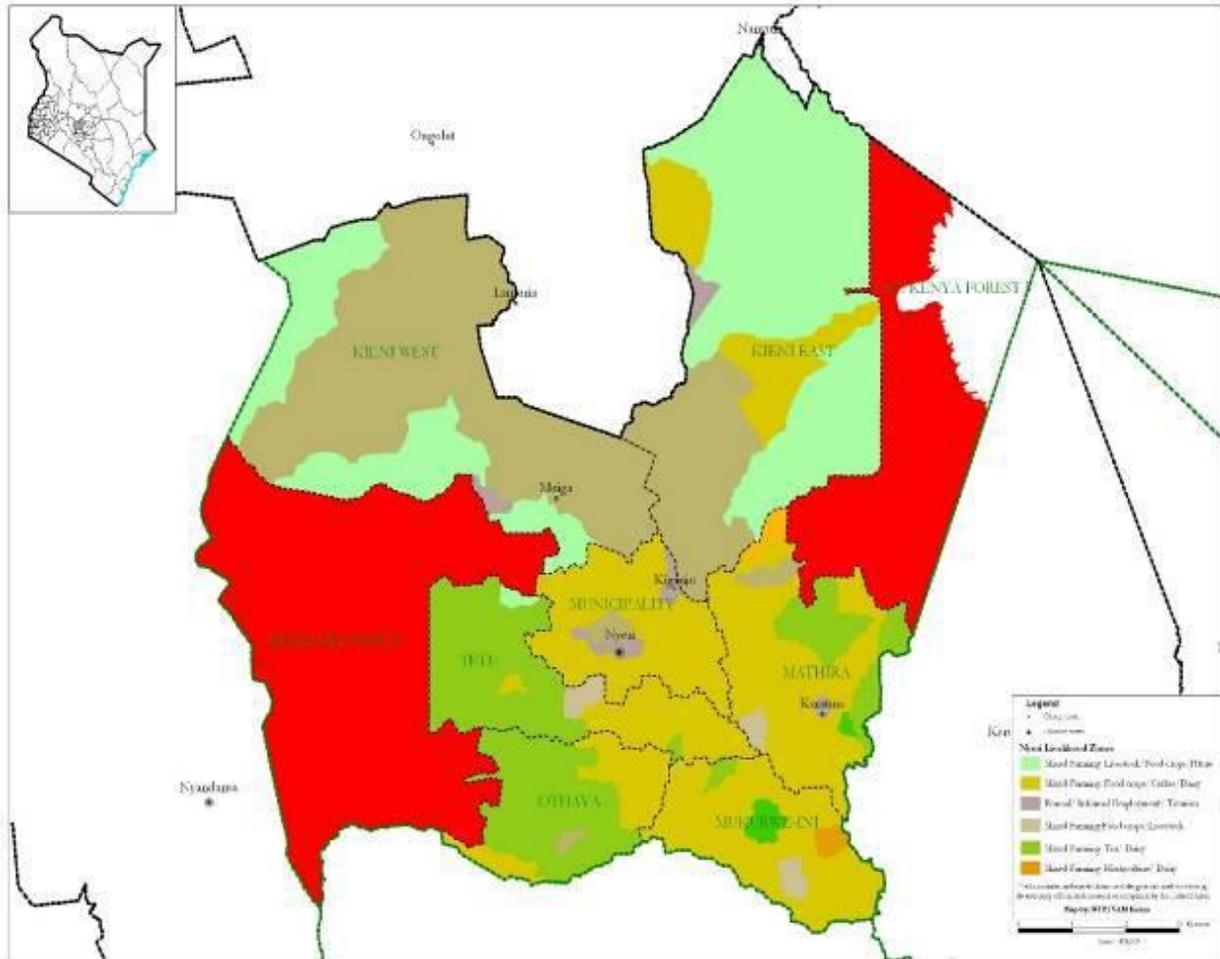


**NYERI COUNTY (KIENI)
2016 SHORT RAINS FOOD SECURITY ASSESSMENT REPORT**



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

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Executive Summary

The county is classified in the stressed food security phase (IPC Phase 2). Households in mixed farming livelihood zone were worse off in terms of food consumption score compared to those in marginal mixed farming livelihood zones as; 18 percent were at poor, 29 at borderline and 53 percent at acceptable. Coping strategy index rose to 1.6 from 1.4 between November and December, 14.3 percent rise. Households were employing coping mechanism more frequently during the month. Some of the coping mechanisms employed were purchase of food on credit, borrowing from friends and relatives, remittances, gifts, consumption of less preferred, less frequency and consumption of cheaper foods.

Based on the forecasted depressed short rains, the area under rain-fed agriculture decreased and consequently low production was realized. Maize production was below 20 percent in both livelihood zones. Currently the Maize stocks held at households are 56 percent of long-term average (LTA). This was aggravated by the poor performance of the previous season. Food mainly accessed from own production would be affected and households will rely on markets. Pasture condition was fair in the Mixed Farming and poor in the Marginal Mixed farming livelihood zone. The pastures were expected to last for a period of one month in mixed farming and two weeks in marginal mixed farming zones, which is below normal of two months and one month respectively.

The purchasing power at the household level was being eroded, as maize prices were 10 percent higher than the long-term average due to low supply coupled with high demand as majority of households were depending on markets for food supplies. Trade volume for the sheep had increased leading to poor prices as the supply outweighs the demand. More farmers are selling their livestock in order to meet their household needs. Milk consumption at household level remains normal; 0.5 litres in marginal mixed farming and 1 litre in mixed farming livelihood zone.

Some source of water have already dried up, leading to water rationing which has adversely affected the water consumption and cost. Household water consumption decreased from normal consumption of 25 liters per person per day to between 15-20 liters per person per day in mixed farming livelihood zone and 5-10 liters per person per day in marginal mixed farming livelihood zone. Distance to watering points for livestock increased by 25 percent and was expected to increase with time. Watering frequency was normal at once a day for cattle though it was projected to deteriorate. The average price of a kilogram of maize was Ksh. 39 being 10 percent lower than the LTA; this was attributed to adequate supplies from the neighboring counties, however the prices are expected to increase due low production.

Poor food availability and access affected nutrition status negatively.. Nutrition status of children under five years was stable. However; the trend is likely to deteriorate as household food stocks are depleted. Diarrhoea cases among children increased due to poor sanitation, unhygienic practices because of water scarcity.

1.0 Introduction

1.1 County Background

Kieni East and West sub counties lie within Nyeri County covering 52 percent of the total land cover. The two sub counties cover an area of 1,990.3 square kilometers with a total population of 175,812 people. The main livelihood zones include marginal mixed farming, mixed farming, non-formal employment and formal employment (Figure 1).

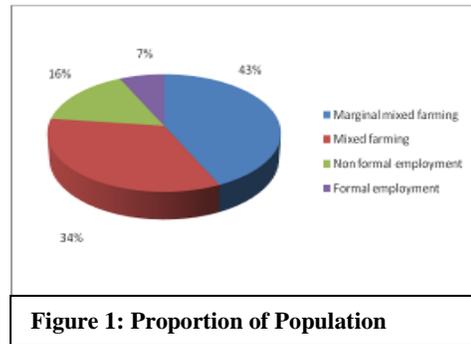


Figure 1: Proportion of Population

1.2 Objectives and approach

The main objective of the SRA was to develop an objective, evidence-based and transparent food security situation analysis following the short rains season of 2016 taking into account the cumulative effect of previous seasons, and to provide recommendations for possible response options based on the situation analysis.

The methodology used was review of the existing data on the current situation as well as historical data from different sources. Kenya Food Security Steering Group (KFSSG) members and County Steering Group (CSG) convened an initial meeting for the briefing of the assessment and formation of the assessment team. The assessment team used sectoral checklists and community interview guides to collect data from the sub counties during the transect drive. Collection of Market survey data was from Mweiga, Kiawara, Chaka and Naromoru market centers.

2.0 Drivers of Food and Nutrition Security in the County

Drivers of food and nutrition security in the county includes: Rainfall performance, insecurity, resource based conflicts, shocks and hazards. This section describes and analyzes some of these drivers in relation to food and nutrition security.

2.1 Rainfall Performance

The performance of the short rains in the county was below normal (Figure 2). The onset of the rains was late as it occurred in the first dekad of November 2016 as opposed to the third dekad of October. The amounts received were 50–90 percent of normal. The rains were characterized by poor temporal and even spatial distribution. Cessation was early on the second dekad of December 2016.

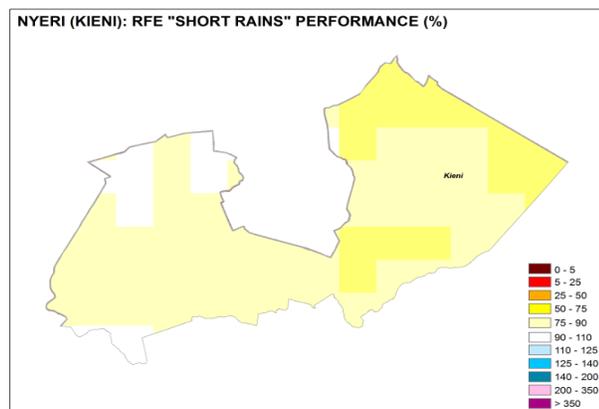


Figure 2: Rainfall performance

2.2 Insecurity and Conflicts

Incidences of resource-based conflicts were evident occasioned by in-migration of livestock from neighboring county of Laikipia. There is a likelihood of escalation of the conflicts as available resources diminish and more livestock continue to stream in hence the need to enhance peace-building efforts.

2.3 Other Shocks and Hazards

The current factors affecting food security include:

- Frost- affecting pasture and crops, thus reducing availability
- Pests and Diseases (livestock and crops) reduce production
- Invasive Pasture Weeds attack crops and pasture reducing the availability.

3.0 Impacts of drivers on Food and Nutrition Security

3.1 Availability

The County is facing food shortage due to crop failure and low milk production; this has been attributed to poor performance of short rains season.

3.1.1 Crop production

Rain-fed Crop Production

The area under rain-fed agriculture decreased by 34 percent for maize, beans by 20 percent and Irish potatoes by 21 percent; lower than the LTA. This was because of the forecasted depressed short rains. Consequently, production for maize, beans and potatoes decreased by 83, 56 and 36 percent respectively across the livelihood zones due to poor performance of the short rains (Table 1).

Table 1: Rain fed Crop Production

Crop	Area planted during 2016 Short rains season (Ha)	Long Term Average Area planted during the Short rains season (Ha)	2016 Short rains season production (90 kg bags) Projected/Actual	Long Term Average production during the Short rains season (90 kg bags)
Maize	3100	4684	6,200	37472
Beans	2968	3700	5,936	13,356
Potatoes	4050	5100	253,125	405,000

Irrigated Crop Production

Irrigated Crop Production in Kieni constitutes 4 percent of the total acreage under food production. It is practiced along the riverbanks, riparian areas and valley bottoms as alternate sources to supplement rain-fed agriculture. During the season under review, there was poor recharge of irrigation water sources hence a decrease in area cultivated and quantities produced of all crops across the livelihood zones. The area planted with cabbages, kales and spinach decreased significantly by 38, 35 and 49 percent respectively below the LTA across the

livelihood zones. Production dropped by 49, 40 and 46 percent for cabbages, kales and spinach respectively, below the LTA (Table 2):

Table 2: Irrigated Crop Production

Crop	Area planted during the 2016 Short rains season (ha)	Long Term Average Area planted during Short rains season (ha)	2016 Short rains season production (Metric Tonnes) Projected/actual	Long Term Average production during 2016 Short rains season (Metric Tonnes)
Cabbages	350	560	6300	12,320
Kales	75	115	1800	2990
Spinach	23	45	184	360

3.1.2 Maize stocks held in the county

The stocks held by household, traders and millers were 56, 72, and 53 percent of LTA respectively (Table 3). Low stocks were due to poor performance of previous long rain season. Most traders and millers are sourcing maize from other counties in North Rift and Western regions of the country. The available stocks across the livelihood zones were expected to last for two weeks compared with one month normally.

Table 3: Maize Stocks held

Maize stocks held by	Quantities held currently (90-kg bags)	Long Term Average quantities held (90-kg bags) at similar time of the year
House Holds	107	190
Traders	5155	7125
Millers	4000	7550
NCPB	0	0
Total	9262	14865

3.1.3 Livestock Production

The major livestock species reared include; cattle, sheep, goats and local poultry. Cattle are mainly kept for milk production while sheep and goats are reared for meat production. Over 70 percent of the cattle kept are cross breeds. Indigenous poultry plays an important role as an income generating activity especially for poor households. Livestock contributes about 30 percent and 70 percent to cash income in mixed farming and marginal mixed farming livelihood zones respectively.

Pasture and Browse Condition

Pasture condition is fair in the mixed farming and poor in the marginal mixed farming livelihood zone (Table 4). The pastures are expected to last for a period of one month in mixed farming and two weeks in marginal mixed farming zones compared to a normal of two months and one month respectively.

Browse situation is fair to good across all livelihood zones. However, the situation is expected to deteriorate if no off-season showers are experienced in the coming month of February. Browse is expected to last for one month as compared to two months during normal times in both livelihood zones. Napier grass on the other hand has been affected by frostbite in most areas of Gakawa, Gatunyaga, Thegu, Lamuria, Ruirii and Munyu. The crop residues that complement the pasture is currently not available because of crop failure.

Table 4. Pasture and Browse Condition

Livelihood zone	Pasture condition			Browse condition		
	Current	Situation at this time of year	Projected Duration to last (Months)	Current	Situation at this time of year	Projected Duration to last (Months)
Mixed Farming	Fair	Good	one month	Fair	Normal	1 months
Marginal Mixed Farming	Poor	Fair	Two weeks	Fair	Below Normal	1 month

Livestock Productivity

Livestock Body Condition

The body condition for most livestock species was fair across both livelihood zones (Table 5). In some areas of the marginal mixed farming livelihood zone, the animals are in poor body condition. The situation is expected to decline as we approach February 2017. As the trekking distance to watering points increases, livestock body condition is expected to deteriorate thus influencing negatively on production, food security and overall household income.

Table 5. Livestock Body Condition

Livelihood zone	Cattle		Sheep		Goat	
	Current	Situation at this time of year	Current	Situation at this time of year	Current	Situation at this time of year
Mixed Farming	Fair	Good	Fair	Good	Fair	Good
Marginal Mixed Farming	Fair	Good	Fair	Good –fair	Fair	Good –fair

Birth Rates, Milk Availability, Milk Consumption and Prices

Currently, the birth rates are normal, at one to two lambing or kidding per year and calving interval is expected to decline as body condition and feed quality declines. Milk production in most households is normal at 1 litre and 2.5 litres in the Marginal Mixed Farming zones and Mixed Farming livelihood zone respectively (Table 6). The trend of milk production is gradually declining as the availability and quality of pastures continue to date.

Consumption of milk was normal and remained at 0.5 and 1.0 liters per day in the marginal mixed farming and mixed farming livelihood zones respectively. The trend is likely to deteriorate as milk production is projected to reduce. Milk price was between Ksh 28 – 29 across all livelihood zones; which was normal at this time of the year.

Table 6: Milk Availability milk consumption and prices

Livelihood Zone	Livestock species	Milk Production (Liters)/HH/Day		Milk consumption (Litres)/HH/Day		Prices (Ksh)/Litre	
		Current	LTA	Current	LTA	Current	LTA
Mixed Farming	Cattle	2.5	2.5	1.5	1.0	28-29	28-29
Marginal Mixed Farming	Cattle	1	1.0	0.5	0.5	28-29	28-29

Tropical Livestock Units (TLUs)

The average household livestock size in the mixed farming and marginal mixed farming livelihood zones was 2.5 and 3.5TLUs respectively. The herd sizes are normal for this time of year. Poultry also contributes to household incomes, especially for households in the marginal mixed farming livelihood zone with most households having between 10-20 local birds.

Water for Livestock

The water sources for livestock are rivers, streams, water pans and dams. Water volumes in these sources were below normal, as most of them were not well recharged. The current return trekking distance range from 1.0 to2.5 kilometers in the Mixed Farming zones as compared to a normal of 0.5 to2.0 Kilometers, while in the marginal mixed farming areas, return trekking distance is between 1.5 to5.0 Km as compared to a normal of 1.0 to4 Km. The trekking distance is expected to increase in the coming months. Currently, the watering frequency is once a day for cattle which is normal at this time of the year. Increasing distances to watering and grazing areas were negatively affecting milk production.

Migration and Livestock diseases

Over 3,000 heads of cattle were reported to have migrated in to the county from the neighbouring county of Laikipia. Foot and Mouth Disease was reported in Muthu-ini and Gathiuru Forest. The Veterinary Department with support from NDMA is currently organizing for a ring vaccination for foot and mouth disease.

3.2Access**3.2.1Markets Operations and Price**

Market operations were normal with no disruptions reported. The main markets are Chaka, Naromoru, Kiawara and Mweiga. Market supplies were stable, with cereals, pulses and livestock being sourced from farmers within the County and the nearby Laikipia and Meru Counties. The mainly traded food staples were maize, beans and Irish potato while livestock were cattle, sheep, and poultry.

3.2.1 Maize Prices

The average price of a kilogram of maize in December 2016 were similar to that of 2015 at 39 shilling, this was 10 percent of the LTA which was attributed to adequate supplies from the neighboring county of Nyandarua, and north rift region. The trend will however see increased price of maize due to low production especially in the mixed farming areas and over reliance on markets as household will have depleted their stocks (Figure 3).

3.2.2 Sheep Prices

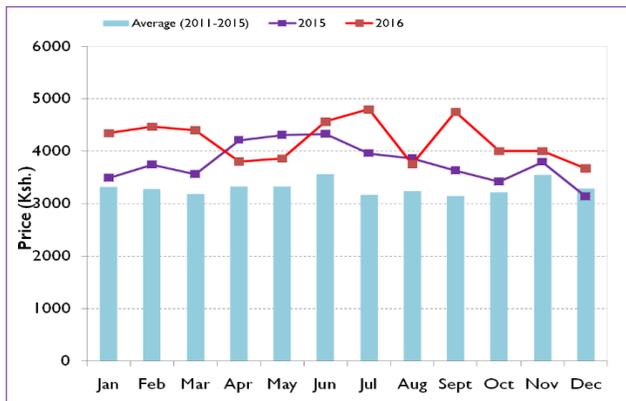


Figure 4: Sheep prices

Sheep prices were better from September to December 2016 compared to both the LTA and the same time last year. In December 2016, the prices increased by 17 compared to 11 percent of the LTA. The prices however are on a downward trend because of poor body condition attributed to deterioration of pasture. Sheep fetched low prices coupled with more trade volumes since; more farmers were selling their sheep in order to meet their household needs (Figure 4).

3.2.3 Terms of Trade- (TOT)

Current terms of trade improved by 19 and 24 percent against the same time in December 2015 and LTA respectively. This can be attributed to the good body condition of sheep during the short rains season. The trend is projected to decline as pasture are almost exhausted and majority of the household will be depending on the market to buy the maize. The short rains crop harvest is below 20 percent, as shown in Figure 4.

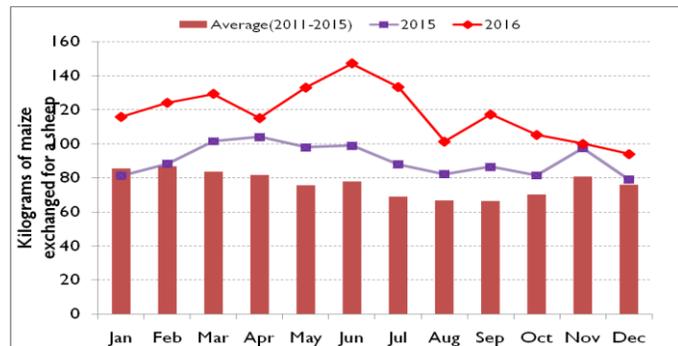


Figure 5: Terms of Trade

3.2.3: Income Sources

The main source of income in the marginal mixed livelihood areas are sale of livestock (sheep and cattle) accounting for 77 percent. Cash crop and food crop production accounts for 67 percent of cash income in the mixed farming livelihood (Table 7). Formal and informal wage contribute to 23 percent of income while poultry production accounts for 10 percent. Sources of income were affected, as there were limited casual labour activities due to depressed rainfalls that led to low crop and livestock productivity.

Table 7: Contribution of crops to cash and food income Crops

Mixed farming zone			Marginal mixed farming zone	
Item	Contribution to cash income	Contribution to food income	Contribution to cash income	Contribution to food income
Maize	1	40	-	20
Beans	2	20	-	60
Irish potato	22	15	-	2
Cabbage	32	12	-	-
Onion	10	1	10	1

3.2.4 Water and Sanitation

Approximately 70 percent of households in Kieni rely on community based water projects that provide piped water while 30 percent directly draw water from the region’s main water sources comprising of rivers, streams, boreholes, springs, shallow wells, dams and pans

Major water sources

The domestic water sources were rivers, streams, dams, pans, springs, shallow wells, boreholes and piped water. Major rivers in Kieni are Burguret, Thegu, Naromoru, Nairobi, Sagana, Ewaso Nyiro and Honi among others. River flows were below base-flow due to two subsequent depressed rain seasons. Dams, pans and shallow wells were also affected by the poor short rains across all the livelihood zones.

Distances to water source

The distance to water sources for households had increased from 0.4 to 2.0 Kilometer in mixed farming livelihood zone while in marginal mixed farming zone the distances increased from 1.5 to 3.5 Kilometers. The existing domestic water infrastructure was not able to convey water to the tail end of the supply systems due to low water levels at the source. As a result, water consumers were compelled to draw water directly from the available water bodies or walk up-stream.

Waiting time at the source

Waiting time increased by two fold and three fold from the normal 15 to 30 minutes and five minutes to 15 minutes in marginal mixed and mixed farming livelihood zone respectively. This is attributed to low water pressures, over concentration of ‘water drawers’ in one points and water rationing that is being carried out by the Water Resource Users Associations (WRUAs).

Cost of water

The average price of a 20 litres *jerrican* by water vendors in mixed farming livelihood zone and marginal mixed farming livelihood zone was Ksh 20 and Ksh 30 respectively, which is far much higher than the normal Ksh 5 and Ksh10 in mixed farming livelihood zone and marginal mixed farming livelihood zone respectively.

Water consumption

Household water consumption decreased from normal consumption of 25 litres per person per day to 15–20 litres per person per day in mixed farming livelihood zone and 5–10 litres per person per day in marginal mixed farming livelihood zone.

3.2.5 Food Consumption

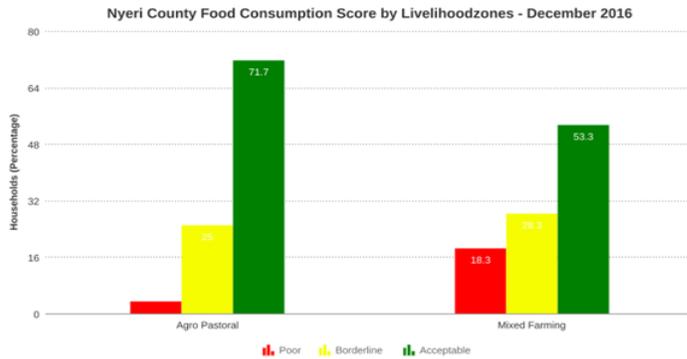


Figure 6: Food Consumption Score

Households in mixed farming livelihood zone were worse off in terms of food consumption score compared to those in marginal mixed farming livelihood zones as 18 percent were at poor, 29 at borderline and 53 percent at acceptable compared to four at poor, 25 at borderline and 71 percent at acceptable respectively, as depicted in figure 5.

Majority of the household are currently consuming less food groups comprising of cereals, and legumes while the frequency has also reduced to 2–3 from 4–3 meals per day per day for under five children and 1–2 meals for adults which is below normal. This is because of crop failure and frostbite.

3.2.6 Coping Strategy

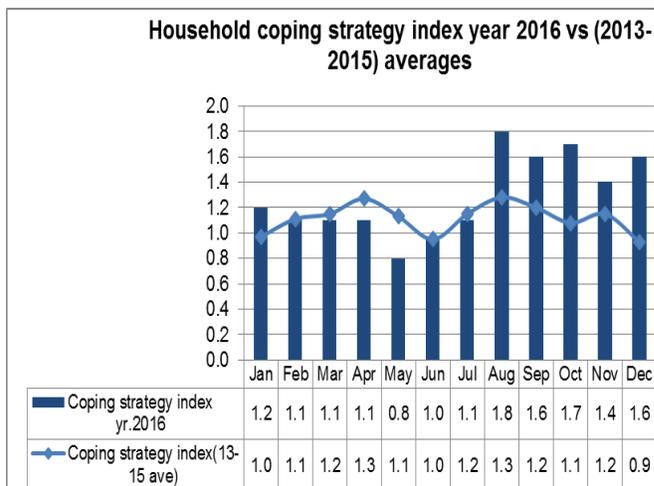


Figure 7: Coping strategy index (CSI)

Coping strategy index of rose to 1.6 in December up from 1.4 in November 2016, which accounted for a 14.3 percent rise. This indicates that households were employing coping mechanism more frequently during the month. The index for the month under review was higher by 77percent compared to 0.9 LTA. Some of the coping mechanisms being employed were purchase of food on credit, borrowing from friends, relatives, remittances, gifts, Consumption of less preferred, and cheaper foods and consumption of wild foods (Figure 7)

3.3 Utilization

3.3.1. Health & Nutrition

Nutritional status

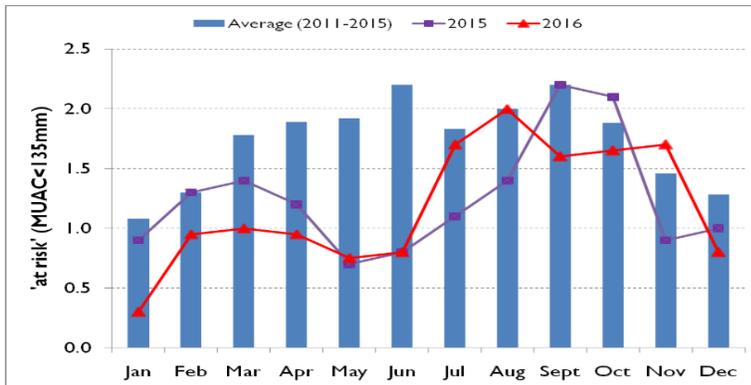


Figure 8: proportion of children at risk of malnutrition

Proportion of under five Children at risk of malnutrition with Mid Upper Arm Circumference (MUAC) of <135 mm in 2016 improved marginally to less than one percent. This is 11 and 38 percent below the same time 2015 and LTA. This improvement can be attributed to availability of milk for household consumption (Figure 8).

Table4: Immunization and Vitamin A Supplementation Coverage

	July -December 2016	July - December 2015
Fully Immunized Child (<1 Year)	92.1%	100.6%
Vitamin A Supplementation 6-59 months	24.8%	128.6%

The Fully Immunized child (FIC) coverage decreased in 2016 to 92 percent compared 100 percent coverage in 2015 while vitamin A coverage for children aged 6–59 months dropped from over 120 percent reported in 2015 to 25 percent. This could be attributed to health workers’ strike, poor documentation coupled with changes made in the school calendar as schools closed early noting that Early Child Development Centers are used as avenues of boosting the vitamin A supplementation coverage during Malezi Bora.

3.3.2 Sanitation and Hygiene

Water scarcity and use of open water sources have led to below optimal hand washing practices, resulting to increased incidences of water borne related diseases like diarrhea. Latrine coverage was reported at above 90 percent across both livelihood zones. Majority of the households were issued with water treatment tablet through community health workers though the usage is at 60 percent.

3.3.4: Morbidity Pattern

Table 8: Morbidity cases for children under five and general population.

Reported Morbidity among General Population				Reported Morbidity among Children Under Five Years			
Disease /Condition	July - December 2015	July - December 2016	% change	Disease /Condition	July - December 2015	July - December 2016	% change
Other Dis. Of Respiratory System+ URTI	46722	43233	92.5	Other Dis. Of Respiratory System+ URTI	20998	20874	99.4
Disease of the skin	11339	8866	78.2	Diarrhoea	2285	2342	102.5
Arthritis, Joint pains etc	9212	5741	62.3	Disease of the skin	2218	2153	97.1
Urinary Tract Infection	4029	4230	105.0	Pneumonia	2105	1913	90.9
Diarrhoea	3713	2653	71.5	Intestinal worms	1518	1273	83.9

According to the District Health Information Systems (DHIS), Urinary Tract Infection (UTI) in the general population increased by 5 percent while disease incidences of arthritis, joint pains, diarrhoea and skin diseases reported a decline of 38, 28 and 21 respectively. In 2016 the diseases incidences were fewer compared to same time in 2105, with exception of diarrhea, which had increased by two percent. This statistics however should be interpreted with caution as health services were interrupted due to the health workers strike in the month of November and December and not necessarily attributed to improved healthy situation in the county. During the period under review, there were no disease outbreaks or unusual deaths reported.

3.4 Trends of key food security indicators

Table 9: Trends of key food security indicators

Indicator	Long rains assessment, July 2016	Short rains assessment, Feb 2017
% of maize stocks held by households (mixed farming)	7525	107
Livestock body condition	Good	good
Water consumption (liters per person per day)	20-25 litres/pppd	15-20 in MF, 5-10 in MMF
Price of maize (per kg)	36	39
Terms of trade	133kg	94kg
Coping strategy index	0.9	1.6
Food consumption score	Not comparable	18 % Poor, 29 borderline 53 % Acceptable in Mixed farming livelihood zone 4% Poor, 25 %borderline, 71% Acceptable in Marginal mixed farming
Percentage of children at risk of malnutrition	0.8%	0.8%

3.5: Education

3.5.1: Enrolment and attendance

Normal enrolment was reported in the county with attendances being 98 percent. Absenteeism due to food related issues was not reported.

3.5.2: School Meals Programme

Currently 44 schools are offering the homegrown school feeding programme benefiting 11,156 pupils. This programme is facing serious challenge of delayed disbursement of the funds. The community has come up with their own strategy, which involves pupils bringing portions of maize and beans to the school. Despite these efforts, a sizable number of pupils around 65 percent are not able to bring these maize and beans portion.

4. Food Security Prognosis

4.1: Prognosis Assumptions

Rainfall forecast shows that long rains will remain near normal. Spatial distribution will be even, while temporal distribution will be favorable. This situation will enable the regeneration of pasture and browse. Prices of most foodstuffs are likely to remain high until April when short season vegetables will be available while pasture and fodder will have regenerated. Market operations will not be disrupted while farm inputs will be availed in time from the open markets and county government.

The poor performance of the short rains has influenced negatively on household livelihoods as most crops are now stressed when they were at a critical stage of development. Crops have started to show signs of water stress in upper zones and wilting is evident in lower zones. As a result, farmers are likely to experience a severe crop failure. The short rains season was too short and depressed to have any meaningful impact on recovery this is further exacerbated by frostbite.

4.2 Food Security outcomes from February to April 2017

The early cessation of the short rains means that major crops are going to have a shorter length of growing period. Consequently, prospects for the short rains crop harvest point towards up to 20 percent below-average maize crop production. Majority of the household will depend on the markets for their food. Exacerbating this is the fact that the county is dependent on short rains season. Food prices are relatively stable with signs of increment because of households stock reducing and the projected below 20 percent harvest. Household purchasing power will reduce thus forcing majority of them to employ more severe coping mechanisms.

Water stress will increase, as more water sources will have dried up, distances to water and pasture will increase, milk production will further reduce. Increased risk of conflict and the spread of livestock disease due to migration is being monitored as currently over 3,000 herd of cattle are already in the county.

4.2.1 Food Security outcomes from May to July 2017

The food security situation in the county will remain stressed, but may improve because of onset of long rains in mid-March. However, food situation is expected to improve in the month of May when early maturing vegetables will be available at household level. Pasture and fodder is also expected to regenerate significantly resulting to improved livestock body condition hence high productivity. However, food prices are likely to increase because of high demand and supply.

This will hinder access to food thus forcing majority of household to employ more atypical coping strategies to meet their household needs.

5. Conclusion and Interventions

5.1 Conclusions

5.1.1 Phase classification:

The current food security situation in the county is stressed IPC (IPC Phase 2). The factors to monitor are water availability, pasture and browse condition, security and conflict due to migration of cattle from the neighboring counties, market trends, livestock disease outbreaks, crop value chain development, health and nutrition status of the population which is expected to worsen because the short rain season did not perform well. . In the next three to six months, there will be need to monitor water situation in both mixed and marginal mixed farming livelihood zone. There is need to do early harvesting of fish as the water sources dries up, up scaling of livestock vaccination and increased surveillance of nutrition and health status among the population

5.1.2 Summary of the key findings

Short rains harvest were in the range of 10–20 percent of LTA, as a result of depressed rainfall coupled with limited household stocks which stands at 53 percent below the LTA. Over-reliance of markets has compromised majority of the household ability to purchase food due to loss of income as a result of poor own farm production and reduced on farm labor opportunities. Terms of trade are stable and favorable to the farmers though the trend is worsening due to increased trade volumes and low demand. Water stress continues to bite across all the livelihood zones; the situation is likely to worsen until the onset of the long rains. The nutrition status is currently stable with likelihood of more malnutrition cases being reported due to reduced numbers of meals and dietary diversity. Most households will remain in Stressed (IPC Phase 2).

5.1.3 Sub County Ranking

Table 10: Ward Ranking

Ward ranking	Food security rank (1-10) worst to best)	Main food security threat (if any)
Thegu river	1	Massive crop failure, Depressed rainfall, frost bite, livestock diseases
Mugunda	2	Massive crop failure, Depressed rainfall, frost bite livestock diseases
Endarasha/Mwiyogo	3	crop failure, Depressed rainfall, frost bite livestock diseases
Gakawa	4	crop failure, Depressed rainfall, frost bite migration route
Naromoru/Kiamathaga	5	crop failure, Depressed rainfall, frost bite
Mweiga	6	crop failure, Depressed rainfall, frost bite
Gatarakwa	7	crop failure, Depressed rainfall, frost bite
Kabaru	8	crop failure frost bite migration route

5.2 Ongoing Interventions

5.2.1 Food interventions:

- Currently there is no food intervention that is being carried out.

5.2.2 Non-food interventions

Table 11: Ongoing interventions

District	Intervention	Division	No. of beneficiaries	Implementers	Impacts in terms of food security	Cost	Time Frame
Agriculture							
Kieni	Traders buying and stocking from outside	Main markets of Chaka and Naromoru /mweiga ,endarasha,ki awara	Whole sell traders	Traders	Availability of food.		October – December 2016
Livestock							
Kieni East & West	Free A.I services	All wards in the Sub counties	All dairy farmers – 2500 dairy cattle	Dept of Veterinary / County government	Improved production from better breeds	3.2m	1 yr
Kieni East/ Kieni West	Improved Pasture establishment (Rhodes grass)	Kieni East	3000 persons	County government &UTaNR P, Farmers	Improved milk production and incomes	0.36 million	1yr
Kieni East/ Kieni West	Capacity building on better management practices and dry season feeding. Through group trainings and demos	All wards	Livestock keeping households (2000)	County govt, Farmers, KAPAP, UTaNRP	Increased milk , meat and egg production and incomes	Farmer initiative / County government	Continuous

Kieni East	Promotion and capacity building on dairy goat farming	Kabaru ward	200	UTaNRP/ Farmers	Increased milk output	339 560	1yr
Kieni East/ Kieni West	Disease surveillance	All locations	All livestock keepers	DALD- VET Dept	Reduced mortalities	County govt	Continuous
Water							
All Divisions	Capacity building to farmers	All Wards	3500	County Government NDMA and some Development partners	Improving access and utilization	2.0 million	2016/ 2017 FY
Mweiga, Mwiyo go/Endarasha and Gataragwa Wards	Construction of storage facilities and extension of distribution networks and boreholes fuel subsidies	Simbara Kamatongu, Mwiyo go, Simbara Amboni, Simbara Bodeni, Watuka and Bamboo Hill Water Projects	1800	County Government, NDMA and World Vision	Improving access and utilization	3.7 Million	Ongoing from 2015
Health							
Kieni East West	Implementation of High Impact Nutrition Intervention	All the Health facility	Under five years/Pregnant and lactating women	M.O.H	Improved immunity and Reduced Mortality & Morbidity	No Cost	Routine Ongoing
Kieni East & West	Management of Acute	All the Healthy facility	Under five & Adults	M.O.H	Reduced Mortality & Morbidity	No Cost	Routine Ongoing

	Malnutrition (IMAM)				ty		
Kieni East & West	IYCN Interventions (EBF and Timely Intro of complementary Foods)	All the Healthy facility	Children under five	M.O.H	Reduced Mortality & Morbidity	No Cost	Routine Ongoing
Education							
Kieni East & West	HGSM	44 Public Primary schools	5203	MOE	Maintaining satisfactory retention and participation rates	Kshs. 3,127,310.00	continuous

5.3 Recommended Intervention

5.3.1: Population in Need of food aid

Table 12: Population in need of food aid

Ward	% Population in need	Remarks
Thegu River	55-60 %	
Mugunda	50-55% ²	
Endrasha/Mwiyogo	35-40%	
Gakawa	35-40 %	
Naromoru/Kiamathaga	30-35 %	
Mweiga	25-30%	
Gatarakwa	10-15%	
Kabaru	5-10	

5.3.2 Non-food interventions

Table 13: Non-Food interventions

Sub County	Intervention	Location	No. of beneficiaries	Proposed Implementers	Required Resources	Available Resources	Time Frame
Agriculture							
KIENI	Capacity building on good agricultural practices	All the ward	65,700	County Govt,NDMA, agriculture	Funds 6 million		Jan-June
	Water harvesting for crop production Irrigation water pans and tanks	All wards	60,000	County Govt,NDMA, agriculture	16.9 million		Jan - June 2017
	Installation of efficient irrigation water	All wards	10,000	County Govt,NDMA, agriculture	15 million		Jan- June
	Recovery seeds & Subsidized farm inputs	All wards	38,000 farm families.	County Govt,NDMA, agriculture	4.8 million	Farms and labour.	Jan - March
	Conservation agriculture	All wards	38,000 farm families.	County Govt,NDMA, agriculture	250,0000	Personnel	Jan - March.
Livestock							
All wards in Kieni East	Up scaling on pasture and fodder production, conservation & utilization. 3 acres	All 4 wards in the sub county	All livestock keepers in Kieni	DALD- County govt and Farmers/ UTaNRP	1million	Personnel Land	1 year
All wards in Kieni East and West	Bulking of protein rich fodder crops for animal feeds	8 wards in the sub county	2500 Livestock keepers	DALD- County govt and Farmers	100000	Personnel Land	6 months
All wards	Up scaling on	All	10,000	DALD-	3million	Personnel	Continuous

Sub County	Intervention	Location	No. of beneficiaries	Proposed Implementers	Required Resources	Available Resources	Time Frame
in Kieni East and West	Preventive Vaccination against FMD, CCPP and NCD in local poultry.	wards but emphasis on the hot spots	cattle, 10,000 s and 40,000 local birds	County govt/ KVA		Vehicles	
Water							
Kieni East	Repair of 2No. Boreholes (Kamuhiuria& Gatuamba)	Thegu	200 HHs	NDMA CGN Community	1.0M	Broken Boreholes	3 Months
Kieni East	Equipping of Borehole (Gaturiri&Thung'ari)	Thegu	700HHs	NDMA CGN Community	6.0M	Sunk Boreholes and not Equipped	3 Months
Kieni East	Fuel Subsidy for 3No. Borehole	Naromoru/Kiamat haga&Gakawa	300HHs	NDMA CGN Community	0.5M	Serviceable Boreholes	3 Months
Kieni East	Water Trucking	All Wards	600 HHs	NDMA CGN Community	0.9M	Empty Tanks in Institutions	3 Months
Kieni East	Storages	All Wards	600 HHs	NDMA CGN Community	0.65M	Institutions with gutted Roof	6 Months
Kieni East	De-silting of Dams & Pans	Gakawa/Thegu River/Naromoru	1200 HHs	NDMA CGN Community	50M	90% Silted-up Dams	2016/18
Kieni East	Extension of Pipelines to water stressed areas	All wards	3000 HHs	NDMA CGN Community	8.0M	Unskilled Labour	2016/18
MUGUNDA WARD	Construction of Gatogo intake and pipeline to serve KiawaraTown and lower zones of Gataragawat	Gataragawa	800 HHs	County Gvt/NDMA	2.6 M	Labour	2016/17 FY

Sub County	Intervention	Location	No. of beneficiaries	Proposed Implementers	Required Resources	Available Resources	Time Frame
	er project						
All wards	- Installation of rain water harvesting systems(Gutters) -No.10 M ³ Plastic water tanks and construction of tank platforms -Assist operational Boreholes with Fuel	Health and school institutions in all locations	5000 people 800 HHs	MW&I/NDMA	5.5 M	Roof Catchment construction Material for platforms and Labour	2016/17 FY
Health							
Kieni West& East	Procurement and distribution of Nutritional supplement. Management of malnourished children and pregnant and lactating women	All healthy facilities	Vulnerable households	M.O.H N.D.M.A	5.8 million	Human resource	February to March 2017
Kieni West& East	Conduct Rapid Nutritional Assessment & Integrated outreaches Monitoring of school health/diet	All areas	All under five	M.O.H N.D.M.A	2.7 million	Human resource, vaccines, drugs	February – April 2017
	Up scaling of High Impact Nutrition Interventions	All wards	All	MoH, NDMA,	800,000	Human Resources	2017
Education							

Sub County	Intervention	Location	No. of beneficiaries	Proposed Implementers	Required Resources	Available Resources	Time Frame
Kieni West & East	Upscale of school meal programmes	All schools		MoE,	20,000,000		February-July 2017