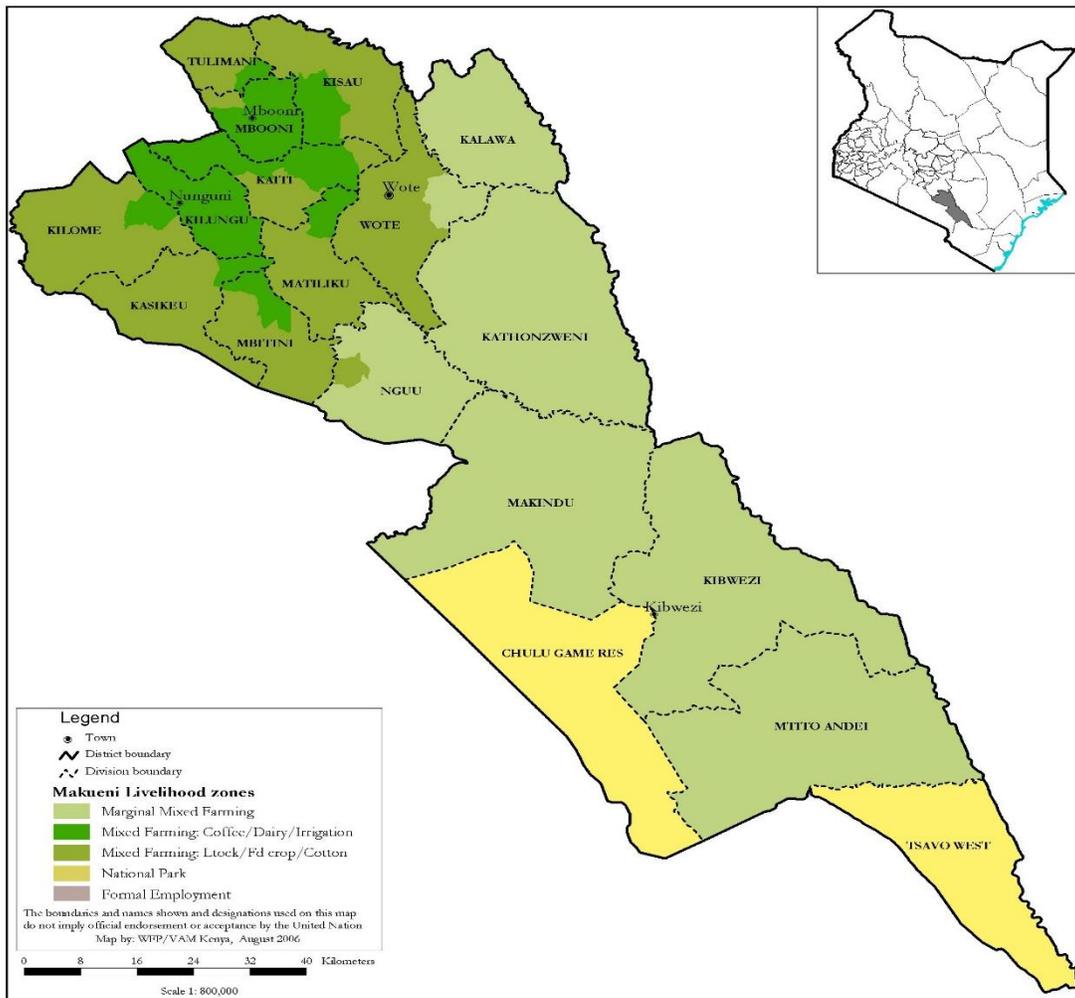


**MAKUENI COUNTY
2016 LONG RAINS FOOD SECURITY ASSESSMENT REPORT**



A joint report by the Kenya Food Security Steering Group (KFSSG)¹ and the Makeni County Steering Group

August 2016

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1 INTRODUCTION

1.1 County Background

Makueni County is located in the South-Eastern part of the country. It has an estimated population of 884,527 persons (KNBS 2009 census) and covers an area of 7,965.8 square kilometres (km²). The County is divided into six sub counties namely; Makueni, Kilome, Mbooni, Kaiti, Kibwezi East and Kibwezi West. There are three main livelihood zones namely; marginal mixed farming (40 percent), mixed farming; food crop/livestock (30 percent), mixed farming and coffee/dairy (30 percent) shown in Figure 1.

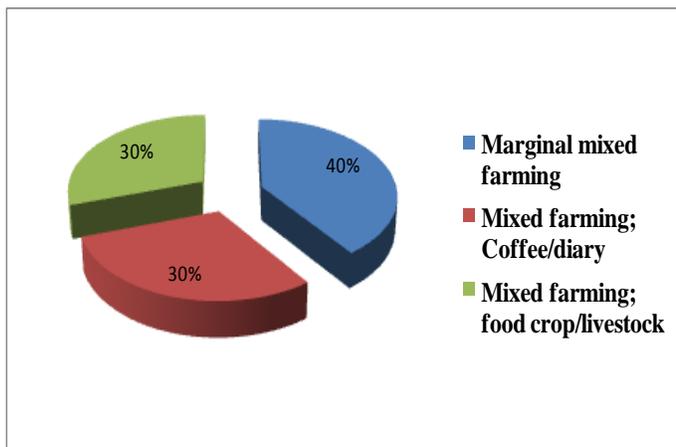


Figure 1: Population by Livelihood Zones

1.2 Current Factors Affecting Food Security

- Uneven spatial distribution of rainfall
- Early cessation of rainfall
- Crop failure in Marginal Mixed Farming Livelihood zone.
- Limited forage due to poor regeneration.

2 COUNTY FOOD SECURITY SITUATION

2.1 Current food security situation

The Marginal Mixed Farming livelihood zone is classified in the Stressed (IPC Phase 2) while the Mixed Farming Crop/Livestock and Mixed Farming Coffee/Dairy livelihood zones are classified in the None /Minimal (IPC Phase 1). In spite of the county receiving good temporal rains, the distribution was uneven over space. In marginal mixed farming, maize production experienced crop failure of approximately 85 percent. Maize production under rain fed production in the Mixed Farming Crop/Livestock and Coffee/Dairy is 61 percent of the long term average (LTA), this was attributed to the uneven distribution of rainfall and moisture stress due to early cessation of the rains. Maize stocks at household level stand at 91 percent of the LTA. In the month of July, Terms of Trade (TOT) were favourable at 103 Kilograms (Kgs) of maize from sale of a goat. Pasture and browse was good in Mixed Farming (Coffee/Dairy and Crop/Livestock) while in Marginal Mixed Farming was fair to poor. Livestock body condition was good in Mixed Farming (Coffee/Dairy and Crop/Livestock) unlike in Marginal Mixed Farming where the body condition was fair to poor. Currently households are consuming 2-3 meals per day with exception of Marginal Mixed farming where they are consuming 1-2 meals per day. The proportion of children under five years at risk of malnutrition currently stand at 6.6 percent and is below LTA showing a stable situation. . Crude death rate is 0.012 /10,000/day and under five mortalities 0.061/10,000/day which are within the acceptable threshold across all livelihood zones. Water consumption has decreased from 20 litres to 10 litres per person per day in the Marginal Mixed Farming. Distance to water source has increased by two fold in the Marginal

Mixed Farming from 3-5 Kilometres to 6-10 Kilometres and remained normal in both Mixed Farming (Crop/Livestock and Coffee/Dairy).

2.2 Food Security Trends

Table 1: Food security trend

Indicator	Current situation (LRA 2016)	Previous season (LRA 2016)
Food insecurity phase	Marginal Mixed Farming Stressed (IPC Phase 2), Mixed farming (crop/livestock, coffee/dairy) None /Minimal (IPC Phase 1).	All livelihood zones in (IPC) phase one
Household food stocks	127,084	25,110
Livestock body condition	Marginal mixed farming (fair to poor) Mixed farming coffee/dairy, crop/livestock (Good)	The livestock body condition was good and normal for all livestock species across the three livelihood zones.
Household water consumption (marginal mixed farming)	10 lpppd	15-30 lpppd
Household water consumption (mixed farming (crop/livestock))	20 lpppd	30 lpppd
Household water consumption (mixed farming (coffee/dairy))	20 lpppd	30 lpppd
Terms of trade (ToT)	103	91
CSI	13	20
FCS	Acceptable (91.1) Borderline (7.9) Poor (1)	Acceptable (73) Borderline (21) Poor (8)
Children at risk malnutrition (MUAC <135 millimeters)	6.6 percent	8.2 percent

2.3 Rainfall Performance

The County experienced a late onset of rains in the first dekad of April instead of the third dekad of March. Majority of the county receiving normal to above normal rains with exception of marginal mixed farming and some parts of Kilome in the mixed farming zone which received below normal rains of 75 to 90 percent of normal. Temporal distribution was good with uneven spatial distribution. Cumulatively the county received an average of 147mm of rainfall same as the LTA. However, the cessation was early in the first dekad of May as opposed to the second dekad of May.

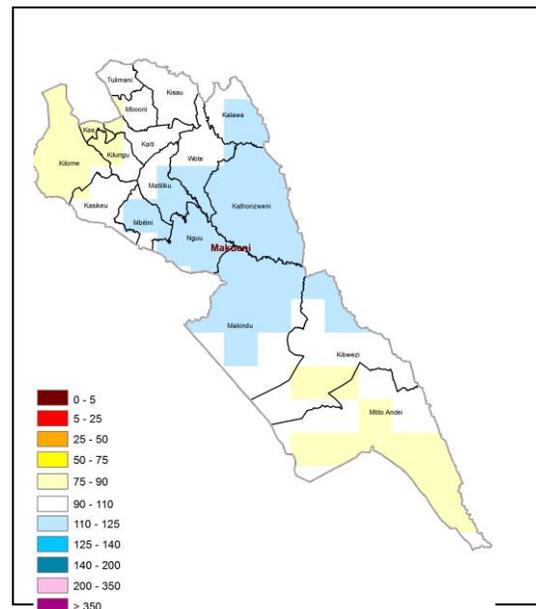


Figure 2: Rainfall Performance in Makeni

3 IMPACT OF RAINFALL PERFORMANCE, SHOCKS AND HAZARDS

3.1 Crop Production

Makueni County is mostly dependent on short rains for rain fed agriculture. The main crops grown for both food and income differ from livelihood zones. Crops produced include maize, beans, and pigeon peas, french beans, kales, tomatoes and mangoes. In marginal mixed farming livelihood zone; maize, cowpeas and pigeon peas contribute 27, 34 and 14 percent to cash income while they contribute 70, eight and five percent to food respectively. In mixed farming coffee/dairy livelihood; french beans, kales and tomatoes contribute 21, 20 and 15 percent to cash income while they contribute one, three and two percent to food respectively. In mixed farming crops/livestock livelihood; maize, beans and mangoes contribute 58, two and 20 percent to cash income while they contribute 59, 20 and three percent to food respectively.

Rain fed Crop production

The total acreage under maize was 76 percent of the Long Term Average (LTA), while area under cowpeas and green grams increased by 59 and 29 percent respectively compared to the LTA. The decrease in area under maize cultivation can be attributed to the weather forecast which had predicted to have below normal rains during the season as well as delayed harvest of maize crop grown during the short rain season. Acreage under pulses increased due to the preference of pulses being a short cycle crops. The projected yield of maize, cowpeas and green grams are below the LTA by 39, 12 and four percent respectively as shown in Table 1, Uneven spatial distribution of rainfall and late planting of cowpeas, green grams and maize led to poor yields. Crop performance was adversely affected by moisture stress following early cessation of rains. There was 85 percent crop failure for maize and pulses production in Kibwezi West, Kibwezi East sub-counties, Makueni sub-county (especially Kathonzweni, Mavindini and Kitise) and Mbooni sub-county (Kalawa). Good harvests will be realized in Kaiti sub-county and parts of Kilome sub-county.

Table 2. Rain fed Crop production

Crop	Area planted during 2016 Long rains season (Ha)	Long Term Average area planted during the Long rains season (Ha)	2016 Long rains season production (90 kg bags) Projected/Actual	Long Term Average production during the Long rains season (90 kg bags)
1. MAIZE	56,956	75,250	96,603	249,500
2. COWPEAS	46,920	29,525	39,000	330,850
3. GREEN GRAMS	33,920	26,400	11,500	293,000

Irrigated Crop

Irrigated crop production is undertaken in mixed farming crops/ livestock zone. Tomatoes, kales and maize are the main crops grown. The area under tomatoes and maize cultivation increased by 29 and 4 percent of the LTA respectively while that under kales was 73 percent of the LTA. The increase in the area under irrigation was attributed to adequate supply of water for irrigation from the major rivers in the county and also market demand for the same. Production of maize under

irrigation increased by 125 percent above the LTA while the yield of tomatoes and kales remained equal to the LTA as shown in (Table 2). In marginal mixed farming, irrigation was very minimal and was only concentrated along Athi-river which has water flowing throughout the season. The long dry spell in the marginal mixed farming resulted to drying of some of the available water sources which made the area under irrigation in these areas to decrease.

Table 3. Irrigated Crops Production

Crop	Area planted during the 2016 Long rains season (Ha)	Long Term Average area planted during Long rains season (Ha)	2016 Long rains season production (90 kg bags)/ MT Projected/actual	Long Term Average production during 2016 Long rains season (90 kg bags)
1. TOMATOES	405	315	5,376	5,372
2. KALES	305	416	2,386	2,392
3. MAIZE	280	270	2,700	1,200

The total maize stock currently held in the county is 76 percent of the LTA. Household held stocks are 91 percent of the LTA majorly from the harvests after short rains in 2015 which are expected to last for one and half months, while projected harvest will last 3 months. Stocks held by traders and National Cereal and produce Board (NCPB) are 55 and 179 percent of the LTA as shown in (Table 4). There are no millers within the county. Yield from the maize harvest planted during long rains and imports by traders are expected to bridge production deficit.

Table 4. Maize Stocks in the 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
House Holds	127,084	139,600
Traders	133,402	244,000
Millers	0	0
NCPB	57,295	33,000
Total	317,781	416,600

3.2 Livestock Production

Makueni County depends on three major livestock species; cattle, goat and chicken for food consumption and cash income. In marginal mixed farming, mixed farming coffee/dairy and mixed farming food crops/livestock livelihood zones livestock production contributes 50, 40 and 39 percent to cash income respectively. Other livestock species include donkey and sheep.

Forage condition

The pasture and browse conditions are good in the mixed farming (crop/livestock and coffee/dairy). The quality and quantity of pasture and browse in marginal mixed farming was fair to poor compared to good condition at this time of the year. Forage condition has improved from (fair to good) on average across all livelihood zones. However, cessation of long rains in the second dekad of May has affected the pasture condition. Projections show that the existing forage is being depleted and conditions are expected to worsen over the next one month. In

mixed farming (crops/livestock and coffee/dairy) harvested maize stalks will serve as alternative food source for livestock.

Livestock Productivity

Livestock Body condition

The current livestock body condition for all species is normal (Good smooth appearance) a score of 4 and 5 (Borderline and neither fat or thin respectively) across the mixed farming (coffee/dairy and crop/livestock) livelihood zones. In Marginal mixed farming livestock condition was fair to poor due to poor temporal distribution of the rains. The good livestock body condition in mixed farming crops/livestock could be attributed to the availability of forage, water and the ongoing vaccination measures implemented by the County government department of Livestock.

Table 5. Livestock Body Condition

Livelihood zone	Cattle		Sheep		Goat	
	Current	Normally	Current	Normally	Current	Normally
Mixed Farming Coffee/ Dairy	Fair	Good	Good	Good/Excellent	Good	Good/Excellent
Mixed Farming Crops/Livestock	Fair	Good	Good	Good	Good	Good/Excellent
Marginal Mixed Farming	Poor	Fair	Fair	Good	Fair	Good

The trend in livestock body conditions are expected to decline as forage decreases in the coming months. The implication of declining livestock body condition is that animals will fetch low market prices. Poor body condition also implies decreased productivity in terms of milk, meat, other livestock products and by-products. It also means reduced fertility and reproduction hence low offtake and income. Most affected parts are Mbooni sub-county like Kalawa & parts of Kibwezi East (Kikumbulyu, Kiaoni, Kandenja and parts of Makueni sub-county (Mavindini and Kitise).

Milk Production, consumption and prices

Milk availability in all the livelihood zones is presently low but normal for this time of the year. Variation in production is as a result of decrease in forage availability. The decline in forage means milk shortage shall worsen until the onset of short rains hence affecting consumption and price. Compared to the same period last year, the situation is similar. Production of milk per household per day is 0.75 – 1, 0.35 – 0.5 and 0.2 – 0.5 litres in mixed farming coffee/dairy, mixed farming crops/livestock and marginal mixed farming respectively of the LTA. Availability of milk is slightly below normal across the three livelihood zones. Reduced milk production pushed the milk prices upwards with marginal mixed farming recording the highest hike in price from the normal LTA of Ksh 55 to 70 per litre. High milk prices impacts negatively on milk intake of under five children in poor households.. Declining forage availability means milk shortage will worsen until the onset of the short rains.

Table 6: Milk production, consumption and price

Livelihood zone	Milk Production (Litres)/Household		Milk consumption (Litres)per Household		Prices (Ksh)/Litre	
	Current	LTA	Current	LTA	Current	LTA
Mixed Farming Coffee/Dairy	0.75 – 1	1	0.5 0. –75	1	50 –60	45
Mixed Farming Crops /Livestock	0.35 – 0.5	0.5	0.3 – 0.5	0.5	50 –60	50
Marginal Mixed Farming	0.2 – 0.5	0.3 – 0.5	0.2 – 0.5	0.3	60 –70	55

Tropical livestock units (Tropical Livestock Units)

The TLU in the mixed farming livelihood (coffee/dairy and crops/livestock) was below normal (three) at two while that of marginal mixed farming livelihood zone is eight which is normal for this time of the year. The bulls are used as draught animals, mainly for ploughing.

Birth rate

Birth rates are normal as a result of relatively good nutrition attributed to the long rains. The subsequent good body conditions led to improved fertility, meaning increased birth rates. However, the forecasted decline and deterioration of forage quantities available and quality in the coming one to three months may mean low survival rates for calves and kids.

Migration

No major livestock migrations were reported in the county. However, as the forage deteriorates herds are expected to migrate towards Tsavo West national park.

Livestock Diseases and Mortalities

No major mortalities were reported in the county during this period. However, unconfirmed cases of lumpy skin disease and foot mouth disease in Makueni, Kibwezi East, Kibwezi West and Kilome sub-counties were reported. Newcastle disease was reported across all livelihood zones where ongoing vaccinations are being carried out by the County Government. Other ongoing vaccinations are against Rabies in Kandengya and Anthrax in Kalawani

Water for Livestock

The trekking distances in marginal mixed livelihood zone has increased to 13 kilometres from a normal of 5 kilometres due to the poor recharge and high seepage of water pans. Trekking distances to water source and watering interval in marginal mixed farming has increased from a normal of once a day to once after every two days. In mixed farming crop/livestock and coffee/dairy the watering frequency has remained the same at once every day.

Table 7: Water for livestock

Livelihood zone	Sources		Return trekking distances		Expected duration to last		Watering frequency	
	Current	Normal	Current	Normal	Current	Normal	Current	Normal
Marginal mixed farming	Boreholes	Water dams	13	5	Water is available continuously		Once after two days	Once every day
Mixed farming coffee/dairy	Springs	Springs	2	1	Water is available continuously		Once every day	Once every day
Mixed farming crop/livestock	Water dams /boreholes	Water dams	2	2	Water dams expected to last 3 months until onset of short rains, Borehole is continuous		Once every day	Once every day

3.3 Water and Sanitation

Major sources of water

Main water sources for domestic use in the county are traditional river wells, shallow wells, pans and dams, rivers, springs, boreholes, piped water schemes, roof catchments and sand dams. The water sources in mixed farming crop/livestock and coffee dairy were substantially recharged to 80 percent and above as a result of the enhanced long rains. Syumile, Kandenja, Kamboo, Mulili, Kisingo, Masongaleni, Ulilizi, Kithyululu, Nguu/Masumba, Kiima Kiu all in mixed farming (coffee/dairy and crops/livestock) and marginal mixed farming livelihood zone are experiencing low water concentration due to few water sources developed in these areas. Thange springs and Kibwezi River in marginal mixed farming have dried up due to depressed rainfall thus poor recharge to the dams. Currently water rationing is being implemented in most parts of marginal mixed farming. The water in the dams in both mixed farming crop/livestock and coffee /dairy livelihood is projected to last for the next two to three months.

Distance to water sources

The average return distances to domestic water sources in the mixed farming coffee/dairy is 0.5 kilometer which is normal while in mixed farming crop/livestock there is a slight increase from two kilometer to three kilometers. In marginal mixed farming however, the distances have increased two fold from normal of 3-5 Kilometers to 13 kilometres.

Waiting time at the source

Currently waiting time at source remained normal at 15 minutes in mixed farming coffee /dairy, while it has increased to 30 minutes and 60 minutes in mixed farming crop/livestock and marginal mixed farming respectively from a 20 minutes and 30 minutes respectively.

Cost of Water

The cost of water in kiosk is normal at Kshs 2-5 per 20 litre jerrican across both mixed farming (coffee/dairy and crop/livestock). In marginal mixed farming the cost has doubled from Ksh 5 to Ksh 10. Water vendors are selling at Kshs 20-50 per 20 Litre jerrican across all the livelihood zones.

Water Consumption

The average water consumption in the mixed farming coffee/dairy and crop/livestock has remained normal at 20 litres per person per day. In the marginal mixed farming it has reduced to 10 litres per person per day. This can be attributed to the distance coupled with increased cost and rationing.

Sanitation and Hygiene

Water filtration at the source and hand washing at the critical times are being practiced and have resulted to reduction of diarrhoea incidences. Acceptance of water treatment method remains low at 20-30 percent despite a lot of advocacy to the community. Open water sources, however are contaminated arising from livestock/human waste in rivers, dams, fertilizer and pesticides used in farms along river banks. Latrine coverage is at 85 percent though there are pockets in marginal mixed farming at 50 percent.

Table 8: Water availability and accessibility

Division / livelihood zone	Distance to Water for Domestic Use (Km)		Cost of Water (Ksh./20litres)		Waiting Time at Water Source (Minutes)		Maximum number of people per water source		Average HH Use (Litres/person/day)		Status of Two Major Water Sources				Projected duration of water availability in current water sources (months)
	Normal ²	Current	Normal	Current	Normal	Current	Normal	Current	Normal	Current	Current Operational		Normal Operational		
											Source	No.	Source	No.	
Mixed farming dairy and coffee	0.5	0.5	2-5	2-5	15	15	20	20	20	20	Piped schemes	24	Piped schemes	24	continuous
											Springs	228	Springs	228	continuous
Mixed farming dairy and food crops	2	3	2-5	2-5	20	30	30	30	20	20	Piped schemes	6	Piped schemes	6	continuous
											Bore holes	22	Bore holes	42	continuous
Marginal mixed farming and livestock	3-5	6-12	5	10	30	60	50	110	20	10	Piped schemes	12	Piped schemes	14	Yield are diminishing and rationing is being implemented
											Bore holes	64	Bore holes	81	continuous

3.4 Markets and Trade:

Market operation

The main markets in the county were Mbumbuni, Wote, Kathonzweni, Machinery, Kambu, Makindu, Kalawa and Kitise. All markets were functioning normally for both livestock and farm

² Normal refers to same period in absence of a shock (what usually happens around that period).

produce. The market operations for livestock and other commodities, including traded volumes, were normal across the livelihood zones.

Maize prices

Current maize prices have reduced compared to those of last year with exception in January and February as a result of surplus stocks at both household and market level before taking a dip from March to April. However, as from May the prices have seen an increasing trend with marginal mixed farming zones experiencing higher prices compared to the mixed farming (coffee/ dairy and crops/livestock), this is attributed to diminishing stocks at both household and market level as from May to July. Generally, the current maize prices are below the long term average price (Figure 3).

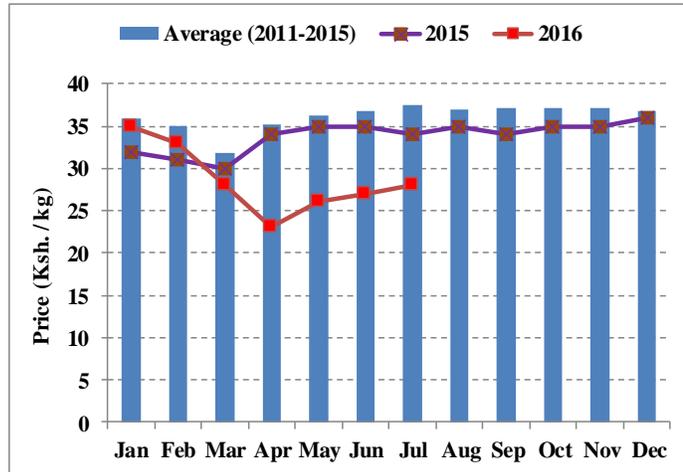


Figure 3. Maize prices

Goat price

Currently the goat prices are lower compared to the LTA and the same time last year. Although the prices were better the first four months of the year compared to last year they dipped in the months of May to July. This can be attributed to the fact that more farmers were selling their goats in order to meet their household needs as a result of diminishing maize stocks at the household level.

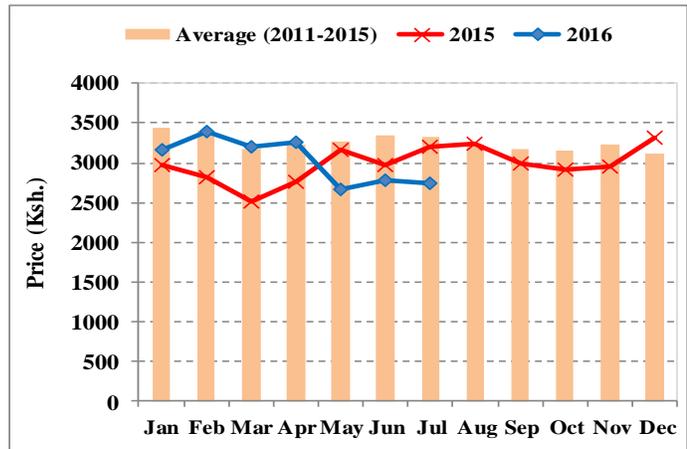


Figure 4. Goats' prices

Terms of Trade- (TOT)

Current terms of trade are stable compared to both the long term average LTA and last year TOT, as shown in Figure 5. With the best TOT being realised in April due to poor maize prices and stabilizing in May onwards. Stable TOT can be attributed to relatively good maize prices coupled with relatively stable goat prices as shown in Figure 5.

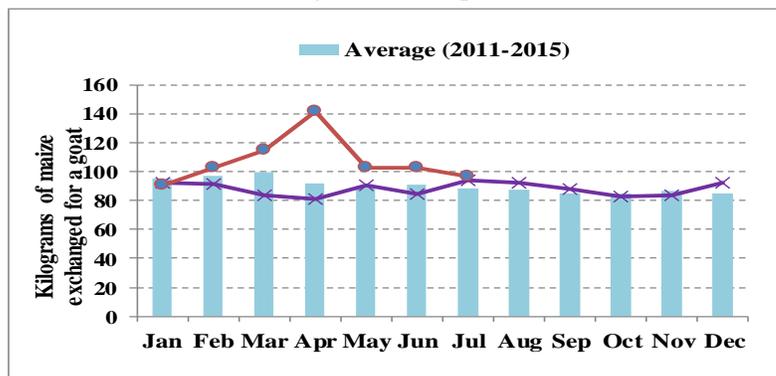


Figure 5. Terms of Trade

3.5 Health and Nutrition

Morbidity patterns

Table 9: Morbidity cases for children under five and general population

Reported Morbidity cases for children under five				Reported Morbidity cases for General Population			
Disease	Jan-June 2015	Jan-June 2016	% Change	Disease	Jan-June 2015	Jan-June 2016	% Change
Upper Respiratory Tract Infection(URTI)	110,166	59,964	-45.6%	URTI	192,249	111,273	-42.1%
Skin Disease	17,227	19,910	15.6%	Skin Disease	74,608	108,919	46%
Diarrhoea	21,778	14,990	-31.2%	Urinary Tract Infection(UTI)	32,461	34,953	7.7%
Intestinal worms	5,745	5,255	-8.5%	Hypertension	17,717	21,227	19.8%
Pneumonia	4,734	6,816	44%	Eye Infections	12,208	10,066	-17.5%

According to the District Health Information Systems (DHIS) Pneumonia and skin diseases among the children under 5 years increased compared to same time last year while disease incidence of Upper Respiratory Tract Infection, diarrhoea and Intestinal worms dropped by 46, 32 and 9 percent respectively. This decrease can be attributed to good hygiene and sanitation practices by the community and continued advocacy by health workers. Among the general population (URTI) and eye infection cases reduced compared to those reported previous year while Skin diseases, hypertension and urinary tract infection.

During the period there has been no increase in deaths as the crude death rate is 0.012 /10,000/day and under five mortalities 0.061/10,000/day which are within the threshold across all livelihood zones.

Epidemic prone diseases

Table 10: Epidemic prone diseases

Epidemic	January –June 2015		January –June 2016	
	No of cases	Reported Deaths	No of cases	Reported Deaths
Measles	-	-	-	-
Cholera	-	-	-	-
Dysentery	-	-	-	-
Diarrhea	-	-	-	-
Malaria	153	-	84	-
Typhoid	-	-	-	-
Others__TB MDR_____	2	-	-	-
Others _____	-	-	-	-

There were few malaria cases 84 compared to 153 cases in 2015 reported under the Integrated Disease Surveillance and Response (IDSR).

Immunization and Vitamin A Coverage

Though Immunization coverage for children under one year is within the recommended national target of 80 percent it has slightly decreased compared to same period last year and this could

be attributed to low reporting rate by health facilities as it was last year. Vitamin A coverage for children 6-59 months has remained stable at 66 percent. As shown in table 10 and 11..

Table 11: Immunization coverage

Year	Percentage of fully immunized children in the district Source DHIS MOH 710 Vaccines and Immunizations	Percentage of children immunized against the mentioned diseases in the district Source Nutrition survey
January to June 2016	80.9%	OPV 1 72.7% OPV 3 72.5% Measles 82%
January to June 2015	86.1%	OPV 1 78.2% OPV 3 75.2% Measles 7.5%

Vitamin A Coverage

Table 12: Vitamin A Coverage

% Children < 6-11 months who received Vit A (DHIS 710)		% Children 12 to 59 months old who received Vit A (DHIS 710)		% Children 6-59 months Ones (DHIS)		% Children 12-59 Twice (Survey)		% Children 6-59 Ones (Survey)	
Jan –June 2015	Jan –June 2016	Jan –June 2015	Jan – June 2016	Jan –June 2015	Jan – June 2016	Jan – June 2015	Jan – June 2016	Jan – June 2015	Jan – June 2016
64.7%	66.4%	66.5%	66.2%	66.3%	66.2%	N/A		N/A	

Nutrition Status and Dietary Diversity

According to the CHANIS report the number of children aged 0-5 years who are underweight have remained stable compared to same period 2015 with slight variation in May 2016 compared to 2015 which can be attributed to high flow of clients at health facilities as there was Measles Rubella campaign country wide. Underweight prevalence is however high in Kibwezi East and West sub counties compared to the others. There has been no major nutrition survey conducted since KDHS 2014.

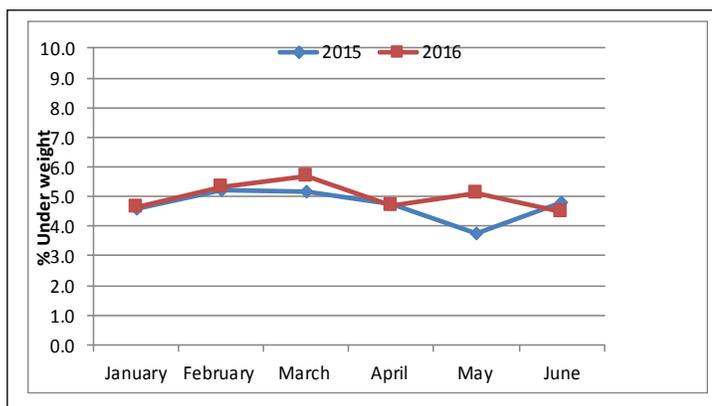


Figure 6 under weight trends children<5

The meal frequency is 2-3 meals for children under five coupled with poor dietary diversity of two food groups mainly cereals and vegetables especially in the marginal mixed farming.

MUAC

Proportion of children at risk of malnutrition with Mid Upper Arm Circumference (MUAC) of <135 mm have marginally increased this year compared to last year. Though they are below the Long term average which can be attributed to depleted food stocks at household level in April and early cessation of rainfalls which impacted on the availability of milk at household level.

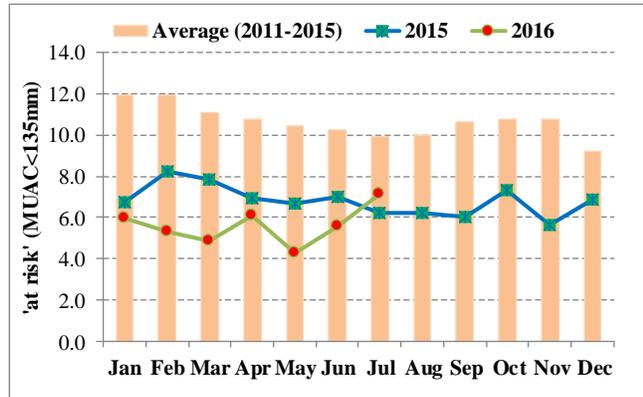


Figure 7. MUAC

FOOD CONSUMPTION SCORE TRENDS (FCS)

FCS captures elements in food consumption and food access. FCS is an adequate proxy for the current food security situation. Food consumption has improved in the households with only one percent consuming one to two food groups in a day compared to 6.1% reported same time last year as shown in the graph 8. However, in marginal mixed livelihood zone, the meal frequency has reduced to 1-2 meals from normal of 2-3 meals per day.

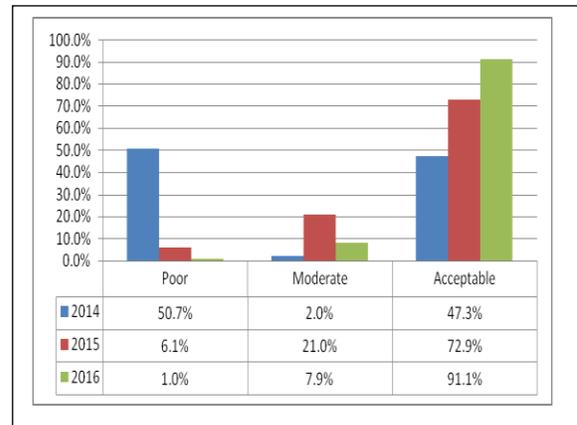


Figure 8 Food consumption score

3.6 Coping Mechanisms

Table 13: Coping mechanisms

Coping strategy Index May 2015	Coping strategy Index May 2016	Most utilized coping strategy (Narrative)
20	13	Currently the Coping strategy index has reduced to 13 compared to 20 in May 2015. The most commonly employed strategy being reduction of number of meals, sacrifice by adults for children as well as engaging in casual labour.

4 FOOD SECURITY PROGNOSIS

4.1 Prognosis Assumptions

- Livestock body condition is expected to decline over the next three months as forage decreases.
- This will have negative impact on livestock production and prices of the livestock are likely to decline..
- Vegetation condition is likely to deteriorate in Marginal mixed farming while in Mixed farming (crops/livestock and coffee and dairy) will have enough food stocks from the projected harvests.

- In the Mixed Farming (crops/livestock and coffee and dairy) water sources are likely to last for the next three months while in Marginal Mixed farming the water sources are expected to last one month.
- The TOTs projected to be unfavorable due to increase of maize prices coupled with low goat prices.

4.2 Food Security Outcomes for the Next Three Months

Food Security outcomes from August to October

The food security situation will remain stressed in the Marginal Mixed Farming and minimal in the Mixed Farming (Crop/Livestock and Coffee and Dairy). Distances to water sources in Marginal Mixed Farming are expected to increase due to the ongoing dry spell. Nutrition status of children under five is anticipated to deteriorate due to reduction of livestock products as well as the depleted food stocks.

Food Security Outcomes for November to January

The short rains are expected to be below average due to the expected La Niña effects. This is likely to result in a below-average short rains crop production. Casual labor which is a source of income during short rains from land preparation, planting and weeding will be below normal. Household purchasing power will be negatively affected in terms of accessing food from the markets, coupled with depleted household stocks. Pulses that are normally available early December are likely to perform dismally therefore affect the food consumption. As a result of below average short rains Livestock productivity is also expected to remain low due to poor forage conditions, which are likely to regenerate at below-normal levels, reducing consumption of livestock products. Households are likely to employ more coping mechanisms to bridge the food-income gaps.

5 CONCLUSION AND RECOMMENDATIONS

5.1 Conclusion

The county is classified as minimal/none (IPC Phase 1) in mixed farming crops/livestock and mixed coffee/dairy while marginal mixed farming is classified as stressed (IPC Phase 2). The factors to monitor are water availability, pasture and browse condition, market trends, livestock disease outbreaks, crop value chain development, health and nutrition status of the population.

5.2 Summary of Recommendations

- Surveillance and control of livestock diseases
- Promotion of drought tolerant crop
- Value chain addition farm produce (Oranges and Mangoes)
- Desilting of major water sources
- Water trucking services
- Promotion of high impact nutrition intervention (HINI)
- Increase integrated maternal child health outreach services

Table 14: Sub County food security ranking (worst to best)

Sub County	Food security rank (1-10)	Main food security threat (if any)
Kibwezi East	1	Uneven spatial rains, Poor forage for livestock, livestock diseases, increased distances to water sources, crop failure
Kibwezi West	2	Uneven spatial rains, Poor forage for livestock diseases, increased distances to water sources, crop failure
Makueni	3	Uneven spatial rains, Poor forage for livestock, livestock diseases
Mbooni	4	Livestock disease
Kilome	5	None
Kaiti	6	None

6 ANNEXES

6.1 On-going Interventions by Sector

Table 15: Ongoing interventions

Division	Intervention	Location	No. of beneficiaries	Implementers	Impacts in terms of food security	Cost	Time Frame	Implementation Status (% of completion)
Agriculture								
	Fertilizer Subsidy	County Wide	84,300	DoALFS / National and county government	Increased productivity /income	200,000,000	FY 2016/17	Ongoing
	Cash for assets in making terraces, farm ponds, vegetable sunken beds, zai pits ,agro forestry nurseries	Kathonzweni, Mavindini, Kalawa, Kibwezi	30,000	Dept of agriculture and partners e.g. WVK, WFP, KRCS , ASDSP,FAO,USAID, KRD,	Improved productivity and profitability(income)/-food security	77,000,000	FY 2016/18	Ongoing
Livestock								
	Pasture and Fodder conservation	County Wide	2,000HH	Dept of Livestock& Veterinary	Increased income hence food security	10,000,000	FY 2016/17	Ongoing
	Cattle Breeds upgrading through AI subsidized services	County Wide	15,000HH	Dept of Livestock& Veterinary	Improved milk availability	6,000,000	FY 2016/17	Ongoing
	Livestock disease surveillance	30 Wards	2,000HH	Dept of Livestock& Veterinary	Enhanced livestock survival for food supply	2,000,000	FY 2016/17	Ongoing

Division	Intervention	Location	No. of beneficiaries	Implementers	Impacts in terms of food security	Cost	Time Frame	Implementation Status (% of completion)
	Improvement of chicken breeds & disease control	15 Wards	5,000HH	County Government of Makueni; FAO, KAPAP, ASDSP/BISEP	Improved income & food security	5,000,000	FY2016/17	Ongoing
Water								
	Dam construction (84)	County wide Country wide	100,000	CGM	Increased water availability	293,000,000	2015-2016 FY	54% complete 46% On going
	Borehole drilling 36.	County wide	35,000	CGM	Increased water availability	60,000,000	2013-2016 FY	25 bore hole are 90% complete, equipping to be done by August 2016. 11 borehole survey and drilling to start by August 2016
	Pipeline extension 20 No	County wide	5,000	CGM	Increased water availability	100,000,000	2015-2016 FY	Contracts awarded
	Sand dam's construction 10 No	County wide	5,000	CGM	Increased water availability	20,000,000	2015-2016 FY	Contracts awarded
Health								
ALL	Management of Acute Malnutrition (IMAM)	ALL	35300	GOK/UNICEF/ WFP	Improved nutrition status	10,000,000	One year	ALL

Division	Intervention	Location	No. of beneficiaries	Implementers	Impacts in terms of food security	Cost	Time Frame	Implementation Status (% of completion)
ALL	High Impact Nutrition intervention	ALL	98463	GOK/UNICEF	Improved health	20,000,000	One year	ALL
ALL	Advocacy Campaigns	ALL	49617	GOK/UNICEF/WFP	Improved Health	3,2000,00	One year	ALL

6.2 Proposed Intervention

Table 16: Food Intervention Required (Proposed population in need of assistance)

Sub County	Population in the sub county	Pop in need (% range min – max)	Proposed mode of intervention	Remarks (Wards/areas targeted)
Kibwezi East	136,448	10-15	CFA	Masongaleni, Thange Mtito Andei
Kibwezi West	136,020	10-15	CFA	Makindu, kikumbulyu north South, Nguumo and Nguu
Makueni	240, 435	5-10	CFA	Kitise/Kithuki,Mavindini Kathonzweni
Mbooni	123,239	0-5	CFA	Kalawa, Kisau/Kiteta
Kilome	103,774	0- 5	CFA	Kiima Kiu/Kalanzoni
Kaiti	104,443	None		Kee

Table 17: Non-food Interventions (by sector)

County	Intervention	Location	No. of beneficiaries	Proposed Implementers	Required Resources	Available Resources	Time Frame
Agriculture							
County Wide	Water harvesting, (Farm pods) for crop and fodder production soil conservation technologies	All	101,000	Department of Agriculture and partners	Transport (fuel), stationery, DSA Equipment Funds=330m	Human resource (professionals) 5m	July,2016 to June, 2017
County Wide	Promotion of traditional high value crop /utilization	All	81,214	DoALFS / National and county governments & Other partners	16M	Human resource	July,2016 to June, 2017

County	Intervention	Location	No. of beneficiaries	Proposed Implementers	Required Resources	Available Resources	Time Frame
County Wide	Capacity building on Good Agricultural Practices on horticultural crops fields , Sensitization on Aflatoxin and post-harvest management /Conservation Agriculture	All	50214	„	6m	„	July,2016 to June, 2017
County Wide	Food for assets (FFA) To the vulnerable	All	6000	National and county governments & Other partners	43m	Resource persons	„, July,2016 to June, 2017
County Wide	Promoting climate smart agriculture (CA and GAPs), traditional high value crop seeds, Establishment of Mother Orchards	All	236,100	MOA and partners/FAO/GOMC	80M	Resource persons	July,2016 to June, 2017
Livestock							
Kibwezi East	Vaccination/ Mass deworming and Vitamin booster	Sub County wide	Livestock Keepers	DOALF	-Transport - Dewormers -Vaccines -DSA -Fuel	-Personnel -Vehicles -Cold storage facilities	Aug-Oct 2016
Kibwezi East	Feed supplements	Sub County wide	Livestock Keepers	DOALF	-Transport -DSA -Feed supplements -Fuel -Mineral blocks	Personnel -Vehicles -Storage facilities	Sept-Nov 2016
Water							

County	Intervention	Location	No. of beneficiaries	Proposed Implementers	Required Resources	Available Resources	Time Frame
Mixed farming livelihood(coffee/dairy)	Fuel /Electricity subsidy/Minor repairs of the pumping sets	Piped Schemes (6)	1,500	County Government, Line Ministries, Development partners	3,000,000.00	To be sourced	Once in 3months to 6No. water schemes
Mixed farming (crop/livestock) and marginal mixed farming	Subsidized water trucking to GOK institutions e.g. Schools and Health Centers	Designated areas in Zone II & III	3,000	County Government, Line Ministries, Development partners	4,500.000.00	To be sourced	3months (once per week) s to 20 No. institutions
Health							
ALL	Management of Acute Malnutrition (IMAM)	ALL	35300	County ministry of health GOK/UNICEF/WFP	Improved nutrition status	20,000,000	One year
ALL	Upscale High impact of nutrition intervention and Outreach services	ALL	Under five, pregnant and lactating women	County ministry of health/UNICEF/WFP/WV	Improved nutrition status	13,000,00	1 year