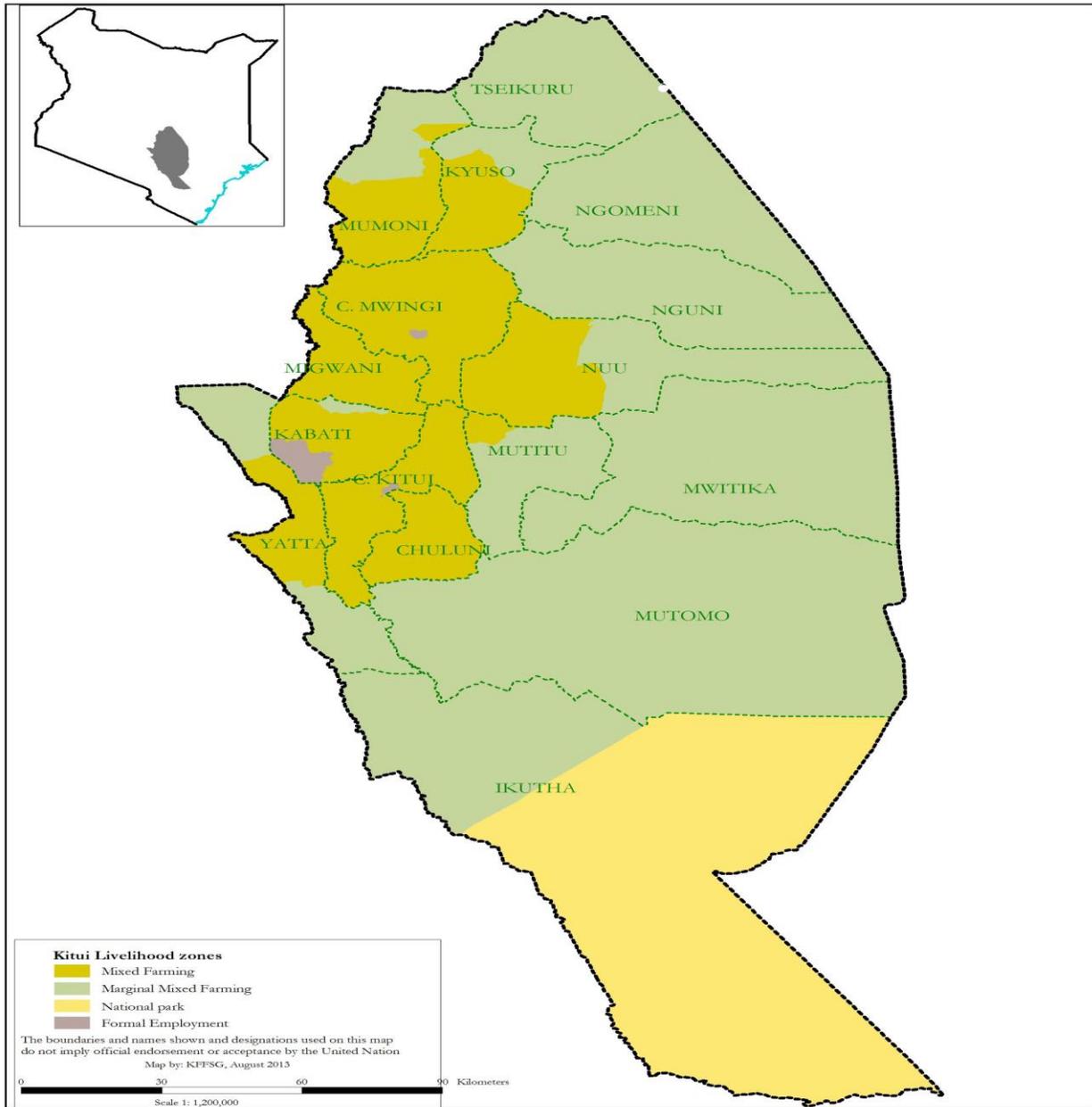


# KITUI COUNTY 2016 SHORT RAINS FOOD SECURITY ASSESSMENT REPORT



**A Joint Report by the Kenya Food Security Steering Group<sup>1</sup> (KFSSG) and County Steering Group, Kitui County.**

**February, 2017**

<sup>1</sup> Victoria Gioto (National Drought Management Authority) and Anthony Mativo (World Vision Kenya)

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## **Executive Summary**

The county was classified in the stressed food insecurity phase (IPC Phase 2). About 20 percent of the households were food insecure with either borderline or poor food consumption score. The global acute malnutrition (GAM) rates were 2.6 percent while crude death rate (CDR) was at 1/10,000/day. There was increase in coping strategy index (CSI) from 13 in the long rains assessment to 29 in the short rains assessment 2016.

The poor performance of the rainfall in the season led to minimal productivity consequently reducing food availability. Currently the expected production is 24 percent and 39 percent of the long-term average, for maize and cowpeas respectively. As a result, food crop prices have increased exemplified by maize prices ranging at Ksh 40 - 45 compared to a normal of Ksh 35 – 40. During the season there was destruction of the little field crops by Quilea birds in Mutomo, Ikutha and Athi wards.

Poor performance of the short rains led to partial regeneration of pasture. High temperatures experienced in the county led to a fast deterioration of pasture and browse. Milk production and consumption per household was two litres and one litres respectively compared to a long term average production of three litres and a long term average consumption of two litres. Due to pasture stress and need for income to purchase food as well as school fees, farmers are doing distress sales of livestock which have led to upsurge of traded volumes in the markets. As a result a sharp decrease in livestock prices was recorded which was affecting household purchasing power exacerbated by high county poverty level that stands at 60.4 percent and county limited resilience to climatic shocks; livestock diseases; foot and mouth disease (FMD) and Mange, were reported. Average tropical livestock units (TLU) were at 2-3 which is low.

Earlier than usual livestock migration were reported along the border with Tana River County. Conflict flare-ups over dwindling pasture and water resources was also reported in Ngomeni and Ukasi wards temporarily disrupting the livelihoods. Wages have declined, thus reducing household purchasing power and access to food. At the same time, domestic staple food prices have been high in recent months. Other sources of instability were heavy reliance on maize as a staple crop, pest and diseases and conflicts especially in Mwingi north.

## 1. Introduction

### 1.1 County background

Kitui County is located in the lower eastern region of Kenya. The county has eight sub counties namely; Kitui central, Kitui south, Kitui east, Kitui rural, Kitui west, Mwingi north, Mwingi west and Mwingi central. There are three livelihood zones in the county, marginal mixed farming, mixed farming livelihood zone and formal employment, contributing 44, 52 and 4 percent of the population respectively (Figure 1). The county has a population of 1,012,710 people (KNBS 2016) and covers an area of 30,570 square kilometres, of which 6,370 square kilometres is covered by Tsavo National Park.

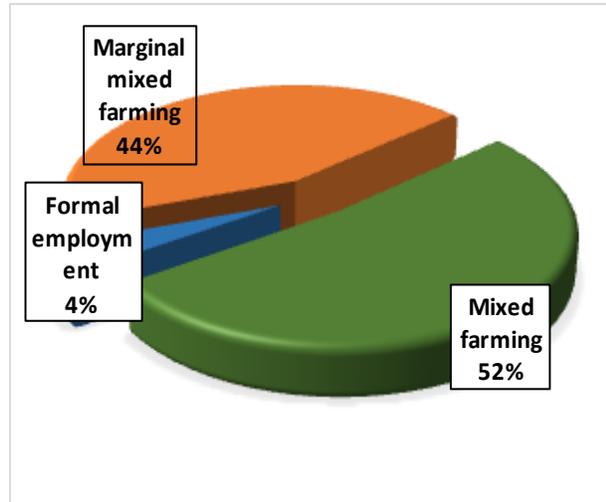


Figure 1: Proportion of population by livelihood

### 1.2 Objectives and approach

The main objective of Kitui county short rains assessment 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 food security assessment for Kitui County was conducted from 16<sup>th</sup> to 20<sup>th</sup> January, 2017 using multi-sectoral approach; the team used all available and relevant data in food insecurity based on the integrated food security phase classification (IPC) methodology. The process started by gathering data using sectoral checklists coupled with conducting a minimum of two market interviews, two focused group community interviews and two key informant interviews in each livelihood zone. Triangulation of data was enhanced by visiting health and education institutions to gather applicable data. Observation technique were also used during transects drives to obtain qualitative data. The field data was collated, reviewed, analyzed and triangulated which resulted to the county food security assessment report.

## 2. Drivers of Food and Nutrition Security in the County

### 2.1 Rainfall Performance

The onset of rains was late by 30 days and started in mid-November instead of mid-October. The county received below normal rains of 50-90 percent in most parts (Figure 2). However, localised areas of Kitui central in the mixed farming livelihood zone (Mambani and Mbitini) received normal to near-normal rains. Marginal mixed farming (Mwingi north and Endau malalani ward) received below normal rainfall. The temporal distribution of the rainfall was poor across the county. The spatial distribution of the rainfall was even across all livelihood zones while cessation of the rains was early in the second dekad of December compared to the normal which is third dekad.

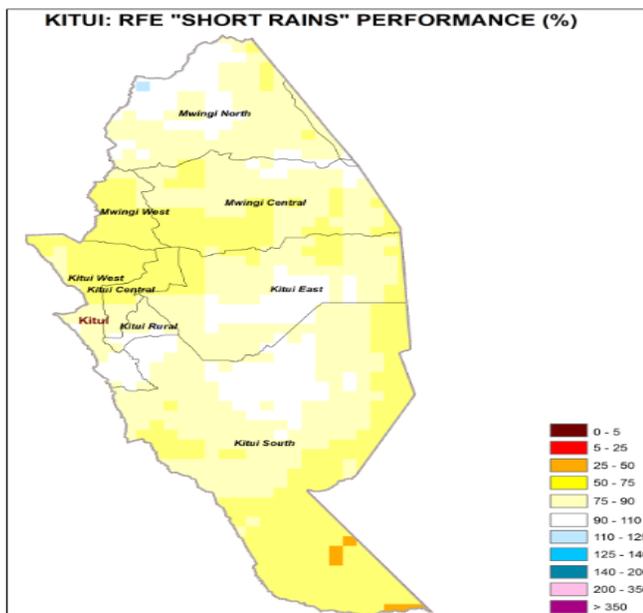


Figure 2: Percent of normal rainfall performance

## 3. Impacts of drivers on food and nutrition security

### 3.1 Availability

Availability of food in the county is dependent on crop production, livestock production and availability of stocks both in the market and at household level. Crop production was less than half of the long term average attributed to the below normal rainfall performance. Milk production was equally below normal impacting negatively to household food security situation.

#### 3.1.1 Crops Production

The short rains contribute 60 percent of the county's crop production since it is the more reliable in terms of amount and distribution. The main crops grown in the county are maize, green grams, cow peas and beans (Table 1). Horticultural crops such as tomatoes, bananas, water melons, kales, spinach, pawpaw, onions and mangoes are grown for cash income and household consumption.

**Table 1: Contribution of crops to food and income in Kitui County**

Livelihood Zone	Crop	Percent Contribution	
		Food	Income
Mixed	Maize	60	25
	Beans	15	23
Marginal mixed farming	Maize	50	20
	Green grams	5	40
	Cow peas	80	5

Even though the area planted for maize and cowpeas was 79 percent and 87 percent of the long-term average respectively (Table 2), the expected production was 17 percent and 39 percent of the long-term average for maize and cowpeas respectively. The variation is as a result of late onset and poor temporal rainfall distribution resulting in most dry-planted crop did not germinating and compelling farmers to replant too late in the season. In addition the presence of Quilea birds affected Mutomo, Ikutha and Athi wards.

**Table 1 Rain-fed (3 major crops)**

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	Long Term Average production during the Short rains season (90 kg bags)
1. Maize	46 501	59 000	58 126	518 423
2. Cowpeas	36 952	42 430	84 989	216 393
3. Green grams	53 771	47 238	134 427	330 666

The area under green grams was 13 percent above the long term average attributed to increased advocacy on adoption of the drought tolerant crops especially in the marginal mixed livelihood zones, and good prices at market level for the produce but the production is expected to be 41 percent below long term average mainly attributed to poor temporal rainfall.

**Table 2: Irrigated crops**

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	Long Term Average production during the Short rains season (90 kg bags)
1. Tomatoes	203	210	4,060	5,085
2. Kales	180	200	2,700	3,772
3. Watermelon	113	175	1582	1,880

Irrigation is practiced along the major rivers that is Mui, Thua, Kithyoko, Tana, Athi, Nzeeu, Thunguthu, Katse, Kauwi and Kalundu coupled with ongoing county projects on water harvesting namely kitchen gardening, on-farm ponds and cluster irrigation schemes. The area under tomatoes, kales and watermelon was 97, 90 and 65 percent of the long term average respectively consequently there was a reduction in the production at 80, 72 and 84 percent for the tomatoes, kales and watermelon respectively, attributed to inadequate irrigation water since water resources were not fully recharged due to low amounts of rainfall received, pests and diseases exemplified with blights and *Tuta absoluta* in tomatoes coupled with poor agronomic practices.

### Maize stocks

Stocks held at house-holds level were 30 percent of the LTA mainly because of the poor crop harvest of the long rains and exhaustion of the 2015 short rains reserves. Crop production during

the short rains is expected to be low due to poor crop performance and therefore there may not be much improvement on the stocks held by the households. Stock held by traders is 31 per cent below LTA, this is attributed to inconsistent supply of maize in the county. Traders are importing maize from other counties. Most millers do not stock maize instead they mill what the farmers take to them. Currently the NCPB depots in Kitui and Mwingi have no maize stocks. In a normal season the stocks held by the households at this time lasts for 2 months. However, currently the stocks held by the households can last for approximately one month.

**Table 3: Maize stocks**

Maize stocks held by:	Quantities of maize held (90-kg bags)	Long Term Average quantities held (90-kg bags) at similar time of the year
House Holds	15,368	51,450
Traders	75,413	109,300
Millers	1,040	4,400
NCPB	0	35,000
<b>Total</b>	<b>91,821</b>	<b>200,150</b>

### 3.1.2 Livestock Production

Livestock production is one of the major sources of income in the county (Table 5). The major livestock species in the county are cattle, sheep, goats and indigenous chicken. Others include rabbits, bees and donkeys. Goats and sheep are usually sold for food and income generation, while the cattle are kept for provision of income during drought, milk production and supplement family investments. Donkeys are essentially used as a means of transport while indigenous chicken are a fundamental source of income for immediate household needs.

**Table 4: Contribution of livestock production to income**

Livelihood zone	Percent contribution to income
Marginal mixed farming	43
Mixed farming	15

### Forage condition

**Table 5: Pasture and browse condition by livelihood zone**

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)
Marginal mixed	Fair to poor	Good to Fair	0.5 -1 months	Good	Good	2-3 months
Mixed farming	Fair	Good to Fair	1-2 months	Good	Good	2-3 months

In the marginal mixed farming livelihood zone, pasture was poor especially in the localised areas of Kanyangi, Yatta Kwa Vonza, Endau Malalani ward, Tseikuru, Ngomeni and Kyuso wards however, it was fair in Voo, Kyamatu ward. The available quantities were likely to last for less than a month until mid-February compared to three months normally in the mixed farming

livelihood zone and approximately one month until early February compared with two months normally. Browse condition was generally good in the both the marginal mixed and mixed livelihood zones but on a deteriorating trend. The available browse was likely to last for at least two to three months until April which is normal. There is presence of crop residues which will slightly contribute to livestock feed at 10 percent. In the marginal farming zones areas of Ngomeni, Nguni and Endau Malalani and Mutha wards, it is expected that grazing communities may clash over water and pasture especially from nearby and neighboring counties of Tana River and Garissa Counties along the Borders with Kitui County.

## **Livestock Productivity**

### **Body condition**

Livestock body condition for cattle is fair across all livelihood zones while that of goats and sheep is good across the livelihood zones. The projected body condition for the next three months for shoats is unlikely to change as browse is likely to last for that duration in all livelihood zones. However, the condition of cattle is likely to deteriorate to poor since pasture is likely to last for only one month in the marginal mixed farming and mixed farming livelihood zones.

### **Milk Production, Consumption and Prices**

Milk production and consumption was below normal across all livelihood zones due to poor pastures (Table 7). Milk prices across all livelihood zones were normal in comparison with the LTA.

**Table 6: Milk production, consumption and prices at livelihood zone level**

Livelihood zone	Milk production (Litres) / Household		Milk consumption (Litres) / Household		Prices (Ksh)/Litre	
	Current	LTA	Current	LTA	Current	LTA
Marginal mixed	2-3	3	1	2	60-70	60
Mixed	1-2	2	1	1	60-70	60

### **Tropical livestock units (TLUs), Birth rate and Migration**

Tropical livestock units per household are between 2-3 in marginal mixed farming and 1 for mixed farming which is normal. Birth rate is normal for cattle, one calf for every one year and two kids for goats per year. The migration of pastoralists from Tana River and Garissa counties in search for water and pasture has resulted into conflicts with the local farmers. The conflicts are likely to intensify as pastures and water decrease in quantity in the next one month coupled with the migrants feeding their camels on the farmer's crops. This migration pattern is not normal at this time of the year as it happens during the long dry spell (July to October).

### **Livestock Diseases and Mortalities**

Reported disease out-breaks include Mange in goats in Tseikuru ward, Mwingi north sub-county. Other diseases included contagious caprine pleuro-pneumonia (CCPP), new castle in poultry and tick-borne diseases across the livelihood zones. There were no unusual livestock deaths, and the

mortality rates of all livestock species were within seasonal norms at one percent for cattle, goats and sheep. With likely deterioration of body condition due to pasture and water scarcity, more outbreaks are expected to occur.

### **Water for Livestock**

The sources for water were sand dams, shallow wells, water pans, rivers and boreholes which are normal. With the escalating drought the situation is likely to worsen leading to increased distances to the water points and decreased watering frequencies.

Livelihood zone	Return trekking distances		Expected duration to last		Watering frequency	
	Current	Normal	Current	Normal	Current	Normal
Marginal mixed farming	5-10	4-7	0.5-1	1-2	After every one day	Daily
Mixed farming	3-5	3-5	1-1.5	2-3	Daily	Daily

### **3.2 Access**

All markets in the county were functioning normally. Prices of food crops had increased to above long term averages while distance to water sources was above normal. Mwingi North was the most deprived area in all aspects of access to food.

#### **3.2.1 Markets operations.**

The main markets for livestock are Tseikuru, Katse, Nguni, Muthaa, Ukasi, Kamuwongo, Zombe, Mutomo, Kisasi, Kabati, Mwingi, Kavisuni, Kalundu and Ngomeni. The main markets for food commodities are Zombe, Mutomo, Ikutha, Kavisuni, Mwingi, Ngomeni, and Tseikuru in the marginal mixed livelihood zone and Migwani, Mbitini and Kalundu in the mixed farming livelihood zone. These markets were operating normally, with food supplies flowing in from Loitokitok, Busia and Kitale while small quantities were sourced from farmers within the mixed farming livelihood zone at 40 percent. However, parts of Mwingi North were affected by conflict-related tensions that led to temporary population displacements for 570 households at Kavaani and Ikime, which, consequently led to disruptions in social and economic functions. As a result, prices of food commodities increased while prices of livestock decreased. Food supplies to remote markets are hampered by the poor condition of the secondary and tertiary roads. This leads to high transaction costs, thus increasing commodity prices in these remote markets. Traders reported an upsurge in traded volumes for goats and cattle, partly due to diminishing pasture and browse condition coupled with increasing distances to water sources, need for school fees and need for cash to purchase food at household level.

### Maize prices

Maize prices were five percent below the long term average in December 2016. Prices indicated a stable trend from September through December. Lower maize prices were noted in Zombe, and Kitui town at Ksh 35 (marginal mixed farming livelihood zone) as at the mid-January 2017. Maize prices were highest in Mivukoni and Ikutha at Ksh 45. The poor rainfall performance of the season has also led to high dependence on the markets hence likelihood of increase in prices owing to poor on farm crop production.

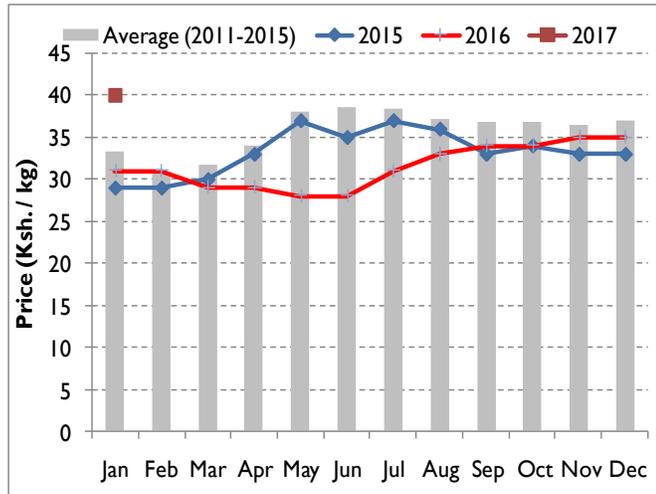


Figure 1 Maize prices

### Goat prices

Goat prices were 18 percent above the long term average and have been on an upward trend since September 2016 to November, which is typical. The highest goat prices were recorded in Zombe where a mature goat retailed at Ksh 4,000, and the lowest in Mivukoni in Mwingi North, where an average goat retailed at Ksh 1,400 in January 2017. The decrease in goat prices currently in comparison to the previous month is attributed to decreasing pasture and browse condition hence early off take, need of school fees and need for cash to purchase food at household level.

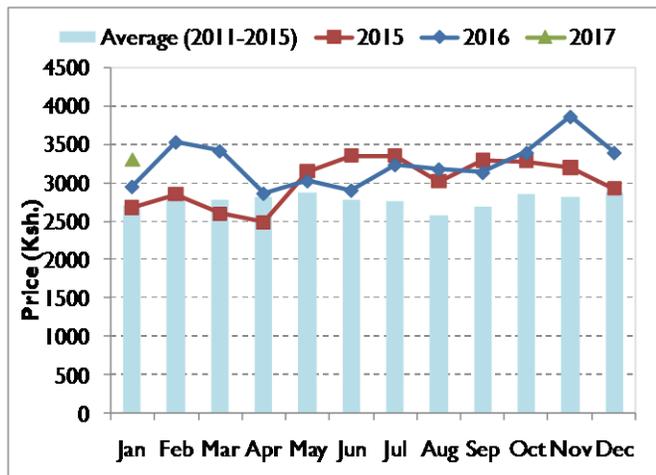


Figure 2 Goat prices

### 3.2.2 Terms of trade

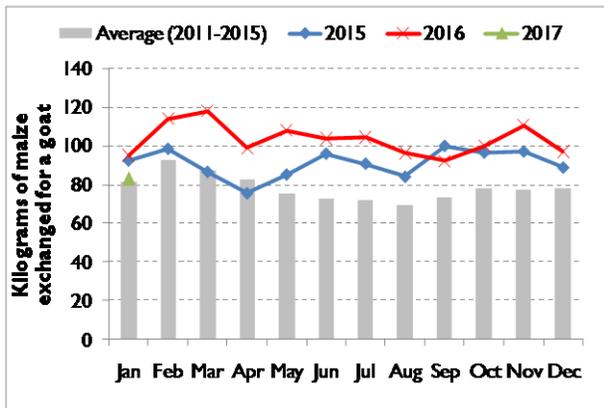


Figure 3 Terms of trade

The terms of trade (TOT) were 25 percent above the LTA, and were favorable to pastoralists. TOT values normally drop from June to September before they rise until December. However, the trend in 2016 has been different as the TOT started increasing in October to November followed by 12 percent decrease in December in comparison to November, 2016. This is attributed to the decrease in goat prices and the increasing trend in maize prices.

### 3.2.3 Income sources

A larger percentage of households relied on casual labour (40 percent) and petty trading (30 percent) as the main source of income in the period under review. Sale of crops as a source of income was seldom recorded in comparison to previous season attributed to below rainfall performance impacting negatively on crop productivity coupled with depleted household stocks. Other sources of income were formal employment, sale of livestock, remittances and sale of charcoal. The average daily wage rate was at a range of Ksh 200 - 300.

### 3.2.4 Water access and availability

The major water sources in the county are boreholes, earth dams, sand dams, rivers, shallow wells, rock catchments, a few springs and two major water supply pipeline systems. The water supply systems are Masinga-Kitui and Kiambere-Mwingi water supply which serves Kitui and Mwingi Towns respectively. Most open water sources had approximately 40 - 60 percent recharge level given the low levels of rainfall with exception of Ngomeni, Kwavonza, Kiusyan, Kanyangi Ngutani and Malalani endau wards where recharge was below 30 percent. Most boreholes in both mixed and marginal farming livelihood zones were serving larger populations causing frequent breakdowns while about 40 percent of earth dams had silted. The two major pipeline systems have huge electricity bills due to dilapidated infrastructure system which results huge unaccounted water bills leading frequent power cutouts.

**Table 7. Distance, Cost, Waiting time and Average Household use by livelihood zone**

Sub county / livelihood zone	Distance to Water for Domestic Use (Km)		Cost of Water (Kshs./20litres)		Waiting Time at Water Source (Minutes)		Average HH Use (Litres/person/day)		Projected duration of water in (months)
	Normal <sup>2</sup>	Current	Normal	Current	Normal	Current	Normal	Current	
Maginal Mixed Farming	2-4	5-10	3-5	3-5	60-90	60-120	10 -15	5-15	1-2
Mixed farming	2-4	3-5	2-5	2-5	30-60	30-90	15 -20	10-20	1-2

### Distance to water sources and waiting time

The current return distances to water sources are above normal in both the marginal mixed and mixed farming livelihood zones (Table 7). Field reports indicated, in the marginal mixed area of Ngomeni, Muvukoni, Nuu, Endau/Malalani and Voo/kyamatu wards, the return distance was above 10 kilometers while in the mixed farming zones areas Kwavoza/Yatta, Ngutani, parts of Kiomo Kyethani. Kyome Thaana, Kauwi Lower Mutonguni and Kithumula wards, the distance was at approximately 5 - 8 kilometers. The waiting time at water sources was normal (Table 7), although there are exceptional areas as mentioned in distance variable at 120 minutes for the marginal mixed farming and 90 minutes for the mixed farming respectively attributed to congestion at the water kiosk as a result of reduced boreholes production due to poor recharge.

### Cost of water and consumption

The cost of water was normal (Table 7). However, in affected wards mentioned by the distance variable water was at Kshs 20-50 per 20 liter jerrican in the Marginal mixed farming zones and at Kshs 10-30- per 20litre jerrican in mixed farming zones attributed by the water vendors being the main suppliers of water to these areas. Water consumption is normal (Table 7), with the exception of affected areas.

### 3.2.5: Food Consumption

Season	Acceptable	Borderline	poor
Short rains assessment 2016	72.2	18.2	4.6
Long rains assessment 2016	91.1	7.9	1

The poor food consumption score implies household are not consuming staples and vegetables every day and never consuming protein rich food , borderline imply household consuming staple vegetable, every day accompanied by oil and pulse a few times a week while the acceptable imply household consuming staple, vegetable every day, frequently accompanied by pulse.

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

### 3.2.6 Coping strategy

The mean coping strategy index (CSI) was 29.8 as per SMART survey 2016 compared to 13 during LRA 2016. This indicates that households were employing severe coping strategies more frequently.

CSI July 2016	CSI Jan 2017	Most utilized coping strategy	Percentage
13	29	Relied on less preferred and/or less expensive food	24.8
		Borrowed food, or relied on help from a friend or relative	12.7
		Reduce the number of meals eaten per day	22.3
		Reduced the portion size of meals	21.8
		Reduced the quantity of food consumed by adults to ensure that children had enough to eat	15.5

### 3.3 Utilization

Households relied on less preferred food and dietary diversity comprised of maize, beans and legumes. Utilization of water was stable across all livelihood zones. Sanitation and hygiene have improved significantly due to community led total sanitation program. No disease outbreak were reported

#### 3.3.1 Nutritional status

The nutrition status of children under the age of five years improved in the season under review. A nutrition SMART survey done in November 2016 indicated a global acute malnutrition (GAM) prevalence of 2.6 percent and a severe acute malnutrition (SAM) prevalence of 0.2 percent. This GAM rate indicates a normal situation up to December 2016 and shows an improved situation compared to results of the KDHS 2014 and a SMART survey done in October 2013 that showed a GAM rate of 3.4 and 4.6 percent respectively. It is however important to note that no nutrition survey was done in 2015 to provide a better comparison.

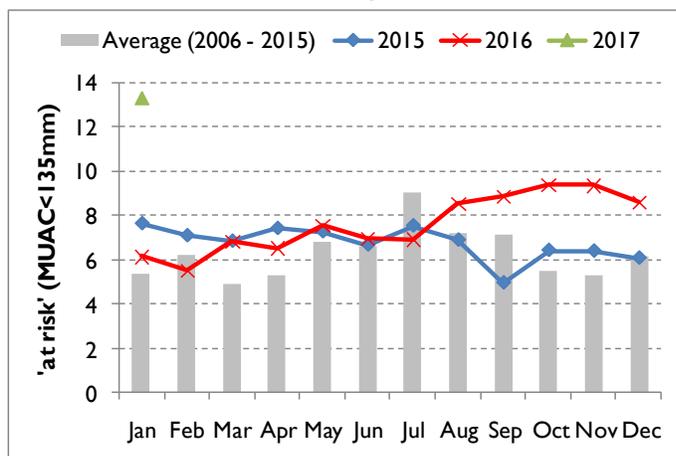


Figure 6 Percentage at risk of Malnutrition

Trends in percent of children under five years at risk of malnutrition (MUAC < 135mm) showed a declining trend which is normal during this period (figure 6). The noted improved nutrition situation in the period is attributable to the various health and nutrition interventions such as community nutrition and resilience building program and the open defecation free program; both programs under the community strategy initiative known as “pamoja tujikinge magonjwa integrated program (PATUMAP). The Ministry of health and sanitation has also improved drug supply in health facilities resulting to decreasing morbidity patterns as noted in the morbidity section below and which has a bearing on the health and nutrition status of the population. Other efforts by the Ministry of Agriculture, Livestock, Water and irrigation towards improving food security at the household level have also

contributed in a big way to the improvement in the nutrition status in Kitui County. It is however important to note that with the below normal performance of the short rains season, the reported improvements in nutrition status may be temporary and the situation could rapidly deteriorate in the coming three months. Stunting rate according to the SMART survey November 2016 also significantly improved to 32 percent as compared to 45.8 percent as per KDHS of 2014.

### Morbidity

The leading causes of morbidity in the county were upper respiratory tract infection (URTI), skin diseases, Diarrhea, malaria, and intestinal worms both in under-five and general population. Trend analysis indicates a significant drop in morbidity patterns in 2016 compared to 2015 as shown in figures 7 and figure 8. Diarrhea cases dropped significantly followed by upper respiratory tract infections.

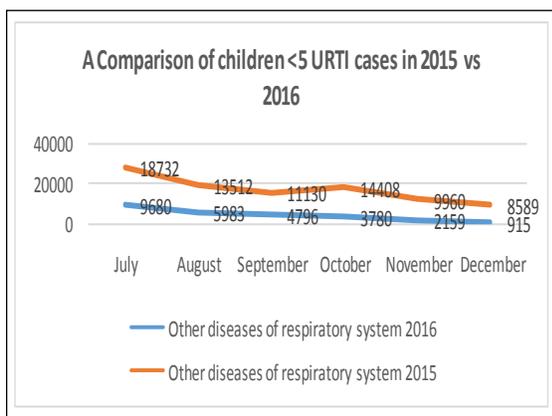


Figure 7, Comparison of URTI 2015/2016

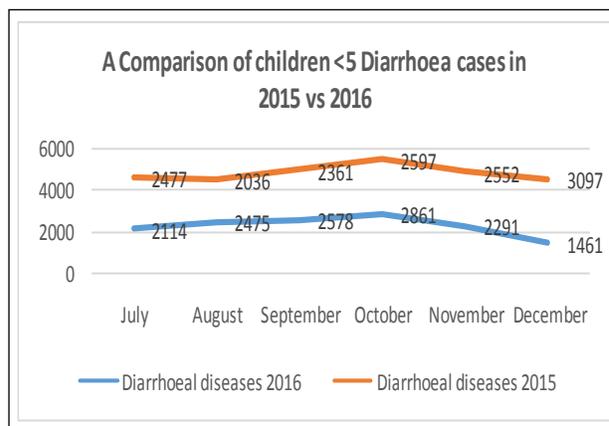


Figure 8, Comparison of Diarrhoea 2015/2016

### Immunization and Vitamin A Supplementation

The proportion of fully immunized children marginally dropped to 65.1 percent in July to December 2016 compared to 69.7 percent in the same period in 2015 which was below the national target of 80 percent due to stock outs of antigens and frequent breakdown of cold chain equipment in the health facilities. Vitamin A supplementation for children less than five years improved from 52.5 percent in July to December 2015 to 66.3 percent in the same period in 2016. This improvement is attributed to the robust efforts put in place during malezi bora month including ECD supplementation.

#### 3.3.2 Sanitation and Hygiene

According to the SMART survey 2016, latrine coverage stood at 88.2 percent. Majority of the population (83.4 percent), use water and soap to wash their hands while 18.9 percent wash their hands at the recommended four critical times. The achievements are attributable to efforts spearheaded by the community led total sanitation program. Typhoid cases reported over the period increased marginally by 8.2 percent. No cases of disease outbreaks were reported in the season.

### 3.4 Trends of key food security indicators

**Table 9: Food security trends in Kitui County**

Indicator	Long rains assessment, July 2016	Short rains assessment, Feb 2017
Food insecurity phase	Marginal Mixed Farming Stressed (IPC Phase 2), Mixed farming None /Minimal (IPC Phase 1).	Marginal Mixed Farming and mixed farming at Stressed (IPC Phase 2)
Number of maize stocks held at household level	102,278 (90 kg bags)	15,368 (90 kg bags)
Livestock body condition	Mixed farming(good) Marginal mixed farming (good to fair)	Fair across all livelihood zones
Water consumption (litres per person per day)	10 liters per person per day in the marginal mixed livelihood zone and 20 litres per person per day for the mixed farming livelihood zone	10 liters per person per day in the marginal mixed livelihood zone and 15 litres per person per day for the mixed farming livelihood zone
Price of maize (per kg)	31	35
Distance to grazing	3-5km	5-10km
Terms of trade (pastoral zone)	104	92
Coping strategy index	13	29
Food consumption score	Acceptable (91.1) Borderline (7.9) Poor (1)	Acceptable (72.2) Borderline (18.2) Poor (4.6)
Children at risk malnutrition (MUAC <135 millimeters)	6.8 percent	8.6 percent

### 3.5 Education

The situation in the education sector is currently stable across the livelihoods, though reports indicate that the effects of the drought are already being experienced more so in the marginal mixed livelihood. If the trend continues, the effects are likely to be more severe in the next one month.

Transition reported to be a challenge given the ongoing drought that pose challenges for some parents to be unable to raise school fees. This has led to offloading of valuable household assets to enable them to buy food, pay school fees and address other competing needs.

Insecurity has affected some parts of the county especially Ngomeni and Nguni wards in Mwingi North and central sub-counties respectively. This led to the closure of 4 schools (Kasiluni, Mandongoi, Inyanzai and mangombo between 3<sup>rd</sup> to 6<sup>th</sup> January 2017 which have since been opened as the situation has improved.

School feeding programs are currently not operational and the home grown program is only concentrated in the schools that had been piloted. From the field report, stakeholders recommended enhancement of schools meals programme to reduce truancy. The attendance rate is over 80percent with some cases of absenteeism as a result of domestic chores that includes chasing of birds from the millet fields particularly in Tseikuru and Ngomeni parts of Mwingi North Sub-county. This case has also been aggravated by the shortage of food at home as a result of the drought that has affected crops in the last season.

## **4.0 Food Security Prognosis**

### **4.1 Assumptions**

- The March to May rains have a 50 percent chance of being below normal due to the forecasted *La Niña* conditions.
- Rangeland conditions are likely to remain scarce through to March since they were not sufficiently rejuvenated from the recent rains and also due to projected higher-than-normal temperatures.
- Maize prices are likely to increase through to March.
- The incidence of conflict over water and forage is likely to intensify through to March.

### **4.2 Food Security outcomes from February to April**

Over the next three months, pastures in both the marginal mixed farming and mixed farming livelihood zone are likely to be depleted by early February resulting to further decrease in livestock prices due to deteriorating body condition. There is likelihood of rising food prices attributed to the expected below normal crop production owing to the poor rainfall performance, consequential in decreasing terms of trade through to March. A typical migration along Tana River is likely to continue through February. From March through April, there is likelihood of timely onset of rainfall impacting positively in the range land conditions hence impacting positively on livestock productivity consequently resulting to availability of green leafy vegetables. Households are likely to remain in the stressed phase (IPC Phase 2) across all livelihood zones.

### **4.3 Food Security outcomes from June to August**

With 50 percent chance of the March to May rainfall being below normal it is unlikely that the rains will result in sufficient regeneration of the rangeland conditions, livestock body condition will likely worsen and livestock prices reduce further. As food prices maintain their upward trend, consequently terms of trade will further get worse. Crop production is likely to be below normal impacting negatively on household food stocks. Open water sources are likely to dry up exacerbated with higher-than-normal temperatures. The Food consumption gaps will continue to be evident. Owing to this scenario households are likely to remain in the stressed phase (IPC Phase 2).

## **5. Conclusion and Interventions**

### **5.1 Conclusion**

#### **5.1.1 Phase classification**

The Marginal mixed and the mixed farming livelihood zones are classified in the stressed food insecurity phase (IPC Phase 2) however localised area of Masyungwa in Tseikuru ward are on a rapidly declining trend owing to, earlier than unusual livestock migration reported along the border with Tana River county, conflict flare-ups over dwindling pasture and water resources in Ngomeni and Ukasi wards disrupting the households livelihoods. In Mutomo ward it was noted there was massive destruction of crops by quilea birds affecting 2,060 households, limited access to water especially in Mwingi north and at Endau- Malalani and presence of mange diseases and CCPP for the livestock. Key factors to monitor include resource-based conflicts, the nutritional status of children aged below five years, market prices, water access, livestock diseases rangeland conditions and household food stocks.

### 5.1.2 Summary of the recommendations

- Acceleration of commercial livestock destocking.
- Rehabilitation of non-functional boreholes.
- Supply and distribution of water treatment chemicals.
- Mop-up vaccination against FMD and CCPP.
- Provision of drought tolerant seeds for the long rains season.
- Mass deworming and treatment of livestock.
- Intensified diseases surveillance.
- Provision of food for school fees.
- Water trucking to institutions of learning to the worse affected remote locations; Kitui south, Kitui east, Mwingi north and parts of Mwingi central.
- Initiate peace building and conflict management along the border.

### 5.1.3 Sub-county ranking

**Table 10: Sub-county ranking for Kitui County**

No	Sub County	Reasons	Hotspots
1.	Mwingi North	Conflict, displacement, crop failure, poor water recharge in main rivers exemplified by <i>Thunguthu River</i> , broken down boreholes, high level of water salinity, closure of schools, high market prices and low livestock prices	Ngomeni, Tseikuru, Kyuso
2	Mwingi Central	Insecurity in Nguni and Nuu ,crop failure, water, poor water recharge, regeneration of pasture and browse is low in Ngui Nu, instability in Mui due to coal mining, high market prices and low livestock prices	Nguni, Nu, Mui
3	Mwingi West	Continuous poor rain performance, continuous poor crop failure, low water levels in Tana River hence affecting irrigation in Kyome/Thaana , high market prices	Nguutani, kiome/Kyethani, Kyome/Thaana
4	Kitui Rural	Continuous poor crop performance, poor water recharge, and little pasture and browse regeneration, low water recharge.	Kyangi, Yatta/Kwa Vonza, low parts of kisasi
5	Kitui West	Little pasture regeneration, poor crop performance, low water recharge	Kauwi, Kithumula/Kwa Mutonga
6	Kitui South	Continuous poor crop performance, poor regeneration of pasture and browse,	Mutha(Kaatene-Kalambani), Athi, Kwa Mutei, Kalivu, Vote, Ndatani
6	Kitui East	Little water recharge, Little pasture regeneration, migration from Endau/Malalani/poor water recharge.	Endau/Malalani, Voo/Kyamatu
8	Kitui Central	Poor crop performance, break down of boreholes, Little regeneration of water.	Kyangwithya West

### 5.1.4 Number of persons in need of humanitarian assistance

**Table 11: Number of persons in need of humanitarian assistance**

Sub County	Ward	Proposed Range (%)
<b>1.Mwingi North</b>	Ngomeni	30-35%
	Tseikuru	30-35%
	Kyuso	25-30%
	Mumoni	20-25%
	Tharaka	20-25%
<b>2.Mwingi Central</b>	Nguni	30-35%
	Nuu	20-25%
	Mui	20-25%
	Waita	15-20%
	Central	5-10%
	Kivou	5-10%
<b>3. Mwingi West</b>	Kyome/Thaana	25-30%
	Kiomo/Kyethani	25-30%
	Nguutani	25-30%
	Migwani	15-20%
<b>4. Kitui Rural</b>	Kisasi	10-15%
	Mbitini	5-10%
	Kwavonza/Yatta	20-25%
	Kanyangi	20-25%
<b>5. Kitui West</b>	Mutonguni	5-10%
	Kauwi	25-30%
	Matinyani	5-10%
	Kwamutonga/Kithumula	25-30%
<b>6. Kitui South</b>	Ikanga/Kyatune	10-15%
	Mutomo	10-15%
	Mutha	20-25%
	Kanziko	20-25%
	Ikutha	20-25%
	Athi	20-25%
<b>7. Kitui East</b>	Zombe/Mwitika	20-25%
	Nzambani	5-10%
	kyuluni	5-10%
	Voo/Kyamatu	25-30%
	Endau/Malalani	30-35%
	Mutitu/Kaliku	20-25%
<b>8. Kitui Central</b>	Miambani	5-10%
	Township	0-5%
	Kyangwithya West	15-20%
	Kyangwithya East	5-10%
	Mulango	10-15%

## 5.2 Ongoing Interventions

### 5.2.1 Food interventions

Division	Intervention	Location	No. of beneficiaries	Implementers	Impacts in terms of food security	Cost	Time Frame
	Relief food distribution	All sub counties		National government	Improve food availability		Ongoing

### 5.2.2 Non-food interventions

Division	Intervention	Location	No. of beneficiaries	Implementers	Impacts in terms of food security	Cost	Time Frame
<b>Water</b>							
	Equipping of 30 Bore holes	County wide	45,000	COG, GOK and NGOs	Improve water accessibility	150 M	Jan-Jul
	Construction of 17 Earth dams	County Wide	53,000	COG, GOK and NGOs	Improve water accessibility	53 M	Jan -Mar
	Construction of water supply	Mutomo	100, 000	CGOKTI/ WVI	Improve accessibility	800 M	3 years
	Rehabilitation of Water Supply- 5	County Wide	75000	COG, GOK and NGOs, partners	Improve accessibility	20M	Jan - March
	Construction of sand dams 12	County Wide	2000	COG, GOK and NGOs, partners	Improve accessibility	12M	Jan - March
<b>EDUCATION</b>							
K/We st	None	None	None	None	None	None	None

Division	Intervention	Location	No. of beneficiaries	Implementers	Impacts in terms of food security	Cost	Time Frame
<b>Water</b>							
All Sub Counties	Support of ECD (construction of classrooms)	All ECD Centers across the county	1340 schools	County Govt of Kitui	Possible feeding center		FY 2016-2017
All Sub Counties	Renovations of schools by CDF under FY 2015-2016			CDF/PTA			FY 2016-2017
Kitui South	Selected school renovations and child support by NGOs (GAA)	Kitui South	6 Schools	Welt hunger life/German Agro Action	School own grown feeding programme support	60M	2017
Kitui South	Selected schools home grown school feeding projects i.e farm ponds and kitchen gardens under shade nets.	Kitui South	6 Schools	Welt hunger life /German Agro Action	Options for producing food to be consumed in school	3M	2017
All Sub Counties	Hygiene and sanitation interventions including; Rain water harvesting, VIP latrine constructions and hygiene capacity building by GAA and WV.	All Sub Counties		Non for Profit Actors	Improvement of hygiene sanitation, reduction of water borne diseases,		2017
<b>AGRICULTURE</b>							
<b>Agriculture</b>	Promotion of green houses and drip irrigation ( kitchen gardening)	County wide	45 groups,	MAWI	Improve food and nutrition security and household incomes	43,004,792	On going
	Promotion of small scale irrigation project	County wide	4,935 farmers	MAWI	Enhance food security and incomes	97,143,575	On going

Division	Intervention	Location	No. of beneficiaries	Implementers	Impacts in terms of food security	Cost	Time Frame
<b>Water</b>							
	Promotion of sorghum production and utilization	County wide	2,400 farmers	MAWI		2,000,000	On going
	Conservation Agriculture	County wide	54,000 farmers	MAWI, FAO	Enhance food security and incomes	99 Million	ongoing
	Modernization of agriculture through acquisition of appropriate machinery  For land preparation and construction of water harvesting structures	County wide	750 farmers	MAWI	„	111,549,200	On going
	Promotion of drought tolerant crops production through improvement of farm input access ( e-voucher system)	Mwingi North  Mwingi South	1,989 farmers	KCEP  MAWI	Enhance food security and income	29,815,000	On going
<b>LIVESTOCK</b>							
	Beekeeping and honey production	County wide		CGOK-MAWI and NGOs	Increased production honey  More incomes	1,800,000	On-going
	Livestock breeds improvement	County wide		CGOK-MAWI	Increased production(eggs and meat)	3,731,925	On-going
	Pasture/fodder improvement and conservation	County wide		CGOK	Improved livestock productivity	7,650,925	On-going
	Livestock disease prevention and control (Dip rehabilitation)	County wide		CGOK	Improved livestock productivity	514,202	On-going

## 5.3 Recommended Interventions

### 5.3.1 Food interventions

Division	Intervention	Location	No. of beneficiaries	Implementers	Impacts in terms of food security	Cost	Time Frame
	Relief food distribution	All sub counties	250,000	National government	Improve food availability		3 months

### 5.3.2 Non-food interventions

Division	Intervention	Location	No. of beneficiaries	Proposed Implementers	Required Resources	Available Resources	Time Frame
<b>WATER</b>							
	Water Trucking	Ngomeni, Ukasi, Malalani, Kwavonza, Ngutani, Nuu	30,000	CGOKTI/N DMA/GOK	15M	5 M	3 months
	Repair and Rehabilitation of 30 boreholes	County wide	2600	CGOKTI	90 M	20 M	12months
	Repair of 7 Water Browsers	County wide	30000	CGOKTI/N DMA/NGO/GOK	8 M	2 M	3 months
	Servicing of 150 boreholes	County Wide	225,000	CGOKTI/N DMA/NGO/GOK	7M	3M	3months
	Desilting of 16 earth dams and rock catchments	County Wide	24,000	CGOKTI/N DMA/NGO/GOK	48M	-	12months
	Supply of 240 water plastic tanks	County Wide	30,000	CGOKTI/N DMA/NGO/	36M	-	3months

Division	Intervention	Location	No. of beneficiaries	Proposed Implementers	Required Resources	Available Resources	Time Frame
				GOK			
	Fuel/electricity subsidy for water supplies 80No community schemes	County Wide	125,000	CGOKTI/NDMA/NGO/GOK	240M	-	3months
	Training and supply of maintenance tools to 160 water users committees	County Wide	225,000	CGOKTI/NDMA/NGO/GOK	80M	5M	12months
<b>EDUCATION</b>							
	Reinstating school feeding program	Kitui south, Mwingi North, Kitui East, Kitui Rural,	180,000	GOK, County Govt of Kitui	40 M	None	Feb-June 2017
	Tree planting (500 seedlings per school)	All Sub Counties	1344 Schools	County Government of Kitui	2M	None	MAM
	Support to children categorized as vulnerable	All Sub Counties	5000 children	County Government, NGOs	5M	None	Feb-June 2017
	Rehabilitation of run down strategic schools ,deworming and mitigation replications	All Sub Counties		CDF, NGOs, PTA	60M		Feb-June 2017
	Upscaling home grown school feeding linked to farm ponds	Kitui south, Mwingi North, Kitui East, Kitui Rural,		NDMA, NGOs, PTA	10M		
<b>AGRICULTURE</b>							
	Provision of drought tolerant relief seeds	Affected sub	Over 200,000	County and National	80M	Farmers	OND 2017

<b>Division</b>	<b>Intervention</b>	<b>Location</b>	<b>No. of beneficiaries</b>	<b>Proposed Implementers</b>	<b>Required Resources</b>	<b>Available Resources</b>	<b>Time Frame</b>
		counties	persons	Government			
	Upscale irrigated agriculture	County wide	4,935	County and National Government	10M	land	Ongoing
	Subsidized fertilizers	County wide	4,000 under KCEP 10,000 farmers	County and National Government	20M	farmers	MAM 2017
	On farm ponds	County wide	22 Farmers	County Government	10M	land	Ongoing
	Quilea control	Kitui South	2053 farmers	County and National Government	1M	Human resources	Immediately