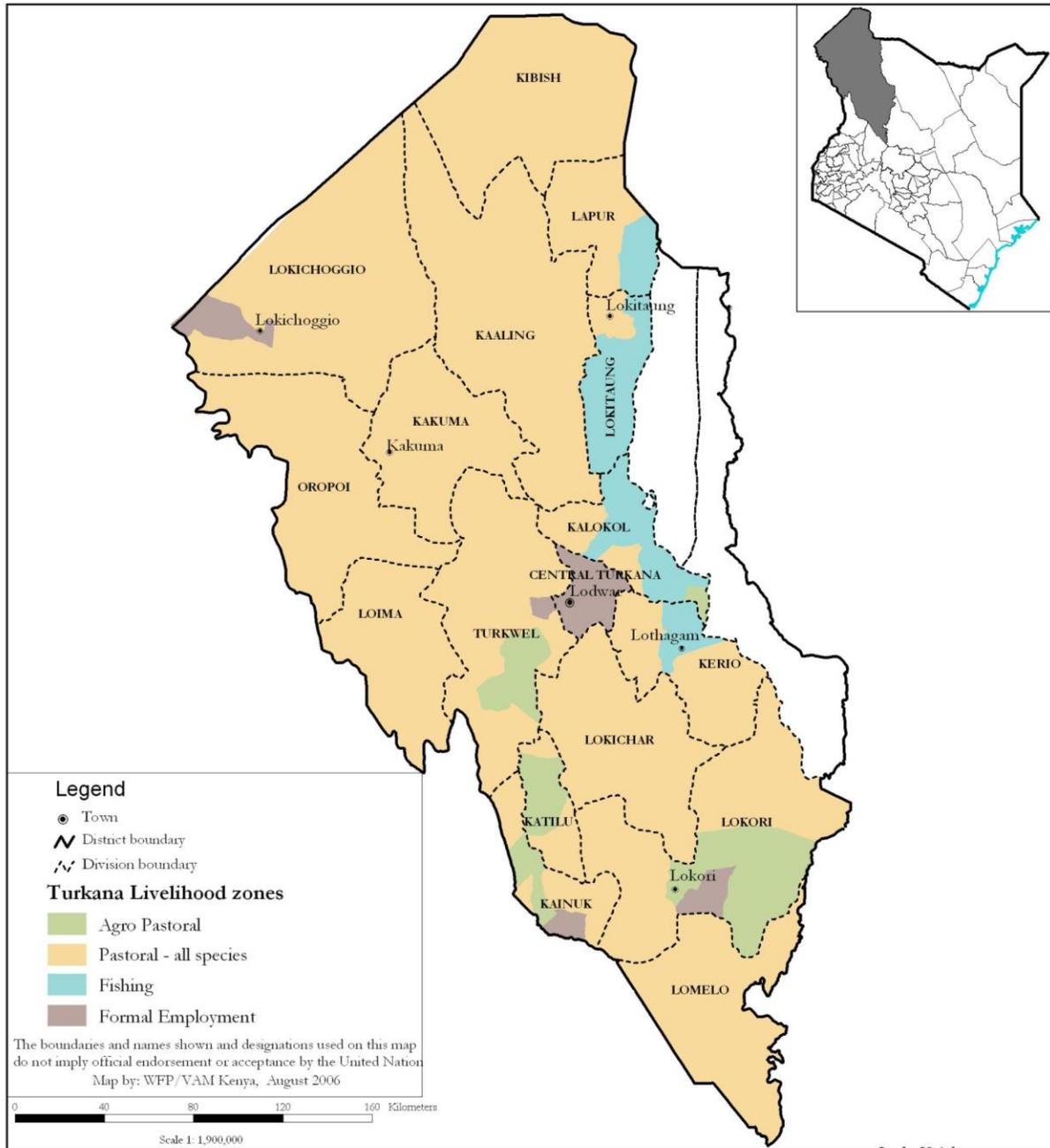


TURKANA COUNTY 2017 SHORT RAINS FOOD SECURITY ASSESSMENT REPORT



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

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EXECUTIVE SUMMARY

The county is classified as “Stressed” (IPC Phase 2) and Crisis (IPC Phase 3) in the current assessment coming from “Crisis” (IPC Phase 3) during the long rains assessment of July 2017. The food security outcomes for the county have improved during the short rains season. The prevalence of the global acute malnutrition (GAM) improved significantly to 16 percent for the period under review from 23 percent in a similar period in 2017. Additionally, mean coping strategy index improved to 18 in January 2018 from 25 in December 2017 implying that most households are gradually reducing employing consumption based coping strategies. The proportion of households with poor food consumption score remained stable from 26 percent in July 2017 to 22.7 percent in January 2018 implying improved household dietary diversity and meal frequency. Households with acceptable food consumption remained unchanged from 50 percent in July 2017 to 51.6 percent in January 2018. Availability of food has improved through crop production; the acreage under cultivation of key crops such as sorghum and leafy cowpeas increased by 99 and 108 percent compared to the long term average respectively and the harvest of the same being projected to increase by 77 and 46 percent compared to the long term averages respectively. The improvement was attributed to above normal short rains experienced in the county. The livestock body condition for all livestock types in the pastoral all species and agro pastoral were good. However, availability and consumption of milk remained low and in the current season, consumption stands at less than a litre compared to a normal of three litres which was attributed low livestock productivity as result of cumulative effect of poor seasons.

Access to food improved with the average price of maize in January 2018 declining by six percent compared to the same period in 2017. However, prices still remain higher than normal occasioned by a deficit of the commodity in the market particularly in the pastoral-all species livelihood zone. The terms of trade improved by 30 compared to the long term average and the January 2017 implying that households were able to purchase more quantity of maize with the proceeds from a sale of goat. The improvement has been occasioned by increase in goat prices which were 27 and 35 percent above the same period in 2017 and long term averages. Water availability and water access is still a challenge in the county; where return distances to domestic water points has increased from a normal of 10 km to 12 km in pastoral all species at this time of the year. Waiting time at the source also increased across the livelihood zones and this was attributed to increased demand of water and over usage of operational water sources leading to breakdown of approximately 15 percent of boreholes, which are the main sources of water in the county. In terms of morbidity trends there has been an upsurge in cases of the three most prevalent diseases among under-fives and the general population: malaria, upper respiratory tract infections (URTI) and diarrhea from July to December 2017. A significant increase was noted in malaria cases where there was more than 100 percent increase compared to a similar period in 2016. Cholera outbreak was also reported in Katilu with five confirmed cases. Insecurity remains a major factor contributing to food insecurity and was reported in various parts of the county especially along borders as a result of resource-based conflict.

1.0 Introduction

1.1 County Background

Turkana County covers an area of 77,000 square kilometers with an estimated projected population of 1,083,653 persons (KNBS 2016). The county is divided six sub counties namely, Loima, Turkana East, Turkana North, Turkana West, Turkana South and Turkana Central. The county is divided into four livelihood zones with pastoral all species livelihood zone representing 60 percent of the population. Agro pastoral livelihood zone accounts to 20 percent of the population while fishing livelihood zone representing 12 percent of the population. Formal employment accounts to only eight percent of the population (Figure 1).

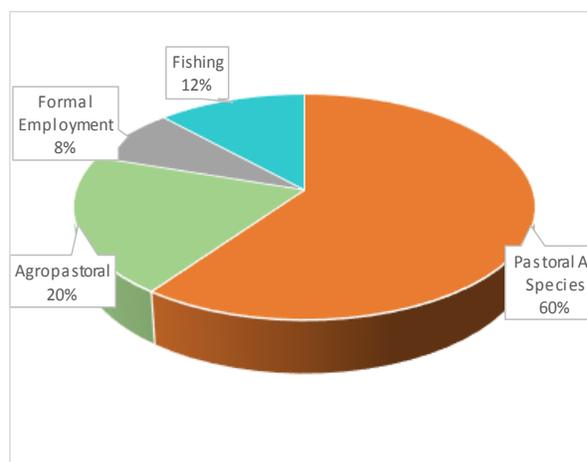


Figure 1: Population by livelihood

1.2 Objectives and Approach

Short rains assessment was aimed at developing an objective, evidence based and transparent food security situation. The overall methodologies were coordinated by Kenya Food Security Steering Group. The data was collected using sectoral checklist tools from various sites such as livelihood baseline data, sectoral reports, price data, nutritional smart survey and monthly bulletins before the arrival of national team. Initial County Steering Group meeting was conducted on 7th February, 2018 where the preliminary county report was shared by the technical sector working group. Discussions were held and thereafter, the teams for field exercise were constituted with representatives from the various sectors and partners involved in different activities within the county. Sample sites, transect drive routes and interview sites were also selected depending on various criteria such as below or no rainfall performance, conflicts areas, sites never visited before, farming areas, livelihood zones, markets, hospitals, schools, areas of water stress, livestock concentrations among others. During the transect drives interviews were conducted in Kataboi, Lowerengak, Natoo, Pokotomo, Kalapata, Kakong, Kalemngorok, Katilu, Lopedru, Katilia, Morulem, Kapua, Kalokol, Namukuse, Kang'atotha, Turkwel, Kalemunyang, Lobei and Lokiriama. Discussion was held with community members, opinion leaders (key informants) and facilities-in-charge depending on varied needs.

The assessment was conducted between 5th and 16th February, 2018. While in the field, the team conducted a minimum of two communities, two key informants and two market interviews in each of the sampled site. The assessment teams also visited schools and health facilities to collect more relevant information. Visual inspection techniques were also used during the transect drives to obtain qualitative data. The field data was collected, reviewed, analyzed and triangulated to verify its validity. A multi sectoral and multiagency approach was adopted during the assessment covering agriculture, livestock, health and nutrition, water and sanitation, education and humanitarian partners' work. Livelihood zone was used as a focal point to understanding the changes in food security and identifying populations that are affected and in

need of assistance. The results from sampled sites were discussed in the County Steering Group (CSG) and used to infer other areas not visited. The findings and recommendation were provided for planning purposes.

2.0 Drivers of Food and Nutrition Security in the County

2.1 Rainfall Performance

The onset of short rains was timely in the second dekad of October which was normal. Most parts of the county received 90-140 percent of the normal rainfall with exceptions of central region of the county which received 25-90 percent of normal rainfall (Figure 2). Nanam area in Turkana West received less 25 percent of normal rainfall while areas around Loima received more than 200 percent of the normal rainfall. The temporal and spatial distribution was even in several parts of the county. Cessation was early in the fourth week of November in most areas in the county compared to the normal first dekad of January. A few areas in Turkana East (Kapedo and Lomelo) witnessed cessation in the 2nd and 3rd dekad of December.

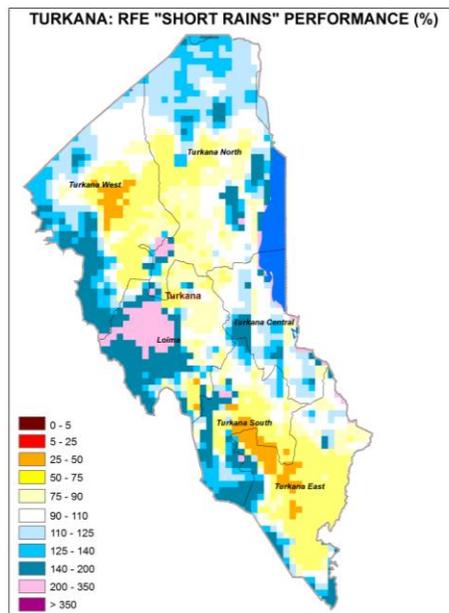


Figure 2: Rainfall performance

2.2 Insecurity/Conflict

Resource based conflicts have continued to be experienced in parts of the county (Table 1). The conflicts emanate from competition to access pasture and water for livestock. Livestock migration from wet grazing areas to dry grazing areas bordering the neighboring countries has resulted to constant attacks. The conflicts have led to loss of human life and livestock as well as displacement of households.

Table 1: Conflicts areas in the county

Sub County	Areas with conflicts	HH displaced	Security concern	Remarks
Turkana West	Teremukus	750 HH		Peace meetings have been held from all sides of the county (Kenya, Uganda and South Sudan)
Turkana West	Loteteleit kraal	1000HH	Displaced as a result of conflict (over grazing in Uganda). Constant attacks from Toposa (South Sudan) and Dodos (Uganda).	
Turkana West	Nawountos	200HH	The community have been displaced by Uganda Peoples Defense Force (UPDF)	
Turkana West	Nalapatui	496HH	Insecurity/attacks caused by the Jie and Teuso militia from Uganda. About 400 HH have moved their herd towards Nateteleit	
Turkana West	Namorukirionok – Nakitongo – Loitasonyok	1594HH	Constant attacks from Jie and Dodos both from Uganda	
Turkana East	Kangirisa, Lokwamosing,		Cattle rustling attacks from neighboring Baringo County	

	Lomelo and Kapedo			convened peace meetings
Turkana North	Todonyang,		Constant attacks from Merille from Ethiopia	
Kibish	Parts of Kibish		Constant attacks from Merille from Ethiopia	

2.3 Other Shocks and Hazards

Infestation of maize crop by Fall Army Worm (FAW) in the irrigation schemes especially in parts of Katilu and Morulem contributed to the decline in maize production. Red spider mites and thrips have also been reported in Kairor and Pokotomo areas. Locust was reported along the lake shore in Kataboi, Kaite Kapel, Lochwarengan, Nariding and Lowarengak. Tsetse fly infestation on livestock in Nakitongo Kraals, Namorukirionok Kraal, Loteteleit Kraal and Teremukus Settlement has been reported. Notifiable livestock diseases such as Lumpy Skin Diseases (LSD) were reported in pastoral livelihood zones. Cases of endemic diseases such as Contagious Caprine Pleuropneumonia (CCPP) and Contagious Bovine Pleuropneumonia (CBPP) have been reported across the county.

3.0 Impacts of Drivers on Food and Nutrition Security

3.1 Availability

The availability of food marginally improved through crop production. Livestock body condition improved across the livelihood zones. However, availability and consumption of milk remained low and in the current season, consumption stands at less than a litre compared to a normal of three litres which was attributed to low livestock productivity as result of cumulative effect of two poor seasons. Households continue to rely on markets for food commodities where market traded volumes were low.

3.1.1 Crop Production

The short rains contribute 30 percent of the total production, while the long rains contribute 70 percent of the annual production. The main crops grown in the county are maize, cowpeas and sorghum. Crop production was mainly practiced in the agro pastoral livelihood zones which contributed 60 and 40 percent to food and income respectively. Cowpeas are mainly grown for market while maize was planted to supplement household needs.

Rain Fed Crop Production

The area under sorghum and leafy cowpeas increased by 99 and 108 percent compared to the long term averages respectively. The production of sorghum and leafy cowpeas was projected to increase by 77 and 46 percent respectively compared to the long term average (Table 2). The increase in acreage and production of sorghum and cowpeas was attributed to sensitization and mobilization campaigns through Agricultural Market Access and Linkage (AMAL) program which provided ready market through World Food Programme (WFP) hence farmers preferred sorghum and cowpeas to maize. Land preparation was cost shared by the county government and development partners. Above averages performance of short rains and availability of seeds stocks from previous season contributed to increase in production. Failure by farmers to prepare their land for maize led to decline in acreage by 44 percent compared to the long term average.

Production of maize was projected to reduce by 82 percent compared to the long term average as result of infestation by Fall Army Worm (FAW) and reduced acreage.

Table 2: Rain fed crop production

Crop	Area planted during 2017 Short rains season (Ha)	Long Term Average production during the Short rains season (Ha)	2017 Short Rains Season Production (90 kg bags) Projected	Long Term Average production during the Short rains season (90 kg bags)
1. Maize	544	980	2938	16400
2. Sorghum	3675	1850	8820	38540
3. Cowpeas (Leaf)	25	12	52.5MT	36 MT

Irrigated Crop Production

The area under sorghum significantly increased by 530 percent compared to the long term average. The production of sorghum was projected to increase by 513 percent compared to long term average (Table 3). The increase was associated to sensitization and mobilization campaigns through Agricultural Market Access and Linkage (AMAL) program by Agriculture Ministry and WFP and provision of market linkages, land preparation cost sharing by the county government and development partners, provision of farm inputs and above average performance of short rains. The acreage under maize remained slightly the same compared to the long term average. The production of maize was projected to increase by 84 percent as result of increased waters in the irrigation schemes due to above average performance of the short rains and provision of farm inputs. Both the area and projected production of leafy cowpeas was expected to decline by 41 and 37 percent respectively compared to the long term average. The reduction was associated with the preference of sorghum to other crops.

Table 3: Irrigated crop production

Crop	Area planted during 2017 Short rains season (Ha)	Short Term Average production during the Short rains season (Ha)	2017 Short rains season production (90 kg bags/MT) Projected	Short Term Average production during the Short rains season (90 kg bags)
1. Maize	1271	1250	15250	8300
2. Sorghum	1575	250	12750	2080
3. Cowpeas (Leaf)	50	85	160 MT	255 MT

Main Cereal Stocks

The stocks held by households were 72 percent above the long term average (Table 4). Stocks held by traders and millers were 137 and 515 percent above the long term averages respectively. The stock held by traders and millers were high due to anticipated increase in maize and flour prices. Sorghum stocks held by households and traders are 196 and 353 percent above compared to the long term averages. The total sorghum stocks are 241 percent above the long term averages. Increase in sorghum stock was attributed to increased sensitization and mobilization campaigns through Agricultural Market Access and Linkage (AMAL) program which provided ready market through World Food Programme (WFP), and land preparation cost-sharing by the county government and development partners.

Table 4: Main cereal stocks

Commodity	Period	Households	Traders	Millers	NCPB	Total
Maize (90 Kg bag)	Current	24150	15400	5900	2500	47950
	LTA	14050	6500	960	4200	25710
Sorghum (90 Kg bag)	Current	5330	6800	650	0	12780
	LTA	1800	1500	450	0	3750

3.1.2 Livestock Production

Pastoralism is one of the activities carried out by communities in arid areas of the county. Livestock production is a major source of income for communities within the county (Table 5). The main livestock types reared include: cattle, sheep, goats and camels. Donkeys are used as draught animals.

Table 5: Proportion of livestock contribution to cash income by livelihood

Livelihood zone	% Cash income contribution
Pastoralism	91
Agro- pastoral	25
Fishing	18
Formal Employment	3

Pasture and Browse Condition

Pasture condition across the livelihood zones was fair to poor compared to good at this time of the year (Table 6). The pastures are expected to last for one month compared to normal of 3 – 4 months at this time of the year. Browse was expected to last for one month as opposed to over three months at this time of the year. However, access to pastures and browse in pastoral areas was limited due to insecurity especially in Loteteleit, Teremukus, constant attacks from Toposa (South Sudan), Jie and Dodos (Uganda) in Namorukirionok Kraal. Prevalence of tsetse fly infestation in Nakitongo Kraals, Namorukirionok Kraal, Loteteleit Kraal and Teremukus Settlement caused limited access to pasture and water. Land tenure has been identified as challenge in accessing pastures especially in agro pastoral zones. Livestock grazing was practiced by young and old men.

Table 6: Pasture and browse condition

Livelihood zone	Pasture condition		How long to last (Months)		Browse condition		How long to last (Months)	
	Current	Normally	Current	Normally	Current	Normally	Current	Normally
Pastoral All Species	Fair	Good	1	4	Fair	Fair	1	3
Agro Pastoral	Poor	Good	1	3	Fair	Good	1	3.5
Fishing	Fair	Good	1	3	Fair	Good	1	3

Water Availability and Access

The main water sources for livestock include surface pools, water pans, boreholes, rivers, Lake Turkana and shallow wells. The quantity of water has declined in all the livelihood zones leading to concentration of livestock at specific boreholes. The watering of livestock at homestead was mainly done by women and young girls. There were large herds of livestock in the grazing areas and so watering was done mostly by men rather than women. Return trekking distances for livestock from grazing areas to water points in the pastoral livelihood areas was 10-15 kilometers

compared to normal five kilometers (Table 7). However, access to water in pastoral areas is limited by insecurity especially in Loteteleit, Teremukus, due to constant attacks from Toposa (South Sudan), Jie and Dodos (Uganda) in Namorukirionok Kraal. In the agro pastoral areas, the return trekking distances has increased from a normal of 2-3 kilometers to 3-6 kilometers. The increase in distance in agro pastoral has been attributed to below average performance of short rains especially in southern and eastern parts of the county as well as increased time at watering points. Water frequency for cattle, in the pastoral areas was 2-3 days which was normal at this time of the year. Water pans in parts of the pastoral areas have dried up and livestock are moving towards permanent sources in Koyasa. Livestock have concentrated at Lomanakipi and Lokomarinyang areas due to available water at the natural springs. Other livestock concentrations are at Kakong in the south, Lokwamosing in the south, Katilu, Kamuge, Orum, Nawontos and Oropoi.

Table 7: Water availability and access for livestock

Livelihood zone	Sources		Return distances (km)		Expected duration to last (months)		Factors Limiting access
	Current	Normal	Current	Normal	Current	Normal	
Pastoral All Species	Surface pools, Water pans, Boreholes and shallow wells	Water pans, traditional hand dug wells and Boreholes	10-15	2-5	2	3	Insecurity
Agro Pastoral	Rivers, Boreholes and surface pools	Rivers, shallow wells and Traditional hand dug wells	3-6	2-3	3	3	Long distances Time Taken at water points
Fishing	Shallow wells, Lake and Traditional hand dug wells	Lake, Shallow wells and traditional hand wells	10	5	3	3	Long distances to access pastures

Livestock Body Condition

The body condition for all livestock types in the pastoral all species and agro pastoral was good which is normal at this time of the year. In the fishing livelihood zone, the body condition of cattle, sheep and goats was fair compared to the normally good at this time of the year due to increased distances to the grazing fields and water sources (Table 8). The body condition of all livestock types is expected to deteriorate in 1-2 months with declining and drying of water sources, increased cases of conflicts thereby limiting access to pastures and water and increased distances in search of water.

Table 8: Livestock body condition

Livelihood zone	Cattle		Sheep		Goat		Camel	
	Current	Normally	Current	Normally	Current	Normally	Current	Normally
Pastoral All Species	Good	Good	Good	Good	Good	Good	Good	Good
Agro	Good	Good	Good	Good	Good	Good	Good	Good

pastoral								
Fishing	Fair	Good	Fair	Good	Fair	Good	Good	Good

Milk Production, Consumption and Pricing

The availability of milk in pastoral areas was mainly from goats and camels. In the pastoral livelihood zone, milk availability at household level was about two litres compared to the normal at four litres at this time of the year. In the agro pastoral and fishing livelihood zones, milk production was less than one litre of milk compared to 2-3 litres normally. In agro pastoral and fishing livelihood zones, the cost of milk was Ksh. 60 per litre compared with a normal of Ksh. 30 - 35 per litre. In the pastoral all species livelihood zone, the cost of milk was Ksh. 80 per litre compared to a normal of Ksh. 60 (Table 9). The high cost of milk in the pastoral areas was due to high demand and migration of livestock away from homesteads. Households continued to rely on powdered milk from retail shops to fill fresh milk supply gaps. Powdered milk was retailing at Ksh. 30 per teaspoon which was available to some households. The decision to sell milk produced was left to women at most households and who are also responsible for determining the use of milk proceeds.

Table 9: Milk production, consumption and cost

Livelihood zone	Milk production (Litres)/household		Milk consumption (Litres) per household		Prices (Ksh)/litre	
	Current	LTA	Current	LTA	Current	LTA
Pastoral All Species	2	4	1	4	80	60
Agro pastoral	1	3	0.5	3	60	35
Fishing	0.5	2	0.25	2	60	30

Tropical Livestock Units (TLUs) and birth rates

The TLUs has reduced across all the livelihood zones for both the poor and middle income households compared to the normal at this time of the year (Table 10). The reduction has been associated with consistent droughts experienced in years before thereby prolonging reproduction and increased cases of still births. The birth rates are below normal at this time of the year due to interference of reproduction by prolonged drought periods.

Table 10: Livestock ownerships

Livelihood zone	Poor income households		Medium income households	
	Current	Normal	Current	Normal
Pastoral All Species	7	10	35	65
Agro pastoral	5	10	20	30
Fishing	2	3	10	15

Livestock Diseases and Mortality

Lumpy skin disease (LSD) as a notifiable disease was reported in pastoral livelihood zone. Cases of endemic diseases such as contagious caprine pleuro-pneumonia (CCPP), contagious bovine pleuro-pneumonia (CBPP) and worm infestation have been reported across the all livelihood zones. The County Government and other partners have continued to support enhanced participatory disease search and active surveillance, routine vaccination and treatment. No unusual death of livestock that has been reported.

Livestock Migrations

Livestock migration has been reported from wet to dry grazing areas which was normal at this time of the year. Cattle have also been reported migrating from Uganda to Nakitongo' and Nawonots as result of conflicts over grazing fields and water. Cattle are projected to move towards Murueris and Nakwanamoru ranges. Some livestock in pastoral livelihood areas are projected to move towards Kerio and Turkwel rivers while those in agro pastoral areas will move towards Loriu ranges and some are crossing to Uganda. Currently, the cattle are migrating from Natelo, Kaitede to Kibish in the north, Lokwamosing to Kakong areas Nakitongo, Nawontos to Uganda, Songot to Nanaam upto Natamakarwa which was normal at this time of the year.

3.2 Access

Market remains the major source of food commodities in the county. Access to food also improved with the average price of maize gradually declining thereby enabling households to access food. However, prices still remain higher than normal occasioned by a deficit of the commodities in the market particularly in the pastoral-all species livelihood zone. The terms of trade have improved hence enabling households to access more kilograms of maize than last year as result of increased goat prices and reduced maize prices. Water access still remains a challenge for household especially with broken boreholes and high concentration at specific water sources, thereby increasing water time, increased distance that limits household water consumption.

3.2.1 Markets

Market Operations

The main markets include Lodwar Town, Turkwel, Lorugumu, Lokichar, Lokichoggio, Lokitaung and Kakuma. In the fishing livelihood areas the markets are Kalokol and Kerio. All markets were functioning without disruptions. The main source of food commodities was from Kitale and Ortum, though some food items come from neighboring countries such as Ethiopia and Uganda. Food items such as maize, beans, sorghum and cowpeas were well provisioned in the market. The traded volumes were low in the interior areas in the northern part of the County due to high cost of transportation and poor road access. Most households especially in the pastoral livelihood areas are market dependent. The main livestock markets are Lodwar, Kakuma and Lokichar where their sources were from Kerio, Loima, Kalapata, Kakong, Lochwa, Kaikor and Kokuro. The main livestock available in the markets were cattle, goats and sheep. Alternative markets for livestock include Kakuma, Lodwar, Chepareria and Moroto in Uganda. Livestock traded volumes especially for cattle are low resulting from pastoralists holding their livestock due to good body conditions. The decision to sell livestock was entirely left to men while the decision to use the proceeds from sale of livestock was done by both men and women. Fish traded volume was low due to use of inappropriate fishing gears thus high cost of fish. The demand for fish was high too due presence of Chinese investors who are buying Nile perch species thus raising the demand for fish hence increased fish prices.

Maize Prices

High maize prices were noted in fishing livelihood zones where a kilogram of maize was Ksh. 90 due to high demand for maize, while in the agro pastoral, maize was Ksh.70 per kilogram (Figure 3). The price of maize remained stable between October and December 2017 due to inflow of maize from Kitale where harvesting was ongoing. The average price of maize in January 2018 declined by six percent compared to the same period in 2017, although maize prices were seven percent above the long term average. The price increase was due to maize drying out in the rain fed cropping areas. Households depend on market supplies for maize which was available at high prices. The maize prices are likely to remain above the long terms averages as households demand increases.

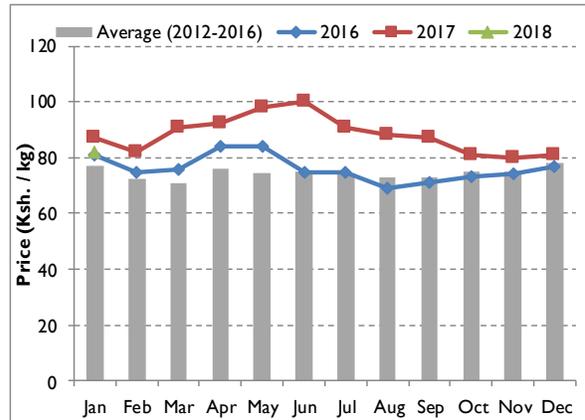


Figure 3: Maize prices in the county

Goat Prices

In January 2018, the goat prices were 27 and 53 percent above the same period in 2017 and long term averages respectively (Figure 4). The increase in prices was attributed to good body conditions and increased demand for goat meat especially by workers in oil exploration at Lokichar. Highest goat price (Ksh. 3,617) was reported in agro pastoral while the lowest (Ksh. 2,767) was reported in pastoral areas. The average goat prices are likely to gradually decline due to heightened drought and slightly deteriorating body conditions.

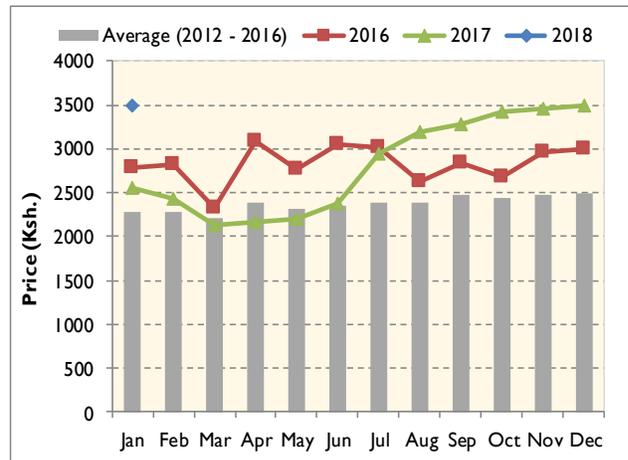


Figure 4: Goat prices in the county

3.2.2 Terms of Trade (ToT)

The terms of trade were about 30 percent above the long term average and the January 2017 (Figure 5). Households were able to purchase more quantity of maize with the proceeds from a sale of goat compared to last year and the long term average. The purchase of more quantity of maize was attributed to high goat prices and stable maize prices. The TOT was stable between October and December 2017 due to stable maize prices and increasing goat prices. The highest ToTs were exhibited in agro pastoral areas at 52 kilograms of maize compared to 40 kilograms of maize in

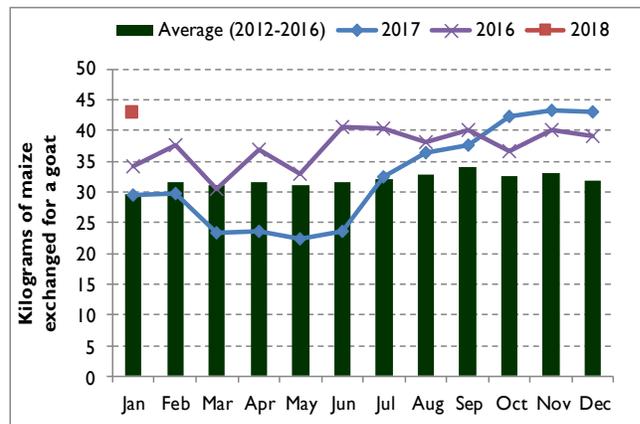


Figure 5: Terms of trade in the county

fishing livelihood zones. The terms of trade are projected to gradually decrease with the declining goat prices and increasing maize prices.

3.2.3 Income Sources

The main source of income for most households in the county was sale of livestock and livestock products (Table 11). Other sources of income include sale of firewood/charcoal, casual labour and social protection through regular safety net assistance for 39,500 households, emergency Hunger Safety Net Programme (HNSP), cash transfer programmes targeting 7500 households in the county are implemented by National government and various partners in the county.

Table 11: Proportion of income sources by livelihood

Livelihood Zone	% Cash Income Contribution						
	Livestock production	Food crop production	Casual wage	Fishing	Firewood collection/ charcoal burning	Remittance and gifts	Small businesses such as sale of farm produce sale
Pastoral	91	1	1	0	1	1	1
Agro Pastoral	25	40	3	1	10	1	6
Fishing	18	2	10	54	2	1	
Casual Waged Labour/Formal Employment	3	0	15	0	5	3	10

3.2.4 Water Access and Availability

Major water sources

The main sources of water for domestic and livestock uses within the county include boreholes, shallow wells, water pans and rivers. The recharge level in the pastoral and fishing livelihood zones improved from 10 percent to 70 percent while in the agro pastoral livelihood zones, the recharge levels increased from 20 percent to 80 percent which was above the normal (Table 12). However, due to increased surface temperature, almost 80 percent of all open water sources have dried up and the remaining expected to last for two weeks compared to a normal of one month. The current operational water sources like borehole and shallow wells are over stretched as result of increased demand/usage leading to breakdown of approximately 15 percent of boreholes.

Increased demand coupled with reduced number of operational boreholes has led to increased water users in some water points such as in Lorengipi and Nakurio in Loima sub-county where there has been high concentration of herders who are migrating to Uganda in search of pasture. Areas with non-operational water sources are most notable in pure pastoral and fishing livelihood zones that include Kachoda, Kalapata, Kaaleng, Lorugum and Kaikor and Lowarengak in fishing livelihood zones.

Table 12: Major sources of water in the county

Ward/ Livelihood zone	Water Source	No. of normal operational	No. of current operational sources	Projected duration	Normal duration of water	% Recharged by the Rains	Locality of non-operational water sources
Pastoral	Borehole	431	394	8 months	12 months	90%	Edos, Lokichar-Irir, Nakabosan, Kaakipom, Katioko, Kaloboi, Lotede, Konyipad, Lochoralomala, Lobi, Lochorang'kalalio, Nakereman, Iria, Akoros windmill and Natwol, Nakururum, Teremkus, Songot duba, Lokori
	Shallow wells	64	36	3 months	6 months	80%	across all the wards
	water pan	117	35	2 weeks	1 month	70%	across all the wards
Agro pastoral	Borehole	112	99	12 months	12 months	90%	Kapelbok, Kainuk, Katilu, Lokipetotarengan, Moruese, kalomegur, Konyipad, Lokipetotarengan, Moruese, kalomegur and Konyipad
	Shallow wells	115	97	4 months	8 months	80%	across all the wards
	rivers	1	1	permanent	permanent	90%	
Fishing	Borehole	35	26	9 months	12 months	90%	Kaikor, Lowarengak
	Shallow wells	25	10	4 months	8 months	80%	across all the wards
	Springs	8	8	8 months	6 months	90%	

Distance to water sources and waiting time at the source

The return distances to domestic water points has increased from a normal of 10 km to 12 km in pastoral all species at this time of the year. The distance has also increased from a normal of seven km to 10 km in the fishing livelihood zone, while in the agro pastoral it increased to five km compared to the normal of two km (Table 13). The increase was attributed to low yield from boreholes, drying up of open water sources and high concentration of livestock in some water points. Waiting time at the source also increased across the livelihood zones due to low yield by boreholes, drying up of open water sources and high concentration of livestock in some water points, reduction of operational boreholes with 15 percent being the main source of water in the county. The duration of time spent queuing for water was projected to increase in 1-2 months across all livelihoods zones as result of drying of surface water sources.

Table 13: Water access and utilization

Ward / 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 water consumption (litres/person/day)	
	Normal	Current	Normal	Current	Normal	Current	Normal	Current
Agro-pastoral	2	5	5	5	30	45	20	15
Pastoral	10	12	5	5	45	60	20	10
Fishing	7	10	5	5	40	50	20	10

Cost of Water and Consumption

The current cost of water (20 litre jerrycan) was the normal Ksh. 5 across all the livelihood zones where communities negotiated agreements to retain affordable prices. The average consumption was 10 litres per person per day in the pastoral and fisher-folk livelihood zones compared to the normal of 20 litres per person per day. In the agro pastoral livelihood zone, water consumption was 15 liters per person per day compared to a normal of 20 litres per person per day. The decline in water consumption at household level was attributed to increased waiting time at water sources.

3.2.5 Food consumption

The proportion of households with a poor food consumption score remained unchanged between January 2017 and 2018 implying stable household dietary diversity and meal frequency (Table 14). Households with acceptable food consumption improved from 46.5 percent in January 2017 to 51.6 percent in January 2018. Households are not frequently engaging in consumption based coping strategies. Most households are consuming an average of 1 - 2 meals per day across the livelihood zones with poor dietary diversity. Common foods groups consumed mainly are cereals and cereal products. Relief food supplies supported most poor households.

Table 14: Proportion of food consumption

Food Consumption Groups (%)	January 2017	January 2018
Poor	22	22.7
Borderline	31.5	25.7
Acceptable	46.5	51.6

Milk Consumption

The average consumption of milk at household level in the pastoral livelihood zones was one litres compared to the normal of four litres at this time of the year. Milk was available from goats and camel that are near homesteads. Availability of milk in agro pastoral and fishing livelihood zones was less than half a litre. The price of a litre of milk in agro pastoral and fishing livelihood zone was Ksh. 60 compared to the normal of Ksh. 30 – 35 per litre at this time of the year. In the pastoral areas, a litre of milk was sold at Ksh. 80 compared to Ksh. 60 at this time of the year (Table 15). Majority of the households in the formal employment areas continued to rely on market for packet and powdered milk selling at an average of Ksh. 80 per 500 millilitres packet whereas the powdered retailed at Ksh. 30 per 10 grams teaspoon.

Table 15: Milk consumption

Livelihood zone	Milk consumption (Litres) per Household		Prices (Ksh)/Litre	
	Current	LTA	Current	LTA
Pastoral All Species	1	4	80	60

Agro pastoral	0.5	3	60	35
Fishing	0.25	2	60	30

3.2.6 Coping Strategy

The mean coping strategy index was 18 in January 2018 compared to 25 in December 2017 implying that most households are gradually reducing employing consumption based coping strategies. Highest CSI was recorded in pastoral livelihood zones with the lowest being in agro pastoral livelihood areas (NDMA January Bulletin 2018). According to SMART survey, the county weighted coping strategy score improved from 32.3 percent in January 2017 to 23.73 percent in January 2018 implying that households were not frequently using consumption based strategies (Table 16).

Table 16: Proportion of coping strategies

Period	Summary of Consumption based Strategies					County weighted coping strategy score
	Rely on less preferred and expensive food	Borrow food	Limit portion sizes	Restrict consumption of food by adults for young children to eat	Reduced number of meals	
January 2017	4.5	6.6	4.1	12.3	4.7	32.3
January 2018	3.6	4.56	3.04	9.03	3.5	23.73

3.3 Utilization

3.3.1 Morbidity and Mortality Patterns

The three most prevalent diseases between July and December 2017 among under-fives and the general population were malaria, upper respiratory tract infections (URTI) and diarrhoea. The three top diseases showed an increasing trend from July to December 2017 in both under five and the general population (Figure 6). A significant increase was noted in malaria cases compared to a similar period in 2016. In November 2017, there was more than 100 percent increase in malaria cases compared to November 2016 in both under-fives and general population. The increase in malaria cases was attributed to above average short rains and poor environmental sanitation such as overgrown bushes near households resulting to accumulation of stagnant water that led to breeding of mosquitos coupled with low usage of mosquito nets in most households. Cholera outbreak was reported in Katilu area of Turkana south sub county. The outbreak was first reported in second week of January 2018 and by second week of February 2018; five Cholera cases had been confirmed and treated at Katilu health center with no deaths. Under five mortality rates and crude mortality rate (CMR) was stable and below the emergency threshold.

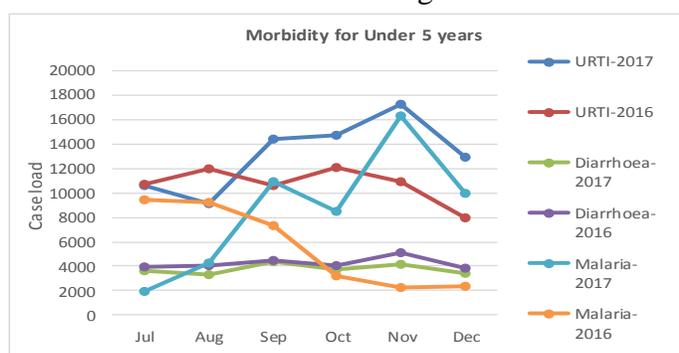


Figure 6: Morbidity trends in the county

3.3.2 Immunization and Vitamin A Supplementation

The proportion of fully immunized children in the county between July and December 2017 reduced to 41 percent from 82 percent in the same period of 2016; with the coverage remaining

below the national target of 80 percent (Table 17). Vitamin A coverage between July and December 2017 was 36 percent which is 60 percent decline compared to a similar period in 2016 with the coverage far below the national target of 80 percent. The decrease in coverage for fully immunized children and Vitamin A supplementation coverage is attributed to health workers strike that halted critical health services for close to six months.

Table 17: Immunization coverage and vitamin A supplementation

Year	Percentage of fully immunized children in the county	Received vitamin A supplementation (Children 12 to 59 months)
July to December 2017	41.3	36.4
July to December 2016	82.1	90

3.3.3 Nutritional Status and Dietary Diversity

The proportion of children under five years at risk of malnutrition, based on mid upper arm circumference (MUAC) of < 135 mm, was at 15 percent in January, 2018 which was 33 percent below same period in 2017. However, there was increased admissions trend for both severe acute malnutrition (SAM) and moderate acute malnutrition (MAM) children into outpatient therapeutic program (OTP) and supplementary feeding program (SFP) compared with same period in the last two years (Figure 7). The increase in the number of admissions was attributed to the scaling up of nutrition response activities such as mass screening, increasing the coverage of outreach sites and integrating blanket supplementary feeding program

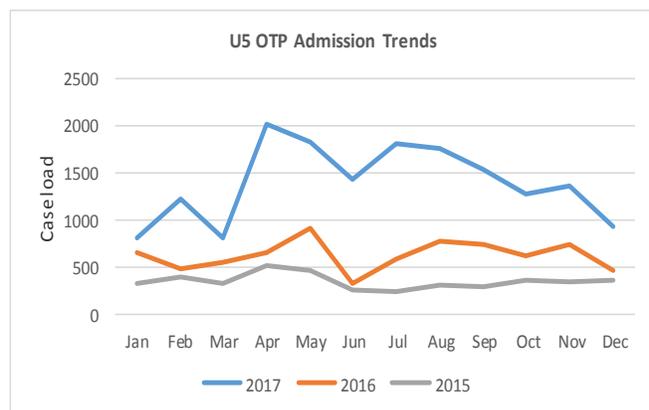


Figure 7: Admission trends in the county

(BSFP) with integrated management of acute malnutrition (IMAM) services.

According to the SMART survey done in January 2018, the GAM rates still remain critical 16.2 percent with Turkana Central and Turkana North showing significant improvement (Figure 8). Severe acute malnutrition (SAM) rates were 2.2 percent in January 2018 an improvement from 5.7 percent in the same period in 2017 percent. Turkana North recorded significant improvement from 8.1 percent in January 2017 to 1.9 percent in the same period in 2018. The improvement was attributed to robust emergency response strategy mounted

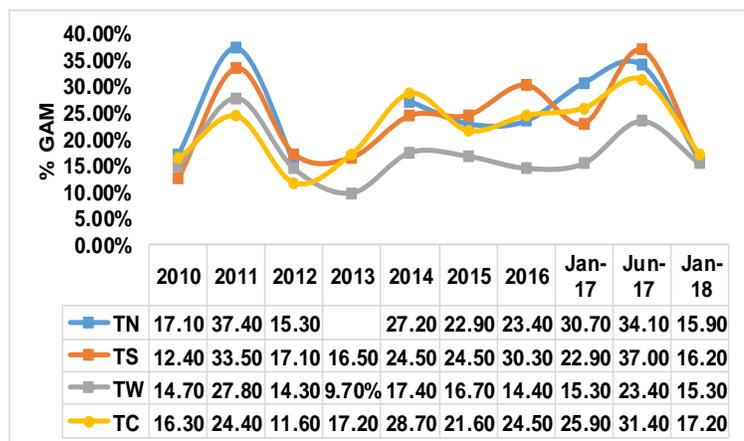


Figure 8: GAM trends in the county

by partners led by Ministry of Health through blanket

supplementary feeding programme (BSFP), integrated health and nutrition outreaches, hunger safety net and other cash transfer programmes, General Food Distribution (GFD) implemented by National and County Governments, water and sanitation (WASH) interventions among others. The situation has also been boosted by better performance of the short rains season late last year thereby resulting to availability of food at household level improving the food consumption. According to the Knowledge Attitude, Behavior and Practice (KABP) survey 2018, the rate of early initiation to breastfeeding was 80.2 percent compared to 69.8 percent in KABP survey in 2014. The rate of exclusive breast feeding (EBF) was reported to be 76.5 percent which is an increase from 31.6 percent reported in 2014 KABP. The increase was attributed to awareness campaigns on benefits of EBF carried out consistently in the last few years by the health workers, supported by partners.

3.3.4 Sanitation and Hygiene

Contamination of open water sources was prevalent as livestock shared open water sources with humans. According to January 2018, SMART survey only 23.9 percent of households were taking water from protected sources while 22.8 percent drew water from traditional hand dug well. The proportion of households treating water for drinking marginally increased from 4.1 percent in January 2017 to 10.2 percent in January 2018. About 39.1 and 67.9 percent of the households were boiling or using chemicals respectively. About 39.2 percent of the households stored water in open containers while 60.8 percent stored water in closed containers. Latrine coverage remains low at 28 percent (KABP survey February 2018) across the county which has slightly rose from 26 percent recorded in a similar period in 2016. Low latrine coverage was associated with negative cultural practices, movement of pastoral communities and loose/collapsing soils that make it difficult to put up a latrine. Most households practice open defecation especially in the pastoral all species livelihood zone, posing a health risk during rainy season. With latrine coverage being below the recommended level and only 24 percent taking water from protected sources, water borne diseases have been prevalent with diarrheal diseases reported to have ranked high in the morbidity trends in the county. The high prevalence of water borne diseases has contributed to high rate of malnutrition in the county. Hand washing at the four critical times improved from 10.2 percent in January 2017, to 15.1 percent in the same period of 2018.

3.4 Trends of Key Food Security Indicators

The comparison of performance of long and short rains assessment was reported as indicated. The indicators observed included maize stocks at household level, livestock body condition, water consumption, price of maize, terms of trade, food consumption, coping strategy and GAM among others (Table 18).

Table 18: Food security trends in County

Indicator	Long rains assessment, July 2017		Short rains assessment, Feb 2018	
Proportion of maize stocks held by households (agro-pastoral)	(9)		72	
Livestock body condition	Cattle and Sheep	Fair to Poor	Cattle and Sheep	Good
	Goat and Camel	Fair	Goat and Camel:	Good
Water consumption (litres per person per day)	Less than 10 litres/person/day in the pastoral		Less than 10 litres/person/day in the pastoral and fishing livelihood zones	

Indicator	Long rains assessment, July 2017		Short rains assessment, Feb 2018	
	10-15 in the agro pastoral		15 litres/person/day in the agro pastoral	
Price of maize (Ksh per kg)	91		82	
Distance to grazing (km)	Pastoral	15	Pastoral	10-15
	Agro pastoral	10	Agro pastoral	3-6
Terms of trade (pastoral zone)	32		43	
Coping strategy index	21.21		18 as at January 2018	
Food consumption score	Poor-26% Borderline-24% Acceptable-50%		Poor-22.7% Borderline-25.7% Acceptable-51.6% Based on SMART survey Jan.2018	
Proportion of children at risk of malnutrition (MUAC <135mm)	19%		15%	
Global Acute Malnutrition (GAM)	32%		16%	

4.0 Cross-Cutting Issues

4.1 Education

Enrolment, Dropout and Transition

There was a general increase in the enrolment of children in both primary and Early Child Development Centres (ECDE) institutions across the county in 2018 compared to similar period in 2017 (Figure 9). The increase was attributed to enrolment drives carried out by Ministry of Education and improved coverage of schools meals programme which serves as a pull to students. The ratio of boys and girls in lower primary was almost at 50/50 but changes in upper primary where the ratio declines in favor of the boys, with the girls having to stay at home for home chores and in other circumstances married off at an early age.

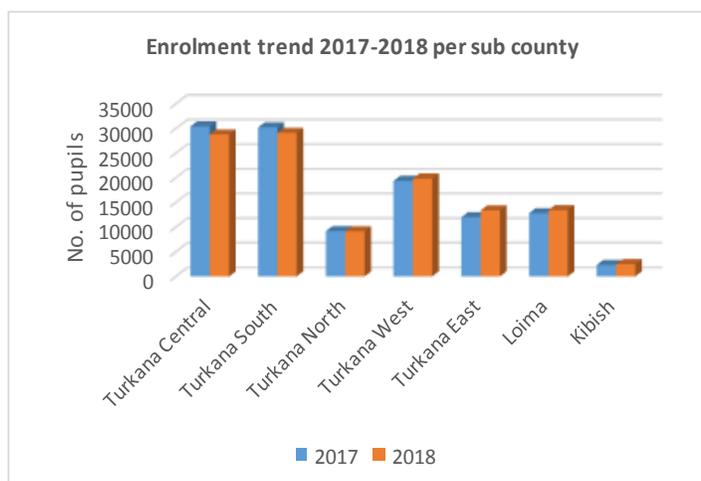


Figure 9: Enrolment in the county

Drop out has declined in 2018 compared to a similar period in 2017 attributed to reduced migration and improved coverage of schools meals programme. The transition rate from ECD to primary in 2018 was above 90 percent in most schools as result of reduced migration and enrollment drives. The transition from primary to secondary school also improved due to scholarships from different stakeholders and also bursaries from the county government.

4.2 School Meals Programme (SMP)

The schools meals programme targeted 398 schools (116,120 pupils (61,261 boys and 54,859 girls) across all the sub-counties. WFP implements regular school meals programme with cash transfers in 5 sub counties (Turkana central, Turkana North, Loima, Turkana West and Kibish)

and in-kind food in two sub counties of Turkana East and South. SMP has ensured that children are attracted to school as it probably the only source of food for some children.

5.0 Food Security Prognosis

5.1 Prognosis Assumptions

The prognosis will likely be based on the following assumptions:

- According to IGAD Climate Predictions and Application Centre, the long rains (March to May 2018) are expected average tending to slightly above average across the western and northwestern sector.
- During the on-going dry season February through March, across most of eastern Horn, there is increased likelihood for hotter-than-normal temperatures and also later in June through August.
- Resource based conflicts are likely to reduce especially near the border of Kenya and Uganda and the other parts of Kenya, South Sudan and Ethiopia. Recurrent conflicts along Turkana East and Baringo due to cattle rustling are likely to reduce.
- Cereal prices are likely to remain stable with the stable maize prices in the major markets.
- With gradual decline in household food availability and access before the onset of long rains, prevalence of GAM is likely to worsen with the deterioration of food security. Nutrition would likely be improved towards March with gradual availability of food at household level.

5.2 Food Security Outlook

5.2.1 Food Security Outcomes (Feb – April)

Food security situation is likely to further improve with ongoing harvesting especially in the agro-pastoral areas. Food prices will remain stable with average terms of trade. The March – May long rains will likely improve rangeland resources thereby improving livestock productivity. Income or wage from farm labour opportunities are likely to be realized with increase in labour related activities both at the crop farms and livestock. Pastoralists are likely to move back to homesteads towards March. Improved livestock productivity is likely to improve herd sizes and milk production that will likely improve the nutritional status. Resource based conflicts are likely to reduce due to availability of rangeland resources. The county will likely be in Stressed (IPC Phase 2).

5.2.2 Food Security Outcomes (May - July)

Gradual increase in milk consumption at household level is expected due to improved livestock body condition. The improved body condition is likely to positively influence the purchasing power of households, thereby reducing the reliance of charcoal or firewood sales and humanitarian assistance. In May, the short cycle crops will be available, further improving household food availability and consumption. Resource based conflicts are likely to be low due to availability of pasture and browse. Improved market access is likely to be witnessed across the livelihood zones. Improvements in food security is likely to improve the minimum food needs for majority of households resulting to improved nutritional status and thereby move them to Stressed (IPC Phase 2).

6.0 Conclusion and Interventions

6.1 Conclusion

Prolonged drought, recurrent resource based conflicts and poor road accesses have continued to affect the food security situation in the county. Food security status will improve with average performance of long rains coupled with enhanced implementation of interventions. Key factors to monitor include; resource based conflicts, malnutrition levels, increased distances to water sources affecting household water consumption, high cost of food prices, absenteeism and drop outs in schools and immediate impacts of interventions.

6.1.1 Food Insecurity Phase Classification

The county is classified as Stressed (IPC 2) and Crisis (IPC Phase 3) across the livelihood zones. Improvement from Crisis (IPC Phase 3) to Stressed (IPC Phase 2) has been noticed especially in the western part of the county. The improvement was attributed to above average performance of short rains. Food consumption improved whereby households with acceptable food consumption improving from 46.5 percent in January 2017 to 51.6 percent in January 2018. Cash transfers and blanket supplementary feeding program coupled with other humanitarian assistance has also improved the household food security.

6.1.2 Summarized Findings

Rainfall performance over seasons has been below average, resulting to low production. Resource based conflicts has remained one of the most critical drivers in limiting access to markets, pasture and water and other essential services especially in Turkana East, Turkana North and areas bordering Uganda and South Sudan. Most households continue to rely on market supplies despite limited household incomes. High food prices have been observed across the livelihood zones due to low trading volumes, poor road access coupled by frequent attacks. Cash transfers and food for assets among other interventions have continued to support most households in the county.

6.1.3 Sub-county ranking

Table 19: Sub county ranking

Sub County	Food insecurity rank (1-10 from worst to best)	Main Food Security Threat (if any)
Kibish	1	Insecurity, diseases-Kalazaar and increased dog bites, pasture available but inaccessible, water stress-longer trekking distance, GAM -15.9%, increment in enrolment, rainfall performance-110% - 125%, Livestock diseases, FCS-54.1% poor (SMART survey Jan.2018)
Turkana North	2	GAM - 15.9%, Rainfall performance; 75% - 100%, Locust invasion, Insecurity-Todonyang, Water stress, limited access to health facilities, FCS-54.1% poor (SMART survey Jan.2018)
Turkana East	3	Low concentration of water points, long distances to water source, consumption of water is low, high hotspot of conflicts/insecurity, fair pasture condition, 25%-50% rainfall performance, GAM-16.2%, availability and accessibility to food fair, FCS-24.3% poor and borderline (SMART survey Jan.2018)
Turkana Central	4	More concentration of water points, short distances to water

		source, consumption of water is higher, poor pasture condition, 110%-125% rainfall performance, GAM-17.2%, Low livestock productivity, better access to health, high enrolment, FCS-89% borderline and acceptable (SMART survey Jan.2018)
Loima	5	GAM-15.3%, better rainfall performance, high enrolment, water stress in some sites, FCS-89% borderline and acceptable (SMART survey Jan.2018)
Turkana South	6	GAM-16.2%, fair livestock productivity, No major livestock diseases, Cholera outbreak, water stress, high enrolment, Rainfall -50-75%, insecurity, access to labour and markets, existence of irrigation schemes, FCS-75.7% acceptable (SMART survey Jan.2018)
Turkana West	7	Better livestock productivity, GAM-15.3%, Conflicts/Insecurity, Rainfall above average, Water stress, limited access to health facilities, low enrolment, better market accessibility-Kakuma, FCS-75.3% borderline and acceptable (SMART survey Jan.2018)

6.2 Ongoing Interventions

6.2.1 Food Interventions

Table 20: Food Interventions

Sub County	Intervention	No. of beneficiaries	Implementers	Remarks
Loima, Turkana Central, Turkana East, Turkana South, Turkana West and Turkana North	Hunger Safety Net Programme	38,732	National Drought Management Authority	38,732 initial beneficiaries
All sub counties	School feeding programme	116,120 pupils (61,261 boys and 54,859 girls)	WFP	Target 398 schools
Turkana West, North, Loima, Central and South	Food for Assets	91,000 persons	WFP	
Turkana Central and Turkana West	Cash transfer	3000 (1986 Females and 1114 Males)	Oxfam	
All sub counties	Protection Ration	26,600	WFP	
All sub counties	Blanket Supplementary Feeding Program	185,780	WFP	
All sub counties	Outpatient therapeutic feeding programme	16,862	UNICEF	

6.2.2 Non-food Interventions

Table 21: Non Food Interventions

Intervention	Objective	Specific Location	Activity target	Cost	No. of beneficiaries	Implementation Time Frame	Implementation stakeholders
Livestock							

Participatory disease surveillance vaccination and treatment	Prompt disease emergency response to reduce livestock mortalities thus protecting livelihood Assets	All sub counties		60M	6225HH	3 Months	Vet Dept. and partners
Destocking	To avert deaths by off-loading weak and emaciated stock at fee	Turkana Central & East		14.3 M	3873 HH	1 Month	Livestock Production Department
Supplementary Livestock feeds	To supplement livestock feeds through the dry spell.	Turkana East and Central.		10 M	3873 HH	47 Days	Livestock Production Department and Partners.
Agriculture							
Subsidy in land preparation	Improve crop productivity	All seven sub-counties.		6M	6000	Jan-March 2018	TCG line Ministry
Subsidy in seeds and other farm inputs	Improve crop productivity	All seven sub counties		4.1 M	6000	Jan-March 2018	TCG Line Ministry
Health and Nutrition							
Management of Acute Malnutrition (IMAM)	Improve/adjust the nutrient status of the affected community	All the sub-counties		85M	93,496	Jan-Dec 2017	MOH and Implementing Partners.
Blanket Supplementary Program.	To reduce the disease burden	Turkana South and East.		41.9735M	59829	July 2017-Feb 2018	World Vision Kenya in partnership with WFP, TCG, MOH.
Iron Folate Supplementation among Pregnant Women, Zinc Supplement	Prevent diseases	All sub counties		2.2M	246,787	Jan-Dec 2017	MOH and Implementing Partners.

ation and Vitamin A Supplement ation							
CLTS Implementa tion	Increase latrine provision percent utilization hence reduce fecal oral infections	All the sub-counties		42.4M	507,200	Until 2020	TCG/MOH, Unicef, Dol, Crs, Fred, Hollows, Unido, Practical Action, Feed The Children
Water							
Water tracking to communitie s and institutions	Ensure access to water	Nasiger, Napeidukan, Lokoyoo pry and Community, Nasiger Pry, Kalokuto nyang ECDE, Kasegoletom Disp, Nasiger Disp, Nangereny, Kaloboi, Lokatul, Nachuro, Namayan, Kangataruk, Nakitoekirio, Loro, Lomunyenkir ion, Nakwaamunyen. Lokoyoo pry and Community Nakuutan, Nababaran, Kaapus dispensary, and community, Klopiria, Nakweei quarry		10.0M	8000	Ongoing	TCG and development partners
Routine Repair, maintenanc	Improve water availability,	All wards/water r points	All wards	50.0M	Over 500,000	Jan 2017- Feb	TCG and development partners

e and rehabilitation of broken down water points/systems/sources	access and utilizations	with Breakdown issues				2018	
Education							
Enrollment drives.	To increase children numbers in school	All sub-counties		5M	Primary school going children from class 1 to 8	Jan 2017-Feb 2018	MOH, WFP
School meal program.	Retention of children in school and improved nutrition	All sub-counties		300M	Primary school going children from class 1 to 8.	Jan 2017-Feb 2018	MOH, WFP

6.3 Recommended interventions

6.3.1 Food interventions

Table 22: Food recommended interventions

Sub County	Population (KNSB projection 2016)	Pop in need (% range min-Max)
Turkana Central	170,610	20-25
Turkana East	114,606	25-30
Turkana West	262,337	15-20
Turkana South	172,180	20-25
Loima	152,629	20-25
Turkana North/Kibish	211,291	25-30

6.3.2 Non-food interventions

Table 23: Non-food recommended interventions

Intervention	Objective	Specific Location	Activity target	Cost	No. of beneficiaries	Implementation Time Frame	Implementation stakeholders
Livestock							
Participatory Disease surveillance, Vaccination, treatment and	Prompt Disease emergency response hence reduced livestock	All seven sub-counties		70 M	10,000 HH	Feb-April 2018	Vet Dept. and partners

deworming	mortalities thus protecting Assets						
Livestock Production Health and Extension.	Promote good health and production	All seven sub-counties		40M	5, 000 HH	Feb-April 2018	Vet dept. and partners
Destocking	Prevent livestock mortalities	All seven sub-counties		63M	7000 HH	3 Months	Livestock Prod. Dept. and other partners.
Supplementary Livestock Feeds	Promote good health and production	All seven sub-counties		35 M	7000 HH	3 Months	Livestock Prod. Dept. and other partners.
Livestock Insurance	Insure livestock due to drought	All seven sub-counties		100 M	7000 HH	2018-2019	Livestock Prod. Dept. and other partners.
Agriculture							
Fall Army Worm management	Prevent crop loss	All seven sub-counties		50M	10000	Feb-Dec 2018	TCG, Partners
Support Desiltation of canals	Improve water access to irrigation schemes	Turkana East, Loima, South and Central		100M	6000	Feb-march 2018	TCG, Dev. Partners
Inputs subsidy support.	Support farmers in production	All seven sub-counties		100M	10000	Feb-Dec	TCG, Dev. Partners
Turkana Livelihood Drought Response	Climate resilient and sustainable livelihoods for drought affected HH	Turkana South		40M	19200	9 months.	World Vision Kenya.
Health & Nutrition							
SMART survey January 2018	Monitor malnutrition levels	All sub-counties		8.5 M	All children 6-59 months, Pregnant lactating women	By February 15 th 2018	MOH/UNICEF/Implementing partners.

Continuous active case finding and referral	Continuous active case finding and referral.	All sub-counties		24.597 M	All children 6-59 months, Pregnant lactating women	Jan to Dec 2018	MOH/UNICEF/Implementing partners.
Inspection of all foods distributed to the county	Up hold on the food quality standards set in the PH act	Relief food and food sold in the county		2,000,000	All county	Ongoing	TCG(public health)
Conduct routine water sampling	Early detection of contaminants.	All over water sources	2 samples per ward per month	Self-testing	Whole county	Ongoing	SAVE THE CHILDREN
Conduct routine hygiene promotion activities	Maintain high hygienic standards to minimize disease communication	All sub-counties.	30 units	3M	1,000,000	Ongoing	TCG/MOH, UNICEF, DOL, CRS, FRED HOLLOWS, UNIDO, Practical Action, Save the Children.
Water							
Drilling and equipping boreholes.	Increase access to safe, clean and enough water.	Areas with no protected water sources		20M	100,000	Feb – Dec 2018	Department of water/ implementing partners
Upgrading of high yielding boreholes	Reduce congestion at one water point.	Highly populated areas		50M	200,000	Feb – Dec 2018	Department of water/ implementing partners.
Extension of pipelines	Reduce congestion at one water point.	Highly populated areas		20M	100,000	Feb – Dec 2018	Department of water/ implementing partners.
Provide spare materials for different types of water systems	To fast track the response to breakdowns .	All wards		20M	500,000	Feb 2018	Department of water/ implementing partners.

Turkana Wash Integrated Program	To significantly improve child well-being by enabling families and communities to achieve sustainable access to adequate potable water, improved sanitation facilities, and good hygiene practices.	Turkana West		100M	11400	3 years	World Vision Kenya, Department of Water and implementing partners.
Peace and Security							
Peace and conflict resolutions (Peace initiatives)	Improve co-existence among pastoralists. Improve peace	Turkana West, Turkana East, Turkana Central and Loima	12 meetings (communities monthly meetings) Recruitment of more NPR personnel based in the kraals	10M	5000HH	2018	TCG, National Government and other partners
Education							
Food for fees	Increase in enrolment, Retention, Transition Improved performance	All sub counties	30 students	0.3M	45 schools	Jan-Dec 2018	TCG, National Government, MOE and other partners
Provision of water tanks for schools	Improve water access and storage especially for meal preparations	All sub counties	10 per sub county	1.0M	10 per sub county	Jan-Dec 2018	TCG, National Government, MOE and other partners

Water tracking for schools	Improve water access especially for meal preparations	Kerio, Kalokol and Lokori		5.0M	All schools in Kerio, Kalokol and Lokori	Jan-Dec 2018	TCG, National Government, MOE and other partners
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