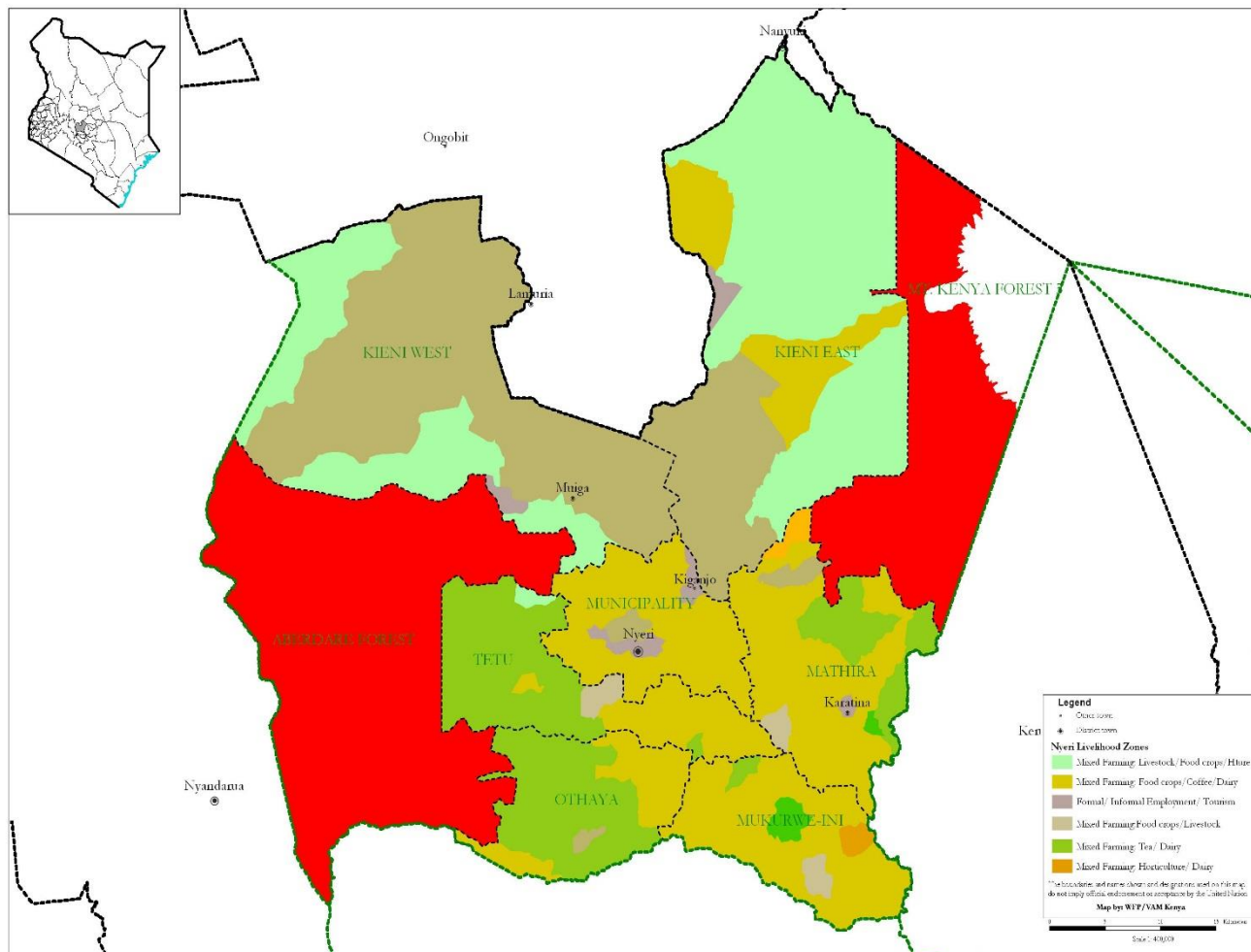


NYERI (KIENI) COUNTY 2015 SHORT RAINS FOOD SECURITY ASSESSMENT REPORT



A Joint Report by the Kenya Food Security Steering Group¹ and the Nyeri (Kiени) County Steering Group.

February 2016

¹ Nelson A. Mutanda – NDMA and Victor Mwanyalo - World Vision,

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1.0 INTRODUCTION

1.1 County Background Information

Kieni East and West sub counties lie within Nyeri County covering at least 51 percent of the total land cover. They border Laikipia County to the north, Mount Kenya to the east, Aberdares to the west and Nyeri Central and Mathira to the south. The two sub counties cover an area of 1,990.3 square kilometres with 1,026 square kilometres suitable for crop and livestock production. Altitude ranges between 1,950 and 2,270 metres above sea level with temperatures ranging between

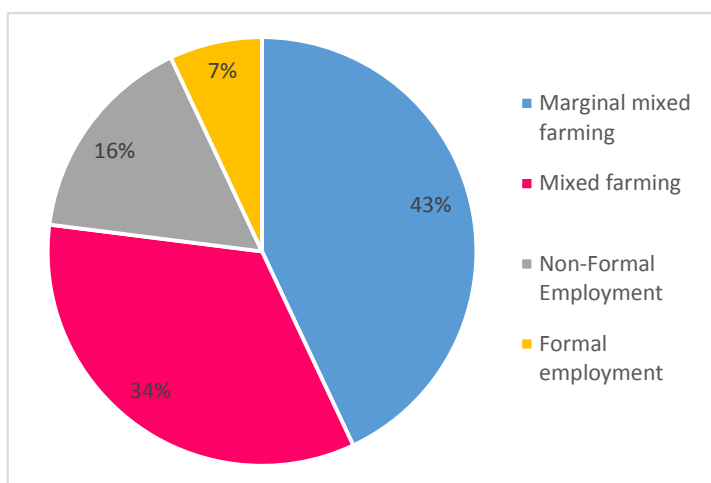


Figure 1. Population by livelihood zone

16°C and 24°C. Individual land sizes ranges from one acre (0.4 hectares) to 300 acres (120 hectares). The two sub counties have a total population of 175,812 people². Main economic activities vary by livelihood zones, with livestock keeping being prominent in marginal mixed farming livelihood zone contributing about 77 percent to household income. Other income sources include charcoal burning, sale of firewood, poultry farming and small businesses at five percent each. In mixed farming livelihood zones horticulture as cash crop is prominent representing 43 percent of the income, followed by livestock keeping at 23 percent, small business at 10 percent while poultry farming, formal employment and food crops accounting for eight percent each. 40 percent of the total population in the region directly depends of casual labour to complement on other income sources (Figure 1).

1.2 Current Factors Affecting Food Security

There was no major negative factor that affected food security situation in Kieni East and West Sub counties, since the short rains season's performance was above normal.

2.0 COUNTY FOOD SECURITY SITUATION

2.1 Current Food Security Situation

The Food security phase³ classification for the two sub counties in February 2016 was Minimal (IPC Phase1) across all the livelihood zones. Water availability both for domestic and livestock was good. Water consumption per litre per person per day was above 30 litres in all livelihood zone, which was above the threshold of 15 litres per person per day. Animal body condition was good across in all the livelihoods following the good performance of the short rains. Milk production and consumption was above normal across all the livelihoods. Crop production for maize, bean and potatoes was expected to be above average. Maize prices were lower than long term average (LTA), while terms of trade were favourable with livestock farmers able to

² 2009 Kenya National Bureau of Statistics Census.

³ Integrated Food Security Phase Classification(IPC)

purchase 116 kilograms of maize for a sale of a sheep, which was more than they purchased in comparison to long term average. Food consumption was good with households consuming a variety of foods, and two to three meals per day across all livelihood zones which was normal. The proportion of children at risk of malnutrition as measured by Mid Upper Arm Circumference (MUAC) < 135 mm was 0.3 percent which was below the long term average (LTA) of 1.4 percent. The trend of the five common human diseases was stable though slightly higher than the previous season, while Mortality Rates was stable below the threshold.

2.2 Food Security Trends

In August 2015 the two sub counties were classified as Minimal (IPC Phase 1) with some pockets of marginal mixed farming zones classified as Stressed (IPC Phase 2). In February 2016, food security situation had improved across all livelihood zones following good performance of the short rains, hence all livelihoods classified in Minimal (IPC Phase 1). In the mixed farming zone, water consumption per person per day had improved from 20-30 litres in August 2015 to 35-40 litres while in marginal mixed farming zone it had improved from 13 litres to 30-35 litres over the same period. Average milk production per household per day had also improved in the mixed farming livelihood zone from one litre in August 2015 to four litres as at February 2016 and 0.5 – 2.5 litres in the marginal mixed farming livelihood zone during the same period. Livestock body condition had improved across all livelihood zones from fair to good during the season. Terms of trade had also improved, since in August 2015 a sale of a sheep could purchase 88 kilograms of maize as compared to 116 kilograms of maize in January 2016. Food consumption was good with households having a higher diversity and were taking 2 – 3 meals per day daily which compared more like the previous season. The proportion of children under five years at risk of malnutrition in the county had reduced from one percent in August 2015 to 0.3 percent in January 2016.

2.3 Rainfall Performance

The Onset of long rains was normal in first week of October. The rainfall amounts were above normal across all livelihood zones with good temporal and spatial distribution. The county generally received 110-200 percent of normal rainfall except some pockets of mixed farming livelihood zone (Mweiga and Thigu) which received 90-110 percent of normal rainfall and Gakawa and Mugunda (200-350) percent of normal rainfall (Figure 2). The rain season ended normally in the third week of December 2015 but off season showers continued.

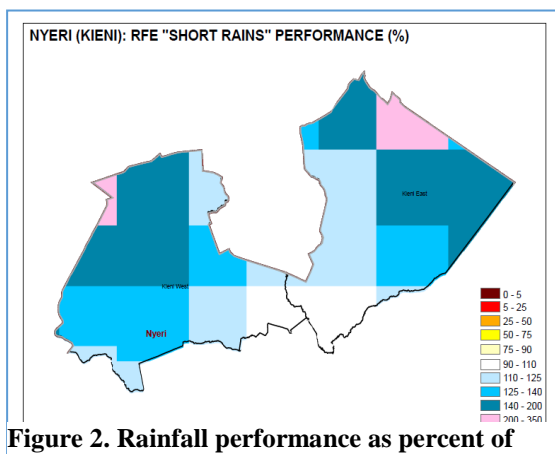


Figure 2. Rainfall performance as percent of normal.

2.4 Current Shocks and Hazards

There was no significant shock or hazard that affected food security in the county.

3.0 IMPACT OF RAINFALL PERFORMANCE, SHOCKS AND HAZARDS

3.1 Crop Production

The main crops planted during the short rains were maize, beans and potatoes. Crops grown for commercial purposes include onions and bananas. Maize and beans contributes 20 and 60 percent respectively to food in the marginal mixed farming livelihood zone. In the mixed farming livelihood zone, maize contributes 60 percent to food and beans 20 percent. Onions contribute 10 percent to cash income in marginal mixed farming livelihood zone while coffee and bananas contributes 60 percent and 20 percent to cash income respectively. Some of the horticultural crops cultivated include cabbages, kales, carrots exotic beans and cut flowers.

Rain-fed Crop Production

Under rain-fed agriculture, the area under maize, beans and potatoes increased by three, four and seven percent respectively compared to the long term average. The increase in acreage planted was attributed to a favourable forecast of a good short rains season. Consequently, projected production for maize, beans and potatoes was expected to increase by 150, 247 and 302 percent respectively (Table 1).

Table 1. Comparison of current planted area and long term average planted area.

Crop	Area planted during 2015 Short rains seasons (Ha)	Long Term Average area planted during the Short rains season (Ha)	2015 Short rains season production (90 kg bags) Projected	Long Term Average area production during the Short rains season (90 kg bags)
Maize	4,845	4,684	96,900	38,760
Beans	4,568	4,381	22,840	6,572
Potatoes	5,606	5,234	420,450	104,680

Irrigated Crop Production

The area planted with cabbages and onions under irrigation increased by 13 percent above the short term average (STA) while area under pod beans reduced to 67 percent below the STA. As a result, production of cabbages and onions increased by 65 and 13 percent respectively, while for pod beans it decreased by 54 percent due to reduced area put under production (Table 2).

Table 2. Current versus LTA Irrigated area and production as percentage of the long term.

Crop	Area planted during the 2015 Short rains season (ha)	Long Term Average (3 years) area planted during Short rains season (ha)	2015 Short rains season production (MT)	Short Term Average (3 years) production during 2015 Short rains season (MT)
Cabbages	635	560	31,750	11,200
Pod Beans	70	215	784	1,720
Onions	430	380	3,440	3,040

Maize stocks held in the county

The stocks held by household, traders and millers were 43, 71, and 50 percent of LTA respectively. The National Cereals and Produce Board (NCPB) which normally does not have stocks during this time of the year had received 41,377 bags for the strategic grain reserve significantly increasing the total maize stocks by about 800 percent above the LTA (Table 3). Low stocks were due to poor performance of previous season and that the short rains season maize crop harvests had not started.

Table 3: Maize stocks held in the county in Kieni East and West Sub-County

Maize stocks held by	Quantities held currently (90-kg bags)	Long Term Average quantities held (90-kg bags) at similar time of the year
Households	75	175
Traders	1,700	2,400
Millers	1,200	2,400
NCPB	41,377	0
Total	46,127	4,975

The available households stocks were expected to last for two months as farmers' harvest. it was projected that there would be enough maize after harvesting which would last up to the next harvesting season.

3.2 Livestock Production

Livestock contributes about 25 percent and 77 percent to cash income in mixed farming and marginal mixed farming livelihood zones respectively. Major livestock types in the sub counties include cattle, sheep, goats and local poultry. Indigenous poultry also plays an important role as an income generating activity especially for the poor households. Other enterprises like rabbit keeping and bee keeping are slowly gaining popularity.

Pasture and Browse Condition

Pasture and browse was good across all livelihood zones due to good performance of the short rains. Pasture and browse were expected to last three months across all livelihood zones as compared to one month normally. Therefore there would be no challenge in livestock feeding since the pastures will last till the long rains.

Livestock Productivity

Livestock Body Condition

The livestock body condition for all species was good across all livelihood zones and was better than how it normally is at that time of the year. The good livestock body condition was attributed to the availability of good pasture, browse and water. The livestock body condition was expected to remain stable until the next season when the long rains are expected to start.

Birth Rates and Milk Availability

Birth rates in the county were normal at one to two lambing or kidding per year. Milk production was mainly from cattle. Average milk production in marginal mixed farming zones was 2.5 litres per household per day as compared to a normal of two litres. Milk production in mixed farming livelihood zone averages four litres as compared to normal of 3.5 litres. Increase in milk

production was as result of adequate pasture and browse. Milk availability is expected to remain stable through to the long rains season.

Milk Consumption

Milk consumption at household level was above normal across all livelihood zones. Milk consumption in marginal mixed livelihood zone was one litre on average in comparison to 0.5 litres normally and 1.2 litres per day in mixed farming compared to one litre normally. Milk price was between Ksh 29 – 30 across all livelihood zones which was normal at that time of the year.

Tropical Livestock Units (TLUs)

The Tropical Livestock Units in the mixed farming livelihood zones was three as compared to a normal of 2.5 TLUs. In the marginal mixed farming, TLUs were four compared to the normal of three TLUs. The TLUs held were stable for this time of the year.

Water for Livestock

The sources of water for livestock were rivers, streams, water pans and dams. Trekking return distances reduced and ranged between 0.5 – 1 kilometres in mixed farming livelihood zone compared to 1 – 2.5 kilometres normally. In marginal mixed farming livelihood zone, return trekking distances of 0.5 – 2 kilometres was observed compared to 1 – 4 kilometres normally. The water levels across the county was above normal due to good recharge of water sources.

Migration, Livestock diseases and Mortalities

There was no unusual livestock migration in the sub counties, but rather the normal movement of animals within the sub county to grazing and watering areas. Cases of sheep and goat pox had been reported in Gatuamba and Naromoru of Kieni East and suspected cases of contagious caprine pleuropneumonia (CCPP) reported in Nairutia and Kiawara. The situation was under investigation to determine next course of action. Other common livestock diseases in the sub counties include East Coast Fever, eye infections and Newcastle disease in fowls.

3.3 Water and Sanitation

Approximately 95 percent of households in both Kieni West and Kieni East Sub County rely on projects that provide piped water while five 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 mainly tap water and rivers. Main rivers in Kieni East are Nanyuki, Burguret, Thegu, Naromoru, Nairobi and Sagana while streams are Tigithi, Rongai (Karungai) and Mere. The rivers in Kieni West are Ewaso Nyiro, Mwiyo (Moyok), Honi (Amboni) and some of the streams are Kariguini, Karuthing'itu, Kamariki, Karemno and Karichuta. River flow and boreholes were on full capacity, and would last till the next season.

Distances to water source

The distance to water sources for households that did not rely on piped water system were below normal at 0.5 kilometres across all livelihood zones as compared to normal of one to 1.5 kilometres in mixed farming livelihood zone and two to four kilometres in marginal mixed farming livelihood.

Waiting time at the source

Waiting time was the normal at 10 minutes in the marginal mixed farming livelihood zone but reduced by 5 minutes in mixed farming livelihood zone compared to the norm of 10 minutes. Waiting time was stable in that time of the year.

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 2 and Ksh 3 respectively, which was the usual price. Most of the areas had piped water and the households were charged Ksh 150 – 200 per month as maintenance fee.

Water consumption

Household water consumption was between 35 – 40 litres per person per day in mixed farming livelihood zone and 30 – 35 litres per person per day in marginal mixed farming livelihood zone. Water consumption per person per day was above the threshold of 15 litres per person per day. There were no water borne diseases reported during the period.

Sanitation and Hygiene

Latrine coverage was 99 percent for the period June to December 2015 compared to 98 percent in the same period in 2014. Heavy rains affected some latrines, which collapsed due to poor soil structure especially in Kabati, Mweiga. Approximately 60 percent of the community make use of water guard or aqua tabs for water treatment coupled with boiling of water.

3.4 Markets and Trade**Market Operations**

Main livestock and foodstuff markets in serving the sub counties are Nyeri, Naromoru, Mweiga and Kiawara. All markets were operating normally without any interruptions. In the marginal mixed farming livelihood zone, about 50 percent of the households rely on market for food.

Market Prices

Maize price

The average price of maize in the county in January 2016 was Ksh 38 and slightly below the LTA of Ksh 39 (Figure 3). The prevailing maize price was 13 percent below the price of maize

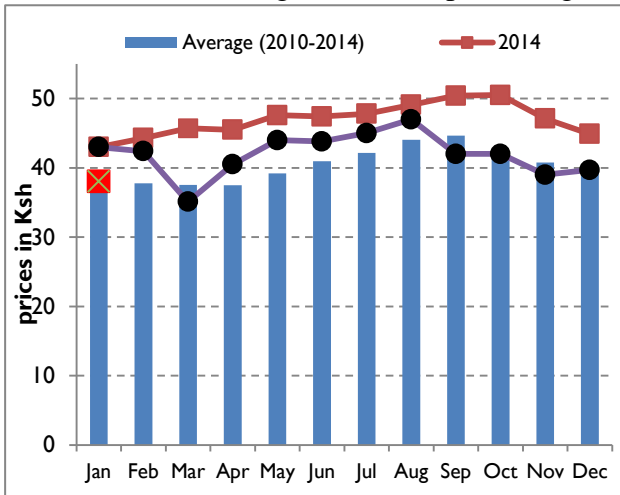


Figure 3. Maize prices in Kenya shillings

same period previous year and that could be attributed to presence of alternative commodities such as green maize, potatoes and traders disposing old stock in anticipation of the good harvest. The highest price for maize was reported in the mixed farming livelihood zone at Ksh 42 per kilogramme and lowest in the marginal mixed farming at Ksh 39 per kilogramme. The prevailing prices were stable for that period of the year, though the prices were expected to decrease as farmers would start harvesting three weeks after.

Sheep price

The price of sheep was generally on a downward trend from June 2015. However, in January 2016, average price increased by 14 percent from Ksh 3,137 in December 2015 to Ksh 4,345 in January 2016. The prevailing sheep price was 44 percent above the LTA of Ksh. 3,011 and 24 percent higher than the price at the same time last year (Figure 4). Highest price of sheep was recorded in mixed farming livelihood zone at Ksh 4,400 and lowest in marginal mixed farming livelihood zone at Ksh 4,290, which was above normal at that time of the year. Prices were expected to remain stable for the next three months with availability of pasture.

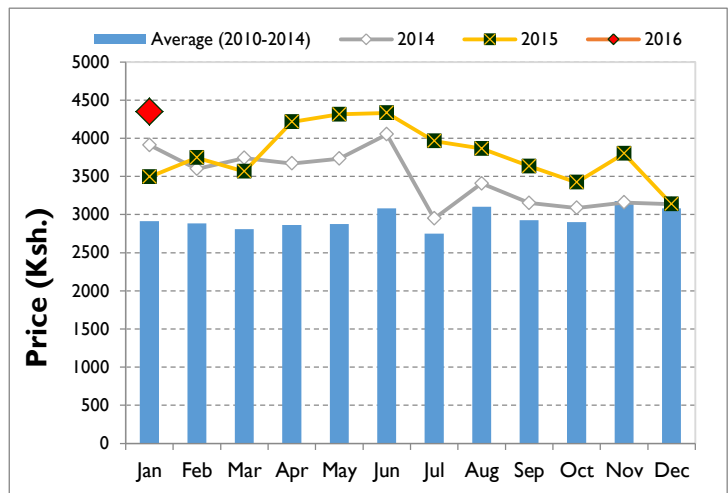


Figure 4. Price of sheep in Kenya shillings.

Terms of trade

Terms of trade in January 2016 were favourable, with livestock farmers able to purchase 116 kilograms of maize from sale of one sheep, in comparison to 78 kilograms of maize at that period of the year (Figure 5). The prevailing terms of trade were 49 percent above the LTA. The favourable terms of trade were attributed to declining maize prices as well as high sheep price as result of good body conditions of livestock. Terms of trade were expected to remain stable in following three months from February to April 2016.

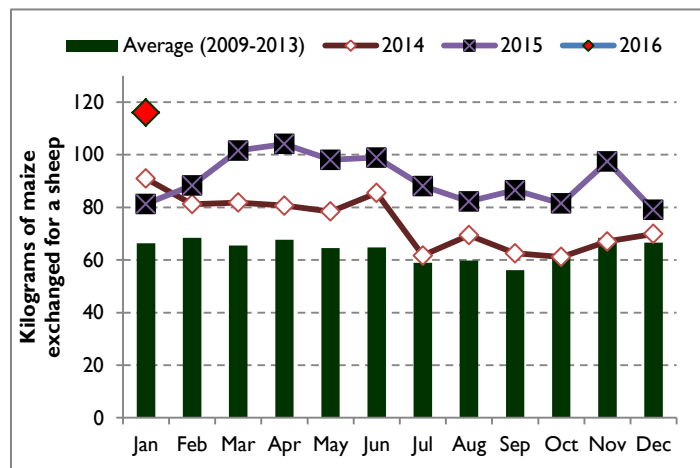


Figure 5: Terms of trade on price of sheep and maize.

3.5 Health and Nutrition

Morbidity and mortality patterns

The common top five diseases among children under five years across all livelihood zones were Upper Respiratory Tract Infection (URTI), pneumonia, intestinal worms and diarrhoea while in the general population the five major diseases were Upper Respiratory Tract Infection (URTI), disease of the skin, rheumatism, hypertension, and Urinary Tract Infection. There was a 3.78 percent increase in total morbidity cases affecting children from 66,944 in 2014 to 69,566 in 2015 within the same period of January to December with most of the cases being on URTI. A downward trend on other diseases was recorded and this could be attributed to good care practices as a result of continuous integrated sensitization campaigns and outreaches on health and nutrition and improved household food security status. Mortality rate in general population and U5 mortality was below the threshold. No human disease outbreak was reported in the region during the the period under monitoring.

Immunization and Vitamin A supplementation

Immunization coverage remained relatively the same at 95.43 percent in July to December 2015 as compared to 95.87 percent in the same period of time in 2014, and was above the national target of 80 percent. An increase in Vitamin A supplementation for children under five years was also noted at 5,806 in 2015 from July – December as compared to 1,592 in 2014 for the same period, which was associated with integrated sensitization campaigns and outreaches on health and nutrition.

Nutrition and Dietary Diversity

Nutrition status of children below the age of five improved, with percentage of children at risk⁴ of malnutrition reducing from one percent in December 2015 to 0.3 percent in January 2016 (Figure 6). The improvement was attributed to enhanced milk production and consumption at household level and good dietary diversity and meal frequency with households taking 2-3 meals daily, which was normal during this time of the year. Nutrition status of the children under five years was expected to remain stable through to the next season.

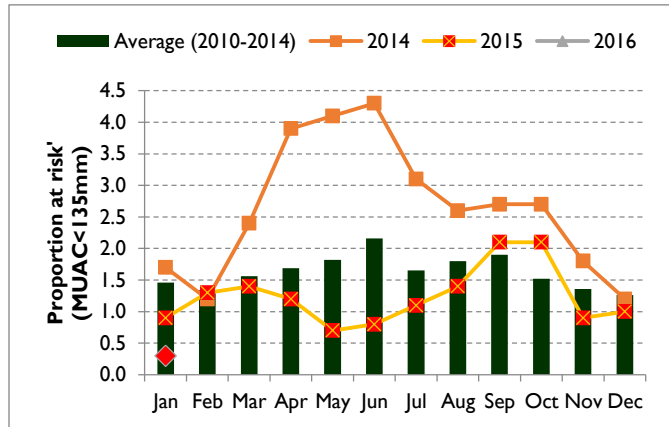


Figure 5. Trend of proportion of children at risk of malnutrition (MUAC<135mm)

3.6 Education

Enrolment Rates

Enrolment rates among boys and girls remained relatively the stable at 51 percent and 48 percent in both sub counties. A marginal decrease in enrolment in February 2016 was observed with a decrease from 32,166 pupils in February 2015 to 31,380 in January 2016. The decrease in enrolment was mainly associated with transfers of pupils to other schools outside the area as parents moved.

Transition and Dropout Rates

Transition rate from Early Childhood Development Education (ECDE) to Primary was at 99 percent while from Primary to Secondary schools was at 78.83 percent. Transition rates among girls improved by 3 percent. Factors influencing variations in transition from primary to secondary school included lack of school fees, lack of interest in schooling and preference for casual jobs, delay in procurement and disbursement of funds to schools.

School Meals Programme

A total of 66 schools are under the schools meals programmes benefiting 17,726 pupils. Of these, 6,138 boys and 6,416 girls are under Home Grown School Meals Programme (HGSMP) while 2,532 boys and 2,640 girls are under Expanded School Meals Programme. School Meals Programme has contributed to high retention of pupils in schools, improving access to education, good health condition for pupils and high transition rates. Some pupils are reported to miss out on the SMP due to levies of Ksh. 400 – 500 charged to cater for firewood and cooks per pupil per term.

3.7 Coping Mechanisms

In December 2015, the coping strategy index was 29 compared to 21 in December 2014 implying that households were more frequently engaging in consumption based strategies as compared to the same time period previous year. The situation was expected to improve after farmers start harvesting short rains crops, which was due in three weeks' time.

⁴ At risk refers to children whose Mid Upper Arm Circumference (MUAC) is less than 135 millimetres.

3.8 On-going Interventions

Non-Food intervention

Table 5: On-going interventions

Sector	Intervention	Objective	Specific Location	Cost (KES)	No. of beneficiaries	Implementation Timeframe	Implementation Stakeholders
Livestock	Up scaling on pasture and fodder production, conservation & utilization. From 10 acres to 30 acres	Improved milk production and incomes	Kieni East and West	0.25 million	3,500 persons	1yr	County Govt & UTaNRP, Farmers
	Disease surveillance	To monitor disease trends.	Kieni East		All livestock keepers	Continuou s	County Govt, DALD- VET Dept
	Capacity building on better management practices in dairy and indigenous poultry value chains through group trainings and demos	Increased milk , meat and egg production and increased incomes	Kieni East	0.4million	4,000HH	Continuou s	County Govt, Farmers, ASDSP, UTaNRP
	Bulking of protein rich sweet potato vines for animal feeds	Improved milk production	Kieni East	0.2 million	2,500 farmers	6 months	DALD- County Govt and Farmers
	Up scaling of preventive vaccination against LSD, CCPP, Anthrax and NCD in local poultry.	Reduced mortalities	Kieni East	0.93 million	5,000 heads of cattle, 5,000 shoats and 20,000 local birds	Continuou s	DALD- County Govt/ KVA
	Completion of a modern slaughter house	Provision of services closer to farmers and consumers	Naromoru/ Kiamathaga Ward	21 million	All livestock keepers	3 months	DALD – County Govt
Agriculture	Traders buying and stocking from outside	Stabilizing livestock prices.	Main markets of Chaka, Naromoru, Mweiga and Endarasha		Wholesale traders	December 2015 – March 2016	Traders
	Water harvesting for crop production	To boost crop production	Kieni East and West		35,200 Farmers	Continuou s	County Govt. MOALF/NDMA
	Up scaling the availability of	To boost crop	Kieni East and West		35,200 Farmers	Continuou s	County Govt, MOALF/NDMA

	subsidized agro inputs.	production					
	Capacity building on GAP	Equip farmers with skills	Kieni East and West		35,200 Farmers	Continuou s	County Govt, MOALF/NDMA
	Sensitization on formation of commercial villages	Improve farmer purchasing power of harvested produce	Kieni East and West	0.5 million	360 Farmers	Ongoing	MOALF
Health	Vitamin A Supplementation Zinc/IFAS Supplementation		Kieni East and West	0.1million	2,000	Two semesters	MoH/NDMA
Education	Water harvesting	Provision of water	Kieni West and East	6.24 million	16,190	Jan – Mar 2016	MoW
	CSMP	Sustain feeding in schools	Kieni West	0.42 million	5,215	Per term	Schools and communities
	Income generating projects	Supplement school costs especially meal programmes	Kieni West and East	1.2million	16,190	Ongoing	BOM/DEO/DEB

3.9 Sub-County Ranking

Table 6: Sub County food security ranking (worst to best)

Wards	Food Security Rank(1-10) Worst-Best	Food security threat
Thegu River Ward	1	Floods,pests and diseases
Mugunda	2	Crop Pests and diseases
Gatarakwa	3	Crop Pests and diseases
Mweiga	4	Crop Pests and diseases
Gakawa	5	Pests and diseass
Narumoru/Kiamathaga	6	Pests and diseases
Kabaru	7	Crop pests and diseasse
Endarasha/Mwiyogo	8	Crop pets and diseases

4.0 FOOD SECURITY PROGNOSIS

4.1 Prognosis Assumptions

Food security in the County is based on the following assumptions:

- The weather forecast for the March–May long rains is expected to be normal to above normal.
- Forage would last for three and two months in mixed farming livelihood zone and marginal mixed farming livelihood zones respectively owing to good regeneration following normal to above normal rainfall performance expected.
- Performance of the main food crops namely maize, beans and potatoes is expected to be good coupled with adequate household stocks and prices are expected to remain relatively stable within normal range.
- With near normal performance of rainfall, stocks are projected to last within a range of 4–5 months in mixed farming livelihood zone. Marginal Mixed Farming livelihood zone, stocks would last for a period ranging between 3-4 months.
- Water sources are expected to last for a period ranging between 4-6 months and spill over to the next rainy season.

4.2 Food Security Outcomes (February – April)

Following the good Performance of the short rains, main food crops namely maize, beans and potatoes are expected to be adequately available. Households are expected to have adequate food stocks to last them till next harvest. The food prices would remain relatively stable and within normal range. The water sources had recharged well, hence households are expected to increase their acreage under cultivation capitalizing irrigation potential, leading to diversification on the livelihood change strategies. In addition, the distances to watering points would be less, impacting positively on both household and livestock water consumption. The above factors would also reduce human-wildlife conflicts, migration, adverse coping strategy and protection of riparian zone. With good crop production, lower food price and favourable terms of trade, food consumption is expected to improve resulting in improvement or stability in nutrition status of the children and general population.

4.3 Food Security Outcomes (May – July)

With expected good long rain season, food stocks at household levels are expected to continue improving, especially when early maturing crops become available from May/June. Food security situation is projected to remain stable and improve further from July. Maize stocks and supplies from other areas are also expected to reduce or stabilise the market prices. Pasture and browse are expected to regenerate well thereby improving livestock productivity resulting to increased milk production and improve household consumption. Livestock prices are expected to improve, thereby improving the terms of trade. With pastures available and livestock having calved, milk availability at household level is expected to improve the nutritional status of under-five children.

5.0 CONCLUSION AND RECOMMENDATIONS

5.1 Conclusion

The sub counties are short rains dependent and following the good performance of season, production of the main crops was projected to be above average. Consequently, price of key food commodities would stabilise or continue declining thus improving the household access to food. Water consumption was above the threshold of 15 litres per person per day and would remain stable through to the onset of the next season. Terms of trade would remain favourable due to improved livestock body condition and productivity. Food consumption will improve due to improved availability and access to food, including milk, hence nutrition status of children under five years would remain stable. The food security situation in the sub counties would remain stable over the following six months period from February to July 2016.

There were no intervention gaps noted in the sub counties. However, to consolidate the food security gains a combination of short to medium term interventions was required to enhance resilience.

5.2 Summary of Recommendations

Though there were no intervention gaps in the sub counties, short to medium term interventions were proposed to enhance resilience;

- Construction of dams and provision of water storage facilities Kieni East and West
- Pasture establishment agroforestry and conservation
- Provision of water treatment chemicals and sensitization on the importance of hand washing practices.
- Provision of drought tolerant seeds, water harvesting, up scaling irrigation and establishment marketing cooperatives.
- Human, crop and livestock disease surveillance, vaccination and control.

6.0 ANNEXES

Annex 1. Food Assistance Required

Proposed population in need of food assistance

Sub county	Population (2009 KNBS)	Population in need (% range min-max)	Proposed mode of intervention	Remarks
Kieni West	39,273	Nil	None	Improved food security status.
Kieni East	48,997	Nil		

Annex II. Non-food Interventions (by sector)

Sub County	Intervention	Location	No. of beneficiaries	Proposed Implementers	Required Resources	Available Resources	Time Frame
Livestock Sector							
Kieni	Up scaling on	Kieni East	All	DALD-	1.3	Personne	1 year

East	pasture and fodder production, conservation & utilization. From 10 acres to 30 acres		livestock keepers in Kieni	County Govt and Farmers/ UTaNRP	million	1 Land	
	Completion of a modern slaughter house	Naromoru/Kiamat haga Ward	All livestock keepers	DALD – County Govt	21M		
Agriculture Sector							
Kieni East and West	Post-harvest training to be enhanced and provision of post harvesting chemicals and test kits	Kieni East and West	All farmers	MoALF		Line Ministry Personne 1	January 2016 – March 2016
Kieni East and West	Stocking of NCPB	Kieni East and West	11,914 farmers	County Govt	10 million	Expected short rains harvest	1 year
Kieni East and West	County to purchase Drought Tolerant Crops	Kieni East and West	9,650 farmers	County Govt	6 million		3 months
Kieni East and West	Construction of grain/cereals colleting centres and dark rooms for potatoes.	Kieni East and West		County Govt, MoALF			September 2015 – February 2016
Water Sector							
Kieni East and West	Promotion of rain water harvesting by provision of 10M ³ plastic tanks and guttering.	Kieni East and West	3000 HH	MoW/NDM A & Community	3 million		

Kieni East and West	Extend untapped distribution pipelines and establish Common Water Points (CWPs)	Kieni East and West	9000	MoW/NDM A & Community	5 Million		
Kieni West	Construction of Karemeno Mega Dam	Mugunda Ward	20,000	NIB and Community	5 Billion	Land	2016/2017
Kieni East	Construction of Naromoru Mega Dam	Naromoru/ Kiamathaga Ward	25,000	NIB and Community	5 Billion	Land	2016/2017