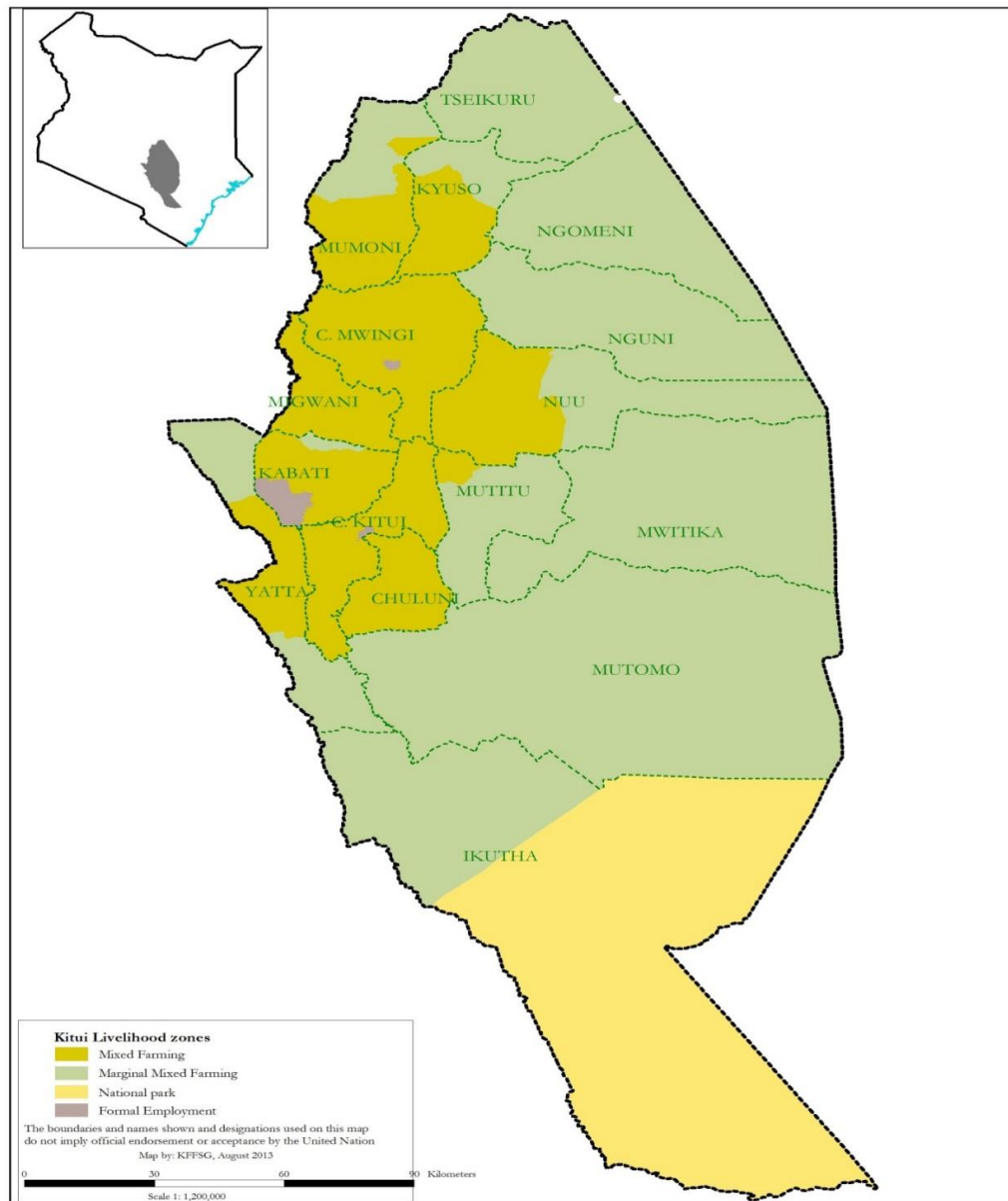


KITUI COUNTY
2019 SHORT RAINS FOOD SECURITY ASSESSMENT REPORT



**A Joint Report by the Kenya Food Security Steering Group (KFSSG) and
 Kitui County Steering Group (CSG): Technical Departments¹ and Partners²**

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¹ Wilson Oduor, Alfred Litunya, F. Koma, J. Oweya, P. Kagwara (National Drought Management Authority), D. Mbengeli (Ministry of Education), H. Murage, A. Nding’o & E.Kaindi (County Ministry of Agriculture, Water and Livestock Development) & L. Mbeti (County Ministry of Health and Sanitation)

² A. Rono (Caritas Kitui), M. Munguti (SASOL Foundation), H. Mosomi (UNICEF), M. Maina (ADRA Kenya)

EXECUTIVE SUMMARY

The 2019 short rains food and nutrition security assessment was conducted from 3rd to 19th February 2020 by Kitui County Steering Group (CSG) with the technical support from Kenya Food Security Steering Group (KFSSG). The overall objective of the assessment was to conduct an objective, evidence based and transparent food and nutrition security situation analysis following the cumulative effect of the previous seasons, and provide recommendations for possible response options based on the situation analysis. In general, the assessment was centered on the four pillars of food security such as food availability, access, utilization and stability by looking at contributing factors, outcomes and effects on each sector. The assessment also identified various interventions that addressed the issues arising in each sector: agriculture, livestock, water, health and nutrition, education, peace and security, and markets and trade. Primary data collected from the community was triangulated by the secondary data to enhance reliability. The main drivers of food and nutrition insecurity in the county were presence of desert locust, livestock diseases and high moisture content in food crops. The locusts had invaded young acacia leaves and desert dates in addition to young cowpeas leaves and pods, millet heads and vegetative pigeon peas. Moreover, high moisture content in food crops was hindering harvesting of food crops due to lack of enough sunlight and fear of rotting for crops. However, the county received enhanced 2019 short rains which was well distributed in terms of time and space thus, impacted positively on food availability, access, utilization and stability. There was an improvement in both crop and livestock productivity with enhanced household stocks compared to long term mean and this impacted positively on household purchasing power. There was also an improvement in water availability compared to normal season with improved livestock feeds. About 90 percent of the households had acceptable food consumption score as majority of the households were consuming more than three meals per day which is above the normal of 2-3 meals per day. The meals consisted of four food groups compared to the normal of two food groups. Moreover, the crude mortality rate was within the normal range with 7.0 percent of children being at risk of malnutrition. In conclusion, the indicative food security phase classification in the county is “Minimal” (IPC Phase 1).

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1.0 INTRODUCTION

1.1 County Background

Kitui County is located in the lower eastern region of Kenya and is subdivided into eight (8) administrative units namely: Kitui Central, Kitui West, Kitui Rural, Kitui South, Kitui East, Mwingi Central, Mwingi North, and Mwingi West sub-counties. The county has a total of 40 wards and 247 villages. The county has an estimated population of 1,136,187 people and covers a total estimated area of 30,429.5 square kilometers (KNBS, 2019).

There are three main livelihood zones in the county namely: marginal mixed farming (MMF), mixed farming (MF) and formal employment, contributing 44, 52 and four percent of the total population respectively (figure 1). Livestock farming (mainly rearing cattle, goats, sheep and poultry) is predominant enterprise in

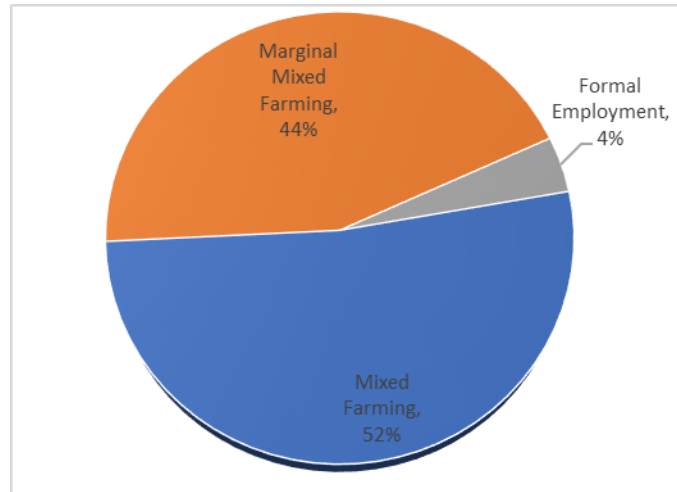


Figure 1: Population Proportion by Livelihood Zones

marginal mixed farming livelihood zone and due to harsh climatic conditions, crop farming is restricted but not limited to green grams, cow peas, maize, millet and sorghum production. In the mixed farming livelihood zone, residents practice cropping activities as well as keeping of livestock though at a smaller scale. Majority of the population is found in this zone which puts more pressure on land thus people occupy small pieces of land.

1.2 Methodology and Approach

The main objective of the short rains' assessment was to conduct an objective, evidence based and transparent food and nutrition security situation analysis following the cumulative effect of the previous seasons, and provide recommendations for possible response options based on the situation analysis. The assessment entailed both primary and secondary data which was triangulated to enhance reliability. Primary data was collected from the community through semi-structured questionnaires using focused group discussions, key informant interviews and market interviews. The assessment exercise was multi-sectoral and multi-agency, comprising of actors from both National and County governments, United Nation bodies, Non-Governmental Organizations and other development partners. The county technical experts from key sectors provided both qualitative and quantitative information through filled sectoral checklists and sectoral briefs. The information was triangulated with secondary data sourced from Nutrition survey reports, Kenya Drought Early Warning bulletins and sectoral reports. The scope of the assessment was limited to mixed farming and the marginal mixed farming livelihood zones.

2.0 DRIVERS OF FOOD AND NUTRITION SECURITY IN THE COUNTY

2.1 Rainfall Performance

The onset of the 2019 short rains was early in the first dekad of October compared to first dekad of November normally. The county received enhanced rainfall during the season which was characterized by good spatial and temporal distribution and was mainly attributed to the strong positive Indian Ocean Dipole owing to the prevailing warm sea surface temperatures in the Western Equatorial Indian Ocean adjacent to the East African Coast and the cool sea surface temperatures in the Eastern Equatorial Indian Ocean adjacent to Australia (Kenya Meteorological Department). Most parts of the county recorded 201-350 percent of normal rainfall as shown in figure 2. The cessation was late in the first dekad of January 2020 compared to second dekad December normally. However, in most parts of the county the rains prolonged beyond the season up-to the third dekad of January 2020.

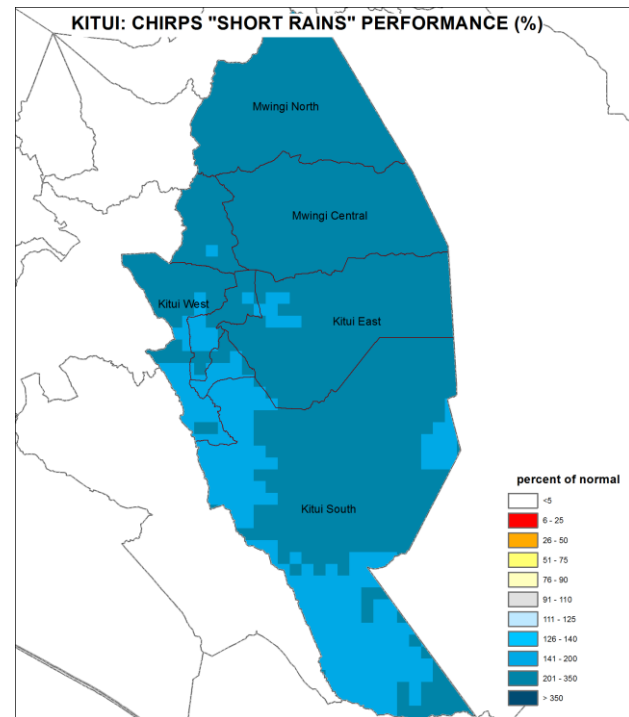


Figure 2: Rainfall Performance

2.2 Invasion of Desert Locusts

Invasion of desert locusts was reported in the county mainly in Mwingi North, Mwingi Central and Mwingi West sub counties whereby two swarms were first spotted in Ngomeni and Tseikuru wards. However, there are currently four swarms which are revolving within the county. The locusts invaded young acacia leaves and desert dates together with young cowpeas leaf and pods, millet heads and vegetative pigeon peas. About 80 percent of crop land for 100 farmers in Maseki area; Kyuso ward were destroyed. Moreover, mature breeding locusts which were sedentary fed on any green matter in the surrounding areas including the physiologically mature crops caused a substantial loss in food crops in February, 2020. Increased desert locust breeding sites in the county might greatly impact on both food crops and goats' feeds especially in the long run.

2.3 Disease Epidemics

About 823 cases as a result of lumpy skin were reported in the county and additional isolated cases of foot and mouth (FMD) in cattle and contagious pleuropneumonia (CCPP) in goats were reported in Kyangwithya west; Kitui Central sub county whereby about 27 goats died. Fowl pox outbreak in poultry also resulted to high mortality rates across the livelihood zones whereby some homestead lost about 60 percent of their flocks.

2.4 Other Shocks and Hazards

High moisture content in food crops has hindered harvesting and lowered the price of food commodities in the market hence impacted negatively on household purchasing power.

Furthermore, flash floods experienced during the season washed away most of irrigated crops planted along the river lines especially in Matikoni area; Kitui East sub county.

3.0 IMPACTS OF DRIVERS ON FOOD AND NUTRITION SECURITY

3.1 Availability

Food availability is mainly driven by crop and livestock production. Market supplies from other counties covers food deficits and stabilizes food prices. In this section, the presence of crop harvests, food stocks, pasture and browse for livestock are discussed.

3.1.1 Crops Production

The short rains accounts for 60 percent of the total crop production in the county since it has proven to be more reliable to farmers in terms of amount and distribution in comparison to long rains. The main crops grown in the county are maize, green grams, cow peas, sorghum and millet in marginal mixed farming livelihood zone and maize, beans, green grams, cow peas and pigeon peas in mixed farming livelihood zone. Moreover, horticultural crops such as tomatoes, water melons, kales, spinach and mangoes are grown mainly for cash income and household consumption across the livelihood zones.

Maize contributes 50 and 60 percent to food in marginal mixed farming and mixed farming livelihood zones respectively while green grams contribute 40 and 30 percent to cash income in marginal mixed farming and mixed farming livelihood zone respectively. Furthermore, green grams also contribute five percent to food across the livelihood zone and cow peas contribute 80 percent to food in marginal mixed farming livelihood zone.

Rain Fed Crop Production

Table 1: Rain Fed Crop Production in Kitui County

Crop	Area planted during 2019 Short rains season (Ha)	Long term average area planted during the short rains season (Ha)	2019 short rains season production (90 kg bags) projected	Long term average production during the short rains season (90 kg bags)
Maize	56,174	54,996	333,009	259,387
Green grams	77,328	78,989	444,351	387,778
Cow peas	58,034	54,822	331,479	252,000

The area under maize and cow peas was two and six percent higher than the long-term average respectively as shown in table 1 and was attributed to early onset of the short rains and prolonged rainy season which prompted farmers to open more land. However, the area under green grams declined by two percent of the long-term average due to anticipated low price of the commodity in the market during the peak harvesting season.

Maize, green grams and cow peas production is expected to be 28, 15 and 32 percent above the long-term average respectively (table 1) and is attributed to increased acreage and good distribution of the short rains in time and space. Presence of fall army worms was reported across the county and this situation was controlled. However, prolonged rainfall beyond the season is

hindering harvesting of the crops due to lack of enough sunlight and fear of rotting for crops. Moreover, about 80 percent of crop land for 100 farmers in Maseki area; Kyuso ward were destroyed by desert locust. Mature breeding locusts which were sedentary fed on any green matter in the surrounding areas including the physiologically mature crops caused a substantial loss in food crops in February, 2020. Increased desert locust breeding sites in the county might greatly impact on food crops production especially in the long run.

Irrigated Cropping

Table 2: Irrigated Cropping in Kitui County

Crop	Area planted during 2019 short rains season (Ha)	Long term average area planted during the short rains season (Ha)	2019 short rains season production (MT) projected	Long term average production during the short rains season (MT)
Tomatoes	1,075	400	18,620	155,895
Kales	1,550	350	14,895	126,030
Water melons	2,700	300	26,800	187,760

The area under tomatoes, kales and water melons increased significantly by 169, 343 and 800 percent respectively compared to long term average (table 2) and was attributed to campaigns by County Government of Kitui and different partners. Conversely, production of tomatoes, kales and water melons is expected to decline by 88, 88 and 86 percent of long-term average respectively due to flash floods which washed away most crops planted along the river lines in addition to rotting of some crops.

3.1.2 Cereals Stock

Table 3: Cereal Stocks Held in Kitui County (90kgs Bag)

Commodity	Maize		Rice (50kgs)		Sorghum		Green gram	
	Current	LTA	Current	LTA	Current	LTA	Current	LTA
Farmers	58,640	57,432	0	0	97,606	34,474	115,126	59,981
Traders	58,524	158,652	1,004,830	441,476	14,734	8,948	33,419	34,996
Millers	10,620	6,780	0	0	0	0	0	0
NCPB	6,933	5,919	6,300	958	0	0	0	0

The total cereal stocks held by all actors was 74 percent above the long-term average (LTA). Moreover, households' stocks were 79 percent higher than the long-term average as shown in table 3 and this was attributed to bumper harvest observed during the season. Maize stocks held by different actors was above the long-term average, with the exception of stocks held by traders which was 63 percent below the long-term average. The low maize stock from traders was due to availability of food at household level hence more households were not buying the commodity from the market. Green grams held by traders was also five percent lower than the long-term average since most farmers were reluctant to sell their commodity due to low price of the commodity in the market. However, increased supply of rice from outside the county compared

to normal boosted both traders and National Cereals and Produce Board (NCPB) stocks by 128 and 558 percent above the long-term average respectively.

3.1.3 Livestock Production

Livestock production is an important economic activity in the county and provides alternative source of food and income to the households. The main livestock species kept in both livelihood zones are cattle, goats, sheep, donkeys, poultry and bees. Goats, sheep and poultry are usually sold to cater for basic household needs and income generation, whereas cattle are reared mostly for milk production, source of farm power and sold for major family investment. Poultry is reared by over 90 percent of households and is gender inclusive providing a cheap source of protein and income for immediate household needs. Donkeys are essentially used as a means of transport and additional source of income. Overall, livestock production contributes more than 40 percent to cash income in marginal mixed farming and 15 percent in mixed farming livelihood zone.

Pasture and Browse Situation

The good performance of 2019 short rains supported regeneration of browse and pasture across the livelihood zones. Pasture was good and better compared to normal condition and available pasture is expected to last for 4-5 months compared to 2-3 months in marginal mixed farming and 3-4 months in mixed farming livelihood zones normally (table 4). Moreover, browse condition was good and better than normal. The available browse is expected to last for 4-5 months in marginal mixed farming and 5-6 months in mixed farming livelihood zone compared to a normal of 3-4 months.

Table 4: Pasture and Browse Condition

Livelihood zone	Pasture					Browse				
	Condition		How long to last (Months)		Factors limiting access	Condition		How long to last (Months)		Factors Limiting access
	Current	Normal	Current	Normal		Current	Normal	Current	Normal	
Marginal Mixed Farming	Good	Good to fair	4-5	2-3	None	Good	Good	4-5	3-4	None
Mixed Farming	Good	Good to fair	4-5	3-4	None	Good	Good	5-6	3-4	None

Livestock Productivity

Livestock Body Condition

Livestock body condition for all the species across the livelihood zones were good and this is normal at this time of the year as shown in table 5. The good body condition was due to above normal precipitation which impacted positively on livestock feeds. Cattle body condition is expected to stabilize in the next four months due to availability of livestock feeds. However, presence of desert locust might impact negatively on livestock feeds.

Table 5: Livestock Body Condition

Livelihood zone	Cattle		Sheep		Goat	
	Current	Normally	Current	Normally	Current	Normally
Marginal Mixed Farming	Good	Good	Good	Good	Good	Good
Mixed Farming	Good	Good	Good	Good	Good	Good

Tropical Livestock Units and Birth Rate

The tropical livestock units (TLUs) for poor and medium income households were within normal range as shown in table 6. TLUs for poor income households ranged at 3-5 and 2-3 in marginal mixed farming and mixed farming livelihood zones respectively. Most farmers had maintained their livestock in anticipation of prolonged rains. Livestock birth rates and calving intervals were normal across the livelihood zones.

Table 6: Tropical Livestock Units (TLUs)

Livelihood zone	Poor income households		Medium income households	
	Current	Normal	Current	Normal
Marginal Mixed Farming	3-5	3-5	5-8	4-7
Mixed Farming	2-3	2-3	3-6	3-6

Milk Production and Consumption

Milk production was within the normal range at 1-2 litres across the livelihood zones and this is due to good livestock body condition as a result of improvement in livestock feeds. Furthermore, milk consumption was above the long-term average as shown in table 7 due to increased production at household level. The price of milk was lower compared to normal at 50 and 40 shillings compared to 60 and 70 shillings normally in marginal mixed farming and mixed farming livelihood zone respectively. Low milk prices were as a result of increased production at household level.

Table 7: Milk Production, Consumption and Prices

Livelihood zone	Milk production (Litres) per household		Milk consumption (Litres) per household		Prices (Ksh.) per Litre	
	Current	LTA	Current	LTA	Current	LTA
Marginal Mixed Farming	2	1-2	1.6	1	50	60
Mixed Farming	1.-2	1-2	1	0.5	40	70

Migration

Livestock migration patterns were normal and within the vicinity in the county.

Livestock Diseases and Mortalities

There was an outbreak of lumpy skin disease in the county with 823 cases reported in Mwingi North (22), Mwingi Central (75), Kitui East (417), Kitui Rural (95), Kitui Central (8) and Kitui South (206) sub counties. Additionally, isolated cases of foot and mouth (FMD) in cattle were registered in Tseikuru, Kyangwithya West and Nuu wards, in-addition to contagious pleuropneumonia (CCPP) in goats which was reported in Kyangwithya west; Kitui Central sub

county and about 27 deaths of goats were reported. Fowl pox outbreak resulted to high mortality rates whereby some homestead lost about 60 percent of their flocks.

Water for Livestock

The major water sources for livestock were water pans, earth dams, shallow wells, seasonal rivers and streams. The current open water sources are expected to last for 4-5 months compared to 2-3 months normally. Distances to water sources from grazing areas were below the long-term average. In marginal mixed farming livelihood zone, distances ranged from 3-5 kilometres which is shorter than five kilometres normally. Similarly, in mixed farming livelihood zone, the distance was 1-2 kilometers compared to the normal of three kilometers (Table 8).

Table 8: Water for Livestock

Livelihood zone	Return trekking distances (Kms)		Expected duration to last (Months)		Watering frequency	
	Current	Normal	Current	Normal	Current	Normal
Marginal Mixed Farming	3-5	5	4	2-3	Daily	Daily
Mixed Farming	1-2	3	5	3	Daily	Daily

3.2 Access

3.2.1 Markets and Market Operations

The main markets in the county are Tseikuru, Katse, Ngomeni, Nguni, Ukasi, Nuu, Zombe, Mutha, Mutomo and Ikutha in marginal mixed farming livelihood zone and Kabati, Kalundu, Migwani, Mwingi, Kamwongo, Katse, Mui, Kisasi and Kavisuni in mixed farming livelihood zone. Cereals and livestock are the major commodities traded in these markets though in varying proportions. Market operations were normal and traded items included cattle, goats, sheep, donkey, poultry, maize, beans, rice, green grams among other food stuffs. Livestock traded in the markets were sourced locally but some cattle and goats came from Garissa County. Rice was sourced from outside the county together with some maize and beans. Tanzania, Rift Valley and Western parts of Kenya were the main source of maize and beans while green grams were sourced locally. The well provisioned markets are likely to have a positive impact on food availability in the county. The demand of cereals is low in the market since most households have some food stocks.

3.2.2 Market Prices

Maize Price

The price of maize has remained relatively stable since May, 2019 between 40-45 shillings per kilogram. However, the prices are still higher than the long-term average as shown in figure 3 and this is attributed to reduced stocks from traders compared to normal. In February 2020, maize price averaged at Ksh.39 which is 14 and 44 percent higher than the long-term average and 2019 price respectively. The price of maize ranged at 40-45 shillings in marginal mixed farming and 35-40 shillings in mixed farming livelihood zone.

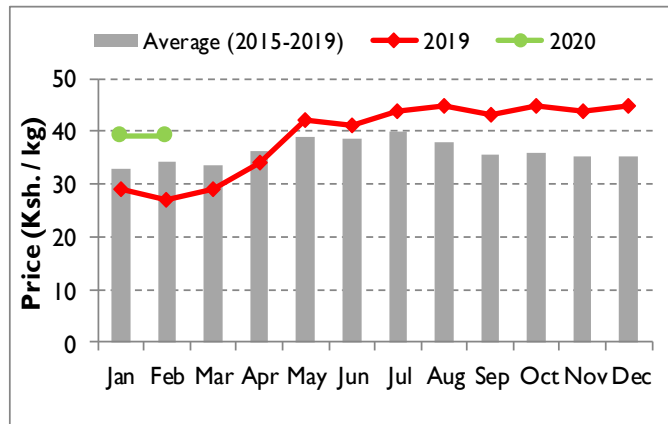


Figure 3: Maize Prices in Kitui County

Goat Price

The price of medium sized goat has been in an increasing trend since October, 2019 and this is attributed to reduced numbers of goats in the market due to preference on selling green grams to cater for household needs. Goat prices was Ksh.3,662 in February 2020 which is 10 percent higher than the long-term average and two percent lower than the 2019 price (figure 4). Goat prices ranged at 3,500 to 4,500 for medium sized goat and 7,000 to 10,000 for mature sized goats across the livelihood zones in February 2019.

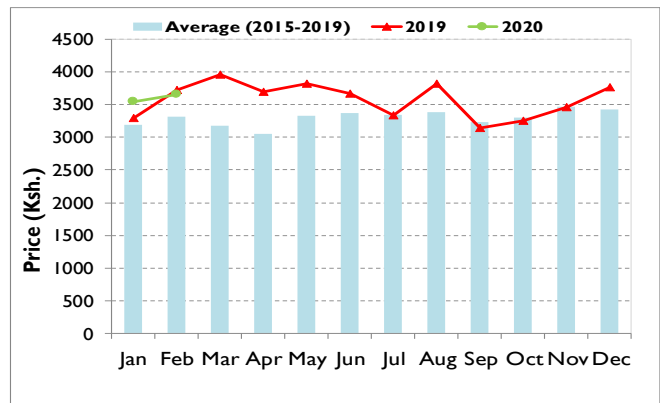


Figure 4: Goat Prices in Kitui County

3.2.2 Terms of Trade

Household terms of trade have been steadily improving since October 2019 but has been below the long-term average and was attributed to increasing goat prices and stability in maize prices which impacted positively on household purchasing power hence improved household food security. Households were able to purchase 94 kilos of maize from earnings of a goat in February 2020 compared to 97 kilos in normal season as shown in figure 5.

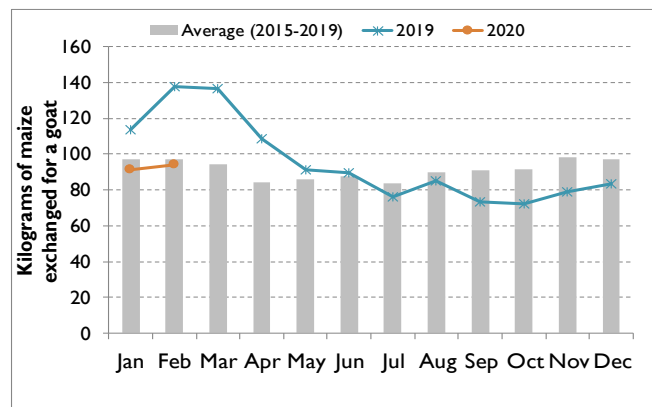


Figure 5: Terms of Trade in Kitui County

3.2.3 Income Sources

The typical sources of income across the livelihood zones were mainly casual labour and sale of crops at 58 and 16 percent respectively. Other income sources included sale of livestock and livestock products, petty trading, remittance and formal employment. Sale of green grams was more pronounced across the livelihood zones.

3.2.4 Water Access and Availability

Major Water Sources

The main water sources for domestic use were water pans, earth dams, rivers, natural ponds, springs, piped water system, roof catchments, shallow wells, boreholes and rock catchments as shown in figure 6. Good performance of 2019 short rains resulted to good recharge of surface, sub-surface and ground water resources. The estimated recharge of surface water resources across the county was over 99 percent and the volume of water in open water sources is at optimal levels and spilling over. However, siltation was identified as a major challenge which might lower the capacity of water resources hence there is a need to enhance catchment protection to mitigate the adverse effects of duration the sources will have water. Furthermore, 90 percent of water sources in marginal mixed farming are operational compared to 85 percent in mixed farming livelihood zones. The non-operational sources are due to breakdowns and effect from floods.

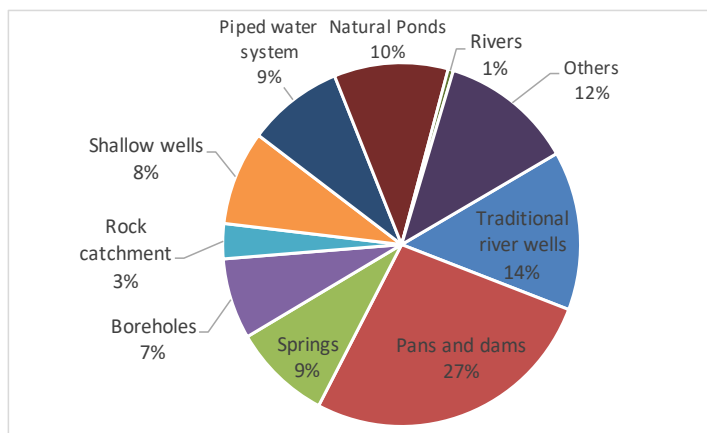


Figure 6: Major Water Sources in Kitui County

Distance to Water Sources

The good recharge of water resources led to a significant decline of water distances from the households to water points. Distance to water points ranged at 1-3 kilometres compared to 5-6 kilometres normally in marginal mixed farming and 1-2 kilometres compared to 2-3 kilometres normally in mixed farming livelihood zone (table 9). However, in the isolated areas in Mwingi North, Mwingi Central, Kitui East and Kitui South sub-counties in the marginal mixed farming livelihood zone areas, households were trekking a return distance of up to 5 kilometers due to low investments of water harvesting facilities

Table 9: Water Accessibility and Utilization

Livelihood zone	Return distance to water for domestic use (Km)		Cost of water at source (Ksh. per 20 litres)		Waiting time at water source (minutes)		Average water consumption (litres/person/day)	
	Normal	Current	Normal	Current	Normal	Current	Normal	Current
Marginal Mixed Farming	5-6	1-3	2-5	2-5	30-40	10-15	10-20	20-30
Mixed Farming	2-3	1-2	2-5	2-5	15-20	10-15	20-40	30-50

Waiting Time at the Source

There was a reduction in waiting time across the livelihood zones compared to normal due to good recharge of water facilities and investments done by the County Government of Kitui and other partners. Waiting time ranged at 10-15 minutes across the livelihood zones compared to 30-40 minutes in marginal mixed farming and 15-20 minutes in mixed farming livelihood zones normally (table 9).

Cost of Water and Consumption

The cost of a 20 litre jerrican at source was normal at 2-5 shillings across the livelihood zones. However, vendors were retailing water at 5-10 shilling per 20 litre Jerrican compared to 20-30 shillings normally across the livelihood zones. Water consumption per person per day was 20-30 litres in marginal mixed farming and 30-50 litres in mixed farming livelihood zone compared to 10-20 and 20-40 litres respectively during normal times as shown in table 9.

3.2.5 Food Consumption

The proportion of households overall in acceptable and borderline food consumption category was 90 and 10 percent respectively and none of the households were in the poor food consumption category. The good food consumption patterns were attributed to availability of food at household level and favourable terms of trade which impacted positively on household purchasing power and access to a diversified diet. About 86 and 96 percent of households were in acceptable food consumption group in marginal mixed farming and mixed farming livelihood zones respectively (figure 7). Majority of the households were consuming more than three meals per day which is above the normal of 2-3 meals per day. The meals consisted of four food groups (cereals, pulses, vegetables-cow pea leaves and fruits-mangoes) compared to the normal of two food groups across the livelihood zones. It was also reported that under-fives were taking milk in addition to the above food groups.

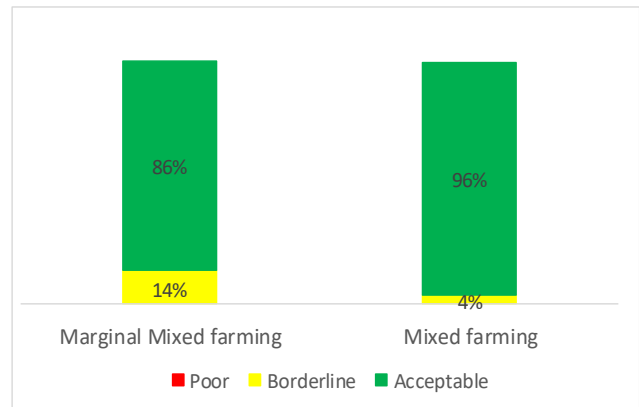


Figure 7: Food Consumption Score

3.2.6 Coping Strategy

The mean of reduced coping strategy index (rCSI) for the county has been on a decline trend since November 2019 (figure 8) and this is attributed to improved food availability at household level. The county mean rCSI was 1.3 which is 72 and 61 percent below the long-term average and 2019 rCSI respectively. However, households in marginal mixed farming and mixed farming livelihood zone were employing a mean rCSI of 2.2 and 0.3 respectively.

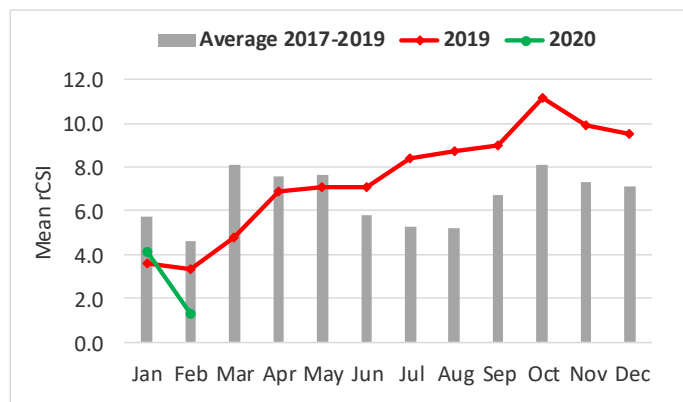


Figure 8: Reduced Coping Strategy Index

Reliance on less preferred or less expensive food and reduced portion size of meals were the most frequent coping mechanisms adopted across the livelihood zones.

3.3 Utilization

3.3.1 Morbidity and Mortality Patterns

Upper Respiratory Tract Infections (URTI), malaria and diarrhea are the most prevalent diseases in the county for both under-fives and the general population. However, skin conditions among under-fives were also reported in Maseki village in Mwingi North sub county. Cases of confirmed malaria for July to December 2019 were lower for both under five and general population compared to the same time in 2018. There is an increasing trend of diarrhea cases among under-fives for the period under review which could be due to consumption of poor-quality water. Trend analysis indicates a decrease in morbidity patterns for upper respiratory tract infections, diarrhea and malaria in general population and under-fives from July to September 2019 which could be attributed to lack of active case finding due to health care workers strike. According to Kenya Health Information System (KHIS), under five mortality rates was 0.014/10,000/day while crude mortality rate was 0.002/10,000/day which is within normal range.

3.3.2 Immunization and Vitamin A Supplementation

The proportion of fully immunized children (FIC) dropped from 81.6 percent in 2018 to 69.3 percent in 2019 and children on oral polio virus vaccine (OPV 3) decreased from 78.2 percent to 66.9 percent. Moreover, measles decreased from 78.5 percent to 63.3 percent between July to December 2019 as compared to the same period in 2018. The coverage is below the national coverage of 80 percent as a result of measles vaccine stock out and health workers strike experienced across the county. During the period under review, 16 cases of measles were reported and treated thus no mortality was reported.

Vitamin A supplementation among children 6-11 months for the period under review was 112 percent in 2019 which is similar to the same period in 2018 and above national level target of 80 percent. Malezi bora campaigns and integrated health and nutrition outreaches carried across the county led to improvement in Vitamin A supplementation in the county. However, all children 12-59 months were not reached since there was a drop from 84 percent in 2018 to 79 percent in 2019 for the period under review due to the low utilization of health services among this cohort.

3.3.3 Nutritional Status and Dietary Diversity

According to Kenya Drought Early Warning bulletin, the percentage of children under the age of five years with mid upper arm circumference between 125-134 millimeters was 7.0 percent in February 2020 which is within the normal range as shown in figure 9. Moreover, 0.2 percent of children were moderately malnourished and no severely malnourished cases were

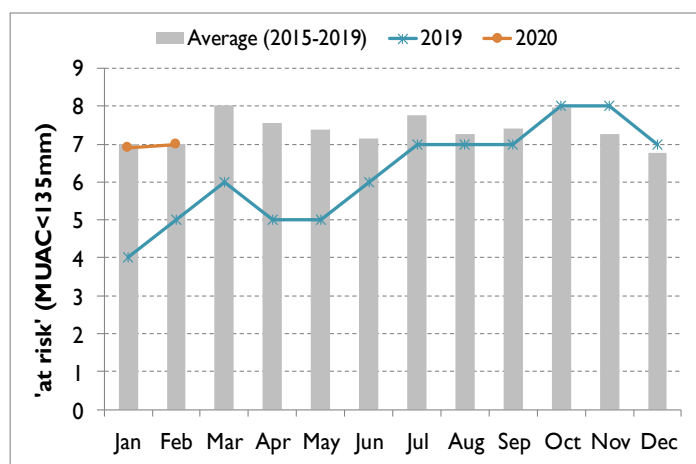


Figure 9: Children at Risk of Malnutrition (%)

reported.

Based on Knowledge, Attitude, Beliefs and Practices (KABP) survey conducted in November 2017, exclusive breast feeding and minimum meal frequency for children 6-23 months was at 75.6 and 79.9 percent respectively which is above the national rate of 61 percent. The increase was attributed to ongoing maternal nutrition and child health projects such as Baby Friendly Community Initiative interventions (BFICI) and deployment of nutritionists in 2018 and health and nutrition outreaches in hard to reach areas.

3.3.4 Sanitation and Hygiene

There was a decline in latrine coverage at 93 percent compared to 99 percent in 2018. Households with their own latrines stood at 89 percent compared to 4 percent who were sharing. Most of temporary water and sanitation facilities were destroyed during 2019 short rains across the livelihood zones. Communities were practicing post open defecation free (ODF) activities to curb the heavy rains impact. Hand washing at four critical times stood at 48.3 percent, a contributory factor to the high diarrhoea cases. Majority of households using water from open water sources such as water pans, earth dams and shallow wells were not treating their water before consuming.

3.4 Trends of Key Food Security Indicators

Table 10: Food Security Trends in Kitui County

Indicator	Long rains assessment, July 2019		Short rains assessment, Feb 2020	
	% of maize stocks held by households	76 percent below LTA		2 percent above LTA
Livestock body condition	Marginal Mixed Farming: Good to fair		Good	
	Mixed Farming: Good to fair		Good	
Water consumption (litres per person per day)	Marginal Mixed Farming: 8-10		20-30	
	Mixed Farming: 15-20		30-50	
Price of maize (per kg)	Ksh.41		Ksh.39	
Distance to grazing	Marginal Mixed Farming: 10km		3-5 km	
	Mixed Farming: 5km		1-2 km	
Terms of trade	90kg		94kg	
Coping strategy index	7.1		1.3	
Food consumption score (%)	Acceptable	80.4	Acceptable	90
	Borderline	19.2	Borderline	10
	Poor	0.4	Poor	0

4.0 CROSS CUTTING ISSUES

4.1 Education

4.1.1 Enrolment

There was an improvement in enrollment for all levels of education; the highest being early childhood development (ECD) at 17 percent followed by 14 and 11 percent at primary and secondary levels respectively. Enrollment at ECD increased due to improved food availability at household level and awareness initiatives by County Government of Kitui and partners. Furthermore, enrollment at both primary and secondary level increased due to 100 percent transition policy, availability of feeding programmes in schools and advocacy by stakeholders. However, enrollment at secondary level was higher for girls compared to boys (table 11).

Table 11: Enrolment by Gender

Enrollment	Term III 2019			Term I 2020		
	N _o Boys	N _o Girls	Total	N _o Boys	N _o Girls	Total
ECD	22,219	20,138	42,357	25,947	23,415	49,362
Primary	124,149	116,923	241,072	139,488	134,322	273,810
Secondary	38,252	41,434	79,686	42,790	45,599	88,389

4.1.2 Participation

Participation was measured by the proportion of children out of enrolment who regularly attended school. The average attendance rate was higher in secondary level at 98 percent followed by primary and ECD levels at 87 and 78 percent respectively (table 12). The regular attendance was mainly attributed to availability of food at school; school fees subsidy and awareness meetings. Various actors also offered incentives such as sanitary towels, bursaries and sponsorship programs which had a positive impact on attendance.

Table 12: Attendance

Indicator	Term III 2019						Term I 2020			
	Sep-19		Oct-19		Nov-19		Jan-20		Feb-20	
School attendance	N _o Boys	N _o Girls	N _o Boys	N _o Girls	N _o Boys	N _o Girls	N _o Boys	N _o Girls	N _o Boys	N _o Girls
ECD	20,022	18,989	20,476	19,174	18,680	17,152	17,586	14,521	16,925	15,306
Primary	124,770	117,905	124,835	117,629	115,300	108,060	116,480	111,968	99,272	85,419
Secondary	37,540	70,889	37,786	41,185	35,666	39,197	40,046	43,495	31,485	35,557

4.1.3 Retention/Drop out

Drop out was measured as the number of students who failed to complete the term due to continuous absenteeism. Dropout rates for ECD, primary and secondary school levels were 0.7, 0.1 and 0.3 percent respectively both at the end of term 11 and term 111 in 2019. More girls compared to boys dropped out of school at the end of term III 2019 as shown in table 13. The main reasons given were family labour responsibilities, lack of school fees, lack of food in some schools, early pregnancy, and households moved away from school area and some households did not see the value of schooling.

Table 13 : Number of Students Dropped Out of School

Indicator	End of Term II 2019			End of Term III 2019		
	No Boys	No Girls	Total	No Boys	No Girls	Total
Students dropped out from school						
ECD	43	49	92	43	149	192
Primary	63	61	124	46	61	107
Secondary	42	59	101	38	106	144

4.1.4 School Meals Programmes

Home grown school meals (HGSM), regular school meals programme (RSMP) and expanded school meals programme (ESMP) were the main school feeding programmes in Kitui County. About 220 schools in Kitui County benefit from school meal programmes targeting about 40,527 beneficiaries as shown in table 14. The availability of meals in schools impacted positively on enrolment, participation, retention and performance of the students. Lack of clean water for cooking, firewood/fuel, funds for labour services, food varieties and ratio were the main challenges faced in implementation of school meals programmes.

Table 14: School Meal Programmes in Kitui County

Number of schools with school feeding	HGSM	RSMP	ESMP	CSMP	Total number of beneficiaries
220	40,829	8,512	27,333	3,335	40,527

4.1.5 Inter Sectoral Links

Water, sanitation and hygiene coverage in schools was fairly good with most schools having adequate facilities. However, about 15 schools had their classes and pit latrines collapse as a result of heavy rains received during the season. Furthermore, 108, 202 and 288 schools had no functional latrine, no hand washing facilities and no functional source of drinking water within 100m respectively. The coverage on deworming of pupils and communicable disease prevention programmes in schools was low with only 53 schools reporting to have deworming programmes.

5.0 FOOD SECURITY PROGNOSIS**5.1 Prognosis Assumptions**

- The outlook for the forthcoming long rains season, published by the Kenya Meteorological Department issued on February 04, 2020 indicates that, most parts of the county are likely to experience generally enhanced rainfall. However, some parts of marginal mixed farming livelihood zone are likely to receive near normal rainfall with a tendency to above normal. Additionally, the onset is likely to be timely with late cessation.
- The above normal cereal stocks together with projected harvest of crops are likely to sustain households for the next six months.
- The continued breeding of desert locust in the county is likely to impact negatively on both crops and livestock feeds.
- The upsurge of livestock diseases will impact negatively on livestock productivity.

- Prices of staple food commodities are likely to reduce following increased stocks at household level which will reduce the demand of the commodities from the market.
- There is anticipation of aflatoxin due to high moisture content in food crops.

5.2 Food Security Outlook

Food Security Outcomes for March, April and May 2020

Food security situation is expected to improve further following increased stocks at household level and improved livestock productivity and this will impact positively on household purchasing power hence improved nutrition status. However, presence of desert locust and upsurge of livestock diseases are likely to impact negatively on both crops and livestock production. Low food prices is likely to impact negatively on household income.

Food Security Outcomes for June, July and August 2020

The March, April and May rains are expected to recharge water sources partially leading to availability of water for both human and livestock use. Regeneration of pasture and water recharge will likely improve livestock productivity hence impacting positively on household food security. Food availability at household level is expected to improve due to increased stocks and minimize reliance on markets for food commodities. However, the enhanced rain is likely to destroy the infrastructures and lead to outbreak of water borne diseases.

6.0 CONCLUSION AND INTERVENTIONS

6.1 Conclusion

6.1.1 Phase Classification

The indicative food security phase classification in the county is “Minimal” (IPC Phase 1) and the county is likely to remain in this phase in the next three months.

6.1.2 Summary of Findings

The county generally experienced enhanced rainfall during the 2019 short rains, with early onset and late cessation. The distribution in terms of time and space was good which impacted positively on both water availability, crop and livestock production. Food availability at household level is better compared to normal and this has impacted positively on health and nutrition status. Presence of desert locust, livestock diseases and high moisture content in food crops were the main hindering factors of food security in the county.

6.1.3 Sub-County Ranking

The sub-county ranking indicates the level of the severity of food security in various sub counties with the sub county ranked number one (1) having the more severe food insecurity situation.

Table 15: Sub-County Ranking for Kitui County

Sub County	Food insecurity rank (1-10)	Main food security threat
Mwingi North	1	Livestock disease (LSD, fowl pox) Locust invasion,

		High moisture content for food crops Measles outbreak
Mwingi Central	2	Livestock disease (LSD, fowl pox) Locust invasion, High moisture content for food crops
Mwingi West	3	Livestock disease (LSD, fowl pox) Locust invasion, High moisture content for food crops
Kitui South	4	Low Livestock disease (LSD, fowl pox) High moisture content for food crops Low investment to water facilities
Kitui East	5	Low Livestock disease (LSD, fowl pox) High moisture content for food crops Low investment to water facilities
Kitui Rural	6	Low Livestock disease (LSD, fowl pox) High moisture content for food crops Low investment to water facilities
Kitui Central	7	Low Livestock disease (fowl pox, CCPP) High moisture content for food crops Livestock deaths
Kitui West	8	Low Livestock disease (fowl pox) High moisture content for food crops

6.2 Ongoing Interventions

6.2.1 Food Interventions

No food interventions were on-going during the period under review apart from school meals feeding programs discussed in bulletin 4.1.4.

6.2.2 Non-Food Interventions

Table 16: Ongoing Non-Food Interventions in Kitui County

AGRICULTURE SECTOR							
Intervention	Objective	Specific Location	Activity target	Cost in Ksh. (M)	No. of beneficiaries	Implementation Time Frame	Implementation stakeholders
Myanda Project	Increase food security and household income	39 wards	25,000 households (HHs)	35	23,000 HHs	2019-2020	County Government of Kitui (CGOK) and partners
Training on good agricultural practices (GAP)	Increase food security and household income	40 wards	290,000 HHs	general extension	290,000 HHs	Continuous	CGOK and partners

Trainings and cost sharing on inputs acquisition under KCEP-CRAL programme	Reduction of poverty and food insecurity	31 wards	20,000 HHs	900	16,625 HHs	2016 to 2022	CGOK, National government, and partners
Capacity building on producer organizations under NARGIP programme	Improve productivity and profitability	20 wards	20,000 HHs	826	17,143 HHs	2016 to 2021	CGOK, National Government, and partners
Insurance for asserts	Cushion farmers on drought related shocks.	Kitui Rural, Kitui South, Mwingi North & Kitui East sub counties	10,000 HHs	5.2	9,400 HHs	2018 to 2019	CGOK, Caritas Kitui and partners
Integrated risk reduction project	To contribute towards securing livelihoods.	Mwingi West sub county	4,000 HHs	30	1,680 HHs	2014 to 2020	CGOK, Caritas Kitui and partners
Women empowerment project/advocacy project	Enhancement of opportunities for women enterprises	Kitui Central sub county	400 HHs	10	200 HHs	2017 to 2021	CGOK, Caritas Kitui and partners

LIVESTOCK SECTOR							
Intervention	Objective	Specific Location	Activity target	Cost in Ksh. (M)	No. of beneficiaries	Implementation Time Frame	Implementation stakeholders
Urgent harvesting of pastures and storage	Increase livestock feeds and household income	All sub counties	774 acres	0.74	2,900 HHs	January to March 2020	County Government of Kitui (CGOK)
Culling of mature stocks	Increase farmers	All sub counties	21,000 HHs	0.32	10,000 HHs	February to	CGOK

	income					April 2020	
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WATER SECTOR							
Intervention	Objective	Specific Location	Activity target	Cost in Ksh. (M)	No. of beneficiaries	Implementation Time Frame	Implementation stakeholders
Servicing and repair of boreholes	Improve water accessibility for both households and livestock	All sub counties	Households, Institutions, Livestock	20	25,000 HHs	2019-2020	County Government of Kitui (CGOK), National Government and Partners
Rehabilitation of pipeline	Improve water accessibility for both households and livestock	All sub counties	Households, Institutions, livestock	180	25,000 HHs	2019-2020	CGOK, National Government and Partners
Construction of earth dams	Improve water accessibility for both households and livestock	All sub counties	Households, Micro irrigation, livestock	250	30,000 HHs	2019-2020	CGOK, National Government and Partners
Drilling and equipping of boreholes	Improve water accessibility for both households and livestock	All sub counties	Households, Institutions, livestock	40	40,000 HHs	2019-2020	CGOK, National Government and Partners
Installation of hybrid solar pumping systems	Improve water accessibility for both households and livestock	All sub counties	Households, Institutions, livestock	120	25,000 HHs	2019-2020	CGOK, National Government and Partners

HEALTH AND NUTRITION SECTOR							
Intervention	Objective	Specific Location	Activity target	Cost in	No. of benefici	Implementation	Implementation

		n		Ksh. (M)	aries	Time Frame	stakeholders
Vitamin A Supplementation/Deworming	Boosts immunity thus improve the nutrition status	All sub counties	Under five-year children (5's)	2	All under 5's	Continuous	Ministry of Health
Kitui county health insurance cover (KCHIC)	Improving access to healthcare services	All sub counties	Under 5's		All under 5's	Continuous	Ministry of Health
Growth Monitoring	Improves under 5's nutrition status	All sub counties	Under 5's		All under 5's	Continuous	Ministry of Health
Iron and folic acid supplementation (IFAS)	Boosts immunity thus improve nutrition status	All sub counties	Pregnant mothers		All pregnant mothers	Continuous	Ministry of Health
Outpatient therapeutic programme (OTP) and supplementary feeding programme (SFP)	Improves recovery rate	All sub counties	Under 5's, persons living with HIV and TB	2.2	All under 5's, persons living with HIV and TB	Continuous	Ministry of Health
Baby friendly community initiatives (BFCI)	Improves maternal and young child nutrition status	All sub counties apart from Kitui Rural	under 5's Pregnant women	5	600 under 5's 200 Pregnant women	2018-2020	World Vision

6.3 Recommended Interventions

6.3.1 Food Interventions

Table 17: Proposed Population in Need of Food Assistance in Kitui County

Sub County	Ward	Proposed Range (%)
Mwingi North	Ngomeni	5-10
	Tseikuru	5-10
	Kyuso	15-20
	Mumoni	10-15

	Tharaka	10-15
Kitui South	Ikanga/Kyatune	5-10
	Mutomo	5-10
	Mutha	5-10
	Kanziko	5-10
	Ikutha	5-10
	Athi	5-10
Mwingi Central	Nguni	5-10
	Nuu	5-10
	Mui	0-5
	Waita	0-5
	Central	0-5
	Kivou	0-5
Kitui East	Zombe/Mwitika	5-10
	Nzambani	0-5
	Chuluni	0-5
	Voo/Kyamatu	5-10
	Endau/Malalani	5-10
	Mutitu/Kaliku	5-10
Kitui Rural	Kisasi	0-5
	Mbitini	0-5
	Kwavonza/Yatta	0-5
	Kanyangi	0-5
Kitui West	Mutonguni	0-5
	Kauwi	0-5
	Matinyani	0-5
	Kwamutonga/Kithumula	0-5
Mwingi West	Kyome/Thaana	5-10
	Kiomo/Kyethani	5-10
	Nguutani	0-5
	Migwani	0-5
Kitui Central	Miambani	0-5
	Township	0-5
	Kyangwithya West	5-10
	Kyangwithya East	0-5
	Mulango	0-5

6.3.2 Non-Food Interventions

Table 18: Recommended Non-Food Interventions in Kitui County

AGRICULTURE SECTOR							
Intervention	Objective	Specific Location	Activity target	Cost in Ksh. (M)	No. of beneficiaries	Implementation Time Frame	Implementation stakeholders
Immediate Interventions							
Development & distribution of advisories	Advise farmers on best crops to plant	All wards	Farmers	2	290,000 HHs	Before March 15 th 2020	County Government of Kitui (CGOK), National Government and Partners
Locust management and surveillance.	Control the destruction of food crops and livestock feeds	10 wards	Affected farmers	30	50,000 HHs	Before mid-February 2020	CGOK, National Government and Partners
Medium/Long Term Interventions							
Conservation agriculture	Increase food security and household income	All wards	Farmers	100	240,000 farmers	By end of 2022	CGOK, National Government and Partners

LIVESTOCK SECTOR							
Intervention	Objective	Specific Location	Activity target	Cost in Ksh. (M)	No. of beneficiaries	Implementation Time Frame	Implementation stakeholders
Immediate Interventions							
Foot & Mouth disease (FMD) cattle Vaccination	Reduce/Prevent Livestock mortality and disease	Kitui Central, Kitui Rural, Kitui West and Mwingi West sub counties	All cattle in 4 sub counties	1.6	160,000 HHs	March 2020	County Government of Kitui (CGOK), and Partners

CCPP Vaccination	Reduce/Prevent Livestock mortality and disease	Kyangw ithya West ward	All goats in Kyangw ithya West ward	4	102,000 HHs	By end of March 2020	CGOK and Partners
Medium/Long Term Interventions							
Pasture and fodder conservation	To increase the capacity of farmers to conserve and store pasture established within their regions	Kitui West, Kitui East, Mwingi West and Mwingi North sub counties	150 hay barns	6.75	150 households	2020-2023	CGOK
Livestock disease diagnostic lab	To capacity build the veterinary department to accurately carry out diagnosis of animal diseases in a short time	Kitui head quarters	1 mini lab	4.75	200,000 HHs	2021	CGOK

WATER SECTOR							
Intervention	Objective	Specific Location	Activity target	Cost in Ksh. (M)	No. of beneficiaries	Implementation Time Frame	Implementation stakeholders
Medium/Long Term Interventions							
Construction of mega earth dams, drilling & equipping of boreholes, construction of sand dams and distribution of rain water harvesting	Increase accessibility to water	All wards	Households, livestock and micro-irrigation	3.4 billion	325,000 HHs	2 years	County Government of Kitui (CGOK), National Government and Partners

tanks							
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HEALTH AND NUTRITION SECTOR							
Intervention	Objective	Specific Location	Activity target	Cost in Ksh. (M)	No. of beneficiaries	Implementation Time Frame	Implementation stakeholders
Immediate Interventions							
Agri nutrition activities	Increase dietary diversity	Kitui East, Mwingi North, Mwingi Central and Kitui South sub counties	Households/Farmers		40,000 HHs	2020-2025	County Government of Kitui (CGOK), UNICEF, FAO
The Nutrition Improvements through Cash & Health Education (NICHE)	Improve Maternal, Infant and Young Child nutrition	All Wards	Pregnant women & children under 5's		4,700 HHs	2020-2025	CGOK, UNICEF
Upscale BFCI activities	Improve Maternal, Infant and Young Child nutrition	All Wards	Pregnant & lactating women, Children under 2 years	6	3,948 HHs	2019-2025	CGOK, UNICEF, World Vision Kenya (WVK)
Medium/Long Term Interventions							
Outpatient therapeutic programme (OTP) and supplementary feeding programme (SFP)	Management of severe and moderate malnutrition	All Wards	Under 5's	60	4,910 HHs	Continuous	CGOK
Micronutrient	Avert	All	Under	6	188,849	Continuous	CGOK,

supplementation (VAS, IFAS, ZINC, MNPs)	micronutrient deficiencies	Wards	5's IFAS-pregnant women		HHs	ous	UNICEF
Integrated health and nutrition outreaches	Strengthen health status of under 5's	All Wards	Under 5's	5	37,770 HHs	Continu ous	CGOK

EDUCATION SECTOR							
Intervention	Objective	Specific Location	Activity target	Cost in Ksh. (M)	No. of beneficiaries	Implementation Time Frame	Implementation stakeholders
Immediate Interventions							
Repair of damaged infrastructure majorly toilet blocks.	Restore hygiene and sanitation infrastructure in schools.	Across the County	12 affected schools	6.5	158,814 pupils	May-June 2020	BOMs, partners, National and County Government