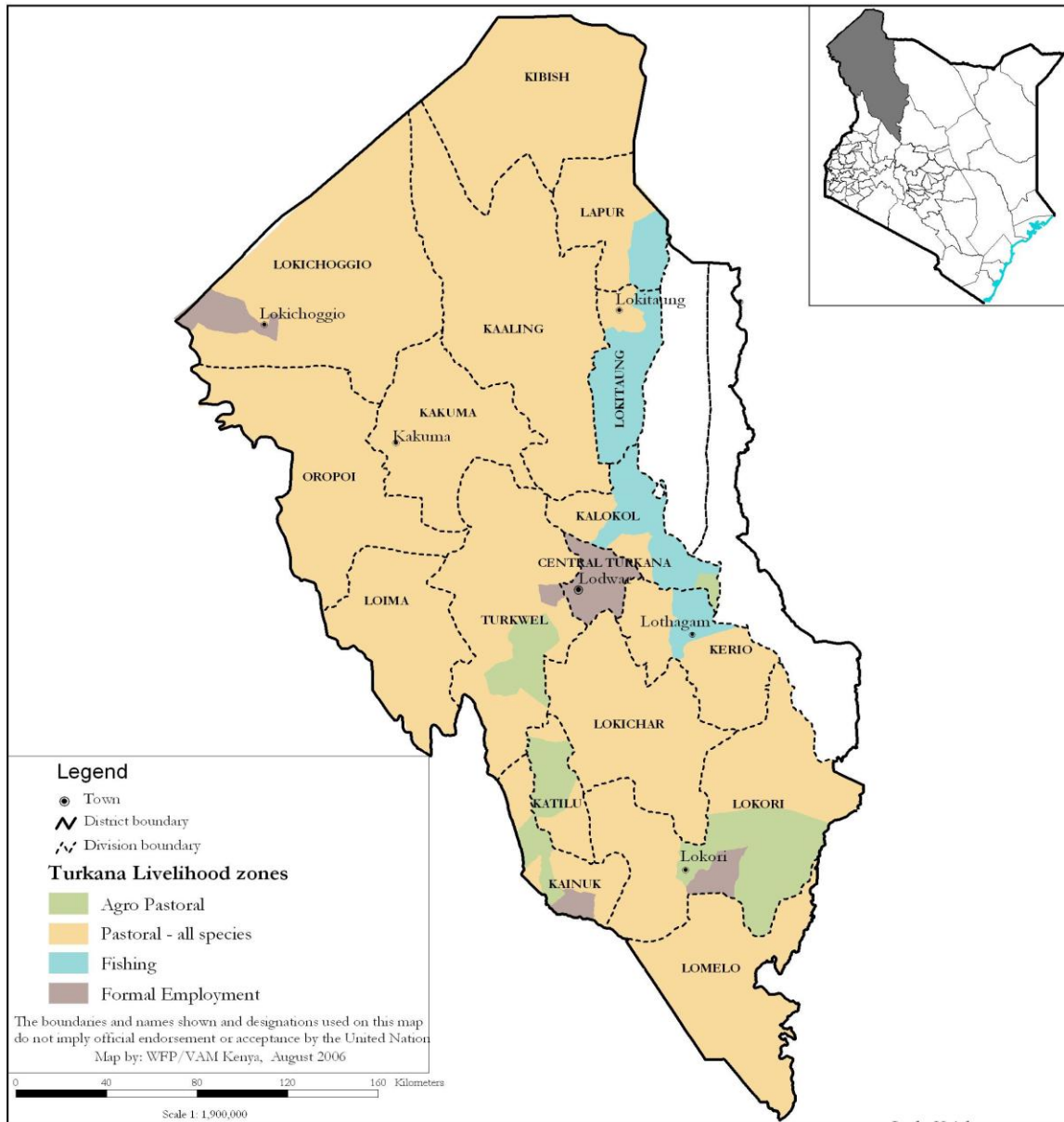


TURKANA COUNTY
2013/14 SHORT RAINS FOOD SECURITY ASSESSMENT REPORT
3RD TO 13TH FEBRUARY 2014



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1.0 INTRODUCTION

1.1 County Background

Turkana County is located in the northwestern region of the country within Rift Valley region. It is approximately 77,000 km² in size and borders Uganda to the west, Sudan to the northwest and Ethiopia to the northeast. The county also borders West Pokot to the southwest, Samburu to the southeast and Lake Turkana to the East. Turkana county has an estimated population of 855,399 (Kenya National Bureau of Research (KNBS) 2009). It consists of seven sub-counties namely, Turkana North, Kibish, Turkana West, Turkana South, Loima, Turkana Central, and Turkana East.

The main livelihood in the county is pastoral, which accounts for 60 percent of the population. Other livelihood zones include; agro pastoral mainly in the Riverine areas of Turkwel and Kerio, accounting for 20 percent of the population, fishing along the shores of Lake Turkana accounting for 12 percent and the formal/casual waged labor/business and trade located in the major towns including Lodwar, Lokichar, Kakuma and Lokichogio, accounting for the remaining eight percent of the population.

1.2 Current Factors Affecting Food Security

The main factor affecting food security in the county is erratic and poorly distributed short rains. Other factors affecting food security include; water scarcity in most parts of the county, reduced livestock holding at household level, significantly high prices of basic food commodities, declining livestock prices and insecurity due to conflict and livestock rustling.

2.0 COUNTY FOOD SECURITY SITUATION

2.1 Current Food Security Situation

Generally, the food security situation in all livelihood zones of the county is classified as 'stressed' [Integrated Phase Classification (IPC) Phase 2] following depressed short rains.

The livestock body condition is fair for all livestock species but deteriorating due to declining rangeland conditions. Notably, current terms of trade are favorable for pastoral livelihood with the sale of a goat currently exchanging for 31 Kilogrammes of maize compared to 26 Kilogrammes over a five-year average. Terms of trade are also more favorable in the pastoral livelihood zone in comparison to the agro pastoral livelihood zone where sale of a goat exchanges for 25 Kilogrammes of maize. Sale of livestock is minimal as only one percent of households sold livestock in the month of January 2014. In the agro pastoral livelihood zone, majority of households are consuming one - two meals a day compared to three meals normally while in pastoral livelihoods households are consuming 1 meal compared to two normally. Distances to water sources for most households have remained fairly constant compared to normal while trekking distances for livestock have increased to 10 – 15 km compared a normal of 5 – 10 km. Water consumption 5 – 10 litres/person/day which is normal. The proportion of children at risk of malnutrition is on a gradual increase and currently at 21.4 percent compared to the five year average of 19.8 percent. Crude Mortality Rate (CMR) and Under-five Mortality Rates are below emergency thresholds of 0.5 and 1/10,000/day respectively. The Coping

Strategy Index (CSI) indicates a stable situation with a mean of 2.1 on a scale of 0 – 10 and employment of insurance coping strategies.

2.2 Food Security Trends

Most parts of the county experienced three consecutive fairly good seasons prior to the October-December season of 2013. The food security situation for majority of households in both pastoral and agro pastoral improved but remained under ‘stressed’ food security classification phase during the 2013 long rains season. Owing to the poor temporal and spatial distribution of the October-December 2013 short rains, the food security situation has been declining slowly across all livelihoods.

In line with deteriorating rangeland conditions and increase in livestock trekking distances to water sources, livestock productivity has declined with milk availability decreasing significantly across all livelihood zones to an average of 0.5litres/cow/day as most of the lactating herds have dried although this is comparable to six months ago. In the agro pastoral livelihood zones, household food stocks are depleted in all other livelihood zones. Consumption of water has remained fairly constant over the past six months and is at 5 litres per person in pastoral livelihoods and 10 litres per person per day in agro pastoral zones. Terms of trade are comparable to the 2013 long rains season with a goat exchanging for 31 Kilogrammes of maize. The nutritional status of children is worsening as evidenced by the proportion of children at risk of malnutrition which stand at 21 percent compared to 14 percent six month ago.

Overall, the food security situation is currently classified under ‘stressed’ (IPC Phase 2) across all the livelihood zones in Turkana County but with a notable deterioration compared to the long rains season of 2013. The rate of deterioration is higher in the pastoral zones compared to agro pastoral zone as most of the rangeland conditions have deteriorated.

2.3 Rainfall Performance

The short rains onset was timely in the pastoral and agro pastoral livelihood zones of Lokichogio, Lomelo and Kainuk (first dekad of October) and in all the other areas the onset was late by two weeks (first dekad of November). As depicted on Figure 1, rainfall amounts varied across the livelihoods with a poor distribution both in time and space apart from the agro pastoral livelihood zone of Kainuk and pastoral livelihood zone of Lokichogio where temporal distribution was even. The western pastoral, agro pastoral belt received 120 – 200 percent of normal and the southwestern pastoral livelihood zone of Lokichogio received above 200 percent of normal. In pastoral and agro pastoral livelihood zones of Turkwel, Kakuma, Central, Lokichar, Lokori and Kibish and the fisherfolk of Kalokol, rainfall amounts were 50 - 80 percent of normal. The lowest amounts were received in the pastoral livelihood zones of Kaaleng and Lokitaung with rainfall estimates being 25 – 50 percent of normal. Generally cessation of the short rains across

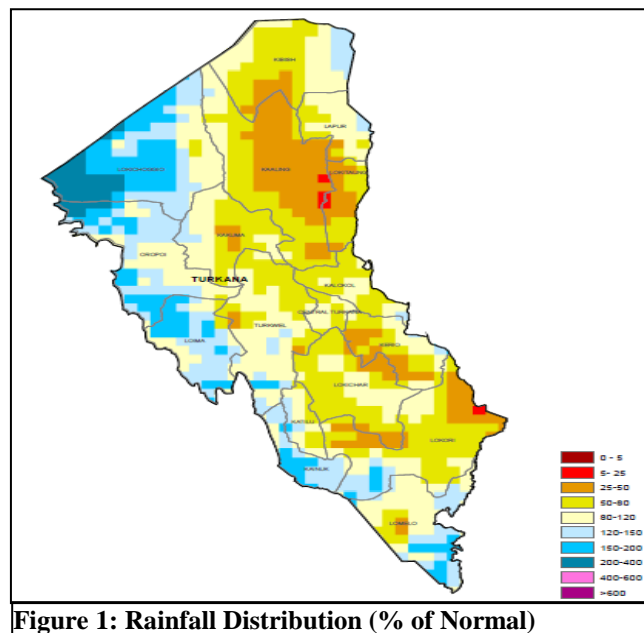


Figure 1: Rainfall Distribution (% of Normal)

the county was early; in the first and second week of November compared to first week of December normally.

2.4 Current Shocks and Hazards

Insecurity and livestock rustling continue to destabilize the region with rampant incidences of livestock raids. The insecurity has impacted negatively on household food security as livestock keepers cannot graze their livestock freely for fear of attack. Tension is building within the Turkana community in the North, particularly in Kibish and Todonyang areas where constant raids take place, as most livestock have converged in the area. On the Western side, suspected raids have been reported in Lokichogio division with 20 heads of cattle and 12 donkeys reportedly stolen in December 2013. In addition, Loima division has experienced frequent raids with unknown number of livestock lost and three lives lost. On the southern part of the county bordering East and West Pokot, raids have continued with loss of lives and an estimated 18,000 shoats stolen over the last six months.

3.0 IMPACT OF RAINFALL PERFORMANCE, SHOCKS AND HAZARDS

3.1 Crop Production

Short rains contribute about 30 percent of the overall crop production. The main crops in agro pastoral livelihood are: maize, sorghum and cowpeas which are mainly produced from irrigated areas. Crop production in the agro pastoral livelihood zone contributes about 60 percent to food and 40 percent to income. In the pastoral livelihood zone, sorghum and cowpeas are the main crops which are produced under rain-fed agriculture.

3.1.1 Rain-fed Crop Production

Three main crops produced under rain-fed are: sorghum, maize and cowpeas. The acreage planted and production during the short rains season is compared in Table 1.

Table 1: Rain-fed crop production

Crops	Area planted during the 2013 short rains season (Ha)	Long Term Average area planted during the short rains season (Ha)	2013 short rains season production (90 kg bags) - Projected/Actual	Long Term Average production during the short rains season - (90 kg bags)
Sorghum	530	800	5,042	9,171
Maize	219	517	4,000	7,620
Cowpeas	123	218	242	389

The area (Ha) planted under rain-fed was below long term average production for the three main crops as indicated in Table 1. Area planted reduced significantly in Turkana South because of increased insecurity which resulted to displacement of households. As a result, the seasons' production was lower than Long Term Average (LTA). However, average production per unit area of 11 bags (90-Kg bags) per unit area compares normally with the Long Term Average.

3.1.2 Irrigated Cropping

The three main crops under irrigated agriculture are: maize, sorghum and cow peas. Area (ha) planted and production during the season is compared in Table 2.

Table 2: Irrigated Crop Production

Crops	Area planted during the 2013 short rains season (Ha)	Long Term Average area planted during the short rains season (Ha)	2013 short rains season production (90 kg bags) - Projected/Actual	Long Term Average production during the short rains season - (90 kg bags)
Sorghum	664	960	8030	20190
Maize	1785	1560	45222	14968
Cowpeas	213	274	312	219

Area under maize increased compared to the five year average for maize but area under sorghum and cowpeas was below the five year average as indicated in Table 2. Reasons for the reduction in area under sorghum and cowpeas production was due to reduced volumes of water in River Turkwel and Kerio and siltation of canals in Turkana South. The on-going expansion works by National Irrigation Board (NIB) at Kangalita and Katilu also affected area planted. The projected production of maize and cowpeas was above normal but for sorghum reduced by 60 percent compared to LTA.

3.1.3 Maize stocks

Table 3: Maize stocks held in the County

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	17,537	19,150
Traders	13,300	19,202
Millers	-	-
NCPB	17,440	16,996
Total	48,277	55,348

The quantities of maize stocks held are below Long Term Averages except at the NCPB as shown in Table 3. Stocks with traders are low because of poor road conditions which have resulted to increased costs of transporting, loading and unloading and occasionally security costs for transporting goods between Kitale and Turkana. The stocks held at household level are expected to last up to 1st week of March compared to mid March normally.

3.2 Livestock Production

Livestock is an important source of food through direct consumption of milk and meat and indirectly whereby livestock keepers and traders sell livestock to buy other food commodities. In the pastoral and agropastoral livelihood zones, livestock contributes up to 91 and 25 percent respectively to cash income for households.

3.2.1 Pasture and Browse

Generally, there was poor pasture and browse regeneration in most parts of the county apart from the western pastoral livelihood zone along the international borders where pasture and browse regeneration was fair. Currently, pasture is available only in the dry season grazing areas. Specifically, pasture is available in Todonyang, Kibish, Naita hills, Meyan, Liwan, Napak and Lokamarinyang' in the northern belt; Nanam, Logolei hills, Nasinyeno, Nadapal, Loteteleit, Oropoi, Naturturio and Lokipoto in the western part of the county and in Lorengipi, Kotaruk, Naipa Loima range in Loima and in Loya along the Uganda border. In Turkana Central pasture is depleted. In the agro pastoral zones of Turkana South, pasture is available in Napetet, Kalemng'orok, Kakong'u, Lorogon along river Turkwel and the national reserve while in Turkana East pasture is found in Loriu hills and Nakukulas area. Pastures in these areas are in form of standing hay and are expected to last until the onset of the long rains season in April.

Browse situation is poor in the entire northern part of the county except in areas of Turkana north and Kibish. The most affected areas are: Lokitaung, Lapur, Kaaleng and Losajait sub location of Kakuma due to a locust invasion. Browse is available in Turkana West along the border with Sudan and Uganda (Oropoi, lokipoto), in Loima sub county along the border with Uganda (Lorengipi, Loya, Naipa, Lokiriama) and along river Turkwel and is expected to last through March 2014. In Turkana south, browse is available in the areas bordering west Pokot and along the river Turkwel but Kalapata location, Lochwa, Napusmorru, Kekori-sogol and Lokichar have poor browse. In Turkana East sub-county the browse situation is fair in areas of Loriu range area along the Kerio river and poor in Kaaruko. Generally, browse in the county is expected to last up to April although in Nasinyeno and Nanam in the North, Kachalang'a and Loriu range in Turkana East as well as Meyan and Liwan in Turkana north, pasture and browse are available but not accessible due to unavailability of water.

3.2.2 Livestock Productivity

3.2.2.1 Livestock Body Condition

Body condition of livestock in dry season grazing areas is fair and deteriorating due to the deteriorating forage condition and the long trekking distances to the watering points. The body condition for shoats left in homesteads ranges from fair to poor. Cattle are in a fair body condition as most of them are in the areas with standing hay mostly along the borders. In the agro pastoral areas along rivers Turkwel and Kerio, herders are supplementing livestock feeds with crop residues from farms in the irrigation schemes. This is expected to last one month after which the cattle will migrate to other areas in search for pastures. The body condition of Camels is fair although those affected by Mange disease have poor body condition.

3.2.2.2 Birth Rates

All livestock species had reduced birth rates occasioned by abortions resulting from trekking long distances to grazing areas and watering points. However, this trend is considered normal at similar times of the year. The birth rate for sheep and goats is currently 3 percent compared to 7 percent normally with lambing rates for sheep being reported at 2.2 percent while for cattle birth rates are normal at 5 percent. Currently, there is no mating for most livestock species thus no kidding and lambing is anticipated in the months of May, June and July.

3.2.2.3 Milk availability

Over 90 percent of households have no milk due to deterioration of rangeland conditions. Milk production is lower than normal for all livestock species. Goat milk yield per day is 0.125 litres compared to 0.25 litres normally, camels' milk yield is less than one litre per day compared to 3 litres per day normally and for cattle milk yield per day is less than 0.5 litres as compared to one litre normally. Milk is inadequate for household consumption in the pastoral livelihood zones and agro pastoral livelihood zone along the rivers Turkwel and Kerio. Sale of milk in the market has reduced significantly since December 2013.

3.2.2.4 Milk consumption

Currently, milk consumption per household across all livelihood zones is less than 0.5 litres per day as compared to a normal of 5 litres per day although some of the milk consumed at household level is purchased. The variation in milk consumption is because livestock flocks in pastoral livelihood zones with poor rangeland conditions have been moved away from homesteads to the dry grazing areas and in agro pastoral livelihood zones pastures have reduced significantly due to overstocking. The price of milk in most of the market centres has remained at Ksh. 30 per litre since January 2013.

3.2.2.5 Tropical Livestock Units (TLUs)

On average, TLUs per household across the county are 3 compared to a normal of 8. Generally, the herd number, for each species, has declined by 15 and 20 percent for poor and middle-income households respectively since 2010 long rains season that performed fairly well. Low TLUs imply that livestock productivity will be low and may not have a significant impact on food security at household level.

3.2.3 Water for Livestock

Return trekking distances in the most affected areas of Turkana East are up to 14 Kilometres compared to a normal of 4 Kilometres. With an increase in trekking distances, watering frequency for all species has reduced with sheep and goats in pastoral livelihood zones watering on alternate days. In Turkana South, areas with serious water shortages include: Kalapata, Napus-morru, Kekori-sogol and Lochwa and livestock trekking distances are up to 15 Kilometres compared to 5 – 10 Kilometres normally. In Turkana Central trekking distances are normally 4 Kilometres but current distances are 10-14 kilometres with the hardest hit areas being Loturerei, Kapua and Nasiger. In Turkana West water scarcity is wide spread and the worst hit areas are: Nakalale, Nanam and Lokore with trekking distances of 5 – 10 kilometres compared to 2–5 Kilometres normally. In Loima Sub-county areas facing serious water shortages include: Nameyana, Lomil and Napeililim trekking distances of up to 12 kilometres and in Turkana North Kokuro, Kachoda, Losajait and Nadung'a areas are the most affected in terms of water shortages.

3.2.4 Livestock Migration

Nearly 50 percent of livestock in Turkana East have moved to the dry season grazing areas of Kakulit, Nakukulas, Komion while 30 percent are in Nakatolem and Napetet hills near Kakong in Turkana South. In Turkana South, 60 percent of livestock have moved out of their normal range to Kotaruk in Loima Sub County and areas along river Turkwel. In Loima, approximately 20 percent of livestock have migrated into Uganda while in Turkana West, 15 percent of their

livestock are in Uganda. An estimated 50 percent of livestock in Turkana Central are in Loima and 20 percent in Loriu range. In Turkana North Sub County, 10 percent of the livestock in Losajait and Nakalale have moved to Loima while 40 percent have moved to Lorubae, Todonyang', Niata Hills and Kibish. In Turkana West, 40 percent of livestock have moved to Oropoi, Nanam, Nadapal and Logolei hills near Sudan. Current migration trends are normal during the February/March short lean season and are expected to continue until the end of the dry spell.

3.2.5 Livestock Diseases and Mortalities

Contagious Caprine Pleuro Pneumonia (CCPP), Peste des Petit Ruminants (PPR), Contagious Bovine Pleuro Pneumonia (CBPP), Trypanosomiasis, tick-borne diseases and mange have become endemic in the county contributing to livestock mortalities. Vaccination against PPR has not been successful as pastoralists are unwilling to vaccinate healthy animals due to fear of death attributed to cultural beliefs; a factor that has attributed to continuous spread of the disease within the County. The worm burden in livestock was reported and in November 2013 and January 2014, the veterinary department carried out mass de-worming and treatment of sick animals. Nonetheless, no disease outbreaks were reported between November 2013 and January 2014 and also no abnormal livestock mortalities occurred in any of the species.

3.3 Water and Sanitation

The main sources of water in Turkana County are: boreholes, water pans, shallow wells, Lake Turkana, River Kerio and River Turkwel. The 2013 short rains performed poorly hence did not recharge water sources adequately which has resulted to the current water stress being experienced in different parts of the county. Currently, boreholes, shallow wells and the two main rivers (Turkwel and Kerio) are the main sources of water since most of the temporary surface sources have dried up.

3.3.1 Distances to Water Sources

Distances to domestic water sources are increasing gradually across the county with the current distance ranging between 5-10 kilometres compared to a range of 1–5 kilometres normally. In Loima (Lorugum) in the pastoral livelihood zone, average distance to water sources has increased from the normal 3 kilometres to 15 kilometres. The significant increment is as a result of an increase in population especially in Lorugum sub-county due to insecurity along the Uganda. Some of the major challenges related to water sources in the county include: high salinity in some boreholes, collapsing of boreholes, breakdown of pumps or power systems and drying up of surface water sources and these often put pressure on available water sources. In Kangaita, a breakdown of the windmill and collapsing of the local boreholes has caused serious water shortages in the area.

3.3.2 Waiting time at the source

Due to increased concentration of livestock in dry season grazing areas, average waiting time at source has increased considerably from 15 minutes to two hours. The longest waiting time of three hours was reported in Oropoi due to a high population of livestock and increased competition for water for both livestock and domestic use.

3.3.3 Cost of water

The cost of a 20-litre jerry can of water for domestic use from borehole supplies has doubled from Ksh. 5 to Ksh.10 in both Turkana West and Loima sub-counties (pastoral and agro-pastoral livelihood zones). In Turkana East, the cost of water in the agro-pastoral livelihood zone has doubled with a similar margin while in Turkana South (pre-dominantly agro-pastoral livelihood zone), the cost has remained stable. Generally, water consumption has reduced in most areas and currently ranges between 5-10 litres per person per day compared to 10–15 litres per person per day normally.

3.3.4 Sanitation

According to the nutrition survey conducted in July 2013, the proportion of households with access to a latrine was 18.9 percent, 11.9 percent and 15.1 percent in Turkana Central, South and West respectively. Low latrine coverage in the county is attributed to cultural beliefs, poor soil structure and nomadic lifestyle. Comparatively, latrine coverage is higher in agro-pastoral livelihood zones than in pastoral livelihood zones. As observed during visits to communities, latrine coverage is lower in the villages compared to public areas.

3.3.5 Hygiene

Water treatment with chemicals at household level had increased slightly. Current domestic water treatment and purification methods being applied include: boiling, use of water treatment chemicals (Chlorine powder, aqua tabs, purr and local coagulants) and sand filters (Bio-sand). Use of water treatment chemicals is common along the lake in the fisher folk livelihood zone.

3.4 Markets and Trade

3.4.1 Market operations

Livestock production is the main source of household cash income in the pastoral livelihood zone and accounts for 91 percent of household incomes. Sale of sheep and goats is the main source of income and accounts for 80 percent. The main livestock markets in the county are located in remote areas and include; Lokichogio, Kakuma, Lodwar, Lokichar, and Kalemngorok and all of them operate on daily basis. The markets supply livestock to other markets outside the county including; markets in South Sudan, Uganda, Nairobi and Western province. Livestock markets are operating below normal owing to the dwindling number of traders occasioned by closure of several markets in South Sudan and deterioration of livestock body condition. Basic food commodities were available in all major markets as well as small trading centers and

remote villages but demand has been reducing and this has been attributed to erosion of household purchasing power.

3.4.2 Goat Prices

Goat prices in 2013 remained consistently above long term averages and have been on a downward trend since October 2013 (Figure 2). Comparatively, in January 2014 the price of a goat was Ksh. 2,250

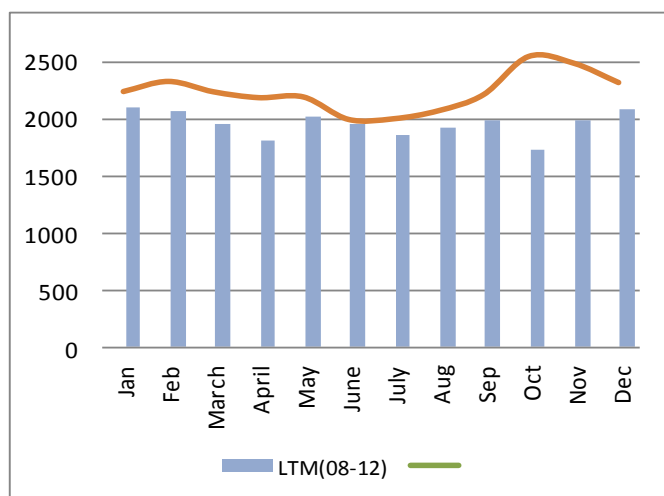


Figure 2: Comparative Goat Prices in Turkana County

compared to Ksh. 2,094 long term average and Ksh. 2,240 in the previous year. Goat prices are higher in the pastoral livelihood zones of Loima and Lapur with Grade-1 goat selling at Ksh. 2,400 and 4,000 respectively. The lowest prices were reported in pastoral livelihood zones of Lokichar and Lokori where a goat sold between Ksh. 1,000 and 1,500. The price trends of other livestock species are comparable to goat prices and are expected to decline further owing to reduced traders; a factor that is occasioned by deteriorating livestock body condition and this is likely to impact negatively on household food security.

3.4.3 Maize Prices

As illustrated in Figure 3, the price of maize has been relatively stable from October. In January 2014, the price of a kilogramme of maize was 18 percent above long term average and six percent compared to same period in 2013.

The pastoral livelihood of Lokitaung, Kibish and Loima recorded the highest maize price at Ksh. 90 – 100 per kilogramme while the lowest price was reported in agro pastoral livelihood zones of Lokori, Lokichar and Katilu where a

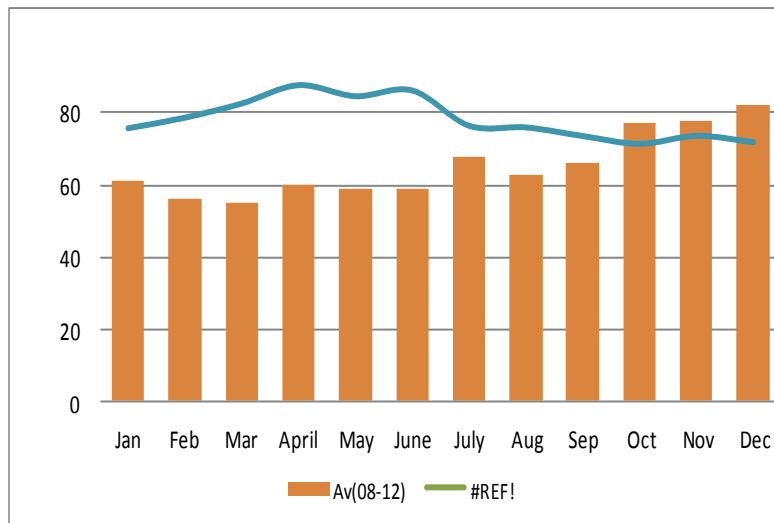


Figure 3: Comparative Maize Prices

kilogramme was retailing at Ksh. 50 – 60. Prices of other commodities like beans depict a similar trend. The price of maize is expected to remain high owing to a shortage of cereals in the country and poor infrastructure that increases the cost of transport.

3.4.4 Terms of Trade

The terms of trade for households in Turkana county are generally unfavourable owing to the high maize prices although they are better compared to long term average. In January 2014, a goat could exchange for 31 kilogrammes of maize compared to 25 kilogrammes for the 5-year average but no significant difference with terms of trade during the same period in 2013 where a sale of a goat exchanged for 29 kilogrammes. Terms of trade depict a situation which would lead to erosion of livelihood assets leading to unsustainable livelihood. Terms of trade are predicted to decline further as the dry spell progresses with the anticipated decline in livestock prices and a rise in food prices. It is worth noting that the volume of livestock in market is low and could be attributed to cumulative loss of livestock due to previous droughts, raids and diseases especially PPR and CCPP.

3.5 Health and Nutrition

3.5.1 Morbidity and Mortality Patterns

The common diseases reported from the health centers include: confirmed Malaria (2,376 cases), Urinal track infection (168 cases), Diarrhoea (2,060 cases), Dysentery (58 cases) and chicken pox (14 cases). There was no disease outbreak reported in the period July to December 2013. A

nutrition survey conducted in July 2013 indicated that the proportion of children that had fallen ill in the two weeks prior to the survey was high at 45 percent, 54.8 percent and 42.2 percent in Turkana Central, South and West respectively.

The crude and Under-five mortality rates also showed an improvement compared to the rates reported in July 2012. In July 2013, the crude and under five mortality rates reported were: Turkana Central, CDR 0.52 and U5DR of 0.32, Turkana South CDR 0.59 and U5DR of 0.74 and Turkana West CDR 0.83 and U5DR of 1.00.

A high proportion of the children within the county have received vitamin A supplementation. According to the July 2013 nutrition survey, the proportion of children who had received vitamin A supplementation was 81.4 percent in Turkana Central, 84.3 percent in Turkana South and 42.2 percent in Turkana West. Measles vaccination was also equally high at 92.9, 01.4 and 77.7 in Turkana Central, South and West respectively.

3.5.2 Nutrition Status and Dietary Diversity

According to nutrition surveys conducted in July 2013, there was a significant reduction in Global Acute Malnutrition (GAM) rates in Turkana West from 14.3% in June 2012 to **9.7%**, indicating an improvement from a *Serious* to *Poor* nutrition situation according to WHO classification¹. A significant increase in GAM rate was reported in Turkana Central/Loima from 11.6% to **17.2%** indicating a *Critical* situation, deterioration from the *serious* situation reported in June 2012. There was no significant change in the Global Acute malnutrition rates reported in Turkana South/East; 17.1% in June 2012 and **16.5%** in July 2013², indicating a stable but *Critical* nutrition situation.

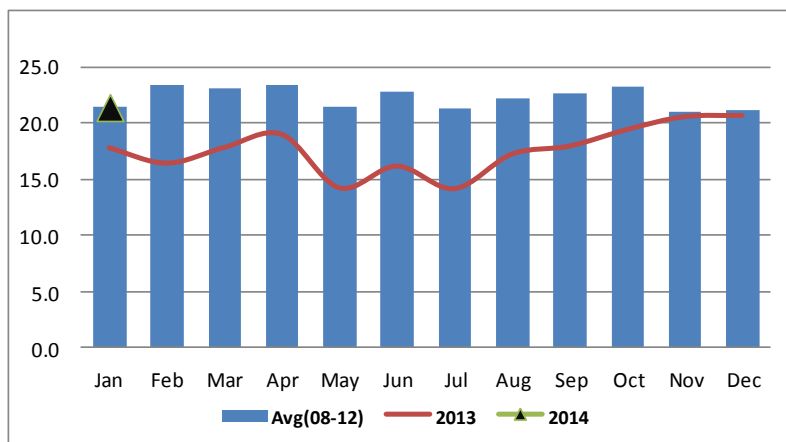


Figure 4: Proportion of Children at Risk of Malnutrition

The proportion of children (6-59 months) five years at risk of malnutrition was 21.4 percent in January 2014 which was above 20.6 percent in December 2013 and also above the January long term average of 19.8 percent (Figure 4). The highest proportion of children at risk of malnutrition was reported in pastoral livelihood zones of Loima (62.6%), Nachuku (31.3%), Napusmoru (41.0%) and Lokapel (48.0%).

Rapid Mid Upper Arm Circumference (MUAC) screening exercise conducted in the county in January 2014 showed that 21.5 percent of children in Turkana West, 28 percent in Turkana North was 28 percent and 12.6 percent in Turkana South were malnourished. Generally, the number of severely malnourished children was low. Poor infant and child feeding practices and

¹ Nutrition Situation Classification according to WHO :-

²Turkana SMART Nutrition survey-July 2013

long distances to health facilities in some areas were cited as some of the factors contributing to malnutrition.

Nutrition survey results indicated that exclusive breastfeeding rates were 62.9, 79 and 69.1 percent in Turkana Central, South and West were respectively which was an improvement compared to rates reported in the previous year. The proportion of households with a poor food consumption score increased from 39 percent in September to 43 percent in December 2013 with most of the households consuming less than four food groups which implies poor dietary diversity. The nutrition survey showed that the mean number of food groups consumed in Turkana Central and Turkana West were 3.98 and 3.19 respectively while in Turkana South food groups consumed was 4.08.

Data from IMAM³ programme admissions from health facilities in the county shows that a stable trend since July 2013 (Figure 5). In November 2013 the reporting rates were affected by the health workers strike, hence a lower number of admissions reported in the month of November. Overall, there slight increase in the number of moderately malnourished children, and in some areas, a high number of children have been identified as at risk of malnutrition, therefore it is highly recommended that increased nutrition surveillance.

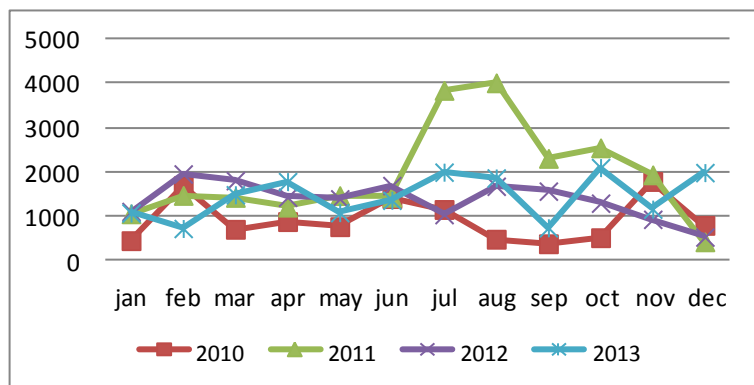


Figure 5: Under-fives MAM Admissions

3.6 Education

3.6.1 School Enrolment

Gross Enrolment Rate in January 2014 was 60 percent for girls and 66 percent for boys compared to 46 percent and 54 percent for girls and boys respectively during the same period last year. Improvement in enrolment is because of consistency in provision of School Meals Programme (SMP) and also establishment of additional schools which has reduced distances covered by pupils. Children in Early Child Development (ECD) centres and lower primary are more affected by migration with their parents having moved in search of pastures and water for livestock pastoral livelihood or fish in fisheries livelihood. Early marriages have affected girls especially in the upper primary. Transfers from one school to another are due to performance and access to boarding facilities.

Insecurity has resulted to relocation of three primary schools; Todonyang to Lowarengak in Turkana North Sub County and Kidewa and Nakatunga to Lopeduru in Turkana East Sub County.

³ Integrated Management of Acute Malnutrition

3.6.2 Transition and Drop Out

The proportions of children who enroll in class one and complete class eight is about 50 percent which is similar to the previous year. Comparatively, a bigger proportion of girls (55 percent) exit compared to boys (percent). Of the Girls who sat for KCPE 2013, 30 percent qualified of whom 87 percent joined form one. Of the boys who sat for KCPE 2013, 45 percent of boys qualified to join secondary school of whom 88 percent have joined form one. Transition has been enhanced through establishment of secondary schools near the catchment areas and also provision of bursaries to bright students from poor families by the government and other investors.

Dropout rate was reported to be about one percent for both boys and girls. Girls' drop out is mainly due to early marriages and fishing along Lake Turkana and boys is due to nomadism and fishing along the lake. In Turkana Central and East, pupils drop out was attributed to engagement in charcoal business.

3.6.3 School Meals Programme (SMP)

A total of 178836 pupils (82741 girls; 96097 boys) are currently benefiting from the Regular School Meals Programme (RSMP). The programme has continued to boost enrolment, attendance and retention in the schools. Pupils missed meals in the early part of the term due to delays in delivery of stocks. The Ministry of Health in collaboration with partners carried out at least one deworming round in 2013.

3.7 Coping Mechanisms

According to Food security outcome monitoring report, the Coping Strategy Index (CSI) in December 2013 was 8 compared to September 2013 which is indicative of a stable food security situation. Consumption of wild fruits is one of the coping strategies employed by communities living along river Turkwel and Kerio when faced with food deficits. Other coping mechanisms are livelihood change options among them: sale of Aloe Vera in the pastoral livelihood zones of Oropoi and Loima and weaving of baskets, beads and mats in the pastoral, agro pastoral and fisherfolks in Kerio, Central, Turkwel and Kalokol. Charcoal burning is on the increase across the county and is slowly evolving into a livelihood activity which has been propelled by a ready market.

3.8 Ongoing Interventions

3.8.1 Food interventions

The number of people in need of food assistance has reduced over time owing to an improved food security situation in the county. Currently a total of 102,400 beneficiaries are benefiting from General Food Distribution (40,000) and Food for Asset (FFA) programme (71,500) under Protracted Recovery and Relief Operation (PRRO) intervention. In addition, the government is supporting a caseload of 4,400 beneficiaries in Kainuk, Kibish, Lokichar and Lomelo. Further, 17,8836 pupils are benefiting from the Regular School Meals Programme and the Hunger Safety Net Programme is targeting 39,000 beneficiaries who receive Ksh. 4,500 every two months.

3.8.2 Non- food interventions

The government in collaboration with the development partners has been implementing various interventions geared towards building resilience as well as cushioning the population against negative impact of drought. Current ongoing emergency interventions include;

- Water trucking in areas facing acute water shortage and rehabilitation of broken down bore holes.
- Rehabilitation of malnourished children, pregnant and lactating women through integrated management of acute malnutrition.
- Distribution of survival mash feeds for lactating herd and treatment, deworming and vaccination of livestock.

Table 4: On-going Non-food Interventions

Sub County	Intervention	Location	No. of beneficiaries	Implementers	Impacts in terms of food security	Cost(Ksh)	Time Frame
Health and Nutrition							
All Divisions	Zinc, Vitamin A, Iron-folate Supplementation	All Locations	129,280	MoH,IRC,S CI, WVK,UNI CEF		184,129,424	Feb-July 2014
All Divisions	IYCN Interventions (EBF and Timely Introduction of complementary Foods)	All Locations	118,813	MoH,IRC,S CI, WVK,UNI CEF			Feb-July 2014
All Divisions	De-worming	All Locations	95,051	MoH,IRC,S CI, WVK,UNI CEF			Feb-July 2014
Water and Sanitation							
Lake region, Kakuma, Lokichogio, Oropoi, Lokorri, Lokichar	Water trucking	Nasechabuin , Kataboi institutions, Kakuma, Nanam, Kaloboyei/Oropoi, Lopii, Lokichar	77,500	County government	Increase water availability	15,000/= per week	On-going
Lokorri	Rehabilitation of water supplies and repair of broken down water facilities. Drilling of IDP B/Hs	Lokori	2000	MOEWNR, GOK	Increase water availability	20 M	Feb-May, 2014

Katilu	Repair of breakdown of Katilu water supply	Katilu	6000	County Govt	Increase water availability	374,332	100%
Livestock and veterinary department							
Turkana County	Livestock Survival mash distribution	All Divisions	6,340	County Government	Minimal livestock lose	12,000,000	Dec.2013- Jan. 2014
	Mass deworming and treatments for the sick	Kibish, lokori Kerio, Kalokol Nanam, Oropoi Loima, Turkana South	13,200	County Government Diocese of Lodwar VSF Belgium	Reduce livestock diseases and mortality	7,000,000	Dec.2013- Jan. 2014
Agriculture							
Turkana South	Farmer training on good agronomic practices	Kainuk and Katilu	150	MoA, NMK	Increase food production	360,000	2013-2014
Turkana Central	NMK Water Harvesting pan Expansion	Lodopua	200 HHs	MOAL&F, Child Fund Kenya	Increase water availability.	Ksh.2.0M	On-going.
	Tree Locust Control	Kalimapus, Narukopo, Kadokorinyang, Natirae, Namukuse, Wodoch, Eliye Springs, Lobolo, Napeget, Naoros, Naipa Kangatotha	7000 HHs	MOAL&F, county government, FAO	Improve forage	16 M	3 months
	Irrigation establishment/investment	Nadoto Naoros	1,350	National Irrigation Board/GoK	Under construction	140M	1 year
Turkana North	Shade nets for tomato production; Kaikor Parish	Longonemar, Kangitulai, Nakinomet, Loitanit	480	KRC (k4k)	Diversify food sources	3M	On going
	Furrows in the desert	Kokuro	50	Israel	Increase crop production	10M	On going

Turkana North, Turkana West	Establishment of greenhouses	Natoo, Lokitaung, Nakalale, Lokichoggio	480	Furrows in the desert, World Relief, UNDP, VSF-Germany	Increase crop production	3.4M	On going
Turkana West	Champion Farmers	Lokichoggio, Nawontos	44	AMREF	Enhance food availability and accessibility	1.5M	2 year

3.9 Sub-County Ranking

Table 5: Sub County Food Security Ranking

Sub County	Food security rank (1-10)	Main food security threat	Remarks (most affected areas)
Turkana north	<2	Insecurity, high food prices, declining livestock prices, livestock diseases	(Kaaleng, Lokitaung)
Turkana central	3 – 4	Denudated land and depleted forage, water scarcity	(Kerio, Kalokol excluding town, Kalotum)
Kibish	3 – 4	Insecurity, high food prices, declining livestock prices, livestock diseases	Lokamarinyang
Loima	3 – 4	Acute water shortage, livestock diseases and depleted pastures	Lochor-ekuyen, Lorurgum, Lomil,Nasiger, Nameyana, Napeililim, Lokor-kipi.
Turkana east	3 – 4	Insecurity, high food prices, depleted pastures, water scarcity	Karuko, Lomelo division
Turkana west	3 – 4	High food prices, insecurity, water scarcity	Nakalale sub-location, Lokore,
Turkana south	5 – 6	Insecurity,	Lokichar division except Lokichar town
Very Good (9-10) Poor (3-4)	Good (7-8) Very Poor (<2)	Fair (5-6)	

4.0 FOOD SECURITY PROGNOSIS

4.1 Prognosis Assumptions

- The March to May long rains are expected to be near normal to below normal in terms of total rainfall.
- Abnormally high land surface temperatures, up to two degrees above normal, are likely between January and March during the dry season.
- Rangeland conditions will deteriorate at a faster than usual rate through March due to the higher than normal temperatures during the January to February dry season. Pasture and browse availability will increase following the start of the March to May long rains.
- Livestock migration is likely to increase than normal from areas with poorer pasture and browse to areas with better pasture, browse, and water availability.

- Maize prices are likely to only slightly decline in January and February with the short rains harvest. Then they will slowly and gradually increase from March to June as stocks at household and market levels are drawn down.
- Water shortages may spread to more areas or intensify through March due to the expected high temperatures in January and February. Water sources are likely to recharge slightly during the March to May long rains, even if the total rainfall is below normal, which will lead to some recovery in water availability through June.
- Normal to below normal March to May long rains will sustain enough water, pasture, and browse for normal lambing in May/June and kidding and calving in March/April.
- Humanitarian assistance, especially that funded from the drought contingency funds available to county governments, is expected to increase and widen in scope following successive, below-average rainy seasons.
- Livestock prices will continue on a slow and downward trend through March attributed to the deterioration of livestock body condition and reduction in livestock traders. However, an increase in livestock prices is expected between April and June as livestock body conditions improve.

4.2 Food Security Outcomes (March – May)

Given the abnormally high temperatures, pasture and browse conditions and water availability are likely to deteriorate through March. Subsequently livestock body condition will deteriorate leading to a decline in milk production. Further, cereal prices are also expected to slowly and gradually increase through March driven by the poor harvest in the high potential areas which will constrain supply in the Turkana County. Household stocks held can at least last through the early March. Much of the traded cereals come from the southern areas in the high potential areas but markets are not well integrated to pass the benefits of harvest to Turkana County. On the other hand, livestock marketing is constrained by the frequent conflicts resulting into fewer buyers than sellers and thus a likely decline in livestock prices. A combination of decline in livestock income and increase in food prices is likely to result in decline in livestock to cereal terms of trade through March making household food access difficult. However, continued support by humanitarian organizations and the government is likely to support household consumption through March preventing households from falling into Crisis (IPC Phase 3) where they may have food gaps. In late March, following the onset and continued near normal to below normal March to May long rains, recovery of the pasture and browse along with improvement in water availability is likely to improve livestock, milk availability and livestock prices. Although food security is expected to deteriorate through March, an improvement from April through May is expected unless the long rains fail significantly plugging much of the population in Turkana County into Crisis (IPC Phase 3). Though May, households are expected to be able to afford minimally adequate diet although the dietary diversity may worsen through March and improve between April and May due to availability of milk following lambing and kidding in April.

4.3 Food Security Outcomes (June – August)

Between June and August, the lean season is expected to slowly set in leading to deterioration of pasture, browse, and water conditions. In June, livestock body conditions will be average following near normal to below normal March to May long rains. Milk availability will continue through August but on a declining trend as the season edge towards the onset of the August-November lean season. Food consumption is expected to behave in trend with the livestock

performance deteriorating from an improved but still Stressed (IPC Phase 2) status in June through August but remain Stressed (IPC Phase 2). However, if the long rains are significantly below average, the lean season will start earlier than normal, accelerating the deterioration of pasture, browse and water resources and consequently livestock body conditions. Under very poor long rains, households are likely to drop into Crisis (IPC Phase 3) between June and August despite the humanitarian assistance.

5.0 CONCLUSION AND RECOMMENDATIONS

5.1 Conclusion

The food security situation in the county is at stressed phase. The current food security situation is expected to deteriorate further in the next three months. The deterioration will be halted on the onset of the long rains and improvement will be realized towards the end of the long rains season

The following need to be monitored closely in the coming months with view of mitigating the impact on time.

- Livestock movement within the international borders to minimize conflict among pastoralists.
- Livestock disease outbreaks with view of responding on time to avert significant losses.
- Trend in malnutrition levels with view of timely rehabilitation to avert excess mortalities.
- Water situation in dry season grazing areas with view of easing water stress through timely response.

5.2 Summary of Recommendations

In order to militate against the looming drought, there is need for a multi-sector approach to put in place measures that cushion the community and their livelihoods. Priority interventions include;

- Increase the population in need of food assistance to 40 – 45 percent of the population.
- Continue Regular School Meals Programme in all public primary schools.
- Provide water trucking to communities' unable to access water.
- Emergency response for repair of broken down boreholes
- Emergency livestock off-take.
- Scale up high impact nutrition interventions with special focus on integrated management of Acute malnutrition.
- Provide certified seeds to farmers in the agro pastoral areas.
- Provide survival mash feeds for lactating herd.

6.0 ANNEXES

Annex 1. Food Intervention Required

Table 6: Population in Need of Food Assistance

Division/Ward Name	Population in the division	(% range min – max	Proposed mode of intervention	Remarks
Lapur	17479	50 – 55	GFD	
Kibish	21,673	45 – 50	GFD	
Lokitaung	38,742	45 – 50	GFD	
Kaaleng	51,193	50 – 55	GFD	
Lomelo	25,438	50 – 55	GFD	
Oropoi	61,534	25 – 30	GFD	
Lokichar	67,742	45 – 50	GFD/FFA	Excludes Lokichar town
Kerio	34,212	45 – 50	GFD/FFA	
Lokichoggio	89,102	35 – 50	GFD/FFA	Excludes Lokichoggio town
Central	58,290	15 – 20	GFD/FFA	Excludes town
Kalokol	42,172	45 – 50	GFD/FFA	Excludes Kalokol town
Lokori	65,742	25 – 30	GFD/FFA	
Loima	40,904	50 – 55	GFD/FFA	
Kakuma	94,691	35 – 40	FFA	
Turkwel	79,028	35 – 40	GFD/FFA	
Kainuk	26,247	25 – 30	FFA	
Katilu	41,924	25 – 30	FFA	

Annex II. Non-food Interventions

Table 7: Recommended Non-food Interventions

Division	Intervention	Location	No. of beneficiaries	Proposed Implementers	Required Resources	Available Resources	Time Frame
Health and Nutrition							
All Divisions	Scale up High Impact Nutrition Interventions	All Locations	118,813	MoH,IRC,SCI, WVK,UNICEF, WFP	184,129,424	101,528,529	Feb-July 2013
Water and Sanitation							
Oropoi, Kakuma, Turkwel	Up-grade water pumping systems	Oropoi, Kakuma Centre, Lorugum	15,300	MOEWNR and Implementing partners	24 M	Nil	Feb-May, 2014
Lokichoggio	Construction of 2 water	Songot	5000	MOEWNR and Implementing	11.5m	Nil	Feb-May,

	pans (10,000m3)			partners			2014
Loima, Turkwel Lokori Lomelo, Kakuma	Construction and equipping boreholes	Lokiryama, Kangalita, Kakuma	19,700	MOEWRN, County Government and Implementing partners	72 M	Nil	Feb- May, 2014
Livestock production and veterinary department							
Turkana County	Distribution of livestock survival mash	All	3500	County Government	40 M	7 M	Feb – March 2014
Turkana County	Deworming, vaccination and treatment	All	3500	County Government	30 M	5 M	Feb – March 2014
Turkana County	Destocking	All	3500	County Government and National Government	73.5 M	10 M	Feb – March 2014
Agriculture							
County wide	Provision of certified seeds	All	28,800	MOAL&F, KRC, Catholic Diocese of Lodwar	26 M	Personnel	Feb- March 2014
Turkana North, Turkana West	Water harvesting structures	Kokuro, Kataboi, Oropoi	1,650	MoA, Catholic Diocese of Lodwar, Furrows in The Desert	21 M	0	June – August 2014