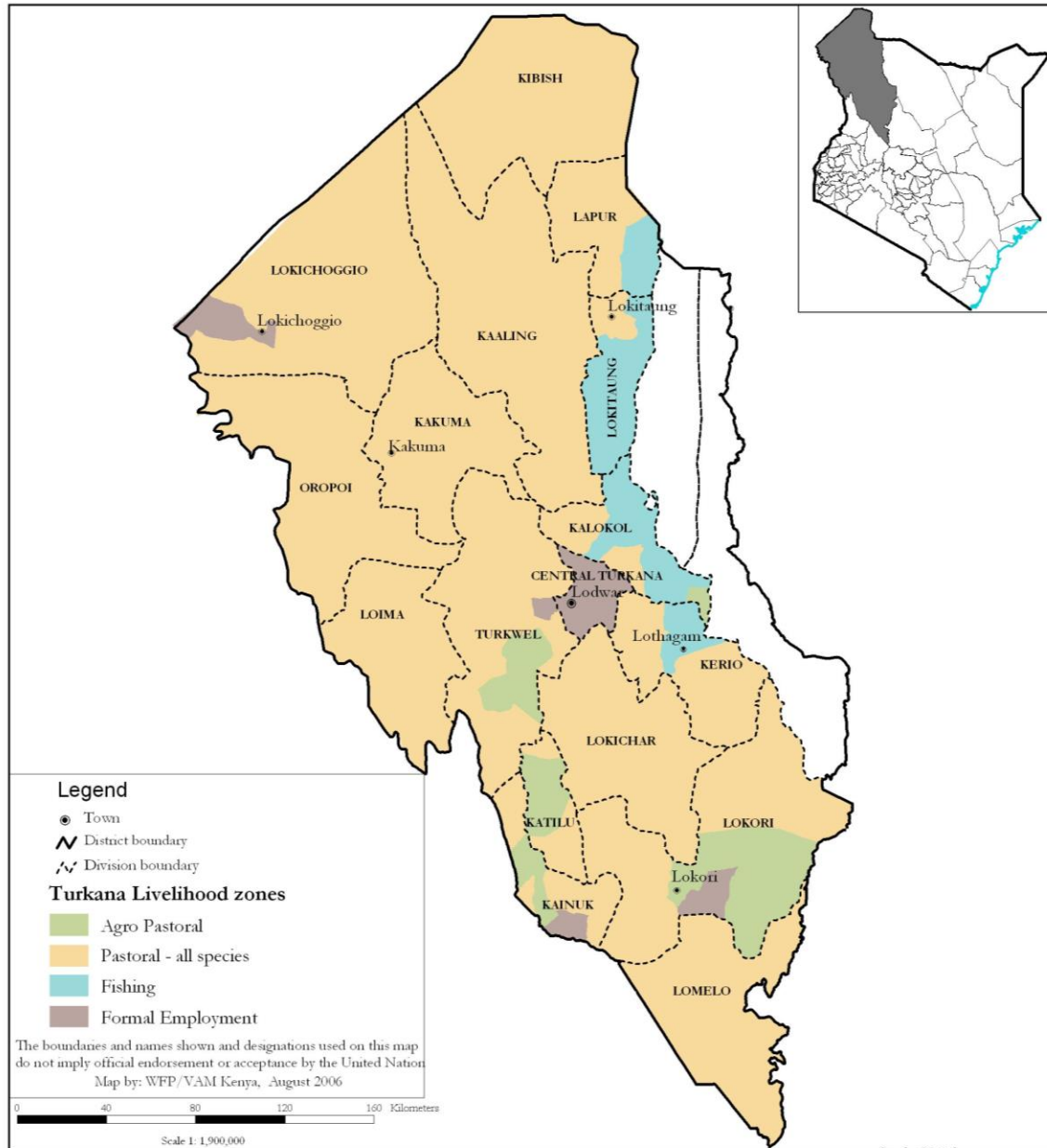


TURKANA COUNTY 2015 SHORT RAINS FOOD SECURITY ASSESSMENT REPORT



A Joint Report By Kenya Food Security Steering Group (KFSSG)¹ & Turkana County Steering Group

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1.0 INTRODUCTION

1.1 County Background

Turkana County is located in the northwestern part of the country. It borders Uganda to the west, Sudan to the northwest, Ethiopia to the northeast, West Pokot to the southwest, Samburu to the southeast and Lake Turkana to the east. It is approximately 77,000 km² in size and consists of six sub-counties namely, Turkana North, Turkana West, Turkana South, Loima, Turkana Central, and Turkana East. It lies between longitude 34° 30' and 36° 40' east and between latitudes 1° 30' and 5° 30' north and has an estimated population of 855,399 as per the 2009 population census². The main physiological features found in the county include low lying open plains, mountain ranges and river drainage patterns.

The county has four livelihood zones; pastoral all-species, agro pastoral, formal employment and fisheries. An approximated 60 percent of the population draw their livelihood from pastoralism activities mainly keeping camel, cattle, goats and sheep. The agro pastoral accounts for 20 percent of the population and is concentrated in the riverine areas of Kerio and Turkwel, while fishing along the shores of Lake Turkana accounts for eight percent and the formal/casual waged labor/business and trade

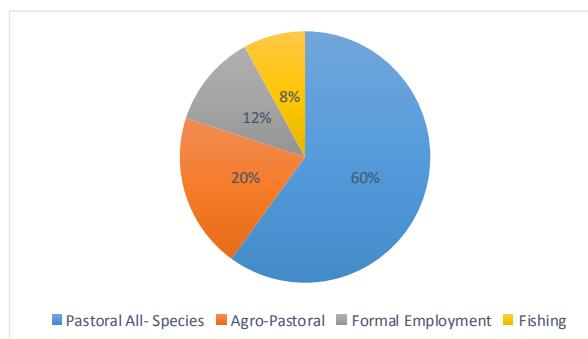


Figure 1 Population Proportion by Livelihood Zone

located in the major towns including Lodwar, Lokori, Kakuma and Lokichogio, account for the remaining 12 percent of the population. Figure 1 shows the population distribution by livelihood zone.

1.2 Current Factors Affecting Food Security

The immediate factor affecting food security situation in the county is erratic performance of the rains. Other factors include spread of livestock diseases and cases of insecurity and conflict over grazing reserves erratic

2.0 COUNTY FOOD SECURITY SITUATION

Turkana County is classified as 'Stressed' according to the Integrated Food Security Phase Classification (IPC Phase 2) for all livelihood zones. Terms of trade (ToT) were at 34 kilograms of maize for a goat which is 21 percent above the long term average (LTA). Nutrition status of children under 5 years has improved with the percentage of children under five years at risk of malnutrition currently at 18 percent compared to the LTA of 20.7 percent. Water consumption was 30 and 15 litres per person per day in the agro pastoral and pastoral livelihood zones respectively was above normal for this time. In terms of food consumption score, 26, 42 and 32 percent of the households had poor, borderline and acceptable diets respectively. In the agro pastoral zones individuals were consuming 2 to 3 meals a day while in the pastoral zones they were consuming 1 to 2 meals a day which was normal. The main foods consumed consisted of cereals, legumes, milk/meat and vegetables. The coping strategy index was 25 in December and

² Kenya National Bureau of Statistics. Population Census 2009

the number of households employing stress, crisis and emergency coping strategies was 32, 3.8 and 51.1 percent respectively.

2.1 Food Security Trends

The current food security classification for the county was ‘Stressed’ (IPC Phase 2) same as it was after the March-May long rains of 2015. Over the last six months, the food security situation in the county gradually improved. Fair performance of the rains led to regeneration and growth of pastures and recharge of water facilities. Since July water consumption has increased from 10 - 25 to 15 - 30 litres per person per day, the proportion of children at risk of malnutrition as measured by Mid Upper Arm Circumference below 135mm reduced by two percent, the price of milk in the pastoral livelihood zone reduced by 50 percent and livestock productivity has improved as evidenced by 53 percent increase in milk availability and milk consumption from 1.2 litres to 2.7 liters per household per day. The coping strategy index was 25 same as December 2014. The percentage population with borderline food consumption score increased by 15 percent while that with poor and acceptable food consumption score reduced by 12 and three percent compared to December 2014 respectively. The terms of trade declined from a value of 36 to 34 indicating household were able to acquire two kilos of maize less from the proceeds of a sale of a goat.

2.2 Rainfall Performance

The onset of rains in the county was late by two dekads (10 day periods) during the third dekad of October and the amount varied between 75-90 percent in Turkana central, 90-125 percent in Turkana south (Loima, Turkwel, Kalokol, Lokori, Lomelo and Katilu) and 140-200 percent of normal to the North and North Western parts of the County. Temporal distribution was poor and spatial distribution was uneven (Figure 2). Cessation was early during the second dekad of December compared to the normal first week of January. According to records from Lodwar meteorological weather station, the county received four, 32 and 12 millimeters of rainfall in October, November and December respectively.

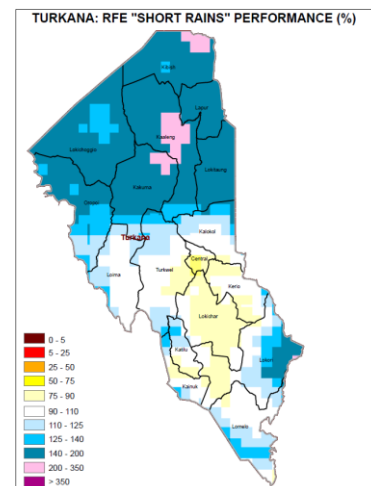


Figure 2 Rainfall Performance

2.3 Current Shocks and Hazards

The current shocks include;

- Livestock pests and diseases
- High food crop prices
- Poor performance of rains in parts of Loima and Turkana Central.

3.0 IMPACT OF RAINFALL PERFORMANCE, SHOCKS AND HAZARDS

3.1 Crop Production

The county is mainly dependent on the long rains for crop production. The short rains are important to support recharge of water facilities for domestic, livestock and Irrigation and regeneration and development of pasture and browse. The three main crops grown in the county

are maize, sorghum and cowpeas and they contribute 60 and 40 percent to food and income respectively.

Rain-fed Crop Production

Table 1 Rain fed Crop Production

Crop	Area planted during the 2015 short rains season (Ha)	Long Term Average area planted during the short rains season (Ha)	2015 short rains season production (90 kg bags) Actual	Long Term Average production during the short rains season (90 kg bags)
1. Maize	435	700	3045	11,900
2. Sorghum	465	825	3265	13,200
3. Cowpeas	46	80	184	560

Total area put under the various crops declined by 41 percent compared to the long term average (LTA). The acreage for maize, sorghum and cowpeas was 62, 56 and 58 percent of LTA respectively (Table 1). Many farmers in the agro pastoral areas delayed land preparation to avert likely losses as result of flooding during the El Nino period and due to lack of adequate planting seeds for the season. The total production realized was 25 percent of the LTA. Decline in production was attributed to destruction of crops by floods during the early stages of growth and moisture stress during ripening stage. Production for maize, sorghum and cowpeas dropped by 74, 75 and 67 percent respectively.

Irrigated Crop Production

Table 2 Irrigated Crop Production

Crop	Area planted during the 2015 short rains season (Ha)	Short Term Average area planted during the short rains (Ha)	2015 short rains production (90 kg bags) Projected	Short Term Average production during short rains season (90 kg bags)
1. Maize	1400	2000	25200	36000
2. Sorghum	875	1100	15750	19800
3. Cowpeas	540	890	2160	3560

Irrigation agriculture in the county is practiced in the agro pastoral livelihood zone and is concentrated along the riverine areas of Kerio and Turkwel where the main crops grown are maize, sorghum and cowpeas. Compared to the LTA, the total area under irrigation declined by 29 percent (Table 2). The drop in area planted is attributed to lack of adequate seeds during the planting season, delay in mechanized land preparation and threat of El Nino flash floods on farms. Relatively, area under maize, sorghum and cowpeas declined by 30, 20 and 39 percent respectively. Consequently, the projected production is expected to be 73 percent of LTA. Other factors contributing to drop in production include; destruction of crops during early stages of

growth by floods, inadequate moisture during milking /maturity phase and low adoption of good agricultural practices (GAP).

Maize Stocks

Table 3 Maize Stocks

Maize stocks held by	Quantities of maize held (90-kg bags)	Long Term Average quantities held (90-kg bags) at similar time of the year
House Holds	15,000	32,000
Traders	9980	18000
Millers	0	0
NCPB	13,159	15,709
Total	76,278	131,418

Total maize stock held at various levels was 58 percent of the LTA; 39 percent was held by households while 26 and 35 percent were held by traders and National Cereals and Produce Board respectively (Table 3). Stocks held at household level were from the short rains harvest, irrigated farming and relief food distribution from county government and various agencies. Traders on the other hand bought less from their normal sources expecting government to flood the area with relief supplies during and after the El Nino period. The available stocks are expected to last one month up to March compared to two normally.

3.2 Livestock Production

Livestock production is the main economic activity in the county and contributes 91, 22 and 18 percent to cash income in pastoral all-species, agro pastoral and fisheries livelihood zones respectively. The main livestock species kept include; camel, goats, sheep and donkeys. Sheep and goats are the most important livestock species at household level as they are easily exchanged for food and cash. Cattle and camel are used largely for milk and meat while donkeys are used as means of transport during migrations.

Pasture and Browse

The condition of pasture ranged from good to fair across all livelihood zones which was below normal for this time of the year and was expected to last 2 months up to April compared to 3 months due to the prevailing high temperatures. Browse condition is good and is projected to last the normal three months up to May apart from sections of Loima and Turkana Central where it is expected to last two months up to April due to poor regeneration that resulted from uneven distribution of rains. Looking forward, both the quality and quantity of pasture and browse is gradually deteriorating due to the prevailing dry spell. The main threat to access to pasture and browse is insecurity along the borders with South Sudan, Uganda and Ethiopia. Crop residues available in the agro-pastoral livelihood areas were being used to supplement the existing forage and are expected to last one month which is normal.

Livestock Productivity

Livestock body condition and birth rate

The livestock body conditions for camel, cattle, and goats were good but fair for sheep and this was attributed to increased availability and access to forage and water. The current situation is expected to prevail over the next two months up to April and is projected to impact positively on food security through sustained milk production, provision of meat and favorable market price of livestock.

Birth rates were normal due to access to pasture and water. The birth rates for cattle, sheep, goats and camels were 16, 18, 11 and nine percent respectively.

Milk availability

Milk was available from camel, cattle and goats and the amount produced per household was below normal at 2.7 liters compared to 3.4 liters normally. Milk production is expected to decline with decrease in quality and quantity of forage during the dry spell. Relatively, communities in pastoral livelihood were able to produce 11 litres per day compared to three litres in agro pastoral livelihood zone. More milk was available in the pastoral all species livelihood due to large herd sizes and the prevailing good body conditions. In the urban centers processed milk was readily available from the shops

Milk consumption

The average milk consumption per household across the county was 2.7 litres per day. Milk consumption was eight and two litres per household per day in pastoral and agro pastoral livelihood zones respectively. Household average milk price was Ksh 40 per litre. High prices were recorded in agro pastoral livelihood zone of Ksh 60 compared to Ksh 35 in pastoral livelihood zone. In urban centers a litre of processed milk sold at Ksh 140.

Tropical livestock units (TLUs)

The average livestock TLUs per household was 62, 25 and 17 for pastoral, fishing and agro pastoral livelihood zones. There has been progressive growth in herd sizes in the county following three consecutive well performing rainfall seasons.

Water for Livestock

Water for livestock was available in the normal sources of Lake Turkana, water pans, hand dug wells, boreholes, shallow wells, River Turkwel and Kerio. The average trekking return distance from grazing areas to the watering points was two and six kilometers respectively compared to the normal five and 10 kilometers in the agro pastoral and pastoral all species livelihood zones respectively. The current reduction in distances is attributed to availability of water at various sources and as result livestock were watered daily and available water sources are expected to last for 3 months up to May.

Migration

Livestock migrations were normal towards the dry season grazing zones along Ethiopia, Uganda and Southern Sudan borders. The main concentration points were Mogila, Songot, Oropoi, Lapur, Lokwanamor, Kibish, Todonyang and Loriu. The current migration routes include; Nalapatui-Oropoi-Loteleteleit, Kibish-Naita,Lomil-Kapus, Lokapel-Kotaruk, Lokori-Nadome

Lorengippi-Kotaruk, Lokitaung-Morueris, Kerio-Loriu hills and Kalapata - Lochakula-Kalemngorok - Kaptir. Current livestock movement is due to the search for pasture and water and the proportion of cattle, sheep, goats and camel reported to have migrated was normal at 75, 30, 30 and 15 percent respectively. Movement and concentration of livestock in certain areas is likely to cause environmental degradation and make livestock products like milk inaccessible at the household level.

Livestock Diseases and Mortalities

Livestock diseases reported in the county included; tick borne diseases (heart water and anaplasmosis), Mange, Worms, Contagious Caprine Pleuro Pneumonia (CCPP), Contagious Bovine Pleuro Pneumonia (CBPP) and Trypanomiasis.

Livestock mortalities varied across species and livelihood zones and were mainly attributed to diseases and natural causes. Pastoral areas reported mortalities ranging 10 to 20 percent of the young stock while the agro pastoral livelihood zone reported 10 percent mortalities of kids, lambs and calves.

3.3 Water and Sanitation

The major sources of water for both domestic and livestock use within the county were boreholes, earth pans and shallow wells and were positively impacted by the rains. Surface water facilities like pans and dams were adequately recharged and the yield of ground water facilities improved significantly. Owing to insecurity and poor water quality, areas in Kibish, Loruth, and Lapur ranges, Lokwanamoru, Lorengiki, Lobei, Lopur, Letea, Orupoi, Kalapata, Lokichar, Kapendo, Kalitia, Kerio and Nakurio have low water point concentration. The available water in boreholes is expected to last up to the next long rains while that in pans and dams will last 2-3 months up to April/May.

Distance to water sources

The current return distances to domestic water points are two, four and seven kilometers compared to five, six and 10 normally in agro pastoral, pastoral all species and fisheries livelihood zone respectively. In turn the waiting time at source has reduced by 50 percent from an average of 19 minutes normally to 10 minutes currently and communities are able to utilize the spare time in other productive activities.

Cost of water

The current cost of water (20 litre jerrycan) is the normal Ksh 5 but in community schemes the charges and mode of payment varied. Households paid monthly subscriptions ranging from Ksh 200-300. No fee was levied on water from pans and dams.

Water Consumption

The average water consumption per person per day was 32 litres compared to the LTA of 19 litres. In the agro pastoral, pastoral and fisheries livelihood zones communities were consuming more water at 30, 20 and 15 litres per person per day compared to the LTA of 20, 10 and 7.5 litres per person per day. Less consumption in fisheries livelihood zone is attributed to low concentration of water facilities due to poor water quality along the lake zone.

Sanitation

The main sources of water contamination included; open defecation, crude solid and liquid waste disposal methods, livestock and birds droppings, direct bathing and washing at open water sources like pans and dams occasionally leading to upsurge of water borne diseases. To address the adverse effects the county in collaboration with other actors has invested in construction of community toilets at village level, supply of household water filters and water treatment tablets and creation of awareness through training of community management committees.

Hygiene

Latrine coverage in the county was still very low at 27 percent, which depicts poor human waste disposal that contributes to the high prevalence of water borne diseases across all livelihood zones especially during the rainy season. According to a June 2015 SMART survey report by Ministry of Health, 86.8 percent of people practice hand washing. Majority (82.2 percent) of them wash their hands before eating while 44.5 percent wash hands after visiting toilet/latrine, 42.5 percent wash hands before cooking and 24.7 percent wash hands after taking children to the toilet/latrine. Majority (48.3 percent) of the population use water only for hand washing, 28.6 percent use water and soap and 22.7 percent use soap when they can afford it.

Water treatment chemicals were available in the main urban centers in shops, pharmacies and hospitals while elsewhere, communities relied on supply from government and non-governmental agencies undertaking water and sanitation programmes. Following aggressive campaigns by various actors acceptance of use of water treatment measurements in on the rise though community interviews indicated water from boreholes was safe and is taken raw. The main treatment methods in use included; boiling, chlorination, use of aqua tabs, purr, coagulants and sand filters (bio sand).

3.4 Markets and Trade

Market operations

Generally, the markets operated without disruptions in all livelihoods. There was free flow of commodities into and out of the county. In the agro pastoral livelihood zone; maize, green grams and cowpeas were available from the irrigation schemes in Kaptir, Kainuk, Lokichar, Katilu, Lokori and Kakuma trading centers while the other livelihood zones the main source of supply of cereals was from the neighboring, Uasin Gishu and West Pokot Counties and the Republic of Uganda to the west. The main markets in the county include; Kainuk, Kalimongorok, Lokichar, Kakuma, Lodwar, Lokichogio, Turkwel, Lokori, Loru gumu and Namoruputh.

Market Prices

Maize price

The average price of a kilo of maize was Ksh 81 and varied across livelihood zones with sections of pastoral and fisheries livelihood zones reporting prices of Ksh 90 per kilogram compared to Ksh 71 in the agro pastoral livelihood zone (Figure3). The current price is 17 percent above the long term average and within the

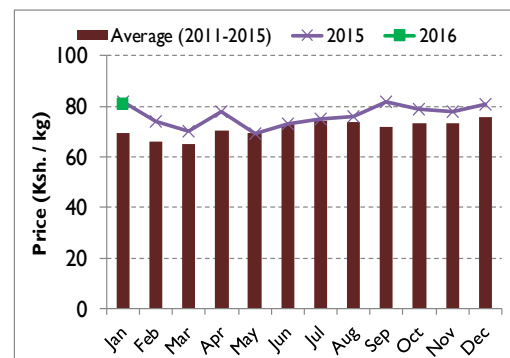


Figure 3 Comparative Price of Maize

previous year's range. Price variation across livelihood zones was mainly driven by cost of transport and availability of stocks from own production in the agro pastoral livelihood zone and is expected to decrease in the next two months.

Goat price

The average price of goats was Ksh 2,776 in January up from Ksh 2,582 in December 2015. The current price is 40 percent higher than the long term average and above the same period in year 2015 (Figure 4). The rise in price is attributed to the prevailing good body condition of goats and improved availability and access to browse and water during the lean season. Fisheries livelihood zone recorded the highest price of Ksh. 3,136 while the lowest was recorded in agro pastoral livelihood zone of Ksh 2,326. The prices are projected to increase with reduction in supply of the commodity to the markets.

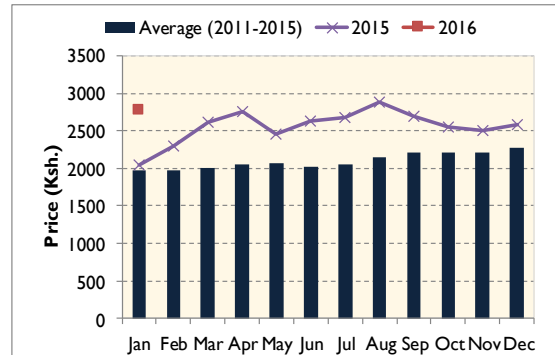


Figure 4 Comparative Price of Goats

Terms of trade

The terms of trade improved in the month of January to a value of 34. Compared to the long term average the current terms are better for livestock keepers by 21 percent and above year 2015 (Figure5). Communities were able to purchase 34 kilos of maize from proceeds from sale of a goat. The terms of trade were favorable to communities in pastoral all-species and fisheries livelihood zone. The terms of trade are projected to improve due to increase in the price of goats.

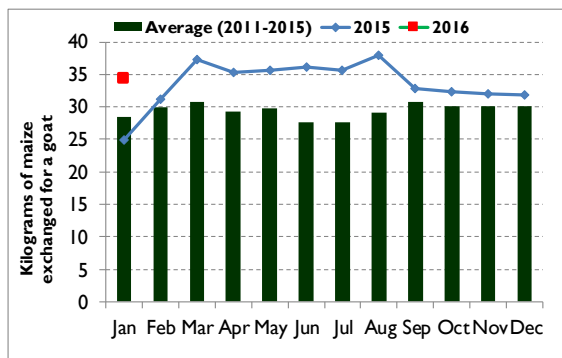


Figure 5 Terms of Trade

3.5 Health and Nutrition

Morbidity and mortality patterns

The top five common diseases for under-fives and the general population across all livelihood zones were: respiratory tract infections (RTI), malaria, and diarrhea, diseases of the skin and urinary tract infections (UTI). Diarrhea and UTI increased by 49 and 43 percent respectively for the children under five years in the period between July and December 2015 as compared to the same period in 2014. The increase in diarrhea cases was attributed to poor sanitation and hygiene especially during the short rain season. For the general population, cases of pneumonia, diseases of the skin and other diseases of respiratory system increased by 34, 27 and 11 percent respectively. Malaria cases decreased by 23 percent for children under five and general

population. This significant decrease in malaria cases could be attributed to the increased community sensitization on malaria prevention and the distribution of treated mosquito nets by the county government. Ten cases of measles were reported from July to December 2015 compared to 3 cases in the same period in 2014. The crude mortality rate (CMR) and under-five mortality rates (U5MR) are within the seasonal norm.

Immunization and Vitamin A supplementation

Fully immunized child (FIC) coverage was 107 percent in 2015 which is above the national target of 80 percent. The high coverage is attributed to various immunization campaigns including polio and measles campaign carried out by the ministry of health in 2015. Oral Polio Vaccination (OPV) coverage for OPV1 and OPV3 is 95.7 and 86.9 percent respectively which is above the national target of 80 percent. Measles vaccination at nine and 18 months is 84.8 percent and 8.8 percent respectively indicating a low uptake of measles at 18 months. Vitamin A supplementation for children aged 6 to 59 months is 69.5 percent which is below the national target of 80 percent. The low Vitamin A supplementation is attributed to non-attendance of child welfare clinic after the measles vaccine at 9 months, poor data management on vitamin A logistics, inadequate social mobilization to improve vitamin uptake and placement of vitamin A at lower level of priority in the health facilities.

Nutrition 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, remained stable at 18 percent and below the LTA November 2015 to January 2016 as illustrated in figure 6 . This could be attributed to increased access to health care as well as improved household food consumption.

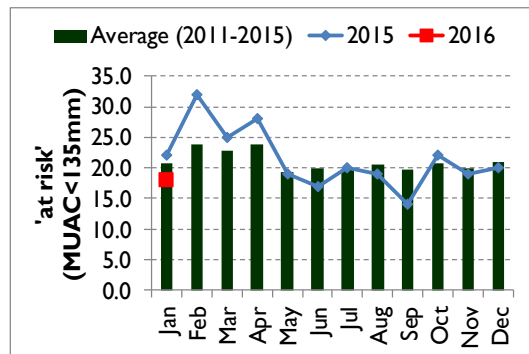


Figure 6 Proportion at risk of malnutrition

Admission data from July to December, 2015 shows a downward trend in admissions for both severe acute malnutrition (SAM) and moderate acute

malnutrition (MAM) admissions (Figure 7). The decline in the number of admissions is attributed to the high impact nutrition interventions (HINI) in the county and improved household food security situation. Nonetheless, reduced outreach sites has also contributed to the decline in SFP and OTP admissions.

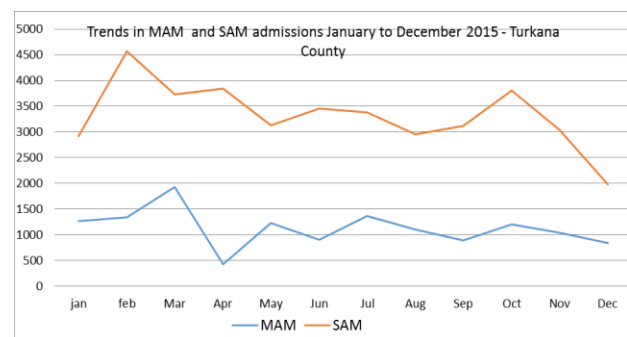


Figure 7 Admission trends in Turkana County

The proportion of people with poor food consumption score (FCS) has decreased from 38 percent in December 2014 to 26 percent in

December 2015, while those in borderline increased from 31 percent to 42 percent in the same period which is indicative of improve household dietary diversity and food frequency as significant proportion of households has moved from poor to borderline. Households with

acceptable FCS has remained stable at 32 percent. Many households across all livelihood zones continued to rely on cereals, legumes and milk as the main foods.

3.6 Education

Enrolment

The total primary school enrolment for first term 2016 is 173,121 pupils, of which 45 percent are girls and 55 percent boys reflecting an increase in enrolment by 8 and 6 percent for boys and girls respectively as compared to the same period in 2015. Enrolment drives carried out by GOK/WFP/UNICEF in December 2015 and establishment of more primary schools in the county has significantly contributed to the increase in enrolment. The enrolment for girls is low compared to boys at both the ECD and primary school level. Girls' enrolment at the ECD is at 47 percent while for primary school it has remained stable at 45 percent since 2014.

Transition and Dropout Rates

The transition rates from early childhood development and education (ECDE) to primary school has reduced from 86 percent in 2015 to 78 percent in 2016 for both boys and girls. Transition from primary to secondary schools is at 56.7 percent for boys and 46.8 percent for girls. Low transition from primary to secondary may be attributed to early marriages for girls while those admitted to county secondary schools are unable to pay school fees. The dropout rates were higher for girls at three percent as compared to one percent for boys. This is attributed to pregnancy, early marriage, and long distance from home to school, nomadic way of life, lack of sanitary towels for girls, pregnancy, peer pressure, disease, drug and substance abuse and corporal punishment.

School Meals Programme

Currently all the 387 primary schools in the county are under Regular School Meals Programme (SMP) targeting 173,121 beneficiaries. The SMP has contributed to increased enrollment and improved retention of pupils in schools. However, food preparation in school is hampered by lack of water in schools, lack of firewood, delay of food delivery to sub county stores then schools, migration of families in search of pasture and water and insecurity. During rainy days, schools with no kitchen miss meals as no cooking takes place. Mass de-worming was last done in June, 2008.

Table 4 School Meals Programme

Name of Sub counties	No. of schools	RSMP	
		Boys	Girls
Turkana Central	77	18,604	17,344
Turkana North	54	15,116	12,318
Loima	63	11,213	9,831
Turkana West	64	15,880	11,943
Turkana South	92	25,774	17,865
Turkana East	37	9,334	7,899
Total	387	95,921	77,200

3.7 Coping Mechanisms

The mean coping strategy score remained stable at 25 in December 2015 compared to the same period in 2014. Most common consumption related coping strategies employed by households were; reduction in portion size and number of meals eaten per day and reduction in the quantity of food consumed by adults to ensure that children had enough to eat. The number of households using stress and emergency coping strategies has increased from 26.7 and 48.4 percent in December 2014 to 32.3 and 51.1 percent respectively in December 2015. Common livelihood diversification strategies reported by households included collection and sale of firewood in the pastoral livelihood zones and weaving of baskets, beads and mats in the pastoral, agro pastoral and fisheries livelihood zone.

3.8 Ongoing Interventions by Sector

Food Interventions

- Therapeutic Integrated Management of Acute Malnutrition for the Under-fives, Pregnant and Lactating Mothers (Supplementary Feeding Program (SFP), Out Patient Therapeutic Program (OTP) & Stabilization Centres) by MOH supported by World Food Programme (WFP), IRC, UNICEF, WVK, Oxfam GB, SC and Kenya Red Cross Society.
- Supply of Micro Nutrients Powder for children 6-23 months of age who are not in the SFP and OTP by different actors in the county.
- Food for Assets (FFA) program by NDMA and County Government ministries, Child Fund Kenya and WVK, supported by WFP.
- Provision of school meals programmes.

Non- Food Interventions

Intervention	Objective	Specific Location	Activity target	Cost (Million Ksh)	No. of beneficiaries	Implementation Time Frame	Implementation stakeholders
LIVESTOCK SECTOR							
Livestock extension	Improved food security	All sub counties			406	Dec 2015	MoPEF
WATER SECTOR							
Drilling of 90 No Boreholes	Will improve availability of water hence enhance food security.	3boreholes/ward	All Wards	225	45,000	2014-2015	Turkana County Government OXFAM Tullow Oil
Construction of 30 No. water pans	Will improve availability of water hence enhance food security.	One water pan/ward	All wards	270	60,000	2014-2015	Turkana County Government
Rehabilitation of water sources	Will improve availability of water hence enhance food security.	Major water supplies in the Sub -Counties	All Wards	60	50,000	2014-2015	Turkana County Government OXFAM
Up grading	Will improve	High yielding	All Wards	10	10,000	2014-2015	Turkana County

Intervention	Objective	Specific Location	Activity target	Cost (Million Ksh)	No. of beneficiaries	Implementation Time Frame	Implementation stakeholders
of water schemes with solar pumps	availability of water hence enhance food security.	boreholes in the Sub-counties					Government
AGRICULTURE SECTOR							
Irrigation scheme rehabilitation.	Improved food security	Kaptir,Katilu, Kainuk,Katilia , Loima, Kerio	Irrigation Schemes	170M	10000 HHs	1 year	County government, KVDA/
Farm input supply	Improved food security	All Sub Counties	Rain fed & Irrigation	15M	6,000 farmers	2 yrs	County government,GIZ
Farm mechanization	Improved food security	All Sub Counties	Rain fed & irrigation areas	16M	14000	2015/2016	County Gov't
Capacity building on GAP	Improved food security	All Sub Counties	Rain fed & irrigation areas	10M	6,000 farmers	2015/16	County government
Drought Resilience Crops	Increased vegetable production	Wapet	Rain fed & irrigation areas	1.5M	21000	2016	MWIA
HEALTH SECTOR							
BCC PROGRAM		Turkana West, Central and East		Ksh. 143M	1000 HHs (6000 beneficiaries)	Aug 2012 - Aug 2017	GAIN-REGAL-IR
High Impact Nutrition Interventions		Turkana County	Improving nutrition status of children and women			Jan-Dec 2016	MOPH/IPs
Food and Nutrition security interventions FFA		Turkana county	improving nutrition outcomes and Enhancing Resilience at the household level	42.6		Jun 2015 - Dec 2016	GIZ WFP FAO
Kalobeyi Integrated Socio-Economic Development Program		Turkana West/Loima	Strengthening linkages between refugee and host communities in Kakuma to improve incomes, food security and nutrition.	29	1,240 host community households (7,640 people) and 7,000 refugee households (35,000 people) and 20 Organizations	Jun 2015 - Dec 2016	FAO
Co-Polio Program			IRC	Educati on	212,000 (under 5 years)	March 2015- March 2016	
EDUCATION SECTOR							
School		All	Increase in		173,121		MOE

Intervention	Objective	Specific Location	Activity target	Cost (Million Ksh)	No. of beneficiaries	Implementation Time Frame	Implementation stakeholders
meals programme			enrolment, retention, transition And improved performance				WFP
WASH (water) Provision of water tanks		24 schools in Turkana county	- Reduction in dropout - Improved hygiene & sanitation - Provision of sufficient clean water Reduce walking distance		9600		GOK WFP
Modern Kitchen to be equipped with improved jiko		Nakoret,	- Save on fuel consumption Promote hygiene in food handling and preparation		300		

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

3.9 Sub-County Ranking

Sub County food security ranking (worst to best)

Sub County	Food security rank (1-10)	Main food security threat (if any)	Remarks
Loima	1	Inadequate pasture and browse, high food commodity prices, Poor performance of crops	
Turkana North	2	Depletion in pastures, High food prices	
Turkana Central	3	Inadequate pasture and browse, high food commodity prices	Excluding Lodwar town
Turkana East	4	Availability of food crop from irrigated farms, Availability of pastures and browse Prevailing peace situation	
Turkana West	5	Availability of food crop from irrigated farms, Availability of pastures and browse Prevailing peace	
Turkana South	6	Availability of food crop from irrigated farms, Availability of pastures and browse Access to water	

4.0 FOOD SECURITY PROGNOSIS

4.1 Prognosis Assumptions

- The long rains will be normal to above normal
- Maize price will decline with increased production from the irrigated crop areas and supplies from neighboring counties
- Water for both domestic and livestock use will be available
- Pasture and browse will deteriorate both in quality and quantity
- Peaceful coexistence within and among the neighboring communities
- Crop harvest from irrigated agriculture will supplement available stocks in agro pastoral livelihood zone

4.2 Food Security Outcomes (February - April)

The food security situation across all livelihood zones is expected to remain stable except for sections in pastoral livelihood zone where vegetation condition is fair (Loima and Turkana Central). Pasture and browse condition will decline and but the available quantity will last up to the onset of rains in March and sustain good livestock body condition and production. Livestock prices are expected to increase and terms of trade are expected to remain favorable to communities in pastoral livelihood zone. The proportion of population with poor food consumption score is expected to decline while those with borderline and acceptable food consumption will increase. Nutrition status of children under five is expected to remain stable. The households are expected to employ insurance coping strategies indicating a relatively stable situation.

4.3 Food Security Outcomes (May - July)

Significant positive changes in the food security status are expected from the month of May. Pasture and browse will have been regenerated providing ready feed for livestock and consequently, the livestock body conditions will improve resulting in increased milk production for home consumption and sale. Livestock market prices are expected to improve thus leading to an improvement in the terms of trade and thus improve access to food. Water availability and access is expected to improve across the livelihoods following the normal long rains. Increased milk production is expected to improve the nutrition status of the under-fives.

5.0 CONCLUSION AND RECOMMENDATIONS

5.1 Conclusion

Turkana is currently classified under 'Stressed' (IPC Phase 2) in both the pastoral and agro pastoral livelihood zones and expected to remain stable over the next six months. Factors to monitor include; Price of food commodities, Access to forage and water, Food consumption patterns, and Child nutrition status and insecurity.

5.2 Summary of Recommendations

- Livestock mass vaccination and deworming
- Range reseeding
- Support to bee keeping
- Repair and rehabilitation of non-functional boreholes

- Provision of fuel subsidies to motorized water facilities
- Provide subsidized agricultural mechanical services to farmers in agro pastoral livelihood zone
- Provision of certified seeds to farmers
- Continue peace campaigns to promote cohesion.
- Scale up High Impact Nutrition Interventions at all service delivery points
- Scaling up immunization through “reach every child” initiative

6.0 Annexes

6.1 Annex 1. Food Intervention Required

Proposed population in need of food assistance

Sub County	Population	Pop in need (% range min – max	Proposed mode of intervention	Remarks
Loima	25-30	25-30	FFA/GFD	
Turkana North	25-30	25-30	FFA/GFD	
Turkana Central	25-30	25-30	FFA/GFD	Exclude Lodwar Town
Turkana East	20-25	20-25	FFA/GFD	
Turkana West	20-25	20-25	FFA/GFD	
Turkana South	20-25	20-25	FFA/GFD	Exclude Lokichar Town

6.2 Annex II. Non-food Interventions

Sub County/ Ward name	Intervention	Location	No. of beneficiaries	Proposed Implementers	Required Resources (Million Ksh)	Available Resources	Time Frame
LIVESTOCK SECTOR							
All Su Counties	Vaccination, Mass deworming & treatment	All Sub Counties	22,500	MoPEF	10.8	3	Mar-April 2016
Turkana South and Turkana Central	Range reseeding	Turkana South & Turkana Central	4,200				
Turkana East and Turkana South	Beekeeping		200 500	MoPEF			
WATER SECTOR							
All Sub-Counties	Repairs and rehabilitation of non-functional water points in areas of high concentration of livestock	various	300,000	Turkana County Government -Oxfam,	9	4	2015/2016

Sub County/ Ward name	Intervention	Location	No. of beneficiaries	Proposed Implementers	Required Resources (Million Ksh)	Available Resources	Time Frame
All Sub-Counties	Fuel subsidies to all motorized engines across the county 33 water supplies	All sub counties	240,000	Turkana County Government NDMA	4.64	2.3	2016
All Sub Counties	Water trucking in hardest hit areas across the county to a population of 294,000		120,000	Turkana County Government NDMA	6	3.5	2016
All Sub-Counties	Ensure adequate fuel supply for water tracking and maintenance of water tracks	Water stressed areas		Turkana County Government NDMA	3	1.8	2016
All Sub-Counties	Flushing and disinfection of boreholes	1B/H PER WARD	25,000	Turkana County Government	3	NIL	2016
AGRICULTURE SECTOR							
All	Subsidized mechanized land preparation for the farmers	Entire Sub-County	14000	Department of Agriculture	3.5	Tractor& Personnel	2016
All	Purchase of certified seed (maize,sorghum,co wpeas)	Entire Sub-County	14000	Department of Agriculture	30	Personnel	2016
All	Water-harvesting	Turkana South, Loima, West & North	6000	TRP and World Vision, Dept of Agriculture	126	Personnel	2015/16 & 2016/17
Loima, West & North	Drilling of boreholes for irrigation purpose	Loima, West & North	6000	Water Department	35	personnel	2015/16 & 2016/17
All	Capacity building	Entire Sub-County	14000	Department of Agriculture	10	Personnel	2016
All	Purchase of farm tools for the farmers (Jembes,pangas)	Farming sites in the Sub-County	14000	Department of Agriculture	5	Personnel	2016
HEALTH SECTOR							
All	Scale up High Impact Nutrition Interventions at all service delivery points	All Locations	855,399	County Government WFP, UNICEF, NGOs	170		Jan to Dec 2016
All	Scaling up	All Locations	159,037	County			Jan to Dec

Sub County/ Ward name	Intervention	Location	No. of beneficiaries	Proposed Implemente rs	Required Resources (Million Ksh)	Available Resources	Time Frame
	immunization through “reach every child” initiative			Government			2016
All	Improve referral system	All Locations	855,399	County government			Jan to Dec 2016
EDUCATION SECTOR							
All	Latrine facilities	120 schools in the County	1000	MOE, County Government, UNICEF	60	Land Personnel	6 months
All	Construction of Kitchen and Provision of Energy saving Jikos	5 schools in every sub-county	5 schools in every sub-county	WFP, County Government, UNICEF	3.75	Land Personnel	6 months
All	Kitchen gardens and Orchards	5 schools in each sub-county	Number of learners in those institutions	WFP, County Government, UNICEF (TRP)	0.5	Land Personnel	6 months