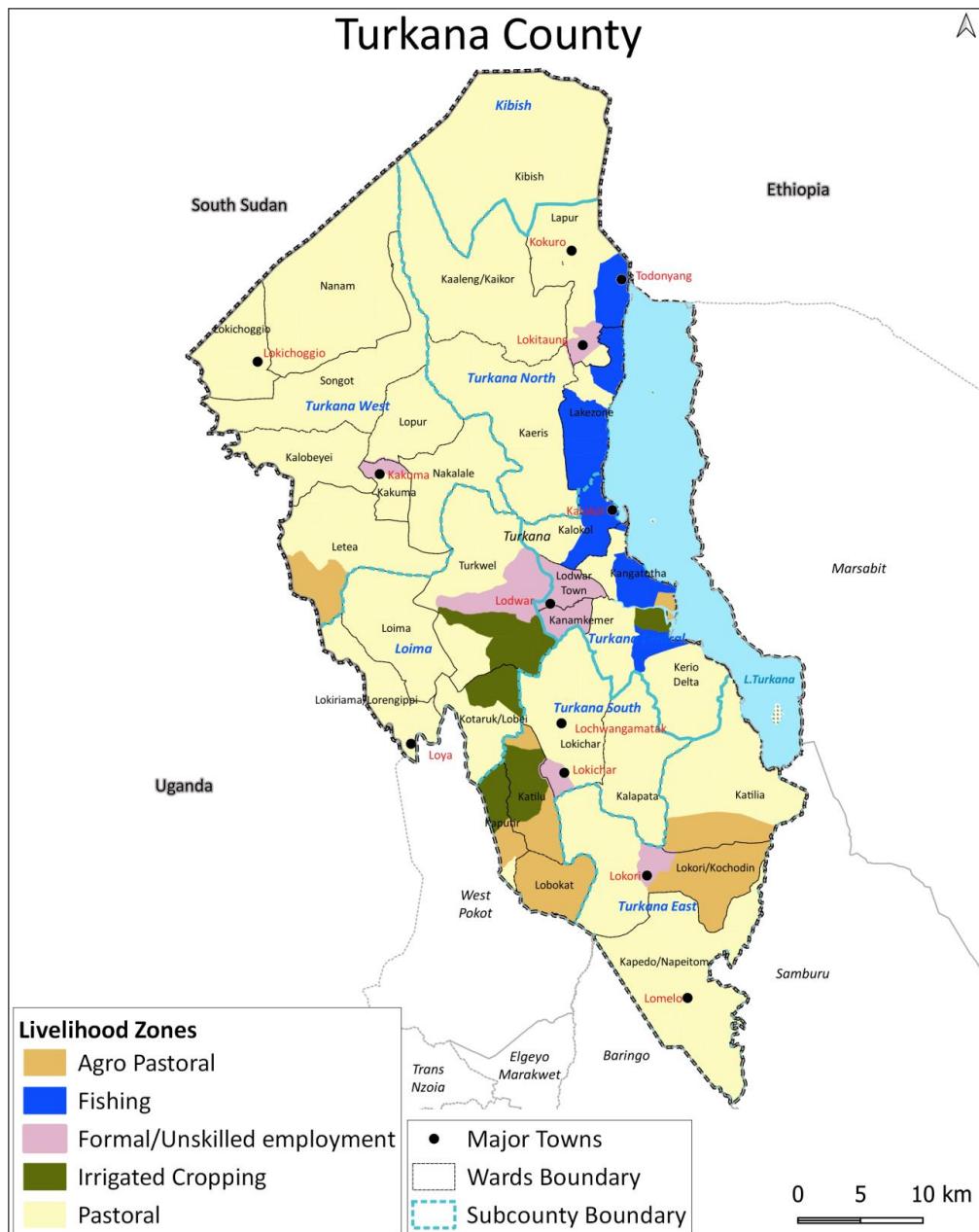


TURKANA COUNTY 2023 SHORT RAINS FOOD AND NUTRITION SECURITY ASSESSMENT REPORT



A joint Report by the Kenya Food Security Steering Group (KFSSG)¹ and Turkana County Steering Group

February 2024

¹ Turkana County Steering Group

EXECUTIVE SUMMARY

The Short Rains 2023 food and nutrition security assessment in the county was carried out from 24th January to 9th February 2024 covering the three main livelihood zones in the county: Agro-pastoral, Fishing and Pastoral, to assess the performance of the short Rains of 2023 while taking into consideration the cumulative effect of the previous two seasons and consequently providing recommendations for possible response options across the various livelihood sectors.

The onset of the 2023 short Rains season was during the second dekad while cessation was early in the second dekad of November. Northern and western part of the county received normal to above normal rain whereas central, eastern and southern parts received below average rainfall. In rain fed crop production, area under Sorghum increased by 6 percent but reduced for maize, cowpeas and green grams by 84%, 62% and 57% compared to long term average (LTA). Production for sorghum, maize, cowpeas and green grams declined by 51%, 87%, 26% and 13% respectively compared to LTA. Maize stock held by farmers was 78% above LTA whereas sorghum and green grams was 16% and 33% below LTA. Pasture and browse is poor in pastoral and fisher folk livelihood but fair in agro-pastoral livelihood zone. Consequently body condition for cattle and sheep was poor in pastoral and fisher folk and fair in agro-pastoral livelihood zone. Body condition for goat was poor in agro pastoral and fisher folk livelihood zone and fair in pastoral livelihood. Birth rates for all species were low so was the tropical livestock units (TLU). Milk production was 87 percent below long-term average. Milk prices were 25% above LTA. Migrations in high proportion for all species by 80% witnessed to areas which received good rainfall. High livestock disease prevalence was also witnessed though low livestock mortalities recorded. Higher than normal livestock trekking distance of 37% above LTA recorded which resulted to days of watering frequency for livestock to be alternated. Household trekking distance to water points, waiting time, consumption and cost was within normal ranges compared to similar period. Maize price was 25% above LTA whereas it was 8% below the LTA.

Proportion of households consuming more diverse foods regularly increased as depicted by reduction of food consumption score in the poor category from 32.1 percent in December 2023 to 30.2 percent in January 2024. Households in January employed more consumption based strategies to put food in their tables compared to January as evidenced through increase of the reduced coping strategy index (rCSI) from 15.3 in December to 15.8 in January. Morbidity for children under age of five years and the general population was within normal threshold though outbreak of measles was reported in Turkana West. Improvement in the nutrition status was reported based on the Global Acute Malnutrition (GAM) that declined from 34.8 percent to 26.4 percent; however, it still remained above the emergency threshold. Consequently, the overall integrated food security phase classification for the county is 'Crisis' (IPC Phase III)

TABLE OF CONTENTS

1.0 INTRODUCTION.....	1
1.1 County Background.....	1
1.2 Methodology and Approach	1
2.0 DRIVERS OF FOOD AND NUTRITION SECURITY IN THE COUNTY	3
2.1 Rainfall Performance	3
2.2 Insecurity/Conflict.....	3
3.0 IMPACTS OF DRIVERS ON FOOD AND NUTRITION SECURITY.....	5
3.1 Availability	5
3.1.1 Crop Production.....	5
3.1.2 Livestock Production	7
3.1.3 Impact on Availability	14
3.2 Access	15
3.2.1 Markets Operations	15
Market Prices	15
3.2.2 Terms of Trade.....	16
3.2.3 Income Sources.....	17
3.2.4 Water Access and Availability (Including Cost and Consumption.....	17
3.2.5 Food Consumption.....	22
3.2.6 Coping Strategy.....	22
3.3 Utilization	23
3.3.1 Morbidity and Mortality Patterns.....	23
3.4 Trends of Key Food Security Indicators.....	27
3.5 Education.....	28
3.5.1 Access- (Enrolment)	28
3.5.2 Food Availability in Schools During the Season	29
3.5.3 Food Availability in Schools During the Season	29
3.6 Child Protection	32
4.0 FOOD SECURITY PROGNOSIS.....	34
4.1 Assumptions	34
4.2 Food Security Outlook for Jan to March 2024	34
4.3 Food Security Outlook for April 2024 to June 2024.....	34
5.0 CONCLUSIONS AND INTERVENTIONS	34
5.1 Conclusion	35
5.1.1 Phase Classification	35
5.1.2 Summary of Findings	35
5.1.3 Sub-County Ranking	35
5.2 Ongoing Interventions.....	36
5.2.1 Food Interventions	36
5.2.2 Non-Food Interventions.....	37
5.3 Recommended Interventions	43
5.3.1 Food Interventions	43
5.3.2 Non-Food Interventions.....	44

1.0 INTRODUCTION

1.1 County Background

Turkana County is located in the north-western part of Kenya and borders Samburu County to the South East, Marsabit County to the East, and West Pokot County to the South West. The County

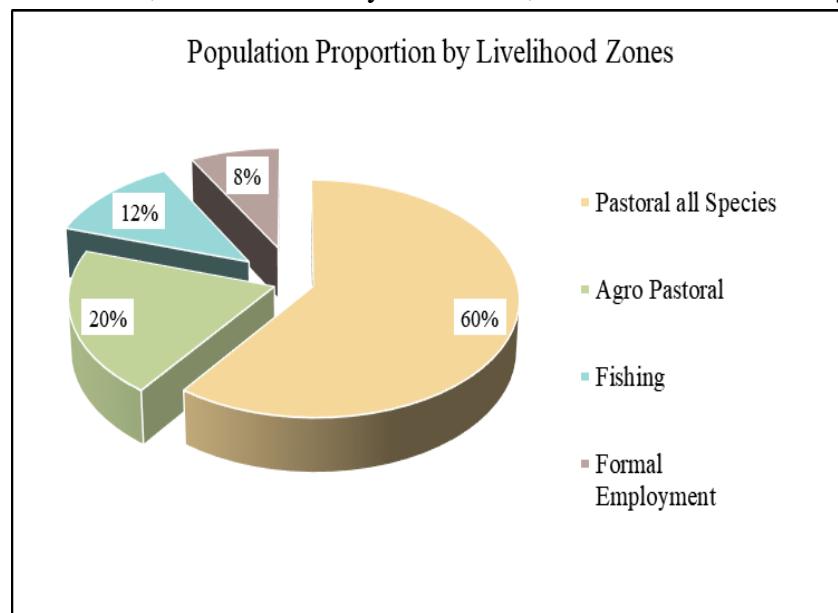


Figure 1: Proportion of Population by Livelihood Zone

Turkana East, Turkana Central, Turkana West, Turkana South, Kibish and Loima. The County has four main livelihood zones namely: Pastoral, Agro-pastoral, Fishing and Formal Employment with population proportions of 60, 20, 12 and eight percent respectively (Figure 1). Main sources of cash income in the Pastoral Livelihood Zone include: Livestock production that contributes 91 percent to cash income, while petty trade and hunting/gathering make a contribution of three percent and two percent respectively. Along the Agro-pastoral Livelihood Zone, the main sources of income include: Food crop production, livestock production and firewood collection/charcoal burning with a contribution of 40 percent, 25 percent and 10 percent to cash income. Lastly, in the Fishing Livelihood Zone, fishing makes a contribution of 54 percent to the total household cash income while livestock production and casual waged labour contribute by 18 percent and 10 percent in that sequence. Additionally, the overall poverty incidence for the county is 77.7 percent with the hard core poverty incidence being 45.7 percent while the food poverty incidence stands at 63.4 percent (KNBS, 2021).

1.2 Methodology and Approach

The 2023 short rains assessment adopted a multi-sectoral and multi-agency approach constituting of the County Steering Group (CSG) through support of non-state actors such as Kenya Red cross, Save the Children, Welt Hunger Hilfe, World Vision International, and International Rescue Committee. The assessment was conducted from 24th January to 9th February 2024 covering three livelihood zones in eleven sub counties. The main objective of the assessment was to conduct an objective, evidence-based and transparent food and nutrition security situation analysis following the March to May (MAM 2023) rainfall season in Turkana County, while taking into consideration

also borders three countries namely: - Uganda to the west, Ethiopia to the northeast, and Sudan to the northwest. The County covers an approximate area of 77,000 square kilometres (Km²) with a projected population of 1,022,773 (505,390 males, 517,384 females) people (KNBS, 2022). Administratively, the County is divided into eleven (11) sub-counties but only seven are operational and these include: Turkana North,

the cumulative effect of previous seasons and consequently providing appropriate sector specific recommendations for possible response options.

The assessment started with a briefing of the CSG on the objectives of the assessment followed by sector briefs and a review of the completed sector checklists (quantitative data) that had been administered a week earlier by the technical team that had been mandated to conduct the assessment. Sites to be visited for primary data collection were purposively selected with a special consideration of the factors driving vulnerability including rainfall performance, conflict hotspots, agricultural areas, human and livestock disease hotspots while also factoring representativeness in terms of livelihood zones as a unit of analysis. Primary data was collected from the community through market interviews, key informant interviews, and semi-structured focus group discussions (comprising both genders) in the three main livelihood zones.

Additional secondary data including satellite rainfall estimates, routine health and nutrition data from the Kenya Health Information Systems (KHIS), prices, Standardized Monitoring and Assessment of Relief and Transitions (SMART) and the National Drought Management Authority (NDMA) bulletins among others was availed to the assessment team. Based on livelihood zone as the unit of analysis, the primary data was then collated, analysed and triangulated with the secondary data. Further, integrated food security phase classification (IPC) protocols were followed in the identification of food insecurity causes and severity classification. Preliminary findings of the compiled county food and nutrition security report were later shared during the debriefing CSG held on 8th February, 2024 for adoption as a true reflection of the county food security situation.

2.0 DRIVERS OF FOOD AND NUTRITION SECURITY IN THE COUNTY

2.1 Rainfall Performance

The OND rainfall is an important season for both agro-pastoral and pastoral livelihoods. For agro-pastoral livelihood, it is the main season for cultivation of sorghum which is a staple crop as well as other early maturing crops such as cowpeas and green grams. Pastoral livelihoods also reap from regeneration of forage and reduced trekking distances. as it allows for cultivation of sorghum which is a st . Onset of the 2023 short Rains season was during the second dekad of October. Northern part of Turkana North and Turkana west bordering South Sudan and Western part of Loima sub county bordering Uganda received average rainfall of between 91 mm-200 mm of normal rainfall while the remaining part of those sub-counties receiving between 51 mm-75 mm of normal rains.

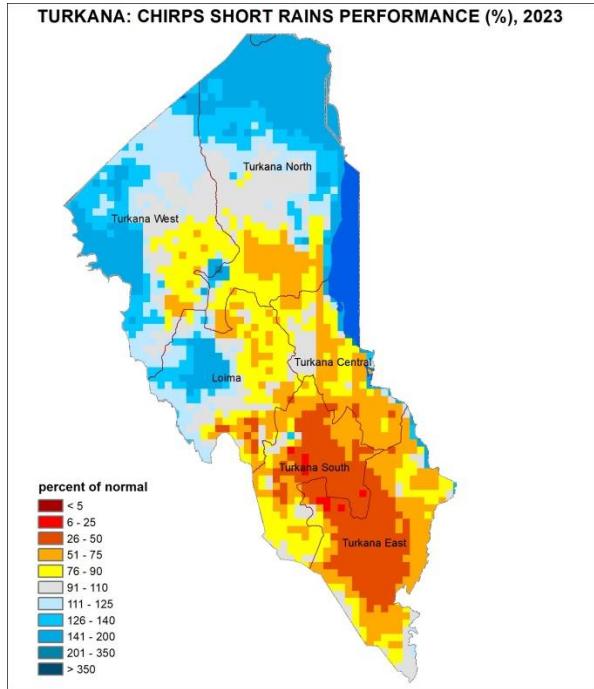


Figure 2: Rainfall performance

Turkana East, Turkana South and Turkana Central received between 26 mm and 90 mm of normal rainfall. A few hotspots in Turkana South received between 6 mm-25 mm of normal rainfall. Flooding incidences were witnessed in Turkana West and

Loima sub counties resulting to loss of lives and destruction of property. Cessation was early in the second dekad of November compared to third dekad of December though occasional rainfall continued being received after the cessation. Overally distribution over space was even but poor over time.

2.2 Insecurity/Conflict

The county faced a quagmire of insecurity incidences such cattle rustling, highway banditry and boundary disputes which negatively impacted the livelihoods of the affected areas. For instance, raids were reported in Lokaraan and Nakwakwaal villages in Lopii sub location driving away hundreds of livestock. Moreover, fear and tension remained the main issue reported on the main A1 Road connecting Turkana south and West Pokot where suspected bandits and robbers have been robbing and stealing from passengers on the road. The hotspots for insecurity in the county are: Kibish sub county, Lobokat, Kaputir, Katilu, Lokori/Kochodin, Kapedo/Napeitom, Lokichoggio, Kalobeyei, Letea, and Kibish wards.

2.3 Other Shocks and Hazards

Floods

Flooding incidences related to El-nino phenomenon were reported in Turkana West, Loima and parts of Turkana South sub counties. The floods resulted to loss of seven lives, deaths of 406 goats,

2 cows, 2 camels and 1 donkey. Approximately 1667 households were temporarily displaced; homes and household goods destroyed forcing them to seek shelter and food elsewhere.

The most affected wards included: Lorugum, Namoruputh, Turkwel, Lobei/Kotaruk and Kangalita in Loima subcounty, Lokichogio, Songot, Lopur, Letea, and Kalobeyei in Turkana West and Katili in Turkana South.

High Food Commodity Prices

The county is grappling with high food prices just as the rest of the country. The high food prices has been attributed to high inflation coupled with a weakened shilling against the dollar that has resulted to increased importation cost that is transferred to consumers. Other external factors such as high fuel prices, Russia-Ukraine war and Red sea tensions have indirectly contributed to the high prices. Consequently, households are struggling to make ends meet and put food on the table.

Crop pest and diseases

Rain fed and irrigated farms reported infestation by fall army worms and maize smut disease which contributed to low yield output.

Livestock Diseases

High livestock disease incidence reported due to Endemic livestock diseases in the county such as CCPP, CBPP, Trypanosomiasis, Mange, Camel cough, Helminthosis, Haemorrhagic septicaemia, tick borne diseases and tsetse fly and tick infestations. Outbreak of contagious ecthyma was reported countywide. Livestock diseases affected productivity in terms of body condition consequently resulting to low prices. Livestock diseases also resulted to mortalities hence negatively affecting household purchasing power and economy

Lake Turkana Backflow

Backflow water from Lake Turkana has negatively impacted the communities residing in 4 wards: Lakezone, Kalokol, Kangatotha and Kerio delta. The water has submerged houses forcing residents to relocate to higher grounds. It has also submerged hotels and beach properties leading to closures that have negatively impacted the economic situation in the four wards. The number of fish has also dwindled which has resulted to increase in prices.

3.0 IMPACTS OF DRIVERS ON FOOD AND NUTRITION SECURITY

3.1 Availability

3.1.1 Crop Production

The county mainly practices two types of farming system: irrigated and rain-fed agriculture.

The short rains season is an important season as it supplements the long rains food production and at times bridges any deficit in case of failure of the long rains. The short rains performance in agro pastoral livelihood was below average, which resulted to wilting of crops while at knee height stage thus resulting to low production.

During this season 4 drought-tolerant crops were grown in the live hood zone: Maize (DH04), Sorghum, and green grams. Other crops were integrated with the major three included Vegetables, cow peas. Orange flesh sweet potato and fruits.

Rain-fed Production

The main crops grown during the season was maize, sorghum, cowpeas and green grams. acreage for sorghum is an off season crop that is mostly preferred by rain fed farmers because it requires less water and also is a dense nutrient staple cereal supplementing maize thus the increased acreage by 6 percent compared to LTA. Acreage reduced for maize, cow peas and green grams reduced by 84 percent, 62 percent and 57 percent respectively. Although Green grams and cowpeas also require less water, they are mainly grown under irrigation. Maize is usually planted during long rains as it requires adequate rainfall. However a few farmers planted maize but most of it wilted and dried up due to inadequate rainfall. Increase in acreage for sorghum is attributed to mechanized early land preparation, availability of certified seeds, community sensitization to adopt agriculture as a livelihood.

Table 1: Rain-fed Crop Production

Crop	Area planted during 2023 short rains (Ha)	Long Term Average area planted during the short rains season (Ha)	2023 short rains season production (90 kg bags) Projected/Actual	Long Term Average production during the short rains season (90 kg bags)
SORGHUM	2097	1962	16426	33513
MAIZE	24	157	219	1810
COW PEAS	14	37	126	171
GREEN GRAMS	15	35	84	97

Production of sorghum, maize, cow peas and green grams decreased by 51 percent, 87 percent, 26 percent and 13 percent respectively compared to the long term average. Low productivity of crops during the season was as result of inadequate rainfall coupled with pests and diseases. Flash floods in Lokapel and Nawapeto in Turkana south and parts of Turkana west resulted to crop damage which contributed to decreased productivity. (Table 1)

Irrigated production

Irrigated agriculture is mainly practiced along river Turkwel and Kerio. During the short rains season, the area under irrigation for sorghum increased by 14 percent compares to long term average. The increase in acreage under irrigation was attributed to increased population of farmers adopting irrigation, reliability of water from river Turkwel, support from donors on farm inputs e.g seeds, capacity building and extension services by county government. However for maize, green grams and cowpeas, area under irrigation declined by 17 percent, 25 percent, 16 percent respectively compared to the LTA. The decline can be attributed to preference of sorghum as a high nutrient value crop and also that it requires less water compared to the rest.

Production was low attributed to reduced soil fertility due continuous farming, most farmers not using fertilizers (organic and inorganic), use of poor seed varieties and use of uncertified seeds. Sorghum, Maize, green grams and cowpeas production decreased by 26 percent, 28 percent, 25 percent and 25 percent respectively compared to long-term average.

Table 2: Irrigated Crop Production

Crop	Area planted during 2023 short rains season. (Ha)	Long Term (5 year) Average area planted during the short rains season (Ha)	2023 short rains season production (90 kg bags) Projected/Actual	Long Term Average (5 year) production during the short rains season (90 kg bags)
SORGHUM	1473	1292	4946	6689
MAIZE	797	964	6000	8350
GREEN GRAMS	20	27	200	270
COW PEAS	25	30	300	400

Some of the challenges faced in accessing farm inputs, labour and cost of irrigation schemes included: high cost of inputs, inadequate knowledge, pests and diseases, inadequate agro dealers, underutilized and non-functional irrigation schemes e.g Kanaodong, Nakwamoru, Loyapat Juluk.. Inadequate mechanized agriculture so less land prepared for food production.

Cereals Stocks

Total maize stocks held by farmers was 78 percent above long term average despite low rainfall received during Short rains. This is because production of maize is done under irrigation instead of reliance on rain fed production. Sorghum is mainly produced under rain- fed production. Due to poor performance of the short rains, stocks held by farmers declined by 16 percent compared to the LTA. Similarly stock for green grams was 33 percent below LTA.

Table 3: Commodity Stocks in the County

Commodity		Maize		Rice		Sorghum		Green gram	
		Current	LTA	Current	LTA	Current	LTA	Current	LTA
Farmers		1930	420	0	0	2400	2870	20	30
Traders		25750	24444	14000	9800	3100	4500	300	310
Millers		0	0	0	0				
Food Assistance		-	-						
NCPB		10719	-						
Total		38399	24864	14000	9800	5500	7370	320	340

Rice held by traders was 30 percent above the long term stock .NCPB also had 10719 bags in their store. Traders are sourcing cereals and other food commodities from outside the county in West Pokot, Trans-Nzoia, Kitale, Uasin Gishu and Uganda. No stocks were held by millers. Available stock is projected to last for 3 months.

3.1.2 Livestock Production

Livestock is the major economic activity in the county with 60% percent of the households depending on livestock as their main livelihood while 12% of county population is composed of agro-pastoralists who grow crops and keep livestock. Livestock production contributes 91, 25 and 18 percent to cash income in the Pastoral, Agro-pastoral and Fisheries Livelihood Zones respectively. The main livestock species reared are cattle, goats, sheep, camels, donkeys. Cattle and camel are used largely for milk and meat while donkeys are used as means of transport during migration. Sheep and goats are the most important livestock species at household level as they are easily exchanged for food and cash.

The OND rainfall was poorly distributed over space resulting to poor regeneration of pastures and browse especially in Turkana Central, Turkana East, and Turkana South which contributed to poor body condition for livestock. Flooding experienced along agro pastoral and pastoral livelihoods of River Tarach and Turkwel caused loss of livestock. High prevalence of endemic livestock diseases resulted to weak animals which fetched low prices especially in Lakezone, Kaeris and Nakalale wards. Insecurity was also the major challenge for pastoralists along local and international boundaries of West Pokot at Turkana East, Southern Ethiopia at Todonyang, and Uganda at Turkana West. Mechanisms measures to mitigate some hazards and shocks were: community awareness on the hazards and shocks, activation of livestock market days, distribution of feeds, livestock insurance, pasture production in Nariemeto and Pelekech, peace building initiatives and livestock treatment, vaccination and deworming to reduce the burden of livestock diseases.

Pasture and Browse Condition

Condition of pasture and browse was poor in the pastoral and fisher folk while agro-pastoral had fair pasture/browse condition due unevenly distributed rains. Pasture is expected to last for one month compared to two months normally while browse may last 2 months compared to 3 months during normal period. Pasture and browse condition is rapidly deteriorating in all livelihoods due

to increased migration internally and externally. Factors affecting access to pasture and browse are long distance to watering points and grazing fields in Lake zone and Nakalale wards, ,insecurity in Turkana South and Turkana East and wildlife attack especially crocodile along rivers of Turkwel and Kerio.

Table 4: Pasture and Browse Condition

Invasive plant species known as *Prosopis juliflora* (Mathenge) have invaded swathes of land

Livelihood zone	Pasture				Browse			
	Condition		How long to last (Months)		Condition		How long to last (Months)	
	Current	Normal	Current	Normal	Current	Normal	Current	Normal
Pastoral	Poor	Fair	1	2	fair	Good	2	2
Agro pastoral	Fair	Good	1	2	fair	Good	2	3
Fisher folk	Poor	Fair	1	2	Poor	Fair	1	2

especially along the agro-pastoral livelihood and fisher folk. Their effect include suppressed growth of pasture, tooth decay in goats, reduced land for grazing and farming. Affected areas are: Katilu, Kaptir, Lokichar and Kalapata wards in Turkana South, Kalokol, Kerio(1500 acre), Kangatosa (1000acre) and Kanamkemer(900 acres) in Turkana Central, Lopur ward (Lopur, Namon and Lokangae), Songot ward (Nasinyono) and Letea (Letea centre) in Turkana West. Control measures include capacity building of the farmers on the management of prosopis such as using prosopis for firewood and charcoal making, poles for construction and fencing materials and pods for local feed formulation.

Baled Hay Status

The status of pasture conservation in the county is fair since pasture production farms are small and few have hay stores. Pasture production groups are doing seed bulking and have conserved grass since they prefer to use available grass as standing hay though some groups managed to conserve it successfully in the form of baled hay bales. Current areas producing grass pasture are Nadunga ,Loruth, Todonyang and Nayanae kabaran in Turkana North, Namakat, Simailele, Kakong in Turkana South, Naremioto CBNRM ,Pelekech environmental group in Turkana West and Naurenpuu ,Naguroo ,Turkwel PFS in Loima. Partners involved include GIZ, CRS, USAID Nawiri, ASDSP, JICA, TUPADO, Wetlands, DRSLP.

Table 5: Baled Hay Status

County	No. of Hay Stores	Storage Capacity (Total number of bales)	No. of Bales currently being held	How long is expected to last (months)	County demand	Average Weight per bale (in Kgs)	Average price per bale (Kshs.)	Remarks
Turkana	12	42400	1850	1	460,000	13	300	

The current stock is expected to last for 1 month. Percentage of utilization of conserved pastures/fodder by livestock farmers is 10-40%. The alternatives source of hay include Grass hay and wheat straw hay which are sourced from Kitale ,Nakuru, Uganda at Ksh.300. Supplementary feeds such as range cubes are also sold by private traders such as Silo Agrovet,Sidai and Solai Agrovet in Lodwar and Kakuma. County government and partners also sourced range cubes from Nakuru, Kitale ,Eldoret and Nairobi at .Ksh2500 -3000 per 50Kg bag and distributed to farmers. Sweet vines from farms along the Agro pastoral areas, Maize and sorghum stovers were used. Pasture/fodder conservation impact on mitigating seasonal forage fluctuations included mitigating feed scarcity, reduced migration of livestock to the insecure area resulting to reduced conflict and also improved living standard of the farmers through creation of job via commercialization of pasture seeds and hay bales.

Factors limiting the conservation and utilization of conserved pastures/ fodder or supplementary feeds include inadequate hay stores, inadequate knowledge on conservation and value addition of pastures/fodder, delayed harvesting leading to overgrown pastures, erratic rains and inadequate water for irrigated pastures.

Livestock Productivity

Livestock Body Condition

There was inadequate pasture for the livestock due to the poor regeneration of pasture. Livestock exhibited poor to fair body condition due to unavailability of pasture and browse . Cattle and Sheep have poor body condition while goat and camel have fair body condition. Livestock in fisher folk and pastoral have poor body condition while agro pastoral have fair body condition due to improved pasture and browse along the riverine zones.

Table 5: Livestock body condition

Livelihood Zone	Cattle		Sheep		Goat		Camel	
	Current	Normal	Current	Normal	Current	Normal	Current	Normal
Pastoral	2	3	2	3	3	3	4	4
Agro pastoral	3	4	3	4	2	3	4	4
Fisher folk	2	3	2	3	2	3	3	4

BCS 1 – Very Poor (Emaciated) BCS 2 – Poor BCS 3 – Fair BCS 4 – Good BCS 5- Very Good

In 3 months, livestock body condition will be poor due to long distance trekking in search of pasture and water before onset of MAM rains.

In 6 months, livestock body condition across livestock species will be good due to the available pasture that are the expected from long rain season which will support regeneration of depleted pasture in the grazing areas. Poor to fair livestock body condition has negative implications, as there are few milk and meat products. This increases food insecurity in the county.

Birth Rates

Birth rate was not normal due to low lambing, calving and kidding and the situation will worsen in the next 3 months due to inadequate pasture and water. However, the situation may improve in 6 months because of the anticipated March to May 2024 rains.

Tropical Livestock Units (TLUs)

There was decreased TLUs for both poor and medium income households due to poor body condition of animals and depleted pasture. Households in poor income households have few TLUS compared to their middle-income households. Factors contributing to the variations include low kidding, lambing or calving of the livestock species due to inadequate availability of pasture production and control of diseases leading to poor body condition of animals. With decreased TLUs, the food insecurity increases as less animals are available for income generation and food production. The mitigation measures include households relying on relative's donations, restocking by Turkana county Government and partners, investing in alternative livelihoods like apiculture, fodder production, poultry production and livestock trade.

Table 6: Tropical Livestock Unit

Livelihood zone	Poor income households		Medium income households	
	Current	Normal	Current	Normal
Agro pastoral	5	10	10	10
Pastoral	2	5	7	10
Fisheries	1	3	2	5

Milk Production, Consumption, and Price

Main livestock producing milk were camel, goat and cattle. Milk production was about 0.25litres compared to normal of 2 litres whereas milk consumption was 0.2 litres compared to normal of 1 litre. Factors that contributed to low production were low birth rate, diseases, poor pastures because of inadequate rainfall and migration of over 80% of all livestock species. Milk prices in pastoral and fisher folk livelihood zone was Ksh.80 while it was Ksh 70 in agro pastoral zone due to reduced availability of milk in the pastoral and fisher folk livelihoods.

In the next 3 months, milk production and consumption will be low and prices high due to forage scarcity and low birth rate. In the next 6 months, milk production and consumption will improve and prices lower due to increased availability of forage and higher birth rate.

Households purchased powdered milk from the wholesaler/retailer shops to fill consumption gap. Some households resorted to skipping breakfast tea and any little amount of milk available was reserved for the young children. Packed milk (500ml) is retailing at Ksh.100, Powdered milk (500ml) at Ksh 1000 and ATM milk (1 ltr) at Ksh 100.

Table 7: Milk production and consumption

Livelihood zone	Milk Production (Litres)/Household		Milk consumption (Litres) per Household		Prices (Kshs)/Litre	
	Current	LTA	Current	LTA	Current	LTA
Pastoral	0.2	2	0.2	1	80	60
Agro pastoral	0.25	2	0.25	1	70	60
Fisheries	0	1	0	1	80	60

Migration

There has been outward migration across all livelihoods reported in of search of water and pasture. There has been migration across the borders to Turkana West and Turkana South. In addition, there are reported migrations across the borders to Uganda, Southern Sudan, and Southern Ethiopia. Livestock species and percentage that have migrated include 80 percent of cattle, 75 percent of sheep and goats, 50 percent of camel and donkeys respectively.

Migration has negative implications on environment and food security. Livestock migration increase pressure on grazing resources and cause environmental degradation as vegetation cover is destroyed. Furthermore little milk and meat is left behind at the homesteads leading to food insecurity in the households. Factors that limited livestock migration were: water scarcity, insecurity and inadequate human food.

Migrations will continue in the next three months towards the mountains in Turkana North. In Kibish, the projected trend will be from Olegech, Kaitede, Naita to Kasarani, Natodomeri and Kibish centre.

Table 8: Livestock Migratory route

Sub county	Livestock routes
Turkana North	Lapur- liwan , Kaikor , Loriontom, Kaaleng ,Lokwanamor Kbish centre- Kasarani- Natodomeri to the areas of Naita, Kaitede, Natapar and Olegech
Turkana West	Route 1: Loteteleit, Oropoi, Loreng, Naturtario, Nalapatui, Nawountos, NamoruArengan, Ngigolei hills, NalingaAkwaan, Loriontom ranges, Nakuwa hills, Kurath Hills, Nadapal, Loima, Jie, Logum, Etere, Kalopeto, Lopokok, Pire Hills, Kaboong, Nakitongo, Namorukirionok Route 2: Nanam, Lorus, Nasinyeno, Kobuin, Naperebei, Lotitan, LomothiringKaal, Loroo, LomurEtae, NamoruArenganLoreng,Namorkirionok
Turkana Central	Route 1 Kerio, kangirisae, Lorio hills Route 2 Kerio -Lodwar, Naotin, Napeikar and Loima Route 3 Kangatotha,Moru edou-kalokol, lake zone
Turkana East	Suguta valley –Namariate- Lokori/kochodin.
Loima	Route 1: Namorupus,Kaikorikamar,Kotaruk,Lomeyan,Lorengkipi,Kapus,Lokatul, kawalase,Kaibele,Lokatul and Nangereny Route 2: Urum,Natelo,Nakou etom,Loima hills and Naput ,Lorengkipi

Livestock Diseases and Mortalities

Endemic livestock diseases in the county include Contagious Ecthyma (Orf), CCPP, CBPP, Trypanosomiasis, Mange, Camel cough, Helminthosis, Haemorhagic septicaemia, tick borne diseases and tsetse fly and tick infestations. Outbreak of Contagious Ecthyma was reported countywide. The disease affected mostly kids and camel calves. The relative prevalence was significantly high at 11% and mortality at 1%. Diseases affected livestock access to markets,

deaths and low livestock productivity consequently increasing food insecurity as production of meat and milk is disrupted.

Table 9: Estimated Livestock mortalities

County	Livestock species	Total county Population per species	Reported Livestock deaths per species	Mortality rate (= number of reported deaths per species/ total population per species)	Remarks
Turkana	Cattle	3,106,522	1560	0.05%	normal
	Goats	6,197,716	35736	0.58%	Normal
	Sheep	5,426,924	26144	0.48%	Normal
	Camels	897,392	412	0.04%	Normal
	Donkeys	541,431	216	0.039%	Normal

The livestock mortality rate for livestock species was normal. The mortality rates were found along the borders. There were no unusual livestock deaths reported.

Water for Livestock

Current water sources include boreholes, natural springs, sand dams, shallow wells, lake and traditional hand dug wells. In normal times, we have water pans, which have dried up or are 10% full and some boreholes, which currently have low water table. The water pans are expected to last for one month. The current trekking return trekking distances from grazing area to watering points is 8-16Km compared to normal distance of 10 km. The variation is due to drying up of open water points such as the water-pans and breakdown of some borehole. Boreholes are expected to last for at most 3 months while hand dug wells might last less than 2 months. Factors limiting access to water include non-functional water points, insecurity and long trekking distance. Water stressed areas include Kalokol, Kerio, Nakalale, Kaeris and Lake zone wards.

Table 10: 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
Pure pastoralist	Borehole,sand dam, shallow wells		Natural springs, Boreholes, water pans and shallow wells	16	12	1	2
Agro Pastoral	Boreholes, water pans and shallow wells		Boreholes, water pans and shallow wells, rivers	8	10	3	4
Fisher folk	Lake ,water pan,Borehole		Lake ,water pan,Borehole,wells	10	10	3	3

Watering Frequency

Water frequency decreased in pastoral and agro pastoral due to increased trekking distance to water points from grazing areas and adaptability of camel to withstand thirst for more days. The expected trend in return trekking distances/watering frequency and duration for water sources in the next 3 months is increasing as most water points either dry up or lower water table. In the next 6 months, the distance will be shorter since most of open water sources will recharge and water will be plenty.

Table 11: Watering frequency

Livelihood zone	Cattle		Camels		Goats		Sheep	
	Current	Normal	Current	Normal	Current	Normal	Current	Normal
Agro pastoral	3	5	3	4	3	4	3	4
Pastoral	3	5	3	4	3	4	3	4
Fisher folk	6	7	6	7	6	7	6	7

3.1.3 Impact on Availability

The OND 2023 distribution over space was even and poor over time. Despite the poor performance, farmers were able to cultivate sorghum, which is a staple crop though production was low because of other factors such as pests and diseases. It also allowed for cultivation of other crops albeit in small scale such as leafy vegetables, green grams and cowpeas. The rains also allowed for pasture and browse regeneration and recharge of water sources, which consequently led to slight improvement of livestock body condition.

3.2 Access

3.2.1 Markets Operations

The main markets in agro pastoral, pastoral and fisher folk are Kalemngorok, Kaikor, Kangatosa respectively. The three main livestock species traded in Kalemngorok and Kaikor markets are Cattle, Goats and sheep whereas for Kangatosa is Sheep, goat, camel).

Currently markets are operating normally though disruptions caused by insecurity in hotspots areas have denied buyers and seller the opportunity to trade negatively impacting food security. In the next 3 months, markets will be flooded with weak livestock due to deteriorating body condition thus fetching low prices. However, after 6 months, the market will have few livestock available for sale since livestock keepers will not be willing to sell livestock after the long rainy season.

Market Supplies and Traded Volumes

Kakuma market gets livestock supply from Nanam, Nasinyono, Kobuin. 3700 livestock were traded between October 2023 and December 2023. Lodwar market gets livestock supply from Kerio, Kangatosa and Turkwel. It traded 1500 livestock during the same period. Lokichar market gets livestock supply from Napusmorus, Nakukulas and Lochwa. It also traded 5000 livestock during that period. Other alternative markets include Lochor edome, Kitale, Kalemngorok, Katilu, Kerio, Kangatosa and Lokori. The main traders in the markets are members of Livestock marketing associations (LMA and Butcheries). There were distress sales by farmers due to drought, lack of information and Market linkages. The price of Sheep was Ksh.3000, Goat Ksh.3500 and Cattle Ksh.20000.

Market Prices

Maize Price

During the month of January, one kilogram of maize was traded at an average price of Kshs.102

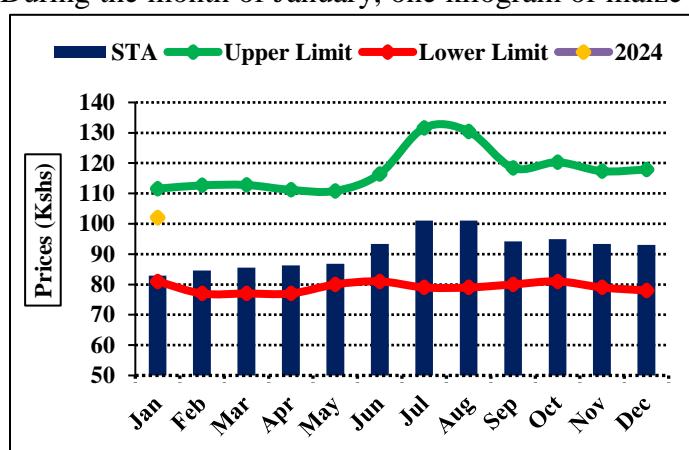


Figure 3: Maize price trends

at major markets across the livelihood zones. This indicated a four percent increase compared to that recorded in December due to erratic supply of maize from Eldoret/Kitale and Uganda.

The current price of maize was above the short-term average by 25 percent and outside the normal range at such time of the year as demonstrated in figure 3, This can be attributed to the current high cost of fuel across the county that had increased the transportation cost to far markets.

The highest price of Kshs 120 of Maize was recorded in pastoral livelihood zones where most markets are far and the cost of transporting food commodities is high whereas the lowest price (Kshs 95) was noted in Agro pastoral livelihood zone.

Goat Prices

The price of a 2-year old medium sized goat was Kshs 4,315; representing eight percent decrease

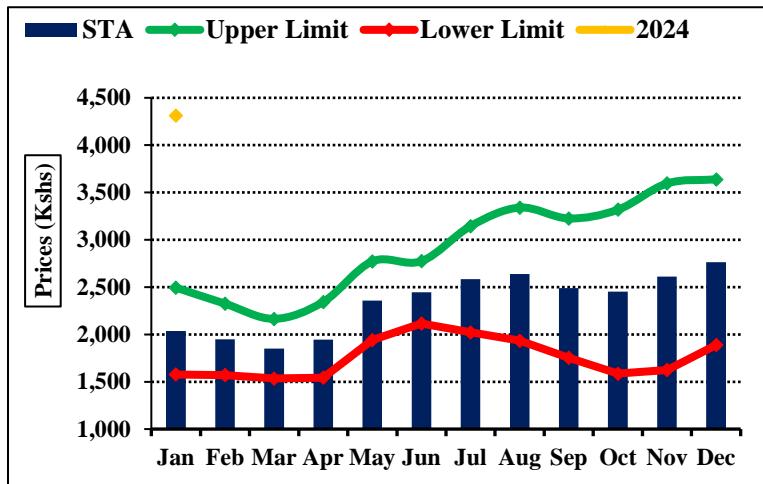


Figure 4: Goat prices

normal range as shown in figure 4.

The variations were noted within the livelihood zones where the highest price (Kshs 4,620) of goat was recorded in the Agro Pastoral livelihood while the least price (Kshs 3,800) was recorded in the Pastoral livelihood zone.

The goats in Agro pastoral zone had better body condition due to availability of fair herbacious vegetation thus fetching better goat market prices.

3.2.2 Terms of Trade

The county recorded an average Terms of Trade (ToT) of 42 which shows a 13 percent decrease from the ToT recorded in December as shown on figure 5.

In comparison, the current Terms of Trade is above the short-term average at such time of the year by 54 percent.

The decreasing trend in the Terms of Trade is linked to the relatively higher maize prices and the decreased price of goat owing to huge demand for school fees during school opening in January occasioning flooded markets hence low goat market prices.

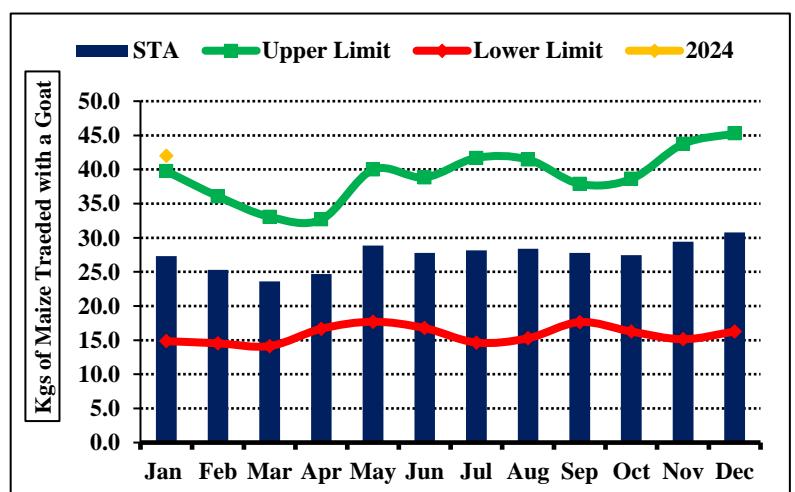


Figure 5 : Terms of Trade Trends in Turkana County

The current Terms of Trade is positively outside the range for such time of the year.

The highest ToT of 44 was recorded in Agro pastoral livelihood zone where the higher price of Goat was recorded due to the fair livestock body condition. The least ToT of 29 was reported in the fishing livelihood zone where poor goat market prices were recorded.

3.2.3 Income Sources

Majority of the households across the three livelihood zones depend on livestock production, food crop production and fishing as their main income sources. Other sources of income include: charcoal burning, formal/casual waged labour and petty trading (Table 12).

Table 12: Main sources of cash income

Sources of Income	Contribution to Cash Income per Livelihood Zone (Percent)		
	Pastoral LZ	Agro-pastoral LZ	Fisheries LZ
Livestock Production	91	25	18
Food Crop Production	1	40	2
Fishing (Marine or inland)	-	1	54
Charcoal Burning	1	10	2
Small Business	1	6	2
Casual Waged Labour	-	3	10
Formal Waged Labour	-	5	8
Petty Trading	3	3	2

3.2.4 Water Access and Availability (Including Cost and Consumption)

Major Water Sources

In January, the three major water sources relied upon by households and livestock were; boreholes, shallow wells and water pan with about 30, 20 and 28 percent of the population respectively as shown in figure 6.

The proportion of households and livestock that relied on rivers decreased by six percent, water pans increased by six percent while boreholes remained stable compared to that of the previous month attributed to poor water recharge in most open water sources.

Traditional hand-dug wells are currently at 1-2 metres along the river beds of most seasonal rivers mainly Kawalase, Kospir, Tarach and Napasnyang.

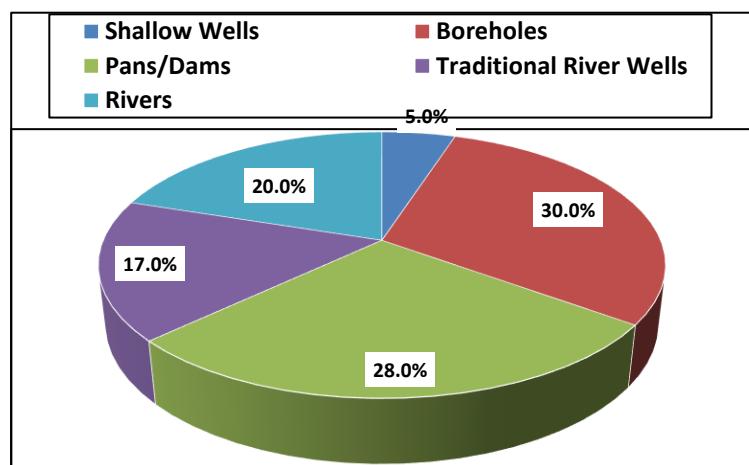


Figure 6: Household/Livestock Water Sources in Turkana County

Open water sources like pans and dams, rock catchments, earth dams and natural gorges recharged poorly. Water table dropped in all livelihood zones in the county, thus probable to affect the drawing water levels in boreholes.

The general quality and quantity of water deteriorated compared to that of December with most people consuming raw water fetched from unprotected sources. The current available water sources relied upon by households and livestock is expected to last for one to two months.

Table 13: Status of water sources

Ward/ Livelihood zone	Water Source (Three (3) major sources)	No. of Current Operatio nal Sources	No. of Normal Operatio nal	Projected Duration (Operatio nal Sources)	Normal Duratio n that Water Last in Months	Current Water Level as % of Full Capacity after Recharg ed by the Rains	Locality of Non- operational Water Sources	What is the Reason(s) behind the Non- operatio nal Water Sources?
Nanam, Kalobeyei, Songot Lokichogio, Lokichar, Lobokat, Township, Nanam, Kalapata, Kaikor, Kaaleng, Lapur, Nakalale, Kaeris, Lokiriam- Lorengkipi, Kapedo- Napeitom/ Pasto ral	1.Borehol es	461	509	Permanent	Permane nt	80	Lolupe, Nadipoe, Lochoreseko n, Nameritaba, Kanagurupu s, Kalimapus, Kangirisae, Kokisikiria, Nabulon, Nakwamek wi, Napetet, Napuu, Kalokol, Nangomo, Kangakipur, Kotela, Natwel, Nakuj Ekaale, Keekuto, Naipa dispensary, Kibish, Napush Junction, Kangirisae, Lopii, Lomeleku, Lokaburu, Natorubei, Kakalel,	Breakdow n of water sources (BH/SW),

							Nakaalei hand pump, Kakong'u 3, Lochwaakan, Kakorilem, Lomoonyang, Kaemongor, Kalomwae, Kalowasa and Kakali.	
	2. Water pan	22	135	Less than a month	1-3months	60		Silting and damaged water pan
Kakuma, Letea, Lopur, Katilu, Kaputir, Lokori- Kochodin, Turkwel, Lobei-Kotaruk / Agro-pastoral	1.Boreholes	174	233	Permanent	Permanent	80	Attached	Breakdown of water sources (BH/SW)
	2. Shallow wells	32	40	Less than 2months	3-4 months	85		Breakdown of water sources (BH/SW)
	3.Water Pans	14	19	Less than a month	1-3 months	30	All wards	Silting and damaged water pan
Kakuma, Lokichar, Lodwar, Kanamkemer/ Urban	1.Boreholes	51	65	Permanent	Permanent	90	Kanamkemer	Breakdown
	2.Shallow wells	2	11	10 months	8-10 months	60		
Fisherfolk	1.Boreholes	16	25	10 Months	12 Months	80	Kalokol and Kerio	Breakdown and flashfloods
	2.Shallow s	9	14	5 Months	6 Months	60	Lochor-Aikeny and Kapua	Flood washed and breakdowns
	3.Springs	1	1	12 Months	12 Months	100		

It is expected that the water in the aforementioned open water sources will run out in little more than two months. Across the three livelihood zones, there was variation in the use of water sources. The usage of water by households in the pastoral livelihood zone has maintained whereas places without access to water sources, such as Lokitooliwo, Dapar, Lomookamar, and Kaakali in Turkana South, and Lokosimekori, Nakalale, and Lotiiman in Turkana East, rely on water trucking. With respect to the shallow wells along river Kerio, Malmalte and Turkwel the recharge was estimated at 80 percent compared to 90 percent normally with those in the Pastoral and Fishing Livelihood Zones estimated to be at 60 and 70 percent capacity respectively. Approximately 200 boreholes and shallow wells were noted to be non-functional due to breakdowns with majority concentrated in the Agro-Pastoral livelihood zone while the available water in shallow wells was projected to last for 3-6 months. Additionally, roughly 90 percent of boreholes are permanent hence we don't expect them to dry rather dropping of the water table like Naotin and Kakwanyang, Chinese 1 and Edos in Turkana Central and Turkana South respectively.

Distance to Water Sources

The average return trekking distance to water points in the Pastoral Livelihood Zone averaged three kilometres compared to the usual distance of five kilometres while in the Agro-pastoral and Fishing Livelihood Zones it averaged two and three kilometres compared to three kilometre and four kilometres normally respectively (Table 14). The decline in trekking distance across most sites could be attributed to increased functionality of multiple water sources in close proximity to households as a consequence of the recharge that took place. However, the out of normal range trekking distance in some sites could be attributed to design issues for a number of water structures that could not permit considerable recharge. Notably, there are extreme conditions where by communities are forced to walk longer distances to look for water for domestic purposes for example; Kaapeduru and Nakalale, community trek a return distance of 20Kms to fetch water from Nakukulas. The extreme trekking distances results in less water usage as the animals access their water mostly in the water pans.

Some other areas that trek longer distances are; Loriu (50Kms) and Kalomwae (60km)

Table 14: Distances to Water Sources, Cost, Waiting Time and Consumption

Livelihood Zone	Return Distance to water for domestic use (km)		Cost of water at source (Ksh per 20 litres)		Waiting time at water source (minutes)		Average Consumption (litres/person/day)	
	Normal	Current	Normal	Current	Normal	Current	Normal	Current
Pastoral	0.5-5	0.5-3	5	5	10-25	10-20	5-10	10-20
Agro-pastoral	0.1-3	0.1-2	5	5	10-20	10-15	10-20	10-20
Fishing	0.5-4	0.5-3	5	5	10-20	10-20	20-40	20-40

Waiting time at the Source

Decline in waiting time was recorded over most sites in the county especially Turkana West and North where above normal rainfall was experienced. Households in the Pastoral, Agro-pastoral and Fishing Livelihood Zones spent an average of 20, 15 and 20 minutes at the water sources

compared to the usual waiting time of 25, 20 and 20 minutes accordingly (Table 14). Areas reporting longer than normal waiting time included: Kakong'u in Lobokat ward where households had to wait even for even 12 hours before fetching water as a result of congestion occasioned by external population from Nariamao who depended on the same water points likewise to Naotin in Kanamkemer ward, Lolupe in Nakalale ward where long queues were witnessed, Lomookamar in Lokichar ward who collect water from Kapese due to prioritization of residents and Kerio Centre in Kerio Delta ward where most households access water from the seasonal Katapakin river by excavating traditional hand dug wells.

Cost of Water

The cost of water across all livelihood zones has maintained at the cost of five shillings per 20 litres jerican and at par with the normal charges of five shillings per 20 litres jerican except for areas with water scarcity and has been dominated by water vendors. Some of those areas are Kalokol, Kangatatha and Namukuse in Turkana Central, Naurenregae in Turkana West, Kalomwae in Turkana South, Makutano and Lolupe in Turkana North.

Water Consumption

The consumption across all livelihood zones has maintained except for some areas like Nakalale, Kaapeduru, Nariamao, Loriu, Natapar-Angiloi, Kaarikosi, Kodrin, Napesek in Pastoral Livelihood Zones where young animals are also fetched water while at home thus the increase in water consumption.

Water quality

Water treatment chemicals are acceptable among all livelihood zones only that they are not readily available most of the times. Though for majority of the households' water handling practices undertaken are collection and storage.

Possible sources of water contamination are flooding and upstream contamination.

3.2.5 Food Consumption

During the month, the sampled households reported to have consumed diversified varieties of food categories and hence the average Food Consumption Score (FCS) was 28. The current FCS was stable compared to the one recorded in the December. Households were categorized into different food consumption categories as follows; 30 percent were categorized as being in poor consumption score, 31 percent of the sampled households

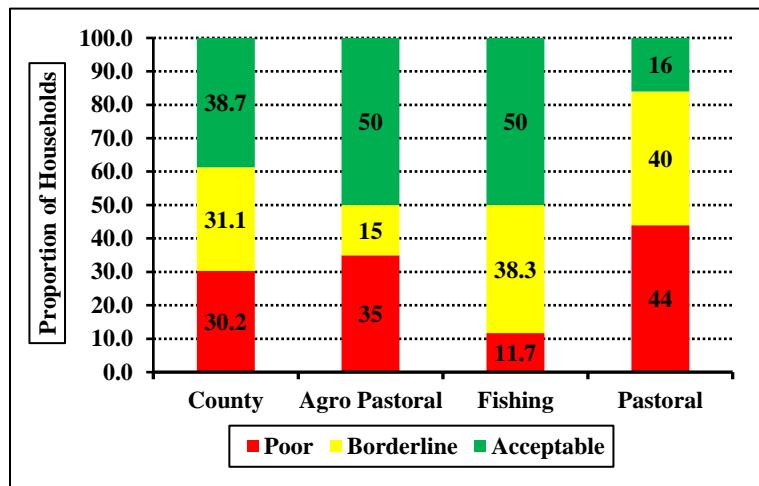


Figure 7: Food Consumption Trends in Turkana County

were categorized as being in Borderline score and 39 percent were categorized into Acceptable FCS. Compared to that of December, the poor and acceptable categories decreased by two, borderline category increased by two percent whereas that of acceptable category was stable. Pastoral livelihood zone recorded 40 percent of the sampled households as being in borderline category while on the other hand, the higher proportion of households under acceptable food consumption score was recorded in both the Agro Pastoral and Fishing livelihood zone as shown on figure 7.

This is attributed to households in Fishing zones accessing fish which is protein rich food group and Agro pastoral livelihood zone accessing better diversified foods coupled with recent harvests especially in Turkana South, East and Loima sub county where some harvests were realized.

3.2.6 Coping Strategy

- During the month, the Mean reduced Coping Strategy Index (rCSI) was at 15.8; which increased by 0.5 percent compared to the CSI that was recorded in the previous month (figure 8).
- The increase in the CSI is attributed to households employing more types of coping strategies than in the previous month due to high cost of food commodities leading to low accessibility to food at the households.
- The most common coping mechanisms applied across the livelihood zones were; reducing portions of food, relying on less expensive/less preferred food varieties and skipping meals.

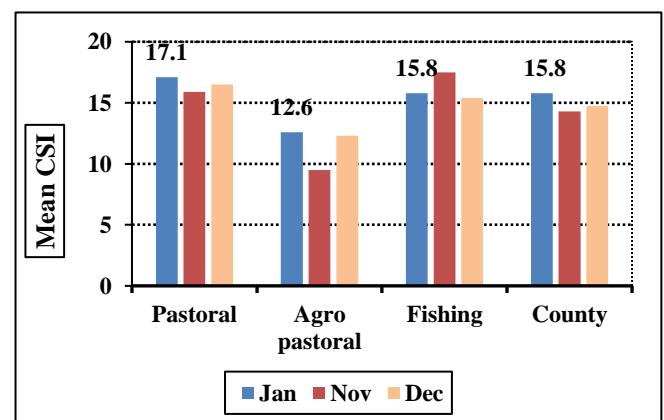


Figure 8: Trends in Coping Strategy Index

- The highest rCSI of 17.1 was recorded in the pastoral livelihood zone while the lowest rCSI (12.6) was recorded in the Agro Pastoral livelihood zone (figure 8). This is credited to households in the pastoral livelihood zone employing more coping strategies occasioned by high cost of food prices leading them into more severe coping than households in the other two livelihood zones.

3.3 Utilization

3.3.1 Morbidity and Mortality Patterns

Overall, cases of Upper Respiratory Tract Infections (URTI) among the two cohorts were high as compared to cases of diarrhea and malaria. There was a significant increase of URTI, while diarrhea cases increased in the month of October and declined in December. Malaria cases increased from October to December 2023 compared to the same period 2022.

The increase of cases is attributed to continuous consumption of untreated water from the run-off which led to more diarrhea cases and malaria brought by conducive environment for mosquitoes breeding. On the contrary, Malaria cases for the under-fives and general population increased from October to

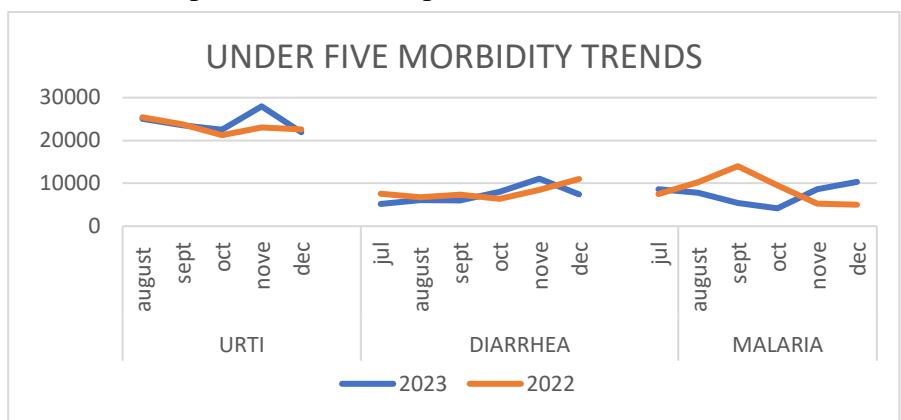


Figure 9: Morbidity trends for under five

December 2023 compared to the same period 2022 because of the conditions suitable for mosquitoes breeding.

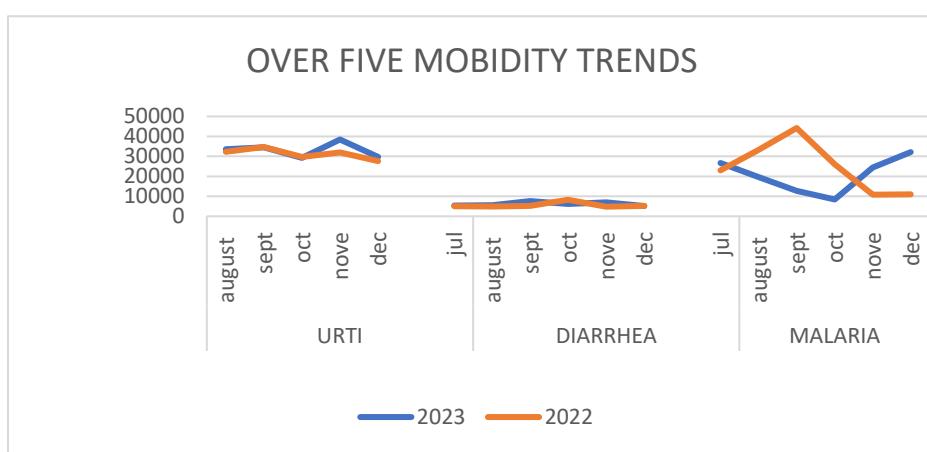


Figure 10: Morbidity trend for over five

With regard to mortality, an outbreak of measles with fatalities recorded in Turkana West and Lokichongio sub counties ,1039 reported cases of measles and 22 deaths recorded fatality rate of 2.1%.

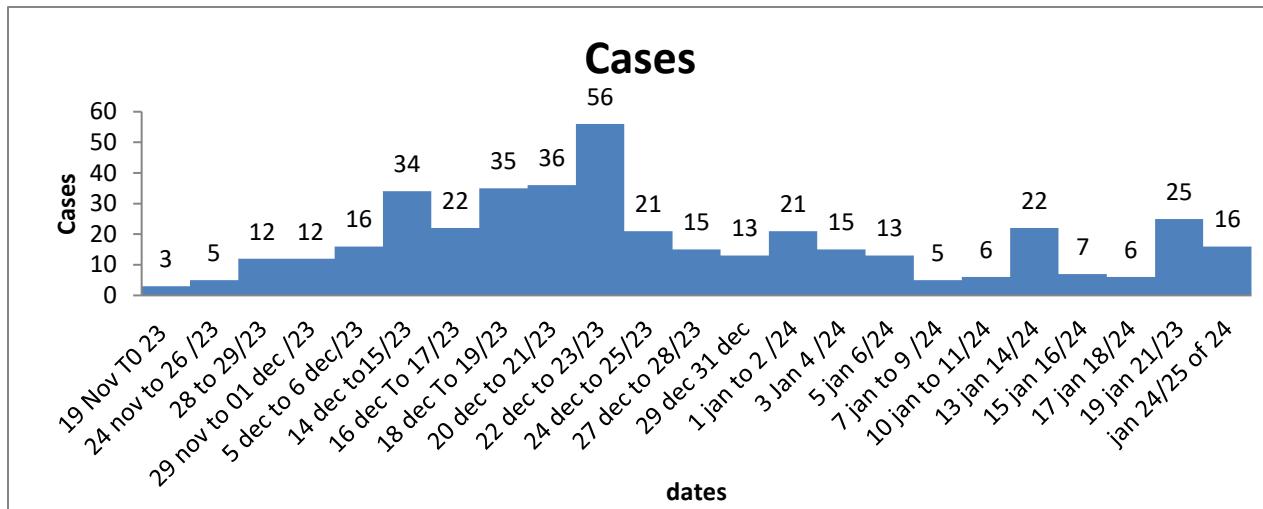
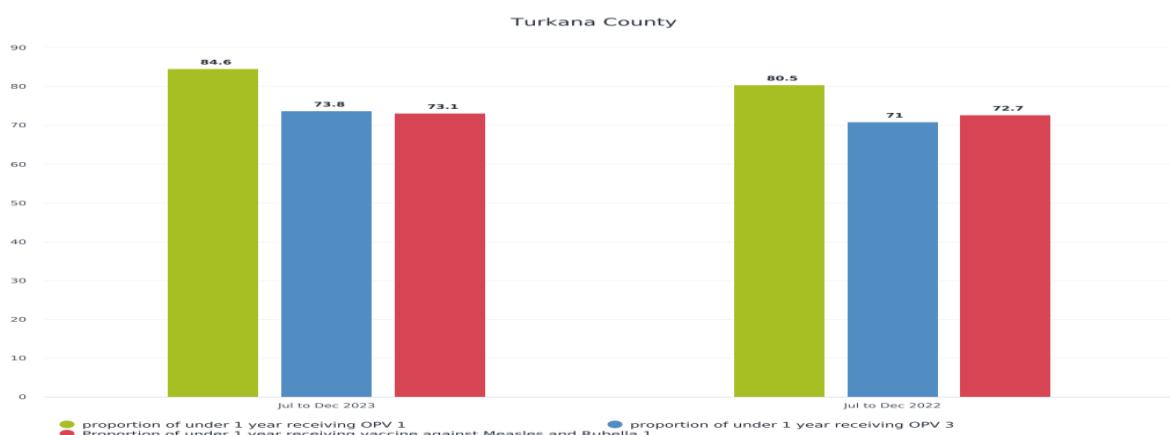
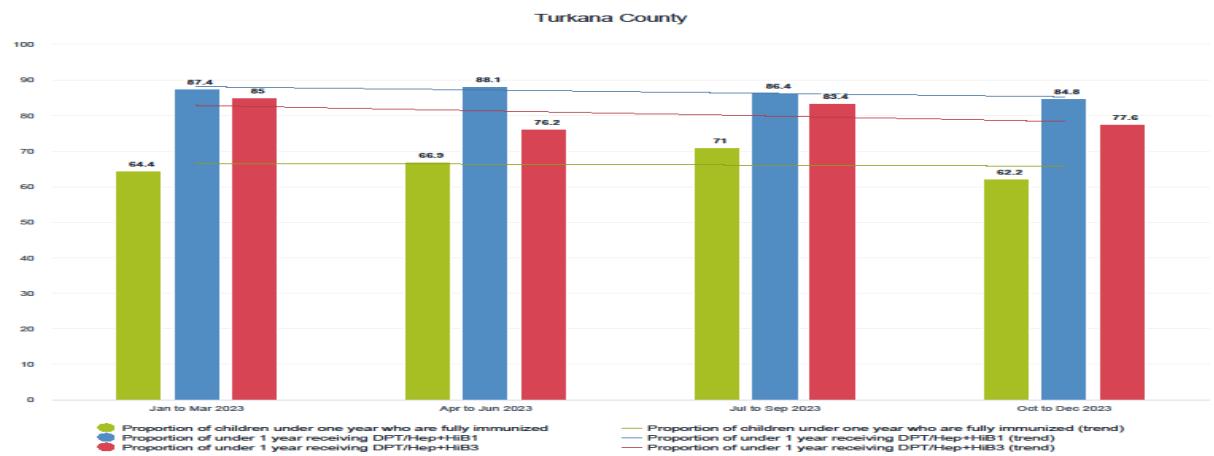


Figure 11: Epidemiological analysis for measles

3.3.2 Immunization and Vitamin A supplementation

From routine data, immunization coverage for OPV1 is 84.6 percent 2023 increased slightly from 80.5 percent for 2022 in the same period of the year. OPV3 and measles at 9 months 73.8 and 73.1 percent respectfully which is the same to 2022.which is less than 80 percent of the national target. This has been due to scaling down of the outreaches that normally helps to reach harder to reach areas.





From routine data, fully immunized child coverage for the period between July to December 2023 was 66.6 percent which was a slight increase from the previous year of 65.9 percent and below the national average of 80 percent. Regarding Vitamin A supplementation, the proportion of children aged (6 -11) months who received Vitamin A from July to December 2023 was 152.2 percent, which was an increase from the previous year of 91.6 percent for the same period.

Vitamin A supplementation between (12-59) months increased from 88.8 percent to 85.6 percent for the same period which was above the national target. Regarding sub counties vitamin A supplementation coverage for 6 -59 months, there was a significant increase in coverage in all the sub counties above the national target in exception of Turkana Central 63.7 and Turkana west 70.8 where the coverage percent was below the national average. The increased coverage is attributed

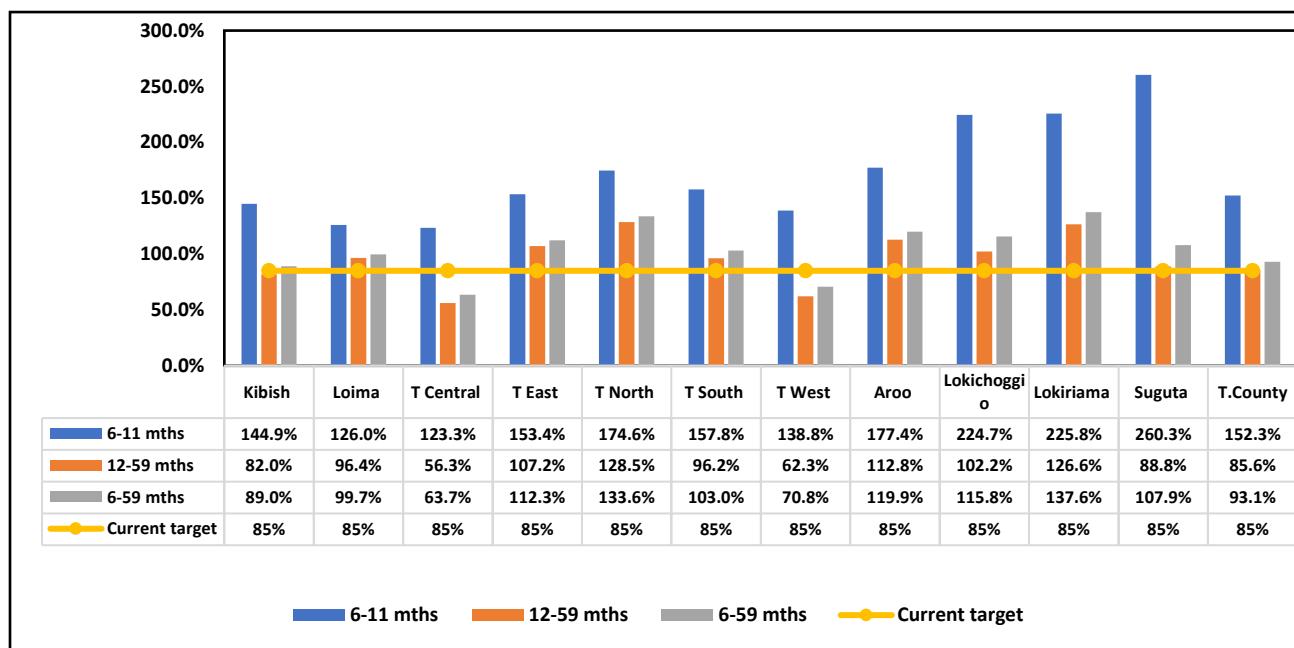


Figure 13: Vitamin A supplementation

to intensified integrated outreaches, mass screening and enhanced defaulter tracing mechanisms.

3.3.3 Nutritional Status and Dietary Diversity

The number of meals consumed by male and female it is one meal per day out of the five required meals. Meal composition included maize/ ugali & beans or with vegetables per meal consumed by adult while under five children rice and beans or ugali with vegetable. Early initiation to breastfeeding shows well practiced and children are exclusive breastfed for the first six month

The prevalence of Global Acute Malnutrition (GAM) for June 2023 is 26.4 percent, which is decline from 34.8 percent for the previous year same period and above the emergency threshold of 15 percent, (SMART Survey, June 2023). Generally, there was a decline from January to June 2023 on GAM prevalence as compared to the previous year June 2022 across all the sub counties. Turkana South recorded the highest GAM rates at 32.7 percent as compared to other sub counties, although a decline from the previous year, same period.

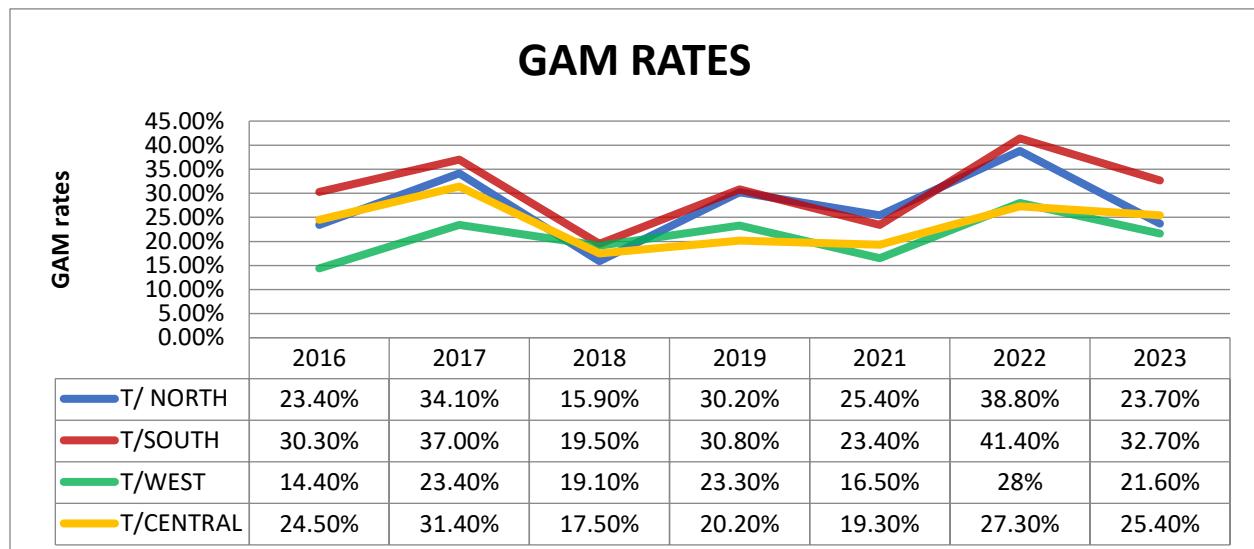


Figure 14: GAM rates trends per sub county in June 2023

55.5 percent of the households admitting to have consumed less than 5 food groups in June 2023 which was an increase from 48.1 percent during the same period in the previous year.

Women's diet consisted mainly of starch staples such as grains, roots, tubers, pulses and legumes at an average of 70 percent consumption with low consumption in eggs, nuts and seeds, fruits and vegetables at an average of 10 percent. Poor diet is associated with household shocks such as increase in food prices, prolonged drought and socio-cultural norms related to use of vegetables.

3.3.4 Sanitation and Hygiene

According to Kenya Demographic and Health Survey (2022), the percentage of household population with access to at least basic drinking water service in Turkana is at 42% and the percentage of household population with at least sanitation service stands at 9%. The 2019 census data on the other hand indicated a high prevalence of open defecation of 68.1%. As such, practices of good hygiene practices including hand washing with soap remain sub-optimal.

Community led total sanitation is an approach adopted by the county government and other partners to eliminate open defecation. According to the WASH hub, out of the 2985 villages, 1524 have been certified as ODF.

Key challenges include nomadic lifestyle of communities and social dynamics, which influence how people perceive sanitation and hygiene, and the potential for long-lasting behaviour change

According to SMART Survey for June 2023, the proportion of households washing hands at four critical times including after visiting toilet, before cooking, before eating and after taking child to the toilet at 84.8, 69.6, 90.5 and 29 percent respectively. There was a drop in proportion of households using soap and water for hand washing from 45.9 percent June 2022 to 42.7 in June 2023.

3.4 Trends of Key Food Security Indicators

Table 16 shows trends of food security indicators from the Long rains' assessment in July 2023 to the short rains' assessment in January 2024.

Table 16: Food Security Trends in Turkana County

Indicator	Long Rains Assessment, July 2023	Short Rains Assessment, January 2024
% of maize stocks held by households (Agro-pastoral)	32% of the LTA	78 % above the LTA
Livestock body condition	Pastoral: Good Agro-pastoral: Good Fishing: Good	Pastoral: Fair to Poor Agro-pastoral: Fair Fishing: Poor
Water consumption (litres per person per day)	Pastoral: 15 litres Agro-pastoral: 15-25 litres Fisher folk: 20-25 litres	Pastoral: 10-20 litres Agro-pastoral: 10-20 litres Fisher folk: 20-40 litres
Price of maize (per kg)	122	102
Distance to grazing (km)	Pastoral: 6 kilometres Agro-pastoral: 4 kilometres Fishing: 5 kilometres	Pastoral: 16 kilometres Agro-pastoral: 8 kilometres Fishing: 10 kilometres
Terms of Trade	24 kg	42 kg
Coping strategy index	rCSI: 15.8	rCSI: 15.8
Food Consumption Score	Pastoral Poor: 45.3% Borderline: 35.3% Acceptable: 19.4% Agro-pastoral	Pastoral Poor: 44% Borderline: 40% Acceptable: 16% Agro-pastoral

Indicator	Long Rains Assessment, July 2023	Short Rains Assessment, January 2024
	Poor: 33.3% Borderline: 28.3% Acceptable: 38.3% Fishing Poor: 38.3% Borderline: 30.0% Acceptable: 31.7%	Poor: 35% Borderline: 15% Acceptable: 50% Fishing Poor: 11.7% Borderline: 38.3% Acceptable: 50%

3.5 Education

3.5.1 Access- (Enrolment)

The enrolment increased in early child hood (ECD) by 5,748, junior secondary (JSS) schools by 6,324 and secondary schools by 579 which translated to 5 percent, 49.3 percent and 1.77 percent increase in ECD, Junior schools and secondary schools respectively. The increase in enrolment in ECDs was attributed to availability of SMP by TCG, Mary's Meals organization and the ministry of education through NACONEK and WFP. Increase in enrolment in Junior schools was attributed to additional grade 8 enrolment. Increase in secondary enrolment was as a result of increased scholarships by government (county and national) and partners. Increase in both junior secondary and secondary schools was also enabled by the government policy on 100% transition. Primary enrolment decreased by 5,380 (2.8%). The decrease was attributed to creation of junior schools in the same institutions.

Access was affected by insecurity in Aroo sub-county (Juluk, Lomokomol, Lomerimudang Kainuk, and Loyapat), Turkana East (Lopii, Katamak, Lokwamosing ,Lopeduru, Kidewa and Nakatongwa) Suguta subcounty (Napeitom ,Silale, Kapedo) Turkana North (Kokuro and Todonyang). Migration affected access in Turkana North, Aro, Kibish and Loima sub counties.

Table 17: School access (Enrolment)

Level	Term III 2023			Term I 2024			Increase/decrease	Reasons for increase or decrease in enrolment
	Nº Boys	Nº Girls	Total	Nº Boys	Nº Girls	Total		
ECD	63160	51882	115042	66459	54332	120790	+5748 (5%)	Availability of SMP by TCG and Mary's Meal organization.
Primary	95814	93657	189471	85799	96492	184, 091	5,380 (2.8%)	Decrease due to transition to junior school
Junior school	6211	6615	12826	9793	9366	19159	6,324 (49.3%)	Increased due to grade 8 enrollment

Secondary	18932	13739	32671	21632	11618	33250	579 (1.77%)	100 percent transition policy, free day secondary education, re- entry policy for girls by MoE (Elimu scholarship) and bursaries Normal increase
-----------	-------	-------	-------	-------	-------	-------	-------------	--

Non-Attendance Rate

Very low schools' dropouts were recorded during the 2023 short rains. 109 (54 boys, 55 girls) at ECD level, 2,080 (1,283 boys, 80 girls) at primary level, 203 (100 boys, 103 girls) at junior school and 541 (301 boys, 240 girls) at secondary school learners dropped out of school. insecurity in Turkana South and East, long distances to school, retrogressive cultural practices, truancy, *boda boda* business in major urban centres, fishing and hawking activities, mining, early marriages, poverty, drug abuse and indiscipline among others are some of the factors that fueled school drop outs.

3.5.2 Food Availability in Schools During the Season

The school feeding programme was implemented in ECDE, Primary and junior school levels. Turkana County Government, world food Program (WFP) and Mary's Meals Organization were supporting the ECDE centres while the Ministry of Education through NACONEK was implementing the in- kind school meals programme (ISMP) in primary schools. The number of beneficiaries is as shown in table 17 below;

3.5.3 Food Availability in Schools During the Season

The school feeding programme was implemented in ECDE, Primary and junior school levels. Turkana County Government, world food Program (WFP) and Mary's Meals Organization were supporting the ECDE centres while the Ministry of Education through NACONEK was implementing the in- kind school meals programme (ISMP) in primary schools. The number of beneficiaries is as shown in table 18 below;

Table 18: School Meals Programme

No of schools with school meals programme		ISMP		County ECD SMP		Total number of beneficiaries of SMP	
Level	No of schools	No Boys	No Girls	No Boys	No Girls	No Boys	No Girls
ECD	940	66459	54331	52, 360	43, 431	52, 360	43, 431
Primary	437	85799	96492	0	0	98, 743	89, 887
Junior secondary	244	9793	9366	0	0	9793	9366
Secondary	92	21632	11618	0	0	0	0
Subtotal	1713	98, 743	89, 887	52, 360	43, 431	160,896	142,684
Total	1,713	355,490		95,791		303,580	

Other partners supporting on school meals program occasionally include: Salvation Army, Child Welfare Society of Kenya and Free Pentecostal Fellowship of Kenya (FPFK). The challenges faced in school meals management includes delays in delivery of food commodities, insecurity, poor road network, lack of pallets, inadequate food stores (Classes and offices in some schools were used as stores) and lack of energy saving jikos,

Availability of Water in Schools

Long distances from school to water sources, broken tanks in schools, high salinity of water like in Naotin, in Turkana Central, Saseme and Kokiselei in Turkana North, Lomelo and Kamuge in Suguta sub county remained a challenge to most schools. 254 ECD, 120 primary and 20 secondary schools do not have water within their compounds. This was an improvement from LRA due effect of back to back enhanced rainfall received in the last two seasons. Water was available in 153 schools which was an improvement from the last assessment which recorded 265 schools. 434 schools were in need of water harvesting facilities (Table below). Water available in institutions was not treated and there were no proper lids on water containers. Boreholes and shallow wells were the dominant source of water in institutions while rivers posed a significant danger to children especially over the rainy seasons. Flooding experienced in Aroo, Turkana West, Loima and Lokichoggio which affected curriculum implementation and examination administration in 2023. River Kospir was a challenge to transport in Loima Sub County.

Main sources of water in schools	No of schools which had NO access to safe water (functional source within 100m radius)			No of schools with inadequate or no water to last for the next three months			No of schools in need of water harvesting and storage facilities e, g gutters, water tanks		
	ECD	Primary	Secondary	ECD	Primary	Secondary	ECD	Primary	Secondary
Borehole, River, Taps, Water, Pumps, Rain, Water, and Bowsers	254	120	20	110	37	6	245	172	17
Total	254	120	20	110	37	6	245	172	17

Effect of the Season on Learning Continuity

The damages experienced in various schools across the county ranging destruction of walls, iron sheets, doors, windows, solar panels of classrooms, water tanks, dormitories, kitchens, school compound (gullies) and teaching/learning materials such as charts, text books, wooden blackboards as a result of banditry attacks, vandalism, strong winds, termite invasion, flash floods and theft resulted to interruption of learning in some schools. Some of the schools affected include; two ECDEs damaged at Lokangae and Emilait primary schools in Lokichoggio. In Turkana South, Kalemngorok primary school dormitory was damaged. In

Turkana Central, Naotin primary had latrines blown off and Lomidat primary school was also affected. In Kibish, Nakinomet and Lokamarinyang were affected. In Turkana central schools along the lake were affected by rising levels of Lake Turkana backflow leading destruction and submerged buildings in Longech and Ngimuria .There was no damages reported in Turkana East. In Suguta ward whereby the wind blew off classrooms roof in Kamuge and school perimeter wall in Kapedo mixed secondary school fell.

Subcounty	EC D	Primary	Secondar y	No. of learner affecte d	Cause
Central	0	3	0	180	Winds, lake waters surge
Turkana west	2	0	0	0	Flash floods
Turkana east	0	1	0	289	Wind
Lokichoggi o	2	3	0	1088	Strong winds
Aroo	0	1	0	500	strongWinds
Lokiriamma	0	0	0	0	0
Kibish	0	2	0	0	Winds
Turkana north	0	1shaba,lowarengak girls	0	432	Winds
Suguta	0	1	1	602	Winds

Cross-cutting Issues in Education that Promoted or Affected Learning

Health: Malaria, Diarrheal diseases, Pneumonia, Typhoid, Flu, Meals, Bronchitis, scurvy Trachoma, upper respiratory tract Infections were some of the illnesses affecting school going children in the county over the short Rains season. However, some interventions to address learner health concerns such malaria diagnosis and treatment in the nearest health facilities with referrals to Lodwar hospital. Deworming and vitamin A supplementation were being implemented by Ministry of Health with support from partners Concern, Nawiri, IRC ,Kenya Red Cross, Dioceses of Lodwar , World Vision,WHH and Sapcone.

Sanitation and Hygiene: With respect to WASH, 443 ECD centers, 227 primary and junior schools, 29 secondary schools had inadequate functional latrines with pupils'- toilet ratio above 1:60. Additionally, 264 ECD centers, and 235primary and junior schools had inadequate hand washing facilities while Save the children with support from UNICEF supplied kits to schools in the county.

Protection: There was influx of school going children to urban centers resulting to an increase in dropout rate, street children being physically abused and neglected by parents, drug abuse and stigmatization levels were on the rise. Additionally, children got involved in petty criminal offences, were being used to offer labour at home and in market areas, teenage girls married at an early age, child trafficking, and abduction of children. Partners that were

involved in intervening were Girl child network, Echami AITO,CARITAS and mentorship program by ministry of education and life skills promoters implementing at Loima Sub County.

3.6 Child Protection

The impact of drought on access to livelihoods at the family continued to cause a ripple effect to Child Protection and GBV concerns despite the short rains, which cautioned the prolonged drought. Instances of child migration without parents were noted, with reasons ranging from food insecurity to violence. Family separation, unaccompanied minors, and street children especially in urban centres of Lodwar, Kakuma and Lokichar posed challenges such as insecurity, abuse, and lack of basic needs. Reports of various forms of violence against children, including sexual violence and neglect were reported. Cases of child marriage and teenage pregnancies were attributed to factors like poverty and negative cultural practices. Children with disabilities faced stigma. Intervention measures include case management, family reunification, and psychosocial support from various partners still is inadequate to reach every affected child. The summary of cases reported to the Directorate of Children Services outlines specific cases, highlighting the gender and age distribution, emphasizing the diverse range of child protection issues that need urgent attention.

Case category	Male	Female	0-5	6-9	10-15	16-17
Neglect	273	302	295	144	85	32
Custody	54	70	41	35	28	16
Abandoned	16	12	13	5	7	5
Defilement		21			10	12
Orphaned Child	127	89	48	86	60	22
Child offender	7	2			3	6
Child truancy	4	4			6	2
Parental child abduction	4	1	3	1		
Physical abuse / Violence	22	17	3	3	9	6
Abduction	5	3	1	7		
Lost and found children	8	5	7	2	2	2
Destitution	7	2				
Children on the streets	7	7		6	3	5

Child out of school	5	3			8	
Child Delinquency	1				1	
Emotional Abuse	2	3	0	0	3	2
Registration	10	5	2	5	5	3
Child with disability	12	12	8	6	9	3
Child pregnancy.		26			14	12
Child Marriage		26			15	11
Child Labour	16	6			13	9
Disputed paternity	4	1	4		1	
Sexual assault	2	2			2	2
Sick Child (Chronic Illness)	1	1	1	1		
Drug and Substance Abuse	1					1
Inheritance / Succession	1	1			1	1
Sodomy	1				1	
Sexual Exploitation and abuse	4	3			4	3
Child Mother		21			7	14
Trafficked child	1			1		
Child headed household	6	11				17
Refugee Children	23	16	10	9	13	7
Child Affected by HIV/AIDS	11	5	5	6	3	2
Harmful cultural practice	6	6		4	3	5
Grand Total	752	761				

4.0 FOOD SECURITY PROGNOSIS

4.1 Assumptions

- Dry and sunny conditions will continue to prevail until onset of the MAM rains.
- Pasture, browse and water condition will continue to deteriorate as the dry spell continues
- Price of food and other commodities will remain high due to inflation and high cost of fuel.
- Resource based conflicts are likely to be witnessed especially due to on-going migrations.

4.2 Food Security Outlook for Jan to March 2024

Owing to on-going dry spell season, the condition of pasture and browse is expected to deteriorate. This means that livestock body condition will worsen eventually decreasing the market prices of livestock, resulting to low purchasing power for pastoralists to afford more quantities of food at the household level.

The current high cost of living being experienced in the country and subsequently in the county indicates that most households are likely not be able to afford adequate food. This is likely to lead to poor food security situation and might lead to increase in malnutrition cases in the county.

The recent harvests although in paltry portions of farms in the county, the food security situation is anticipated to stabilize especially in Turkana East and Turkana West sub counties. This comes after minimal harvests under irrigation were realized in the areas of Morulem, Lokwii in Turkana East, Letea in Turkana West and Katilu and Kalemngorok in Turkana South sub counties.

Milk production decreased across the livelihood zones. This is likely to worsen with poor rejuvenation of vegetation condition that support milk production attributed to expected dry spells in January; demonstrating that milk consumption will decrease in the coming months.

4.3 Food Security Outlook for April 2024 to June 2024

Land preparation has started in anticipation of MAM rains. The MAM rains will likely result to increased crop production and bumper harvest and eventually replenished granaries. Furthermore, pasture and browse will be regenerated and water sources replenished resulting to decreased trekking distance hence improved livestock productivity. The good body condition for livestock will likely lead to increased livestock prices. This coupled with low cereal prices following bumper harvest will likely result to favourable TOT and also improved economy at household level.

Furthermore milk production and availability of cereals at household level will likely result to decrease malnutrition and improved FCS

5.0 CONCLUSIONS AND INTERVENTIONS

5.1 Conclusion

5.1.1 Phase Classification

The County food security classification remains at Crisis (IPC phase III) similar to LRA 2023 classification. However the population in need of assistance has slightly reduced.

5.1.2 Summary of Findings

The food security and nutrition in the county has slightly improved compared to the previous LRA 2023 though it remains at Crisis phase. The improvement can be attributed to efforts by the county government and developmental partners on improving the livelihood of the community through various projects. Despite the improvement households are still facing huge food consumption gaps leading to higher level of acute malnutrition. Priority interventions should focus on protecting livelihood and addressing these substantial food gaps to improve overall food security situation.

5.1.3 Sub-County Ranking

Table 20: Ranking of Sub-County in Order of Food Insecurity Severity

Sub-County Ranking {(Most Food Insecure to Least (1-7))}	Predominant Livelihood Zone	Food Security Rank	Current Main Food Security Threats/ Performance of Contributing Factors and Outcomes
Turkana East	Pastoral	1	Inadequate rainfall Insecurity in Kapedo/napeiton,lokori/kochodin, katilia High GAM rates of 32.7 Most of open water sources are dry Fair body condition for shoats Crop failure in elelea Infestation of fall army worms Migrations to Loriu hills,turkana south,Loiyangalani
Turkana Central	Fisher folk	2	High GAM rates 25.4 Inadequate rainfall Backflow of lake turkana affecting fishing in kerio,kalokol and kangatotha Most of open water sources are dry Crop failure in Naotin Infestation of fall army worms
Turkana South	Agro pastoral	3	High GAM rates of 32.7 Insecurity in Lobokat and Kaptir Most of open water sources are dry Crop failure in Katilu Crop disease incidence of maize head smut in Katilu and Kaptir Crop damage due to floods in Lokapel and Nawapeto
Turkana North	Pastoral	4	GAM rates 23.7 Insecurity in Todonyang Inadequate rainfall

			Poor pasture condition Water pan holding 10-15 percent Migrations to Kibish ward
Loima	Agro-pastoral	5	Gam rates 25.4 Infestation of fall army worms Fair pastures and browse Crop failure especially in Lobei, Loya, Lorengippi due to late planting and low rainfall
Kibish	Pastoral	6	GAM rates 23.7 Good rainfall received Availability of pasture and browse Insecurity in Kokuro
Turkana West	Pastoral	7	Gam rates of 21.6 Measles outbreak. Good rainfall received Availability of pasture and browse Crops damage due to floods in Lokichoggio

5.2 Ongoing Interventions

5.2.1 Food Interventions

The following food interventions are ongoing in Turkana County:

Intervention(s)	Sub County/ Ward/Location	No. of Beneficiaries	Implementer(s)
Cash transfer	Sub county: Loima Wards: Lobei Kotaruk /Lokiriam Lorengippi Lokipetot Arengan= 170hhs Kakalele =175hhs Kalemunyang =195hhs Kangalita =241hhs Lobei=250hhs Nakurio=146hhs Kaemamik = 182hhs Lorengippi =191hhs Loya=105hhs	1655	ADRA Kenya - Ksh.15,060,500
Cash transfer programmes	Turkana West (Songot & Lopur ward)	1000	Plan International and SAPCONE
Lisha Jamii II Food Distribution	T. West Sub-county Nanam & Letea Ward	1,185 & 1,431 respectively	World Vision Kenya 181.779MTs
Blanket Supplementary Feeding commodities (BSFP & NTP) for children between 6 months and 59 months	BSFP covers T.North while NTP covers the whole of Turkana County	43,100 & 37,918 respectively	World Vision Kenya 254.6MTs & 290.157 MTs

Integrated Emergency nutrition outreaches (bi weekly)	Turkana South	5570	WVK Ksh 999,000
Cash Transfer	Lochwaa/Napusomoru/Locheremoit	800	WVK Ksh 6,600,000
Bi-monthly Integrated Health and Nutrition Outreaches	Turkana Central/All wards	4595	World Vision Ksh. 760543
Food Assistance via Unconditional Cash Transfer (UCT)	Loima, T.West, T.South	5,523 Households	IRC/TUPADO KES 46,172,280.00

5.2.2 Non-Food Interventions

Table below gives a summary of ongoing interventions

Table 21: Non-food Intervention

Sub County	Ward	Intervention	No. of beneficiaries	Implementers	Impacts	Cost (Million)	Time Frame
Agriculture							
Turkana South, East, Central, West, North, Loima and Lokichoggio	All wards	Promotion of dry land farming technologies.	3500	TCG, WFP, FAO, Save the children. Sapcone, Mercy corps., FCDO, Lokado, CRS	Sustainable food production in all seasons of the year.	8M	March-October 2024
Turkana South, East, Central, West, North, Loima and Lokichoggio	Katilu ward – Kalemungorok/kaekunyuk /nakabosan. Kalapata- katiiir/ Nakalei/chokchok. Lokichar- Lomokamar. Lokori/kochodin –Lokwii Katilia ward – Elelea etc. Lobeikotaruk Turkwel ward Loima Lorengkipi. Kaleng/Kaikor Lapur ward. Nanam ward Letea ward Lokichogio Kanamkemer Lodwartownship	Promotion of Resilience designs approaches in rain fed farming sites.	2500	TCG, WFP, FAO, Save the children. Sapcone, Mercy corps., FCDO, Lokado, CRS	Sustainable food production in all seasons of the year. Environmental conservation. A resilient community in response to climate change	10M	March-November 2024

Sub County	Ward	Intervention	No. of beneficiaries	Implementers	Impacts	Cost (Million)	Time Frame
	Kerio delta						
Turkana South, East, Central, West, North, Loima and Lokichoggio	All wards	Promote production of diverse nutrient dense and utilization of high dietary foods.	15000	TCG, WFP.FAO, Save the children. Sapcone, Mercy corps., FCDO, Lokado, CRS	Reduced malnutrition rate. Improved health status at Households livelihood	20M	Jan-Dec 2024
Turkana South, East, Central, West, North, Loima and Lokichoggio	All wards	Use of home gardening technologies.	3500	TCG, WFP.FAO, Save the children. Sapcone, Mercy corps., FCDO, Lokado, CRS	Sustainable food production in all seasons of the year. Reduced malnutrition rate. Improved health status at Households livelihood	2.5M	Jan-Dec 2024
Livestock							
Turkana North, South, Central and Loima	All wards	Supplementary Livestock feeds	5716	IRC/TUPAD O, TCG, FAO/VSF G	Improved body condition of weak animal to provide meat	60M	1 month
Turkana South	All wards	Restocking	36HH	Lokado	Increase HH food productive assets	720,00	3-6 months
Turkana West	All wards	Distribution of 1-Month-old chicks	1200 HHs	World vision and TCG	Improve livestock body condition		November /December /2023
		Training of Agro pastoralist on Holistic rangeland management	50HH	LOKADO and TCG	Improved availability of feeds	200,00	September 2023

Sub County	Ward	Intervention	No. of beneficiaries	Implementers	Impacts	Cost (Million)	Time Frame
Turkana North, Kibish and South	All Wards	Pasture production	1500	USAID Nawiri JICA, ASDSP	Increased availability of feeds improve meat quality	3M	5 yrs
Turkana South	Turkana South	Range management and conservation	1350 HH	TCG/Partners/ community	Range land resources available	20M	1-9 months
Turkana West and Loima	All wards	Galla goat breeding improvement.	1500HH	TCG/GIZ, CRS Partners/ community	Breed improvement	15M	9-12 months
Water							
Turkana Central, Turkana North & Kibish, Turkana South, Loima, Turkana South	Kangatotha, Kanamkemer, Lokichar, Katilu township, kerio, Kalokol, Lobei-Kotaruk, Lokiriam- Lorengkipi	Repair of broken-down hand pumps & Water systems.	16,300	TCG, Concern worldwide, PWJ		24M	1 month
Turkana South/	Lokiriam, Lobokat & Kaputir	Construction and desilting of water pans	Human – 800 Livestock – 50,000	CGT		45M	FY2023-24
Turkana South/	Kalapata & Katilu	Improvement of water supplies.	Human- 6,000 Livestock-20,000	World Vision Kenya Red Cross		10M	2023-24
Turkana Central/ Turkana West/	All wards in Central, Songot, Nanam, Kakuma and lopur	Water trucking of 22 sites, NB- currently reduced due availability of water in various water sources	23,000	TCG, Save The Children		4 million	1 year
Turkana South/	Lokichar, Lobei-Kotaruk, Lokiriam	Drilling and equipping	42,000	CGT World Vision		32M	FY2023-24

Sub County	Ward	Intervention	No. of beneficiaries	Implementers	Impacts	Cost (Million)	Time Frame
		of borehole.					
Health							
Loima, Kibish, T. North, T.East, T. South, T. West	All Wards	Scale up exhaustive mass screening for case findings	County wide (140,000 children under five)	MOH, UNICEF, SAPCON, WFP, World Vision,	Early detection of malnutrition at the community for under-fives and PLWs.	16.8 M	End of February
All Sub-counties	Hotspot villages	Remap and operationalize integrated outreach		MOH, UNICEF, SAPCON, WFP, World Vision, IRC, Concern worldwide, KRCS, WHH, NAWIRI, SCI, DOL, CRS	Support the treatment of malnutrition in the hotspot and hard to reach areas.	171M	Quarter
All Sub-counties	All facilities	Procure and distribute specialized nutrition commodities	Acute malnourished children -81,659 moderate -21,663 severe -32,400 malnourished women	UNICEF, WFP	The nutrition commodities will be used for treatment of malnutrition and help reduce malnutrition at the community.	150M	Monthly
Kibish, T. North	Lake zone, Lapur, Kaeris, Nakalale, Kibish, Kaikor/Kaaleng	BSFP	43,087	WFP, SAPCON	Reduce further deterioration in the targeted population.	14M	Jan – March 2024
Education							
Loima	Loima	Provision of school meal programme and	14558	Mary's Meal and Turkana County Government	Increases enrolment of pupils and improvement		termly

Sub County	Ward	Intervention	No. of beneficiaries	Implementers	Impacts	Cost (Million)	Time Frame
		boarding schools			ent of learners Health		
Loima	Loima	Provision of school meal programme and boarding schools	97708	Mary's Meal and Turkana County Government	Increases enrolment of pupils and improvement of learners Health		termly
Loima	Loima	Provision of school meal programme and boarding schools	12213	MOE through NACONEK	Increases enrolment of pupils and improvement of learners Health		termly
Loima	Loima	Provision of school meal programme and boarding schools	8142	MOE through NACONEK	Increases enrolment of pupils and improvement of learners Health		termly
Turkana South	Kalapata	Improvement /Construction Of Physical Facilities,	14250	World Vision	Improves access, attendance, Transition	15000 0	termly
Aroo	Katilu	Grants, Kits, Network Connectivity, Improvement /Construction Of Physical Facilities	8900	World Vision ,Unicef, Moe, Safaricom, Moe, Fca, Kenha, Cdf, Tcg, Red Cross, Dioces Of Lodwar,	Improves access, attendance, transition	25M	termly
Turkana North	Lapur	Repair of classrooms and provisions of sanitary towels	14925	Save The Children, Wings Of Hope And Concern Worldwide	Improves access, attendance, Transition	12M	termly

Sub County	Ward	Intervention	No. of beneficiaries	Implementers	Impacts	Cost (Million)	Time Frame
Turkana Central	All	School meal program, sanitary towels	17000, 430000	NACONEK/ MoE/ WFP	Learners get regular meals	GOK	Termly
Suguta	Kapedo/Napeitom	Renovation of infrastructure, Sanitary Towels, Latrines	3548	KDF GCN MOE	Improved infrastructure, improved toilet ratio	2M	Termly
Turkana East	Lokori/Katilia/Kochodin	Sanitary towels, SMP	3500	Moe/girl child network/	Improves access, attendance and transition	GOK	Termly
Kibish	Kibish	Provision of school meal programme and boarding schools	4300	Mary's Meal and Turkana County Government	Increases enrolment of pupils and improvement of learners Health	GOK	Termly
Lokiriamma	Lokiriamma	Provision of school meal programme and boarding schools	4500	MOE through NACONEK	Increases enrolment of pupils and improvement of learners Health	GOK	Termly
Turkana West	Kakuma, pelekech	Provision of school meals and sanitary towels	48000	Mary's Meal and Turkana County Government	Improves access, attendance and transition	GOK	Termly
Lokichoggio	all wards	Sanitation facilities being constructed	3580	NG CDF KDRDIP PROJECT	Access to education	25M	2023/2024

5.3 Recommended Interventions

5.3.1 Food Interventions

Following the long rains assessment on the impact of the March to May 2023 rainfall on various livelihood sectors, the team recommended cash transfer as the most appropriate implementation modality for delivering assistance to the most food insecure population in accordance with the proportions depicted in table 22.

Table 22: Population in Need of Food Assistance

S/No	Sub County	Ward	Population Range (%)
1.	Turkana East	Kapedo/Napeitom	40 – 45
		Lokori/Kochodin	40 – 45
		Katilia	35 – 40
2.	Turkana South	Kalapata	40 -45
		Lokichar	35 -40
		Lobokat	35 – 40
		Kaputir	35 – 40
		Katilu	35 – 40
3.	Turkana Central	Kerio Delta	40 – 45
		Kalokol	40 -45
		Lodwar Township	30 - 35
		Kanamkemer	35 - 40
		Kangatotha	40 - 45
4.	Turkana North	Kaeris	35 – 40
		Nakalale	40 - 45
		Lakezone	40 - 45
		Lapur	30 - 35
		Kaaleng/Kaikor	35 - 40
5.	Loima	Lobei/Kotaruk	35 - 40
		Turkwel	35 - 40
		Loima	30 - 35
		Lokiriam/Lorengippi	30 - 55
6.	Kibish	Kibish	35 - 40
7.	Turkana West	Songot	30 – 35
		Lopur	25 - 30
		Nanam	30 - 35
		Letea	20 – 25
		Kalobeyei	25 - 30
		Lokichoggio	20 - 25
		Kakuma	20 - 25

5.3.2 Non-Food Interventions

Table 23: Non-Food Recommended Interventions

Sub County	Ward	Intervention	No. of beneficiaries	Implementer	Required Resource (million)	Available Resource	Time Frame
Agriculture							
Turkana South, East, Central, West, North, Loima and Lokichoggio	All wards	Promote production diverse nutrients dense foods. (OFSP/ Nyota beans) sorghum, Fruits, and vegetables.	15000	TCG, WFP.FAO, Save the children, Sapcone, Mercy corps., FCDO, Lokado, CRS	2M	Adéquate arable land. River Turkwel & Kerio. Community Government Donors Technical experts.	March, April/Sep tember /October.
Turkana South, East, Central, West, North, Loima and Lokichoggio	All wards	Capacity building of community on Climate smart Agriculture technologies. (GAPs).	15000	TCG, WFP.FAO, Savethechildren. Sapcone, Mercy corps., FCDO, Lokado, CRS	3M	Vehicles, Fuels, DSA & lunches, Technical experts.	Throughou t the year
Turkana South, East, Central, West, North, Loima and Lokichoggio	Katilu ward – Kalemungorok/kaekunyuk/nakabosan. Kalapata- katiiir/ Nakalei/chokchok. Lokichar- Lomokamar. Lokori/kochodin –Lokwii Katilia ward – Elelea etc. Lobeikotaruk Turkwel ward Loima Lorengkipi. Kaleng/Kaikor	Continuous resilience designs approaches.	3500	TCG, WFP.FAO, Savethechildren. Sapcone, Mercy corps., FCDO, Lokado, CRS	10M	Vehicles, Fuels, DSA & lunches, Technical experts.	Throughou t the year

Sub County	Ward	Intervention	No. of beneficiaries	Implementer	Required Resource (million)	Available Resource	Time Frame
	Lapur ward. Nanam ward Letea ward Lokichogio Kanamkemer Lodwartownship Kerio delta						
Turkana South, East, Central, West, North, Loima and Lokichoggio	All wards	Intégrations of CSA technologies in Micro-irrigation in ASAL areas.	15000	TCG, WFP, FAO, Save the children. Sapcone, Mercy corps., FCDO, Lokado, CRS	15M	Vehicles, Fuels, DSA & lunches, Technical experts.	Every year
Livestock							
T. North	All wards	Pasture production	40 groups	TUPADO	Logistics / facilitation	Trained technical officers	April-May 2024
Turkana South	All wards	Extension services	All sub-county pastoralist	TCG/NGO/partners	Logistics / facilitation	Trained technical officers	February-Sept 2024
Kibish, Loima, Turkana West, Turkana North.	All wards	Training on participatory rangeland management approach	250 livestock keepers	Livestock department Partners – GIZ, Usaid Nawiri, LOKADO, TUPADO	Fuel and vehicle Training materials DSA	Training materials	February-Sept 2024
Turkana Central, Turkana East, Turkana South, Loima,	All wards	Supplementary Livestock feeds	1000HH	Partners and Turkana County government	Reduced livestock mortality in drought	65M	March April 2024

Sub County	Ward	Intervention	No. of beneficiaries	Implementer	Required Resource (million)	Available Resource	Time Frame
Turkana .North							
TurkanaCentral,Loima,Turkana North	All wards	Voluntary Commercial destocking	1000HH	Partners and Turkana County government	Reduce grazing pressure	10M	March - April 2024
Turkana Central, Turkana East, Turkana South, Loima, Turkana North	All wards	Pasture reseeding	2000HH	TCG/CRS/JI CA Partners	Increase forage availability	8M	April 2024
Loima		Deworming and treatment of animals	20,000	TCG VSF G Partners	Reduced disease prevalence	70M	March 2024
Water							
All Sub Counties	All sites	Procurement of fast moving spare parts for hand pumps, solar pumps and genset repair	100,000	TCG/IPs	60M	20M	3months
Turkana North	Lapur,Lakezone, Kaechipaluk, Nariamao, Kekorisogol, Lomuria, Kangisaja, Lokaburu, Loreng, Kangolemongin, kakimat, Ikalaleakamar, Kalouchelem, Dapar, Kakali.	Water Trucking	Human- 13,500 Livestock – 60,000	TCG	Fuel, Water Bowser	30M	3 Months

Sub County	Ward	Intervention	No. of beneficiaries	Implementer	Required Resource (million)	Available Resource	Time Frame
All Sub Counties	Kibish, Nangomo, Lobulono, Mlima Tatu, Kaloboi, Nasiger, Nakwamunyen, Kaitese, Nachuro, Loroo, Lotagor, Kiirngimoe, Kangataruk, Nchampa, Kotela, Natwel, Nakuj, Ekaale, Keekuto, Naipa dispensary, Lokiriama, Kekora, Akwan, Kalimoni, Lomokori, 3No. Loya	Repair of broken-down boreholes	Human-100,000	TCG, Concern world wide	Repair material and pumps, Fuel, Vehicle, Staff Personnel	Nil	3 Months
All Sub Counties	Kaechipaluk, Nariamao, Kekorisogol, Lomuria, Kangisaja, Lokaburu, Loreng, Kangolemongin, kakimat	Drilling of boreholes in water stressed areas	Human – 50,000 Livestock – 100,000	CGT & IPs	100M	Nil	2024-25
Loima	Locher Edome, Nang'acha,	Repair of broken down water sources	2500	TCG/Partners	250,000.00	-	1 Month
Turkan a South,Loima/	Kang'olemongin, Kekorisogol, Lomookamar, Ikalaleakamar, Kaechipaluk, Nariamao, Naren gemunyen, Edos, Morulingakirion, Loreng, Lokaburu, Kangisaja,	Drilling and equipping of boreholes in water stressed areas.	Human-20,000	CGT & IPs	10M		FY 2023/24

Sub County	Ward	Intervention	No. of beneficiaries	Implementer	Required Resource (million)	Available Resource	Time Frame
	Kotela,Naipekar, Nameyana,Lomunyenkirion & Nalukowoi						
Turkana West	Nakitongo & Nasinyono	Desalination of Nakitongo and Nasinyono water points	72,000	TCG	15M	0	FY19/2020
Turkana West	6(2No.Songot, 2No.Lopur, 3No.Letea and Kakuma 1No.)	Installation of capped boreholes with pumping units	20,000	TCG	30M	0	FY19/2020
Turkana West/Kakuma and Lokichoggio	Kakuma and Lokichoggio	Tarach and Natiira river banks protection project to prevent water points being swept away	20,000	TCG/GoK/N GO	160 M	0	12months
Turkana Central/ Kangatotha, Kerio Delta, Township, Kanamkemer and Kalokol	All Wards	Upgrading of Hand Pumps (98 No.) to Solar	44,324	TCG/Partners	198 M		2 Years
All Sub Counties	Nayada,Nasiger, Nakutan,Naipedukan primary,Nasol centre &Narongor	Water trucking to water stress areas	15,000	TCG/Partners	1.5M	-	3Months
	Keekuto,Nakorimunyen,Nachom in,Kalelekol ECDE & Dispensary,Lokir	Supply of 10,000 litres storage tanks	15,000	TCG & Partners	20M	-	6Months

Sub County	Ward	Intervention	No. of beneficiaries	Implementer	Required Resource (million)	Available Resource	Time Frame
	iama primary & ECDE						
Health and Nutrition							
All Sub - countie s	All implementing health facilities	Scale up IMAM surge/ strengthen IMAM surge	229 health facilities	County Government, and implementing partners	7.5m	None	By Dec 2024
All sub - Countie s	All Wards	Scale up family led MUAC to new community units/strengthen family led MUAC	218 CUs	County Government, and implementing partners	3.6m	None	June 2024
All sub - Countie s	All implementing health facilities	Roll out IMAM to health facilities	30 facilities	County Government, and implementing partners	2m	None	Dec 2024
All sub - Countie s	All implementing health facilities	Train health care workers on new IMAM guidelines	400 health care workers	County Government, and implementing partners	15.5m	None	Dec 2024
T. South, T.East, T. central, Loima, T.West	All wards	Blanket Supplementary Feeding Program (BSFP)	80,000	County Government, and implementing partners	30m	None	immediately
Education							
Turkan a East- Lokori	Kangitit girls, kidewa, Nakatomgwa, Ngamia ,	Provision of security personnel to schools	6500	NPs interior	2400000 000	School suppose lunches and supper	Termly
Loima	Pre-primary, primary schools in Lobei Kotaruk	Provision of school meal program, provision of sanitary pads, provision of boreholes and	24236 20355 5413 10178	TCG,MARY SMEAL, NACONEK, MOE, NGAAF and UNICEF	100,000, 000, 100,000, 000, 10,000,0 00, 100,000,	Nil	Termly

Sub County	Ward	Intervention	No. of beneficiaries	Implementer	Required Resource (million)	Available Resource	Time Frame
		laying pipes with solar panels, provision of toilets	8142	TCG, JICA, and any other interested partner	000,16,00,000		
All wards	Pre-primary.	1, sanitation facilities	35	CDF, MOE, UNICEF	35M		Termly
	Pre-primary	2. provision of water	35		60M		
	Primary and JSS	3. construction of classrooms	22		22M		
Turkana East	Napeitom and Kapedo primary	1, full rehabilitation of primary	350	CDF, MOE, PARTNERS, KDF	24M	300,000	