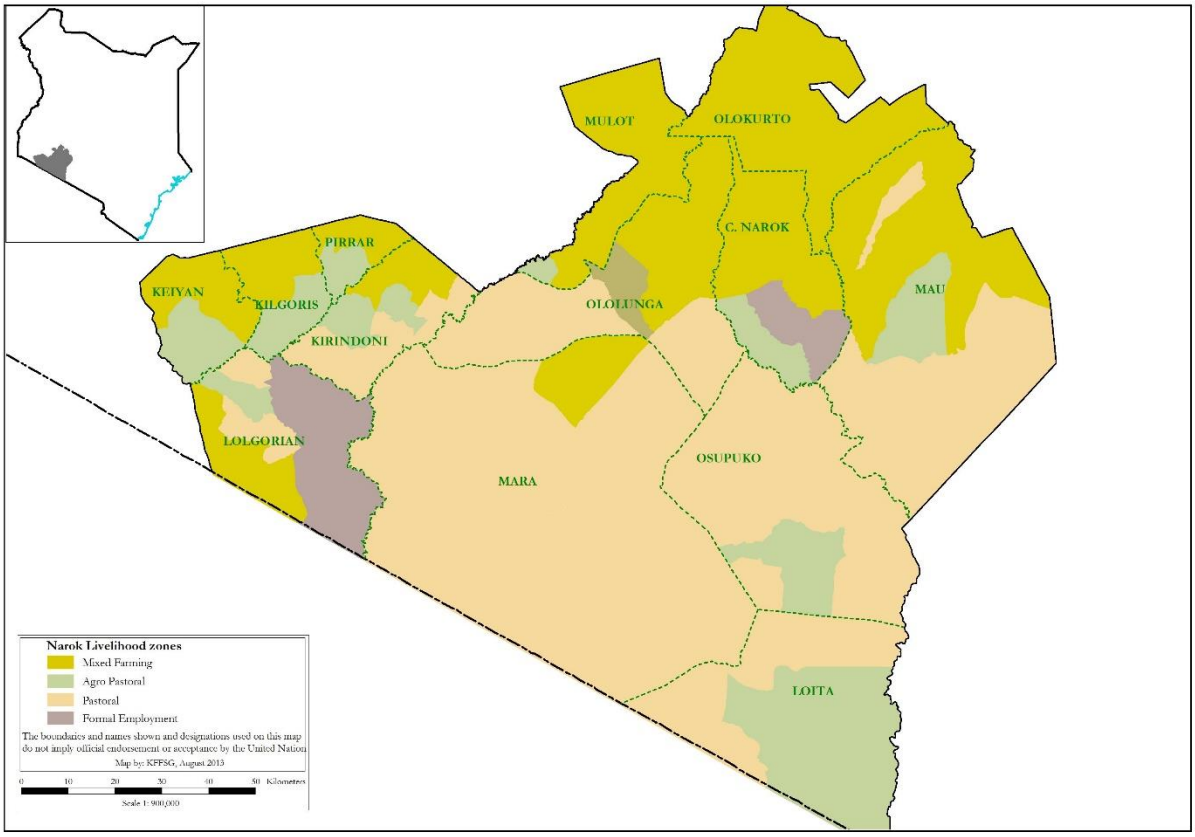
NAROK COUNTY 2017 LONG RAINS FOOD SECURITY ASSESSMENT REPORT



A Joint Report by Kenya Food Security Steering Group (KFSSG)[1] and Narok County Steering Group (CSG)

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EXECUTIVE SUMMARY

Narok county is classified in the stressed phase (IPC Phase 2) especially in the pastoral and agro-pastoral livelihood zones where 20 percent of the population is facing food insecurity due to forage and water scarcity. The proportion of households in pastoral livelihood zone with acceptable food consumption score has declined from 93 percent in March 2017 to 68 percent in June 2017, while in the agro-pastoral livelihood zone, it has declined from 20 percent to three percent in the same duration, indicating declining household dietary diversity and food frequency. The mean coping strategy score is at 17 the current season, implying that households are employing severe coping strategies and engaging less in consumption-related coping strategies.

The nutritional status is declining. Malnutrition is increasing with the proportion of children with Mid Upper Arm Circumference (MUAC) less than 135mm standing at 14.5 percent in June 2017. The prevalence of the five most common diseases from January – June 2017 shows an increase for both children aged below five years and the general population compared to same period in 2016. For the under-fives children, (upper respiratory and tract infections (URTI) at six percent, diarrhoea at 8.4 percent and malaria at 16 percent), For general population (URTI at seven percent, diarrhoea at 17 percent and malaria at 15.8 percent indicating a decline in nutrition status attributed to reduced access to food and health care. Vitamin A supplementation for the period January - May 2017 was 32.7 percent for 6 -11 and 8.6 percent for 12-59 under five children. Fully immunized children in January – May 2017 is at 57 percent. Water consumption per person per day is within the sphere standards (above 15 litres/person/day).

Maize production in the mixed farming and agro-pastoral areas decreased by 42 percent of the Long Term Average (LTA), reducing availability at the household level. However, milk production declined by 50 to 100 percent due early migration thus affecting household milk production and consumption in the pastoral and agro-pastoral zones. Households and traders were holding 63 and 40 percent of the LTA of the maize stocks.

The terms of trade (ToT) are unfavourable where the sale of one goat is exchanging for 52kg of maize thus limiting household food access in the pastoral areas. (ToT) remains below the LTA. Maize prices are high as farmers are relying on markets for household supplies. Livestock body condition is deteriorating leading to price of goat being below the LTA. The current factors affecting food security include: late onset and low amounts of rainfall which negatively affected water and forage situation thus triggering early livestock migration that constrained household milk production and consumption negatively affecting food security.

1. INTRODUCTION

1.1 County background

Narok County covers an approximate area of 17,933 square kilometres with a total population of 850,920 persons (KNBS census 2009). The county is divided into six sub-counties which include: Narok North, Narok South, Trans Mara West and Trans Mara East, Narok East and Narok West. There are four livelihood zones in the county namely: Pastoral, agro pastoral, mixed farming, and tourism/trade/ business.

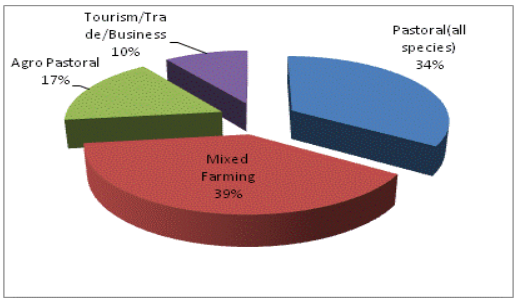

Figure 1: Population by livelihood zones

1.2 Objectives and approach

The overall objective of the assessment was to develop an objective, evidence-based and transparent food security situation analysis following the long rains season of 2017 taking into account the cumulative effect of the previous seasons; as well as provide recommendations for possible response options based on the situation analysis. The specific objective was to review existing data on the current situation analysis as provided by the various sectors and determine the food security trends for previous seasons. The assessment methodology employed included an initial county status briefing which was conducted on Monday the third of June 2017, presentation of sectoral checklists from agriculture, livestock, and water, health and nutrition and education sectors. The team then conducted transect drives across the three livelihood zones in order to have a quick assessment of filed situation on the performance of the season for two days. The team visited the mixed, pastoral and agro-pastoral livelihood zone areas of Olololunga, Ntulele, Suswa, Nairege Enkare, Mulot, Emarti, Kawai, Oloolollo Gate, Sekenani Gate and Maji Moto. The team was able to visit the livestock markets of Ololulunga and Ntulele. During the drives, the teams collected sector-wide food security data using community and household interviews, focus group discussions and by use of key informant interviews. The collected primary and secondary data was analyzed during the fourth day and the county food security draft report compiled for sharing during the de-briefing in the County Steering Group meeting on the last day.

2. DRIVERS OF FOOD AND NUTRITION SECURITY IN THE COUNTY

2.1 Rainfall Performance

Onset was late as it occurred in the third dekad of March instead of the normal first dekad of March. The county received between 50 and 110 percent of the normal rainfall. Narok North, East and South received 50 and 75 percent of normal while Narok West, Transmara East and West received 90 to 110 percent of normal. Both spatial distribution and temporal distribution was poor. Cessation was early in the second dekad of June compared to third dekad normally.

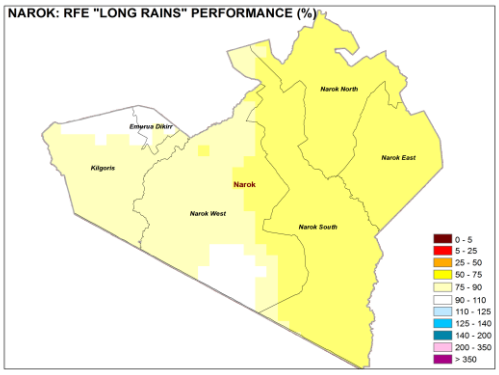

Figure 2: Rainfall performance

2.2 Insecurity/Conflict

Human - wildlife conflict reported among farming communities bordering the game reserve.

2.3 Other shocks and hazards

Fall Army Worm infestation which has negatively affected maize production.

3. IMPACTS OF DRIVERS ON FOOD AND NUTRITION SECURITY

3.1 Availability

Food availability is one of the food and nutrition security pillars. Its performance was influenced by livestock and crop production indicators as well as food stocks at household level and the market supplies. The markets remained stable with little disruptions during the long rains.

3.1.1 Crop Production

Rain-fed Crop Production

Long rains season is the main season for crop production in the county with the major crops grown being maize, beans and irish potatoes. Maize production contributes 60, 70 and 95 percent food to households in agro pastoral, mixed farming and pastoral livelihood zones respectively. Maize production contributes 20 and 15 percent cash income for agro pastoral and mixed farming livelihood zones respectively. The area planted was 95 percent of the LTA for maize, 165 percent of the LTA for beans and 109 percent of the LTA for potatoes. Production was 69 percent above the LTA for beans, while 58 and 83 percent of the LTA for maize and potatoes respectively.

Table 1: Rain-fed Crop Production

Crop	Area planted during 2017 long rains season (Ha)	Long term average area planted during the long rains season (Ha)	2017 long rains season production (90 kg bags)	Long term average production during the long rains season (90 kg bags)
Maize	85,720	90,440	985,978	1,685,305
Beans	34,373	20,830	355,908	210,108
Potatoes	8,805	8,063	317,100	381,932

The area under production of maize declined. This was attributed mainly to increased cases of Maize Lethal Necrosis Disease (MLND) in the previous years that encouraged more farmers to abandon maize production for beans and Irish potatoes and the fall army worm infestation. Similarly, the projected yield exhibited a corresponding decrease as a result of poorly distributed rainfall during the production period. Area and production of beans increased above the LTA as farmers had easier access to seed. Government subsidized fertilizer was also available in appreciable quantities when farmers needed it. Increased Irish potato production is attributed to increased acreage, good quality of the farmer saved seed and the improved availability and emphasis by extension providers for certified seed of the popular varieties.

Irrigated Crop Production

There was an increase of approximately three percent of the area under irrigation. This was as a result of sufficient irrigation water in the major rivers of the county and increased conservation of the river sources over the last two years. The county continued to be the main source of tomatoes to its own markets and the surrounding counties. This is attributed to the newly established 450 acres Mosiro irrigation scheme in Narok East where tomato is one of their main high value crops while the 1,500 acres Naroosura irrigation scheme in Narok South produces tomato and onions. However, yield per hectare fell below the long term average due to the persistent threat from *Tuta absoluta*.

Table 2: Irrigated crop production

Crop	Area planted during the 2017 long rains season (Ha)	Long term average (3 years) area planted during Long rains season (Ha)	2017 long rains season production (90 kg bags/Tons)	Long term average (3 years) production during 2017 Long rains season (90 kg bags/Tons)
Tomatoes	504	480	3,796 Tons	5,200 Tons
Kales	322	312	1,660 Tons	1,626 Tons
Beans	80	88	640	704
Maize	60	66	2700	2640

Cereal Stocks in the County

Maize is a common staple across all livelihood zones. In pastoral livelihood zone, milk and beef as well as maize flour are the staple food items. In the mixed livelihood zones, potatoes, maize, milk and other livestock products are the staple food items.

Table 3: Cereal Stocks

Commodity	Period	Households	Traders	Millers	Food Aid	Total
Maize (90 kg bags)	Current	69,494	48,800	224	592	119,310
	LTA	109,800	12,310	12,500	0	245,500
Rice (50 kg bags)	Current	0	20,000	0	0	20,000
	LTA	0	12,000	0	0	12,000
Millet (90 kg bags)	Current	412	1`10	0	0	422
	LTA	1,120	1,891	0	0	3,011
Sorghum (90 kg bags)	Current	2,700	112	0	0	2,812
	LTA	412	458	0	0	891

The maize stocks held by farmers and traders were 63 and 40 percent of the LTA, while millers had a negligible two percent of the LTA. The total stocks held were 49 percent of the LTA. Sorghum and millet are important cereals in the Transmara East (mixed farming livelihood zone) and Narok West (agro pastoral livelihood zone) as they are utilized by the households.

3.1.2 Livestock Production

The main livestock species in Narok County are cattle, sheep and goats. Other livestock kept here include donkeys, poultry and pigs in the urban areas. The county also has other livestock related economic activities which include beekeeping, wool production and fish farming.

Several factors are affecting livestock development in the county which include: frequent droughts, environmental degradation, heavy incidences of livestock diseases, poor husbandry practices, inadequate access to livestock services such as veterinary services, supply of animal feeds and marketing information. In pastoral zones, livestock contribute about 85 percent of livelihoods, in agro pastoral areas they contribute about 60 percent, while in mixed farming they contribute about 40 percent of livelihoods, thus livestock contributes towards food and nutrition security.

Pasture and Browse

Pasture and browse situation (table 4) in pastoral areas like Suswa, Mosiro, Ntuka, Elangata Enterit, Mara, Emarti and Mararianda is fair currently but tending towards poor due to low rainfall

received during the March-April-May rainfalls. The hardest hit areas include Oloikarere location, Olasiti, and Inkorienito in Suswa Ward, Koromoto in Mosiro ward, and the Mara area which was overgrazed as a result of livestock in-migrations and wildlife encroachment. The agro pastoral and mixed farming livelihood zones received fairly normal rains hence the pasture and browse situation is fairly good.

The available pasture and browse is expected to last for one to two months for pasture and two to three months for browse in all the livelihood zones.

Table 4: Pasture and Browse condition

Livelihood zone	Pasture Condition			Browse Condition		
	Current	Normal	Projected duration to last (Months)	Current	Normal	Projected duration to last (Months)
Pastoral	Poor	Fair	1	Fair	Good	2
Agro pastoral	Fair	Fair	1 - 2	Good	Good	3
Mixed farming	Fair	Fair	1 - 2	Good	Good	3

Livestock Productivity

Livestock Body Condition

Livestock body condition (Table 5) for cattle is fairly good in mixed and agro pastoral livelihood zones in parts of Transmara West like Lolgorian, Kawai and Kichwa Tembo and fair to poor in some pastoral zones like Mararianda, Aitong while in areas where cattle had migrated and have recently returned like Nturumeti, Mosiro, Ntuka and Elangata Enterit, the body conditions is poor. For sheep and goats the body conditions is fairly good in all livelihood zones, though deteriorating.

Table 5: Livestock Body Condition

Livelihood zone	Cattle		Sheep		Goats	
	Current	Normal	Current	Normal	Current	Normal
Pastoral	Poor	Fair	Fair	Good	Good	Good
Agro pastoral	Fair	Good	Good	Good	Good	Good
Mixed farming	Good	Good	Good	Good	Good	Good

Milk Production, Consumption and Prices

Milk Production

Pastoral zones depend on sheep, goats and cattle for milk production. During livestock migration milk production is mainly from sheep and goats. Cattle and goats are the main source of milk for agro pastoral and mixed farming livelihood zones.

Milk Consumption

Milk consumption is prioritized in the diets of children, the elderly and herders.

Table 6: Milk Availability and Consumption across livelihood zones

Livelihood zone	Milk Production (Litres)/Household	Milk consumption (Litres) per Household	Prices (Ksh)/Litre

	Current	LTA	Current	LTA	Current	LTA
Pastoral	0 - 2	1 - 3	0 - 1.5	0.5 - 1.5	50	40
Agro pastoral	0 - 3	2 - 5	0 - 2	1 - 3	50	49
Mixed farming	3 - 8	4 - 8	1 - 4	1 - 5	40	40

Tropical Livestock Units (TLU)

Average livestock holding per household varies depending on the livelihood zone and the household status in terms of wealth (table 7). Generally the Tropical livestock Unit is below normal and this is attributed to declining land sizes, regular destocking to purchase food and household necessities, but not necessarily due to mortality.

Table 7: Tropical Livestock Units across Livelihood zones

Livelihood zone	Poor income households		Medium income households	
	Current	Normal	Current	Normal
Pastoral	5	7	21	21
Agro pastoral	3	7	14	21
Mixed farming	1	5	5	7

Birth Rate

The status of births in cattle is below normal but fairly normal in sheep and goats. Cattle have not fully recovered from the impacts of the last drought and still have poor body condition resulting in below normal calving rate.

Livestock Migration

Livestock migrations back to their normal grazing fields is being experienced especially in the pastoral and agro-pastoral zones, the on-going back to home migrations is from the upper parts of Mau, neighbouring Counties of Nakuru and Bomet. However with intensifying drought, livestock in pastoral and agro pastoral livelihood zones are likely to embark on out migration in the next one to two months. Pasture regeneration was poor due to erratic rains and available pasture is being fast depleted.

Livestock Diseases and Mortalities

The main livestock diseases that were reported are Anthrax in Kilgoris and Lemek , *Peste des Petit Ruminants* (PPR), Contagious Bovine Pleuro Pneumonia (CBPP), Contagious Caprine Pleuro Pneumonia (CCPP), Rabies, Enterotoxaemia , Lumpy Skin Disease (LSD) in Olderekesi, and Kilgoris, Foot and Mouth Disease in Mau, Blue tongue and cases of helminthiasis, East Coast Fever (ECF) and Trypanosomiasis.

Mortality Rate

Livestock mortality was reduced below the LTA especially for shoats owing to vaccination campaigns by Regional Pastoral Livelihoods Resilience Project (RPLRP), NDMA, State Department of Livestock (SDL) and Narok County Government. Cattle mortality was due to drought related factors of pasture and water insufficiency and not necessarily due to diseases.

Table 8: Livestock Mortality rates for different species

Species	Current (%)	Normal (%)
Cattle	6	5
Goats	12	15
Sheep	13	16

Water for Livestock

Water Sources and Availability

The main water sources for both domestic and livestock are rivers, springs, pans, dams and boreholes. Most water sources have some water, but the volumes are below normal due to inadequate recharge. The quantity and quality of water has improved in all the livelihood zones as a result of the increased water levels. Return trekking distances to watering points has normalized same to watering intervals which is once to twice per day. Water availability is projected to last for one to two months in pastoral and agro pastoral livelihood zones and two to four months in mixed farming zones.

Table 9: Water for Livestock

Livelihood zone	Return trekking distances		Expected duration to last (Months)		Watering frequency	
	Current	Normal	Current	Normal	Current	Normal
Pastoral	3-8	3-8	0.5-1.5	1-2	Once	Once
Agro pastoral	3-8	3-8	1.5- 4	3- 4	Once	Once
Mixed farming	0.5-3	0.5-3	2- 4	3- 4	Once	Twice

3.2 Access

3.2.1 Markets prices

Market operations are normal, however livestock prices are below normal and it's attributed to oversupply since sale of livestock is the main source of income for purchase of household commodities because of reduced maize stocks in households.

The major markets in the county are Narok, Ololulunga, Kilgoris, Nairegia Enkare, Dikir and Innosaen in the mixed farming livelihood zone and Lolgorian, Ntulele and Naroosura in the agro-pastoral livelihood zone. The main products traded in the markets were livestock and related products, crop produce and household items sourced within the county as well as Bomet, Nakuru, Kajiado and Nairobi counties. Traded volumes were normal for the season. Market purchases continue to be an important source of food.

Maize prices

The pastoral zone recorded the highest maize price of Ksh. 78 while the lowest price of Kshs 73 was reported in the agro-pastoral and mixed farming areas. The average price of maize has increased since March due to scarcity across all livelihood zones. It is currently 33 percent above the LTA (Figure 3). Prices are projected to remain high as farmers rely on the market across all livelihood zones and less from farm production and carryover stocks from the previous season.

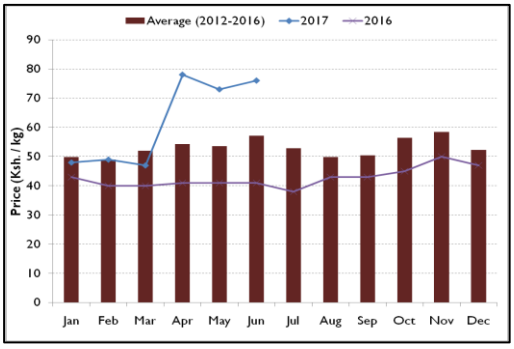

Figure 3: Maize prices in Narok County

Goat prices

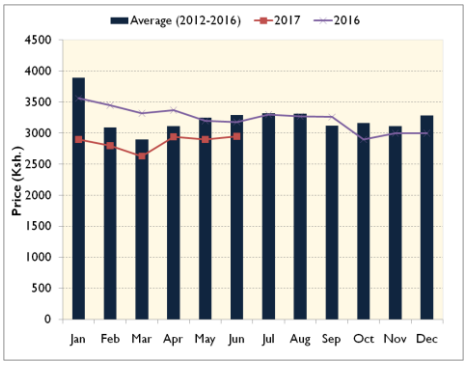

Figure 4: Goat prices in Narok County

In June 2017, goat prices were 10 and 3 percent below the LTA and same time 2016 respectively (Figure 4). The lower price is attributed to deteriorating body condition of goats in the pastoral and agro-pastoral areas and high supply to the markets as farmers seek to buy maize which is in low supply. The price is expected to further decrease as the maize harvest is expected to be low.

3.2.2 Terms of trade

The terms of trade (ToT) was 77 and 83 percent of LTA in January and March 2017 respectively, but increased to 90 percent of the LTA in June 2017 (Figure 5). The changes were due to the increased maize prices and the stabilizing goat prices. The Terms of Trade (ToT) were unfavorable to livestock producer in June 2017 since the sale of a goat could purchase 52 kg of maize compared with LTA of 58 kg hence limiting access to food. The decline in ToT below the LTA was attributed by high maize prices.

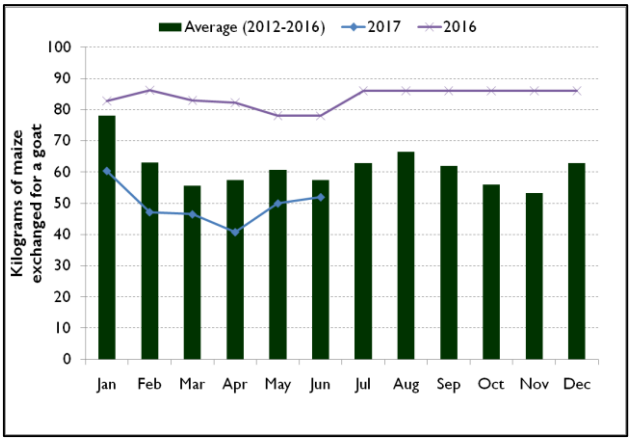

Figure 5: Terms of trade in Narok County

3.2.3 Income sources

The main sources of income are crop production and livestock production. Other sources include casual labour and charcoal burning. The county is mostly dependent on the long rains for crop production in the mixed farming and agro-pastoral areas. The main crops grown for food and income being maize, beans and potatoes. Maize and beans contribute (60:20) and (70:5) percent to food income in the mixed farming and agro-pastoral livelihood zones respectively. The major

livestock in the county are cattle, goats and sheep. Livestock production contributes 40, 66 and 85 percent to cash income in the mixed, agro-pastoral and pastoral livelihood zones is respectively.

3.2.4 Water Access and Availability

Major Water Sources

The main sources of water for domestic and livestock use in the county are rivers, dams, pans, ponds, boreholes, shallow wells, and springs. During the drought which hit hard from the month of November 2016 to April 2017, the three major sources of water were rivers, boreholes and pans. Rivers and pans levels are slightly below normal but the boreholes are still normal as the aquifers are constant. -The increase of water levels was due to the rains which fell in the month of May. The recharge level averaged slightly less than normal and consequently, the pans and dams are 60 percent full and can last for two months in pastoral livelihood zone and about three months in mixed farming livelihood zone. The rivers flows keep fluctuating depending to the rains in Mau area where rivers originate from thus replenishing and increasing the water flow. However the flows are currently below normal. There were no incidences of conflicts resulting from water shortage reported.

Distances to Water Sources

The distances to water for domestic and livestock usage has mostly changed in the pastoral areas. Usage of water in pastoral areas is from pans and dams. The pans recharged to about 60 percent. However most of the pans are silted up and hold less water, thus actual amounts of water in the pans has declined. This has caused the distances to water points to increase. In mixed farming livelihood zone, most households have storage facilities and thus they still have water. However, with the current conditions, distances to water sources is expected to increase above normal.

Water Consumption and Cost

The cost of water in many areas is normal which is between Ksh 5 and Ksh15 in mixed farming livelihood zone and Ksh 30-50 per 20 liters in pastoral livelihood zone. That is the cost by the water vendors. Water from borehole is selling at Ksh. 5-10 for 20 liters. Water consumption in mixed farming livelihood zone is normal. This was due to water storage facilities.

The water quality deteriorated as most of these water points were recharged from run-off and this was after a pro-longed dry spell. However no water borne disease cases that have been reported.

Table 10: Water for Domestic use

Livelihood Zone	Distance to water for domestic use (Km)		Cost of water (Ksh per 20 litres)		Waiting time at water source (Minutes)		Average HH Consumption (Litres/person/day)	
	Current	Normal	Current	Normal	Current	Normal	Current	Normal
Pastoral	10-15	10-15	10-15	2-5	60	30	15-20	15-20
Agro pastoral	7-10	7-10	2-10	2-10	60	30	20-30	20-30
Mixed Farming	1-5	1-5	5-10	2-5	20	20	30-40	30-40

3.2.5 Food Consumption

The proportion of households (HH) with acceptable food consumption score in the pastoral livelihood zone has declined from 94 percent to 68 percent from March to June 2017, and from 20 percent to three percent in agro-pastoral livelihood zone during the same period. The proportion of households in borderline has increased from three percent in March 2017 to 27 percent in June 2017 in agro-pastoral livelihood zone (Figure 6). The significant shift of households from acceptable to borderline and from borderline to poor FCS is indicative of declining household dietary diversity and food frequency which has resulted from decreased food production and unfavourable market prices of food commodities over the last three months. Many households across livelihood zones continued to rely on the market for supply of food items. However, the situation is stable in the mixed faming livelihood zone.

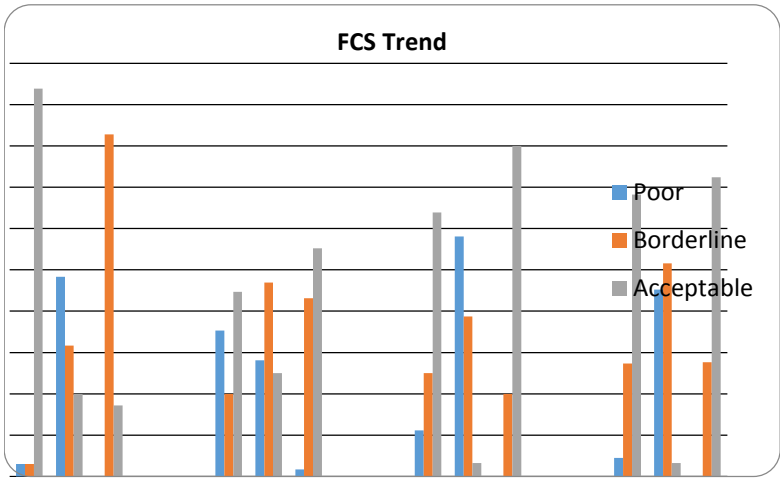

Figure 6: Food Consumption Score

3.2.6 Coping strategy

The coping strategy index was 3.7, 4.1 and 10.5 in the pastoral, agro-pastoral and mixed farming livelihood zones in June 2017. Consumption related coping strategies widely employed by households included relying on less preferred and less expensive food and skipping of meals.

3.3 Utilization

Household food utilization is a function of morbidity prevalence of under-fives and general population, levels of completion of immunization and vitamin A coverage, nutritional status among households and level of sanitation and hygiene practices among households.

Morbidity Trends

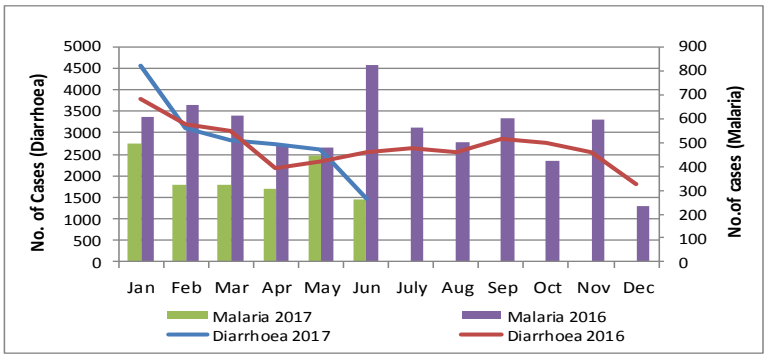

Figure 8: morbidity trends

The leading causes of morbidity among children under five years of age and the general population were acute respiratory tract infections, diarrhoea and malaria. However, Diarrhoea and malaria cases were lower for the period January and June 2017 compared to similar period in 2016 (Figure 8).

3.3.1 Nutritional status

The proportion of children under five years at risk of malnutrition, based on mid upper arm circumference (MUAC) of <135 mm, increased by 64 percent above the LTA in April 2017 but declined to 45 percent above the LTA in June 2017 (Figure 10). The decline in nutritional status is attributed to low household milk consumption among children, decreased household access to food and reduction in health care services. The trend is likely to stabilize due to ongoing interventions.

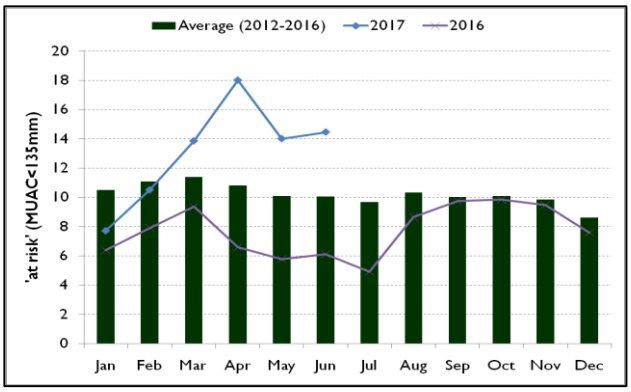

Figure 9: Proportion of children at risk of malnutrition

3.3.2 Sanitation and Hygiene

The average latrine coverage in the county was 58 percent as a result of increased health promotion through community units. Coverage and utilization is low in the pastoral areas due to low sensitization, nomadic lifestyle and cultural beliefs. Water sources may be contaminated through surface run-off washing away agro-chemicals, human waste and refuse, polluting water sources.

3.4 Trends of Key Food Security Indicators

The county was classified in the minimal phase (Phase 1) of the Integrated Food Security Phase Classification (IPC) during the short rains assessment of February 2017 but has moved to the stressed phase (IPC Phase 2) in the current assessment. The performance of food security indicators comparing the long rains and short rains seasons are shown in Table 11.

Table 11: Food Security Trends in Narok County

Indicator	Short rains assessment, February 2017	Long rains assessment, July 2017
Percent of maize stocks held by households (Agro-pastoral)	119	63
Livestock body condition	Fair	Fair - poor
Water consumption (litres per person per day)	10 - 30	15-20
Price of maize (per kg)	35 - 60	45 - 80
Distance to grazing (km)	6	3 - 8
Terms of trade (pastoral zone)	62	50
Coping strategy index	28	6.1
Food consumption score (Poor: Borderline: Acceptable)	3:24:71	17: 36:47

3.5 Education

Access

Narok County has 48,937 (47 percent female) ECD students, 237,746 (48 percent female) primary school students, and 31,252 (44 percent female) secondary students enrolled. The enrolments have remained steady from 2016 to 2017.

Participation

Primary attendance rate has fluctuated, with a significant decrease over the months from 85/83 percent (m/f) attendance in November 2016 to 60/58 percent attendance (m/f) in March, before rising sharply again in Term II to 85/83 percent attendance (m/f) in June 2017. This could be attributed to the resumption of School Meals Programme after the pipeline break in Term I. Secondary attendance rate for both males and females has reduced by about 10% since 2016, while ECD attendance has seen a steady if small increase over the same time from 75/70 percent attendance (m/f) in November 2016 to 85/81 percent attendance (m/f) in June 2017.

Retention

The drop-out rate in primary school is reported at 15 percent among male students and 17 percent among female students, with no difference noted between Term III 2016 and Term I 2017. Secondary school dropout rate has decreased by 1 percent since 2016, from 11 to ten percent among females and from ten to nine percent among males.

Top reasons for drop out are reported as no food in schools and migration; for primary and secondary schools, family labour responsibilities/household chores and married/pregnant also feature as key reasons for drop out.

School Meals Programme

98,940 students are benefitting from the Home Grown School Meals Programme (HGSMP). 49,136 children in 128 schools are also benefitting from drought mitigation meals through Food for Fees programme through the GoK. However, a gap of at least 138,823 children remains for School Meals Programme, due to there being a surplus of children and not enough food allocated to the schools.

4. FOOD SECURITY PROGNOSIS

4.1 Assumptions

Prognosis assumptions are based on the following:

- The performance of the short rains will be normal.
- Resource-based conflicts are likely to arise along some boundaries.
- Market prices are likely to increase
- Agricultural farm inputs are likely to be unavailable in required quantities.

4.2 Outlook for 3 and 6 months

Food Security Outcomes (August – October)

The overall food security situation across the county is expected to remain stable over the next three months. The maize harvest is poor and maize stocks at HH level are expected to decline further. Forage is expected to deteriorate due to inadequate soil moisture content and pressure from grazing by livestock. The livestock body condition is expected to decline in all livelihood zones. Terms of trade are expected to be in favor of livestock keepers. The nutrition status of children under five is expected to decline due to lack of milk in the pastoral and agro-pastoral livelihood zones. Food consumption patterns are expected to decline in the pastoral areas where milk availability is expected to decline and hence decreased household consumption. Frequency of meal consumption is expected to decline in all livelihood zones. However, mortality rates for both children under five and the general population are expected to remain below the alert cut off points.

Food Security Outcomes (November – January)

With the projected normal performance of the short rains, modest rejuvenation of pasture and browse is expected across all livelihood zones and thus the body condition of livestock is expected to improve. Maize stock supply in the markets will decrease leading to higher market price. The goat prices will increase slightly until end of December as farmers slowly release their stocks in the market to buy cereals. Therefore the terms of trade are most likely to remain favorable to the livestock keepers

5. CONCLUSION AND INTERVENTIONS

5.1 Conclusion

The county is classified in the stressed food security phase classification (IPC Phase 2). The situation is expected to continue deteriorating. However, key factors that need close monitoring in the next six months; especially in the pastoral and agro-pastoral areas, especially stocks of staples, pasture and browse situation, livestock body condition, human and livestock diseases, livestock and food prices, under-five nutritional status, distances to water sources, availability and access to forage and water, resource-based conflicts, inter-community conflicts and insecurity.

5.1.1 Phase classification

The county is in stressed food security phase classification (IPC Phase 2) attributed to poor rains leading to fair to poor forage conditions, water scarcity and out-migration.

5.1.2 Summary of key findings

Long rains harvest will be in the range of 50-70 percent of LTA, as a result of poor rainfall coupled with no stocks at the household, loss of income and food, d reduced on farm labor opportunities. This has led to majority of household to rely on markets for their food. Terms of trade are already unfavorable to the households and the trend is worsening due to high trade volumes and low demand especially for livestock. Water stress to bite across all the pastoral and agro-pastoral livelihood zones, the situation is likely to worsen until the onset of the short rains. Majority of households in the acceptable food consumption score category are likely to move to borderline food consumption score bracket and household food security will be compromised. Most households will remain in the stressed food security phase (IPC Phase 2).

5.1.3 Sub-county ranking

Table 11: Ranking of Sub County in order of food insecurity severity (worst to best)

Sub County	Food Security (1 – 6)	Justification
Transmara East	1	Low levels of diversification, poor rains distribution, High levels of malnutrition, high poverty levels, small land sizes
Narok East	2	Low levels of diversification, water sources drying, deterioration of pasture and browse
Narok West	3	Low levels of diversification, deterioration of pasture and browse
Narok South	4	Low levels of diversification
Narok North	5	Better coping strategies, diverse crops, dairy and beef, chicken
Transmara West	6	Better coping strategies, informal/formal employment, vast land, two season, depend on markets

5.2 Ongoing Interventions

5.2.1 Food interventions

County	Intervention	Location	Number of Beneficiaries	Implementers	Impact in terms of food security	Cost	Time frame
Health and Nutrition							
	Food fortification		204,000 under five children, pregnant and lactating women	MOH and partners	Multiple micronutrient supplements (mms)	Human resource	1-5 months
	IYCN interventions (EBF and timely intro of complementary foods)	County	144,300 under five children (calculations based on 2009 figures of population)	MOH and partners	Financial support to start the program in county	Human resource	1-5 months

5.2.2 Non-food interventions

County	Intervention	Location	Number of Beneficiaries	Implementers	Impact in terms of food security	Cost	Time frame
Livestock							
	Provision of livestock feeds and supplement, vaccination, pest control	Entire County	6000 HH, 600,000 animals	MoALF	Improved livestock productivity and reduced mortalities	28M	Jan – Dec 2017
Education							
	Food for School fees for secondary schools	Entire county	20 percent of the student population	National Government	Enables schools to run uninterrupted	500M	2017/18
Water							
	Construction of water treatment plant at Mulot water supply	Narok West SC (Ilmotiok ward)	2000HHs	County government, Water services trust fund	Quality water availability	10M	Jan to Dec 2017
	Equipping of a borehole at	NW SC - Siana Ward	2000	Rift Valley Water Services	Water availability	3M	April – August 2017

	Kishiamurwak			Board (RVWSB)			
	Water trucking	Nkereeta Olontoto (Narok North SC)	500	County government	Water availability in times of drought	1M	During drought
	Fuel subsidy	Operation of boreholes in Narok North	800	RVWSB	Enhance water distribution	1M	Jan to Dec. 2017
	Rehabilitation of 2 boreholes	Enobalbal and Angata Naado. (Narok North SC)	1000	ENSDA	Enhance water distribution	2M	Complete
	Rehabilitation/Extension of Mosiro community bore hole and installation of solar system	Mosiro centre, Suswa, Ilkerin, Mogondo, Kapsasian, Ololmasani	28500	Safaricom through Action aid, World Bank, Narok county /WSTF/world vision	Enhance water distribution	16M	Jan to Dec. 2017
Agriculture							
Immediate							
	Capacity building	countywide	1000 HH	ASDSP/DOALF	-Higher productivity -lower post-harvest losses	10m	2013-2018
	Provision of GoK subsidized fertilizer	Countywide	15,000	MoA	Improving crop production at affordable farm inputs prices	100m	Continuous
	Provision of relief seed	Countywide	2500HH	MoA	Improving crop production	100m	On going
Medium term/Long term							
	Input subsidy	Countywide	Over 5000HH	MOA AND STAKEHOLDERS	Improving crop production at affordable farm inputs prices		seasonal
	Drought tolerant crops	Countywide	Over 5000 HH	MOA AND Stakeholders	Improving crop production		seasonal

	Water harvesting for crop production	Countywide	Over 5000 HH	MOA AND Stakeholders	Improving crop production		By 2022
Health and Nutrition							
	Vitamin a supplementation	County wide	All under fives	MOH/UNICEF	Boost immunity/ UNICEF	3,000,000/-	Routine
	Management of acute malnutrition (imam)		All acutely malnourished children	MOH/UNICEF	Acute malnutrition treated/ UNICEF	3,900,000/-	Routine
	Iron folate supplementation among pregnant women	County wide	All pregnant mothers	MOH/UNICEF	Treatment of anaemia/ reduction of iron deficiency and congenital abnormalities	300,000/-	Routine
	Deworming	County wide	All under five children, pregnant and lactating mothers	MOH	Reduction in worm infestations, anaemia and malnutrition	Done during vitamin a supplementation	Routine
	Nutrition support for HIV and TB clients	County wide	All malnourished HIV and TB clients	MOH/UNICEF/AMREF	Reduction of malnutrition and quick recovery	2,500,000/-	Routine

5.3 Recommended interventions

5.3.1 Food interventions

County	**Intervention**		**Location**	**Number of Beneficiaries**	**Implementers**	**Impact in terms of food security**	**Cost**	**Time frame**
Education								
	School Lunch programme		All primary schools	237,763 pupils	GOK, NGO, County Government		120 Million	3 months

5.3.2 Nonfood interventions

County	Intervention	Location	Number of Beneficiaries	Implementers	Impact in terms of food security	Cost	Time frame
Livestock							
	Enhance livestock disease surveillance, vaccination and pest control	County wide	60% of the livestock population	MoALF and Partners	Improved livestock productivity and reduced mortalities	30M	2017/2018 FY
	Enhance pasture production through provision of pasture seeds	County wide	40% of HHs	MoALF and Partners	Improved livestock productivity	8M	2017/2018 FY
	Enhance provision of livestock feeds and supplements, Index Based Livestock Insurance (IBLI)	Hard hit areas	30% of livestock population	MoALF and Partners	Improved livestock productivity and reduced mortalities	70M	2017/2018 FY
Water							
	Rehabilitation and repair of broken pumping machine in existing water supplies	The whole County	20000	CG, GOK, Willing donor	Enhance water distribution	20M	2017/2018
	Water trucking	Mosiro, Suswa, Ntulele	3000	CG, GOK, Willing donor	Enhance water distribution	1M	2017/2018
	Provision of plastic storage tanks	Educational institutions	20000	CG, GOK, Willing donor	Enhance water distribution	10M	2017/2018
	Construction of 6 new dams and 60 water pans	At strategic points	100,000	CG, GOK, Willing donor	Enhance water distribution	210M	2017/2018
	Drilling and equipping of 12 bore holes	At strategic points	100,000	CG, GOK, Willing donor	Enhance water distribution	72M	2017/2018

Agriculture							
Immediate							
	Capacity building	County wide	5000 HH	ASDSP/DO ALF	Improving crop production	79M	2017-2020
	Drought tolerant crops	County wide	Over 5000 HH	MOA AND Stakeholders	Inputs seeds – logistics such as fuel	100M	seasonal
Medium term/long term							
	Input subsidy	County wide	5000HH	MOA and stakeholders	Inputs and program logistics	50M	By 2030
	Water harvesting for crop production	County wide	5000 HH	MOA and stakeholders	Earthmovers, fuel, manpower	200M	By 2022
Health and Nutrition							
	Nutrition screening and HINI outreach services	County	20,000 children and 5,000 pregnant and lactation mothers	MOH and partners	Distribution of the UNICEF and FHI nutrition supplements	Some supplements	1-5 months
	Iron folate supplementation among pregnant women	County	About 70,000 pregnant women	MOH and partners	Adequate supplements Funds for staff training	Human resource	1-5 months
	Vitamin A, ORS, Zinc and Deworming	County	120,000	MOH and partners	De-wormers Transport to schools and community	Human resource	1-5 months