention	No. of beneficiaries	Implementers	Impacts in terms of food security	Cost (Kshs)	Time Frame
Agriculture Sector							
Post-harvest management sensitization	To reduce food losses	4	14		1400	4M	CGM, WFP, PACIDA, CWW, WHH, CARITAS

	during storage						
Early land ploughing Provision of Early maturing drought tolerant crop seeds. Capacity building/Extension services	Increased land area for increased crop production and Imparting Good agricultural practices/ skills to farmers	Saku, North Horr and Moyale	Central, Karare, Sagante/Jaldesa, Hurri hills, Sololo, Uran, Obbu, Butiye, Golbo, Heillu manyatta,	Ploughing 900 acres of land. Provision of 15MT of assorted DTC seeds. Training of 1800 farmers on good agricultural practices.	1800	15	CGM and Partners
Promotion of climate smart technologies	Enhance the resilience of the households to climatic shocks affecting food and nutrition security	4	Loglogo, South Horr/Kargi, Maikona, Sololo, Uran, Butiye, Heillu manyatta, Golbo, Sagante Jaldesa, Central and Karare/Songa	Support 800 farmers on dry land farming approaches	800	5	CGM and Partners
Livestock Sector							
Sub-County	**Location**	**Intervention**	**Target**	**Implementers**		**Cost**	**Timeframe**
North Horr	All locations	Livestock treatment deworming and vaccination	480	DoALF, FAO PACIDA		1.2M	June 2023
North Horr	All locations	Livestock treatment deworming and vaccination	520	DoALF, FAO VSF-G		1.5M	July 2023
Water Sector							

Sub-County	Intervention	Location	Target	Implementing Partners	Costs (Kshs.)		Status
Saku Sub-County	Response to emergency borehole breakdown by BRRT	Sagante/Jaldesa and Karare	900 households	County Govt of Marsabit and Partners	500,000		Ongoing
Moyale Sub-County	Response to emergency borehole breakdown by BRRT	Golbo, Uran, Sololo, Butiye, Obbu, Heillu Manyatta	1,200 households	County Govt of Marsabit and Partners	1,500,000		Ongoing
North Horr Sub-County	Response to emergency borehole breakdown by BRRT	Turbi/Bubisa, Maikona, North Horr, Dukana	850 households	County Govt of Marsabit and Partners	1,600,000		Ongoing
Laisamis Sub-County	Response to emergency borehole breakdown by BRRT	Laisamis,Korr/Ngurunit, Kargi/South Horr, Loiyangalani	700 households	County Govt of Marsabit and Partners	1,450,000		Ongoing
Saku Sub-County	Response to emergency borehole breakdown by BRRT	Sagante/Jaldesa and Karare	900 households	County Govt of Marsabit and Partners	500,000		Ongoing
Moyale Sub-County	Response to emergency borehole breakdown by BRRT	Golbo, Uran,Sololo, Butiye, Obbu, Heilu Manyatta	1,200 households	County Govt of Marsabit and Partners	1,500,000		Ongoing

North Horr Sub-County	Response to emergency borehole breakdown by BRRT	Turbi/Bubisa, Maikona, North Horr, Dukana	850 households	County Govt of Marsabit and Partners	1,600,000		Ongoing
Laisamis Sub-County	Response to emergency borehole breakdown by BRRT	Laisamis,Korr/Ngurunit,Kargi/South Horr, Loiyangalani	700 households	County Govt of Marsabit and Partners	1,450,000		Ongoing
Health and Nutrition Sector							
All sub counties	Vitamin A Supplementation	All the Health facilities in the County (Public, Private and faith based), Outreach sites, ECD Centres, BSFP Distribution sites			MOH and Partners		Continuous
All sub counties	Zinc Supplementation	All the Health facilities in the County (Public, Private and faith based) and Outreach sites.			MOH and Partners		Continuous
All sub counties	Management of Acute Malnutrition (IMAM)	99 Health facilities across the County and Outreach sites.					Continuous
All sub counties	IYCN Interventions (EBF and Timely Intro of complementary Foods)	Implementation on going in 126 health facilities and 114 Community Units.			MOH and Partners		Continuous
All sub counties	Iron Folate Supplementation	Supplementation done for Pregnant Mothers who attends antenatal			MOH and Partners		Continuous

	among Pregnant Women	clinic at all the Health Facilities and integrated outreach sites					
All sub counties	Deworming	Deworming done at all the health facilities in the County, targeting all five years children and Pregnant Women. The service is also given during integrated outreaches e.g., Malezi Bora, Mass Screening, and ECD Centres.			MOH and Partners		Continuous
All sub counties	Vitamin A Supplementation	All the Health facilities in the County (Public, Private and faith based), Outreach sites, ECDE Centres, BSFP Distribution sites			MOH and Partners		Continuous
All sub counties	Zinc Supplementation	All the Health facilities in the County (Public, Private and faith based) and Outreach sites.			MOH and Partners		Continuous
All sub counties	Management of Acute Malnutrition (IMAM)	99 Health facilities across the County and Outreach sites.					Continuous
All sub counties	IYCN Interventions (EBF and Timely Intro of complementary Foods)	Implementation on going in 126 health facilities and 114 Community Units.			MOH and Partners		Continuous
All sub counties	Iron Folate Supplementation	Supplementation done for Pregnant Mothers who attends antenatal			MOH and Partners		Continuous

	among Pregnant Women	clinic at all the Health Facilities and integrated outreach sites					
All sub counties	Deworming	Deworming done at all the health facilities in the County, targeting all five years children and Pregnant Women. The service is also given during integrated outreaches e.g. Malezi Bora, Mass Screening, and ECD Centres.			MOH and Partners		Continuous
All sub counties	Vitamin A Supplementation	All the Health facilities in the County (Public, Private and faith based), Outreach sites, ECD Centres, BSFP distribution sites			MOH and Partners		Continuous
North Horr and Laisamis sub-counties	Blanket Supplementary Feeding Programme	Targeted about 40,000 Households with PLWs and Children under five years in North Horr and Laisamis Sub County			MOH and Partners		Continuous
Education Sector							
Countywide	All	County wide	Provision of ECDE Meals	9,740	Welt Hunger Hilfe	Improved	May 2023 – March 2024

5.3 Recommended Interventions

5.3.1 Food Assistance Interventions

Table 20: Food Assistance Recommended Interventions

S/No.	Sub-County	Ward	Population in need (% range min– max)	Proposed Mode of Intervention
1.	North Horr	North Horr	30-35	General Food Distribution/ Cash Assistance
		Illeret	30-35	General Food Distribution/Cash Assistance
		Maikona	25-30	General Food Distribution/ Cash Assistance
		Turbi/Bubisa	20-25	General Food Distribution/ Cash Assistance
		Dukana	20-25	General Food Distribution/ Cash Assistance

2.	Laisamis	Korr/Ngurnit	25-30	General Food Distribution/ Cash Assistance
		Loiyangalani	25-30	General Food Distribution/ Cash Assistance
		Laisamis	20-25	General Food Distribution/ Cash Assistance
		Loglogo	15-20	General Food Distribution/ Cash Assistance
		Kargi/South Horr	15-20	General Food Distribution/ Cash Assistance
3.	Saku	Karare	15-20	General Food Distribution/ Cash Assistance
		Sagante/Jaldesa	10-15	General Food Distribution/ Cash Assistance
		Marsabit Central	5-10	Cash Assistance
4.	Moyale	Obbu	20-25	General Food Distribution/ Cash Assistance
		Butiye	20-25	General Food Distribution/ Cash Assistance
		Golbo	15-20	General Food Distribution/ Cash Assistance
		Uran	10-15	General Food Distribution/ Cash Assistance
		Sololo	10-15	Cash Assistance
		Heillu Manyatta	5-10	Cash Assistance
		Moyale Township	0-5	Cash Assistance

S/No.	Sub-County	Ward	Population in need of Food Assistance
1.	North Horr (72,141 persons)	North Horr	20,199
		Illeret	17,314
		Maikona	12,985
		Turbi/Bubisa	11,543
		Dukana	10,100
2.	Laisamis (61,835 persons)	Korr/Ngurnit	15,459
		Loiyangalani	14,840
		Laisamis	12,367
		Loglogo	9,894
		Kargi/South Horr	9,275
3.	Saku (41,223 persons)	Karare	16,489
		Sagante/Jaldesa	12,367
		Marsabit Central	10,306
4.	Moyale (30,918 persons)	Obbu	6,493
		Butiye	5,565
		Golbo	4,947
		Uran	4,329
		Sololo	3,710
		Heillu Manyatta	3,092
		Moyale Township	2,783

5.3.2 Non-Food Interventions

Table 21: Non-Food Recommended Interventions

Sub County	Ward	Intervention	No. of beneficiaries	Proposed Implementers	Required Resources	Available Resources	Time Frame
Agriculture Sector							
Provision of food items	To cushion households affected by the persistent drought occasioned by failure of rainfall for five consecutive seasons.	Saku, Moyale, North Horr and Laisamis	Karare, Central, Sagante/Jaldesa,Maikona, South Horr/Ngurnit, , Loglogo, Sololo, Uran, Butiye, Golbo, Heillu/ Manyatta, North Horr,Illeret, Dukana,Bubisa,Loiyangalani, Laisamis, and Obbu	Cereals 7167.5 MT Pulses : 1024 MT Vegetable oil: 597.4 MT (Total: 8788.9 MT) For Feb-April 2023	32974 Households	1109M	GoK, CGM and Partners
Promotion of water harvesting technologies for crop and pasture production	To harness the runoff water for crop production during the rainfall period.	Saku, Moyale, North Horr and Laisamis	Karare, Central, Sagante/Jaldesa,Maikona, South Horr/Ngurnit, , Loglogo, Sololo, Uran, Butiye, Golbo, Heillu/ Manyatta.	Feb-March 2023	2400	Promotion of water harvesting technologies for crop and pasture production	To harness the runoff water for crop production during the rainfall period.
Training agro-pastoral farmers on agrinutriti	To impact crop production knowledge and skills to farmers for	Saku, Moyale, North Horr and Laisamis	Karare, Central, Sagante/Jaldesa,Maikona, South	MAM season 2023	825	Training agro-pastoral farmers on	To impact crop production knowledge and skills to

on technologies and provision of requisite inputs	enhance nutrition		Horr/Ngurnit, , Loglogo, Sololo, Uran, Butiye, Golbo, Heillu/ Manyatta.			agrinutrition technologies and provision of requisite inputs	farmers for enhance nutrition
Provision of vegetable seeds and other inputs like solar driers ,shade nets and dam liners	Improved nutrition and household income	Saku and Moyale	Karare, Central, Sagante/Jaldesa,Maikona, South Horr/Ngurnit, , Loglogo, Sololo, Uran, Butiye, Golbo, Heillu/ Manyatta.	MAM season 2023	245	Provision of vegetable seeds and other inputs like solar driers ,shade nets and dam liners	Improved nutrition and household income
Livestock Sector							
Countywide	Moyale North Horr Saku Laisamis	Restocking of goats	1,000	CGM-DoALF	10M		August-January 2024
Countywide	All wards	Improved pasture production	1,200	CGM-DoALF	5M		August-January 2024
Countywide	All wards	Strategic deworming, parasite control, treatment and disease surveillance	800	CGM-DoALF	10M		August-January 2024
Countywide	County wide	Rangeland rehabilitation	1400	CGM-DoALF	400M		August-October 2023
Water Sector							
Sub-Counties	**Intervention**	**Location**	**Target**	**Implementing Partners**	**Costs (Kshs.)**		**Status**
All sub-counties	Purposive assessment of water sources		Laisamis and North Horr sub-counties	CGM and Partners	1,500,000		Ongoing

All sub-counties	Procurement of fast moving spare parts		8 key strategic boreholes – North Horr and Laisamis Sub-Counties	CGM and Partners	2,000,000		Ongoing
All sub-counties	Procurement of boreholes servicing items Servicing of boreholes (minor and major		8 strategic boreholes in North Horr and Laisamis 20% Livestock population	CGM and Partners	1,200,000		Ongoing
All sub-counties	WESCOORD Meetings at County and sub-county levels		8 WESCOORD Meetings in Laisamis and North Horr sub-counties	CGM and Partners	1,000,000		Ongoing
All sub-counties	Facilitation to BRRT		8 strategic boreholes in North Horr and Laisamis sub-counties	CGM and Partners	800,000		Ongoing
Health and Nutrition Sector							
Intervention description	**Location**	**Male**	Female	Costs (Kshs.)	Implementers /actors		**Remarks**
Mapping of Hot Spots areas\ in terms of vulnerability to diarrhoea disease outbreak and malnutrition was done after exhaustive Mass Screening in February,2023.	All wards/ All hot spots			700,000	County Government of Marsabit and Partners	Completed	Mapping of Hot Spots areas\ in terms of vulnerability to diarrhoea disease outbreak and malnutrition was done after exhaustive Mass Screening in February,2023.

Integrated outreach Scaling up for 3 months.	176 Outreach sites in the County			18,500,000	County Government of Marsabit and Partners	Conducted 260 integrated outreach sites in the County. **Ongoing**	Integrated outreach Scaling up for 3 months.
Blanket Supplementary Feeding Programme	All wards in North Horr and Laisamis Sub County.	All children <5 yrs and PLWs.	All children <5 yrs and all PLWs.		County Government of Marsabit and WFP.	Ongoing	Blanket Supplementary Feeding Programme
Scale up of emergency cash transfers. Horizontally to cover all vulnerable households. Vertically to enhance the monthly cash transfer value to meet the daily household food basket	North Horr, Laisamis, Moyale & Saku (				County Government of Marsabit and Partners	Ongoing	Scale up of emergency cash transfers. Horizontally to cover all vulnerable households. Vertically to enhance the monthly cash transfer value to meet the daily household food basket
Scale up integrated outreaches across all the mapped 226 Outreach sites.	North Horr, Laisamis, Moyale & Saku	260 integrated outreach sites mapped.	All Mapped 1st and 2nd priority sites.		County Government of Marsabit and Partners	Re-mapping of outreach sites was done based on Mass screening report and 260 outreaches were identified based on priorities **Ongoing**	Scale up integrated outreaches across all the mapped 226 Outreach sites.

Provision of essential health and nutrition Supplies for management of acute malnutrition.	North Horr, Laisamis, Moyale & Saku (All Wards)				County Government of Marsabit and Partners	Ongoing	Provision of essential health and nutrition Supplies for management of acute malnutrition.
Strengthen support for monthly coordination for Nutrition and Information sharing through sitreps.	North Horr, Laisamis, Moyale & Saku (All wards).				County Government of Marsabit and Partners	County Level quarterly Nutrition Technical Forum Conducted. Sub County Monthly Nutrition Technical Forums Conducted. **Ongoing**	Strengthen support for monthly coordination for Nutrition and Information sharing through sitreps.
North Horr, Laisamis, Moyale & Saku	All health facilities	Intensify support for monthly stipends for CHVs to conduct continuous household follow ups and support as the provide counseling on WASH, hygiene, IYCF and referrals.	2070 CHVs	County Government of Marsabit and Partners		Ongoing	North Horr, Laisamis, Moyale & Saku
North Horr, Laisamis, Moyale & Saku	All wards	Enhance monthly monitoring support for programs by both S/CHMT and CHAs at the facility and Community level.	All children <5 yrs.	County Government of Marsabit and Partners			North Horr, Laisamis, Moyale & Saku
Saku, Moyale, North Horr	All wards	Mapping of Hot Spots areas\ in terms of vulnerability to diarrhoea disease	All malnutrition hot spots	County Government	700,000	Completed	Saku, Moyale,

and Laisamis		outbreak and malnutrition		of Marsabit and Partners			North Horr and Laisamis
Education Sector							
Countywide	All	Supply of ECDE Meals	362	21,296	CGM	10M	July – November 2023
North Horr	All	ISMP	181	61,887	MoE	75M	July – November 2023
North Horr	All	Sanitary pads	181	25,800	MoE	21M	July – November 2023