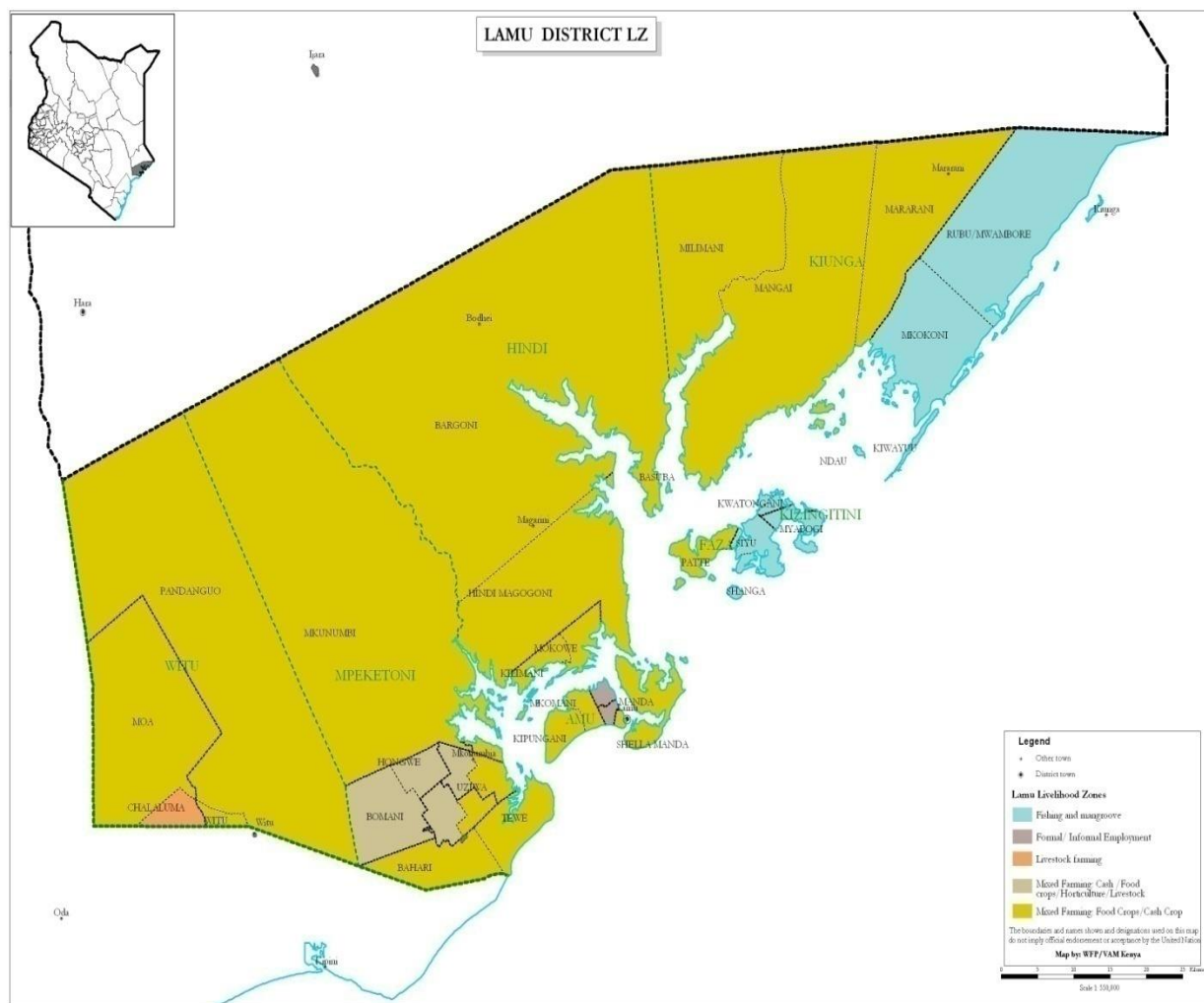


# LAMU COUNTY 2017 SHORT RAINS FOOD SECURITY ASSESSMENT REPORT



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

**February 2018**

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## **Executive Summary**

Lamu County is classified in the Stressed (IPC Phase 2) phase of food insecurity with a majority of the households having minimally adequate food consumption but unable to afford some essential non-food expenditures.

The key drivers of food insecurity in the county were; below normal performance of the short rains, high food prices and insecurity. The county is facing relatively high food and water stress as a result of poor performance of the season. Maize stocks are held only by household in irrigated crop/livelihood zone with resultant effect of raising maize prices.

Food availability was significantly reduced by the poor performance of the short rains in the county with maize experiencing near significance crop failure. The long rains stock being held at household was higher than long term average this is occasioned by carry stocks from long rains not being sold owing low market prices. Maize stocks were only available in the mixed farming and cash crop livelihood zones, other livelihood zones had depleted their stocks. The harvest for green grams and cowpeas was 12,580 and 10,945 bags respectively all above LTA but quickly sold fetching competitive market prices.

Pasture and browse were fair to poor in majority of the livelihood zones across the county and poor in the fishing and mangrove livelihood zone. Both were in a deteriorating trend and expected to last one month. Livestock body condition was fair across the entire county but on deteriorating trend. Trekking distance from grazing to water had increased to 14 kilometers from a normal of six kilometers resulting milk production dropping below normal.

All markets were operating normally. Low market demand for livestock due to limited trader movement as a result of insecurity caused a drop in goat prices. Maize prices were increasing as stocks withheld from market by farmers. This was a reduction in terms of trade from 128 kg in December to 114kg in January 2018. This coupled with low milk production has pushed mixed farming food and livestock wholly market dependent for source food. The reduced purchasing power has forced many households to adopt emergency coping strategies. Average water usage ranges five to 15 litres per person per day and costs Ksh50 to Ksh. 100 per 20litre Jerrican in some areas. Reduced availability of water was also due to poor recharge at 30percent of surface water sources, and increased salinity of underground water as drought increases.

The result has been reflected in the reduced 25 and 35 percent of population having a poor and borderline food consumption score respectively. In terms of coping, 43 percent and 47 percent of the population were using emergency and crisis coping strategies respectively. Utilization is further hindered by the increase in poor hygiene and sanitation practices.

Lamu County is classified in the Stressed (IPC Phase 2) phase of food insecurity with a majority of the households having minimally adequate food consumption but unable to afford some essential non-food expenditures.

# 1 Introduction

## 1.1 County background

Lamu County has two sub-counties: Lamu East and Lamu West, covers approximately 6,273 square kilometers consisting of the mainland and 65 islands, which form the Lamu Archipelago. The county has a population estimated at 128,143 persons (Kenya National Bureau of Statistics 2016 Projections). The county has four livelihood zones mainly: the mixed farming food/cash/livestock, mixed farming food and cash crop, fishing and mangrove and the formal employment/casual waged labour/business livelihood zone (Figure 1).

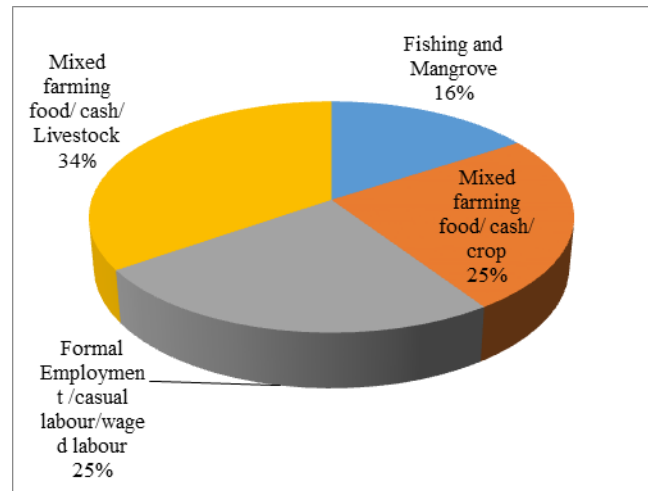


Figure 1: Proportion of Livelihood in the county

## 1.2 Objectives and approach

The aim of the assessment was to develop an objective, evidence based and transparent food security situation analysis following the short rains season of 2017 taking into account the cumulative effect of previous seasons, intended at making recommendations for possible response options based on the situation analysis.

The assessment was conducted by technical members of Lamu County Steering Group (CSG) and field work was carried out from the 9<sup>th</sup>February 2018 to 12<sup>th</sup>February 2018. Secondary data was collected and collated by county staff drawn from the agriculture, livestock, water, health and education sectors. Transect drives, focus group discussions and key informant interviews were used for data validation and triangulation. The data collected was analyzed at the sub-county and livelihood zone levels, and the draft county report was tabled in a special CSG meeting for validation.

## 2.0 Drivers of Food and Nutrition Security in the County

### 2.1 Rainfall Performance

The 2017 short rains in Lamu County performed poorly. The onset was late by a dekad commencing on the third dekad of October compared to first dekad normally. The amount was low compared to normal since majority areas received rainfall of 50-75 percent of normal with Hongwe and Mkunumbi wards receiving even lower amount of 25-50 percent of normal. The lowest rainfall received was in Bahari ward at five to 25 percent of normal. Spatial distribution was good with most parts receiving 50-75 percent of the normal. The season

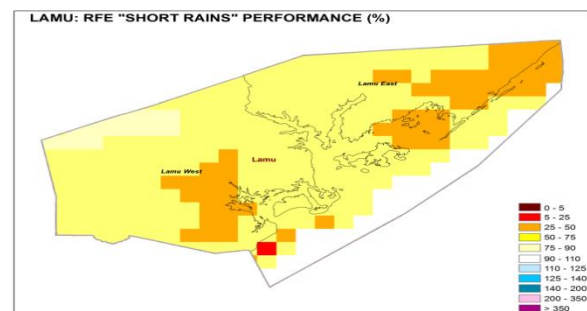


Figure 2: Rainfall performance

was also characterized by poor temporal distribution with most of the rain received in the first Dekad of November, cessation was earlier than normal on the 1<sup>st</sup> dekad of December compared to the 3<sup>rd</sup> normally.

## 2.2 Insecurity

There were no major resource based conflicts experienced during the period, however incidences of militant activities have raised tensions with displacement occurring in the border town of Kiunga particularly Ishakani. Nonetheless, prompt intervention by security and humanitarian organizations have stabilized the situation. Schools were closed down in Basuba ward after attack on teachers by militants in December, and affected pupils transferred to Mokowe Arid Zone and Kiunga Primary schools. Displaced persons from previous insecurity incidences at Katsa-Kakairu have returned to their farms but a few households are still living in the camps receiving assistance.

## 3.0 Impacts of Drivers on Food and Nutrition Security

### 3.1 Availability

#### 3.1.1 Crops Production

Short rain season accounts for of the total food crop production. The major crops grown includes: maize, green grams and cowpeas. The rainfall has become unreliable in recent years while the season remains important for irrigation cropping.

**Table 1: Rain fed crop production**

Crop	Area planted during 2017 Short rains season (Ha)	Long Term Average area planted during the Short rains season (Ha)	2017 Short rains season production (90 kg bags) Projected/Actual	Long Term Average production during the Short rains season (90 kg bags)
1. Maize	5,825	2,425	3,325	24,902
2. Cowpeas	2,140	1,064	10,945	4,033
3. Green grams	2,443	670	12,580	3,782

Area planted for three major crops was more than long term average attributed to availability of subsidized tractor hire service by the county government at a lower price of Ksh 2,000. Maize yield was lower at 13 percent of LTA, only a few areas got some yields but at low levels of one (1) bag per Ha. Cowpeas and green grams production was well above LTA and quickly sold off due to good market prices

**Table 2: Irrigated crops**

Crop	Area planted during 2017 Short rains season (Ha)	Long Term Average area planted during the Short rains season (Ha)	2017 Short rains season production (90 kg bags) Projected/Actual	Long Term Average production during the Short rains season (90 kg bags)
Water melon	200	73	2500	733
Tomato	200	98	2000	983
Kales	100	23	1000	233

Irrigated crops namely watermelons, tomatoes and kales production was above LTA. More farmers were engaging in irrigated farming using privately owned shallow wells. Increase in acreage, and use of modern technologies due better access to information resulted into more yield than LTA.

### 3.1.2 Cereals stock

**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	35,000	20,573
Traders	522	994
Millers	140	142.6
NCPB	4	787
<b>Total</b>	<b>35,666</b>	<b>21,601.6</b>

**Table 4: Cereal stocks held**

Commodity	Farmers	Traders	Millers	Food Aid	TOTAL
Maize	73476	1470	680	-	<b>75626</b>
Rice	50	5100	-	-	<b>6300</b>
Sorghum	234	508	-	-	<b>742</b>
Millet	115	16	-	-	<b>131</b>

The stock held at household level was more than LTA owing to unsold balances from long rains harvests since market prices were low, few farmers sold their stock from the harvest and this was in the mixed food/cash crop livelihood zone. Alternative cash crops such as mango, citrus, cotton and cashew nuts were relied on as income sources but had been exhausted. The traders and millers stocks were low since farmers withheld onto their stocks. However, NCPB was holding some relief food stuffs awaiting distribution; these were maize 908 (50kg bag), rice 1300 (50kg bag), beans 300 (90kg bag) and vegetable oil 200 (24L cartons).

### 3.1.3 Livestock Production

Livestock contributes about 25 percent to income in the mixed farming food/cash crops livelihood zone and 16 percent in the fisheries /mangroves livelihood zone. The mixed farming food/livestock livelihood zone receives the largest contribution to income from livestock at 60 percent. The past short rains season affected livestock positively for a short period, but its general poor performance has had a negative impact on milk production.

### Pasture and Browse condition

The pasture condition was fair to poor in the mixed farming food/livestock and fisheries /mangroves livelihood zones, it was fair in the waged casual labour livelihood zone, and poor in the fishing and mangroves livelihood zones, which is below normal for all the livelihood zones. Pasture was on deteriorating trend across the livelihood zones and is expected to last between two weeks to one month. The browse condition was fair to poor across the livelihood zones and deteriorating. Access to pasture and browse was limited by insecurity and conflict between farmers and pastoralists in areas of Bahari, Maisha Masha, Pangani and Poromoko in the mixed farming livelihood zone. Island based livestock in the fishing and mangrove livelihood zone cannot migrate due to ocean confinement.

**Table 5: Forage condition**

Livelihood zone	Pasture condition		How long to last (Months)		Factors limiting access	Browse condition		How long to last (Months)		Factor s limiting access
	Current	Normaly	Current	Normaly		Current	Normaly	Current	Normaly	
Mixed farming food and Cash crop	Fair-poor	Good	1.5	2	Farmer /pastoralist conflicts	Fair to poor	Good	1.5	3	Farmer /pastoralist conflicts
Fisheries /Mangroves	poor	Fair	0.5	2	Ocean	Poor	Good	1.5	3	Ocean
waged /Casual Labour	Fair-poor	Fair	1.5	2	Farmer /pastoralist conflicts	Fair to poor	Good	1.5	3	Farmer /pastoralist conflicts
Mixed farming food and Livestock	Poor	Fair	1	2	Insecurity	Fair to poor	Good	1.5	3	Insecurity

## Livestock body condition

**Table 6: Livestock body condition**

Livelihood zone	Cattle		Sheep		Goat	
	Current	Normally	Current	Normally	Current	Normally
Mixed farming food and livestock	Fair	Fair	Good to fair	Good	Good to fair	Good
Mixed farming food and cash crop	Good to fair	Good	Good to fair	Good	Good to fair	Good
Fisheries /mangroves	fair	Fair	Good to fair	Good	Good to fair	Good
waged /casual labour	Good to fair	Good to fair	Good to fair	Good	Good to fair	Good

Livestock body condition for cattle was fair in the fishing and mangrove, agro-pastoral/fishing and the agro-pastoral livelihood zones. It was good to fair in the irrigated crop/farming/casual labour livelihood zone. Sheep and goat body condition was good to fair in all the livelihood zones. The trend was deteriorating in all the species and across the livelihood zones. This is attributed to declining pasture and browse condition a result of poor performance of the short rains.

### Birth rate

Below normal birth rates were recorded for all livestock species in both pastoral and agro –pastoral livelihood zones. Low lambing rates were recorded than kidding which are not normal compared to previous livestock birth trends in the county.

### Tropical Livestock Units (TLUs)

There was a reduction in TLUs across the livelihood zones and wealth groups attributed to the failure of both the long and short rains of 2016 from which many livestock owners were yet to recover from. The average tropical livestock units for formal employment casual labour, fisheries /mangroves livelihood and livelihood was two and half, compared to a normal of three, while the mixed farming livestock had the highest TLUs at nine, a reduction from a normal of 14.5 TLUs. No unusual deaths were reported but a few disease incidences were reported like mild cases of Foot Mouth Disease, Contagious Caprine Pleuro Pneumonia and *Pestides Pestis Ruminants* which were quickly brought under control.

**Table 7: Tropical livestock units**

Livelihood zone	Current	Normal
Mixed farming food and Cash crop	9	14
Mixed farming food and cash crop	3	3
Fisheries /mangroves	2	2
waged /casual Labour	3	3



### **Milk availability**

Milk production decreased from four litres in December 2017 to 2.5 litres in January 2018. This was much higher than the long-term average of one litre in January. In comparison to a normal season, the current household milk production is below the normal by 45 percent. There was significant change from the household milk production recorded during the previous month due to the deteriorating forage condition in their normal grazing areas. Milk productions within livelihood zones were distributed as follows: mixed farming 3.3 litres, fishing 1.5 litres, irrigated 2.5 litres and the agro pastoral zone one litre.

### **Milk consumption**

The average milk consumption was 1.5 litres per household per day in the month of December 2017. This decreased slightly in January with the average consumption being one liter per household per day. The decrease in milk consumption level is attributed to fluctuating production attributed to the worsening forage and increasing livestock trekking distances to water points in all the livelihood zones. The current consumption is however above the long term average consumption for January which is 0.7 liters per household per day.

### **Livestock access to water**

The current sources of water for livestock are water pans, shallow wells, *Djabia* (underground water tanks), boreholes and lake; the water sources have remained relatively the same, though sources have become fewer. Livestock average trekking distance to water source from grazing area was 14 kilometers in the month of January, 2018, and seven kilometers in month of December, 2018, higher than the long term average of six kilometers. The increase in distances to water sources is due to low water recharge capacity. Watering frequency for cattle and goats is four times in a week from a normal of six times a week. Available water is expected to last less than one month.

### **Migration**

There were huge numbers of in-migrated herds of livestock from neighboring counties of Tana River and Garissa in December 2017, which were still present in the agro pastoral areas of Witu and mixed farming zone of Basuba wards. However no new in-migration cases have been observed.

### **Fisheries**

Fishing is an important source of income and food for the fishing / mangrove and agro pastoral/ fishing livelihood zones. Currently, only a small percentage of population is engaged in fishing mainly inshore fishing due to lack of equipment to venture further in the deep sea. Fishing activities are currently hindered by rough seas reducing catch productivity and constraining fishing for special species like lobsters, crabs, squids and octopus by reducing underwater visibility. Prices of fish have remained stable at Ksh300 per kilo.

### 3.2 Access

#### 3.2.1 Markets prices

##### Market operations

There were no market disruptions during the period but insecurity and tense political atmosphere during and after the election period resulted in limited movement livestock traders. The agro pastoral and fishing livelihood zones relied more on the markets as crop failure and reduced milk production constricted their options. Coupled with low market demand for livestock households in the agro pastoral and fishing livelihood zone had reduced purchasing power. Irrigated cropping and mixed casual labour livelihood zone had the bulk of county grain stocks besides fruits, irrigated horticultural crops such as green grams and cowpeas for incomes in waiting for better maize prices.

##### Maize prices

Average price of a kg of maize in the month of January was Ksh. 39 per kg which was an increase from Ksh. 37 during the previous month.

The prices were distributed as follows: Hindi center Ksh. 40, Patte Ksh. 30, Witu Ksh. 40, Mpeketoni Ksh. 35 and Kiunga Ksh. 50 respectively. The price increase is partly due to farmers withholding supply to market waiting for better prices. The average price of maize in January was above the long term-average of Ksh. 33. The price of maize was expected to decline when farmers release their stocks to the markets, and thereafter increase as Stock levels decline when demand for maize on the market increases.

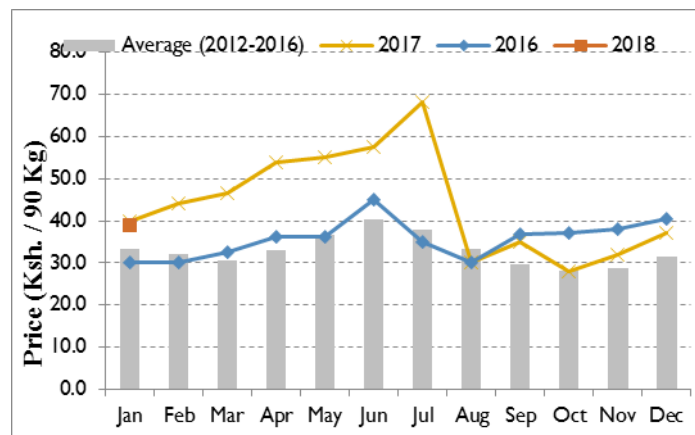


Figure 3: Maize prices

##### Goat price

Average goat prices were on a decreasing trend from Ksh. 4,750 in the month of December, 2017 to Ksh. 4,450 in January 2018 higher than LTA of Ksh. 3,500. The decrease in price of goats was attributed to low market demand. The goat average market prices were distributed as follows: Mpeketoni Ksh. 3,000, Witu Ksh. 4,500, Kiunga Ksh. 5,300 and Mokowe Ksh. 5,000 respectively.

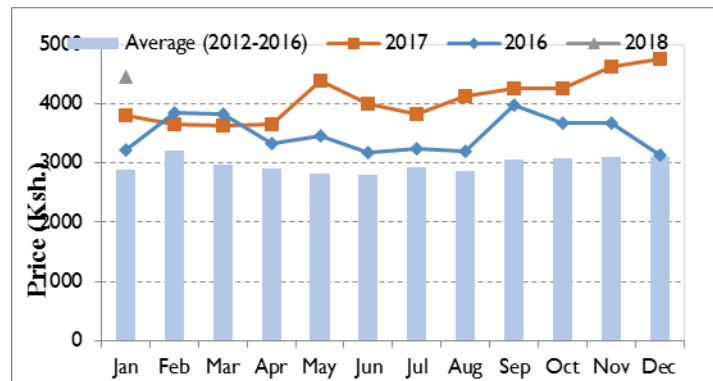


Figure 4: Goat prices

### 3.2.2 Terms of Trade

The average Terms of Trade (ToT) for the month of January was 114.1kg, higher than the long term average of 86 kg, a decrease compared to 128.4kg during December 2017. This decrease in the exchange ratio in favour of crop farmers to goat sellers is mainly due to increased maize prices as a result of withheld supply by farmers. The ToT was 109 kg in Lamu West and 133 kg in Lamu East. The terms of trade are likely to increase as farmers were expected to release their maize stocks to market. The price of maize is projected to increase after farmers maize stocks have been exhausted, while that of goats is projected to decrease due to poor body condition in the months preceding the long rains season.

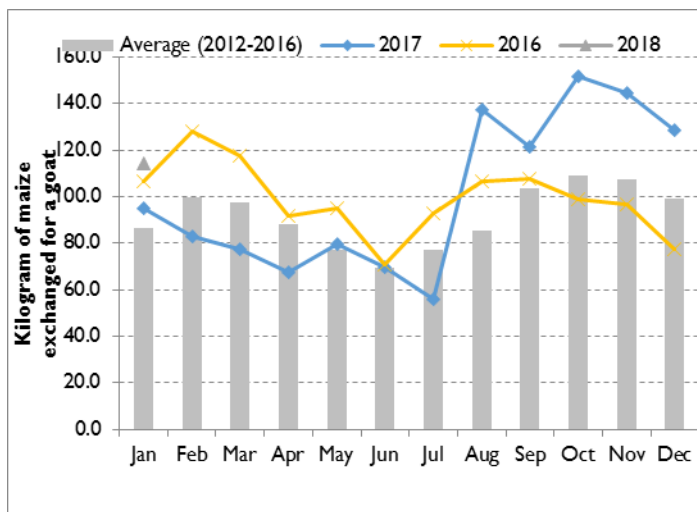


Figure 5: Terms of trade

### 3.2.3 Income Sources

Casual labour was the main source of income for the largest population in the county at 56 percent due to less reliability of traditional sources like livestock sale and trade. This was occasioned by limited movement of livestock traders, poor farm labour coupled with insecurity. Income sources from trade, salaried employment are limited in the county at 19 and 16 percent respectively.

Table 8: Sources of income

Source of income	Percent contribution to income
Casual labour	56
Trade	19
Employment/salary	16
Sale of livestock /livestock production	9

### 3.2.4 Water access and availability

Recharge of water sources is estimated at 30 percent attributed to poor performance of the short rains. The open water sources have dried up except Lakes Moya and Kenyatta.

#### Major water sources

The major water sources for domestic use in the county include pipelines, Lakes Amu and Moya, Rivers Tana and Mangai, Djabias, pans and shallow wells. Water availability has reduced as surface water sources were drying up and some underground sources were increasing in salinity. Available water was expected to last less than a month. Households in select areas almost fully depend on water trucking for example Bargoni and Kiunga.

#### Distance to water sources

The average return trekking distances to water sources was increased from 4 to 13 kilometers in December and January respectively in all livelihood zones compared to normal of less than a kilometer. This was due to reduced water levels at sources. This has forced households to reduce

their water consumption and rendered mixed farming and fishing livelihood zone areas like Kiunga and Bargoni wholly dependent on water trucking especially.

### Waiting time at sources

The average waiting time at the water source varies depending on the source of the water available. Convergence of populations to fewer sources has increased the waiting time. In the mixed farming food/cash crops and mixed farming food and livestock livelihood zones waiting time is 60 minutes. Waiting time is 3 hours in the fishing/mangrove and casual labour/wage livelihood zones.

### Cost of water

The cost of water per 20 litre Jerrican increased from an average of Ksh. three to 10 across the livelihood zones. In the fishing and mangrove livelihood zone the cost was Ksh. 10 and additional cost of transport at Ksh 50 per Jerrican. Other areas where transport cost was incurred to and from the source include island villages of Ndau, Bahamisi, Mtangawanda, Patte and Tchundwa as well as the mixed food/livestock zones of Bargoni.

### Water consumption

Water consumption per person per day in the county ranged 3 – 20 litres compared to the normal 20 litres per person per day. Consumption was highest in the mixed/irrigation cropping livelihood zone at 15-20 litres/person/day and lowest in the fishing / mixed farming (Bargoni) zones at three to five litres/person/day while the agro pastoral livelihood zone recorded 10-15 litres/person/day.

**Table 9: Household water access and utilization**

Livelihood zone	Distance to Water for Domestic Use (in km)		Cost of Water (in Ksh)		Waiting Time at Water Source (in Mins)		Average HH Use (in litres/p/d)	
	Normal	Current	Normal	Current	Normal	Current	Normal	Current
Mixed farming food and livestock	1	4-13	3	10	30	60	20	5
Casual Labour	1-2	4-13	5	10-50	10-30	180	15-20	5-10
Fishing/Mangrove	1-2	1-13	5-10	20-50	20-30	60-180	15-20	5-10
Mixed farming food and cash crops	1	1-3	3-5	5-10	10-30	60	5-10	5-15

### 3.2.5 Food Consumption

Lamu County had Agro pastoral livelihood zone with highest number of Households with poor dietary diversity at 5.0 and 8.3 percent borderline with mixed farming having poor at two percent and 43 percent borderline for January 2018. Nevertheless, this shows improvement from the previous month compared to households with poor dietary diversity at 8.3 in mixed farming zone for December 2017. On long term average, the proportion of households with poor, borderline and acceptable food consumption score was 25, 35, and 40 percent respectively in January 2018 compared to 12 poor, 30 borderline and 58 percent acceptable reported in the previous season. Comparatively, households with poor food consumption score increased by 53 percent from the previous season. This deterioration in food consumption is attributed to cumulative effects of failure of both short and long rains in 2017, terror related insecurity and political tension that caused displacement of households and affected the livestock market trade resulting in reduced incomes and purchasing power, hence reduced food availability.

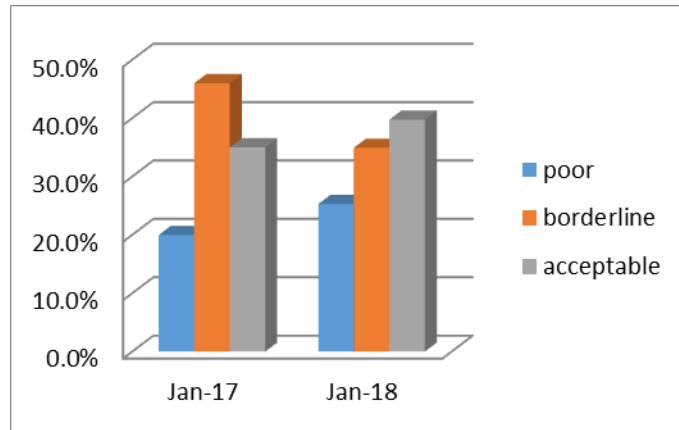


Figure 6: Food consumption score

### 3.2.6 Coping strategy

The coping strategy indicates 43 percent of the populations were using emergency coping strategies in January 2018 as compared to 44 percent in the previous short rain season.

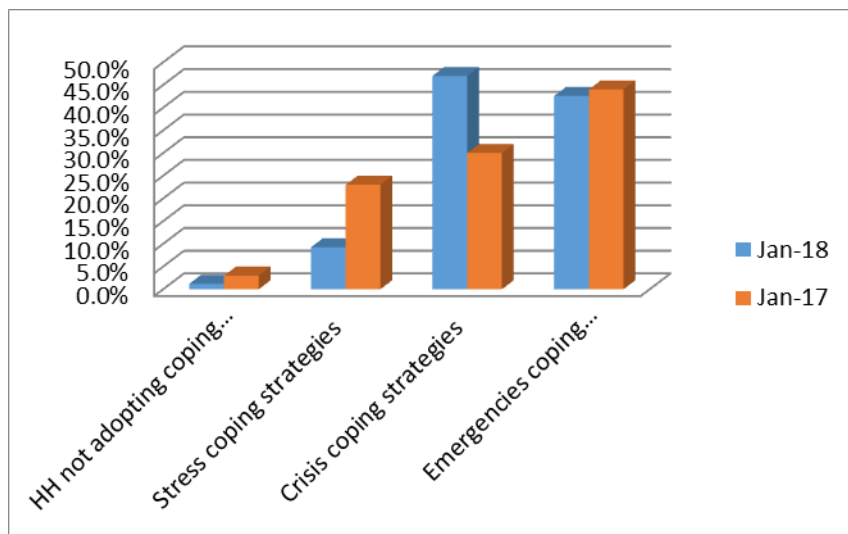


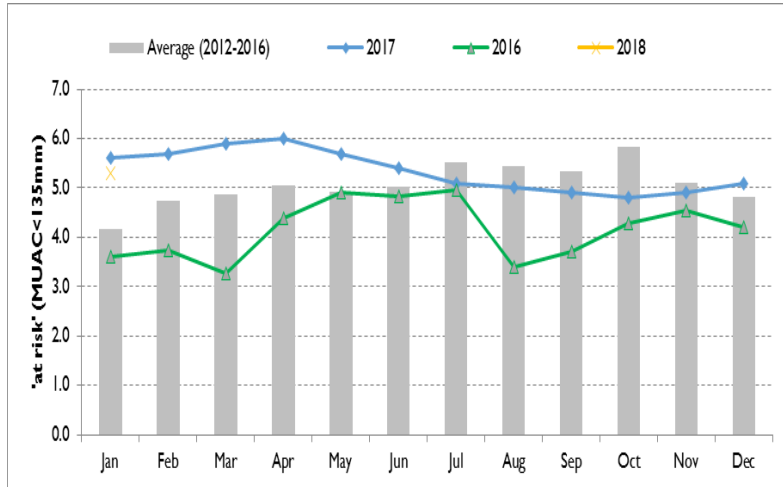
Figure 7: coping strategies

### 3.3 Utilization

Food utilization is a function of morbidity prevalence of under-fives, general population, levels of completion of immunization and vitamin A coverage. Dietary diversity by most households was influenced by the availability and access to food items in the markets.

### 3.3.1 Health and Nutrition

#### Nutrition status



The proportion of children under five at risk of malnutrition with Mid Upper Arm Circumference below 135mm was 5.3 percent in January 2018 compared to long term average of 4.2 percent indicating a slightly deteriorating situation. This increase was attributed to reduced food availability and dietary diversity, reduced milk production and reduced purchasing power.

Figure 8. Trend of children at risk of Malnutrition by MUAC

#### 3.3.1 Morbidity and mortality patterns

Upper Respiratory Tract Infection (URTIs), diarrhea and skin diseases were the most prevalent diseases among under-fives and general population in the year 2015 to 2017. There was an increase in diarrhea cases in under-fives during the month of September 2017 (Figure 9) between July and December 2017 which can be attributed to increased awareness on the four critical times for hand washing and use of safe water. There were confirmed cases of *Chikungunya* infections were reported in Faza and Lamu.

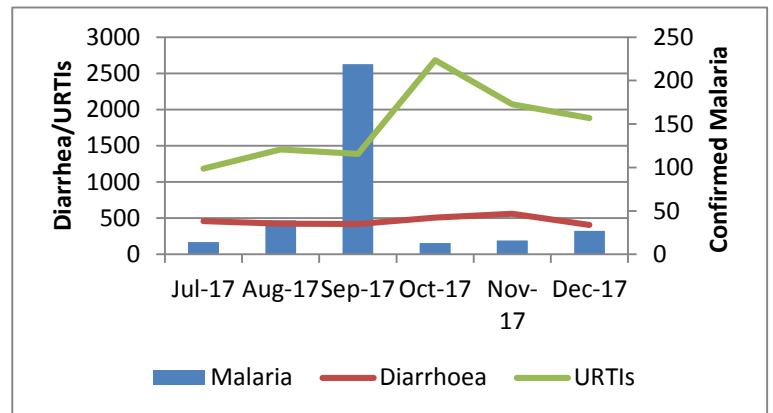


Figure 9. Morbidity and mortality patterns

#### 3.3.2 Immunization and Vitamin A supplementation

Immunization and Vitamin A Supplementation for children 6-59 months was below the recommended national target of 80 percent in Lamu County. The Fully Immunized Children below one year and Vitamin A Supplementation for children 6-59 months were at 71.5 percent and 12.1 percent respectively. Vitamin A coverage remains low (<6-11 months) at 27.8 percent and 12-59 months at 10.4 percent respectively. The low coverage of VAS and immunization in the county are attributed to the industrial action by health workers which lasted

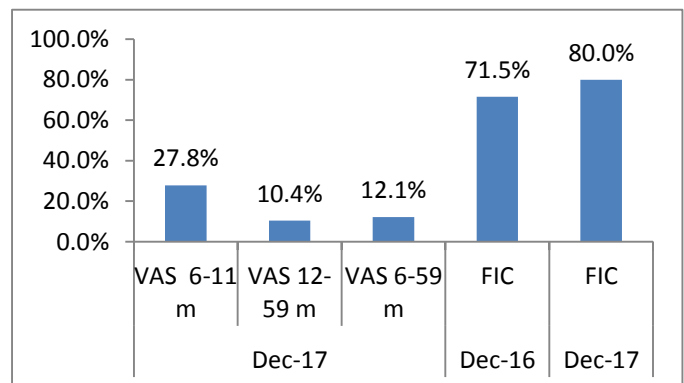


Figure 10. Vitamin A supplementation

from June to November 2017, poor documentation at the service delivery point, insecurity (in Lamu County) and children not attending the child welfare clinic after measles vaccination at 9 months.

### 3.3.2 Sanitation and Hygiene

#### Sanitation

Latrine coverage is fairly high at 72 percent across the county. Although majority (90 percent) of the households across all livelihood zones were aware of hand washing at four critical times only 18 percent practiced hand washing at all critical times using soap.

Water treatment is undertaken in the water supplies and established water schemes in the sub-counties with 21 percent of the households treating water. Individuals who own shallow wells usually collect chemicals from public health offices to treat their own water, while majority of households consume untreated water.

### 3.4 Food security trends in county

**Table 10: Food security trends in the county**

Indicator	Long rains assessment, July 2017	Short rains assessment, Feb 2018
% of maize stocks held by households (agro-pastoral)	30	10
Livestock body condition	Good	fair
Price of maize (per kg)	57.5	39
Distance to grazing	1-3km	13.6km
Terms of trade (pastoral zone)	70	114
Coping strategy index	18	20
Food consumption score	Poor-17, Borderline-42 and Acceptable-41	Poor-25, Borderline-35 and Acceptable-40

### 3.5 Education

#### Enrolment

There was a drop in enrolment due to insecurity where schools were closed especially Boni Forest area. Witu ward recorded the highest number of drop out cases, pastoral families migrating for pasture and water use school going children as herders. Basuba ward schools were closed down after teachers were attacked by militants, some of the affected pupils from Basuba ward were transferred to Mokowe Arid Zone and Kiunga Primary schools.

#### Dropout

In early childhood development and primary level, more girls dropped out of school than boys at the end of term three compared term two 2017, with 40 percent and 16 percent respectively. However dropout is more significant in Early Childhood Development Education (ECD) centers as compared to primary level across the two terms. This was attributed to lack of school meals, migration with livestock in search of pasture and water to other areas away from school prompted by drought and household's ignorance to the importance of girl child education in the county. With

secondary schools, there were more dropouts of boys at 16 percent compared to girls increase in enrollment by seven percent. Boys' dropout can be attributed to lack of fees.

## Participation

Attendance rates are comparatively high in ECDE centres and lower primary. However, it was higher for girls than boys. A transition rate is at 80% at par with the national rate of 85%. More pupils transits to form one in day schools than in boarding schools. However, in ECDE centres more girls transits to class one than boys.

## School meals programme

The County Government is supporting feeding programme in a few areas of the county and higher enrolment, completion, retention and transition rate have been reported in such schools. Currently, about 16,000 pupils in 46 schools are in need of School Feeding Programme to sustain the learners in schools, who hail from vulnerable communities with no food at household level especially the Boni area who were also affected by insecurity.

Figure 11: School meals programme

Name of sub-county	№ of schools with school feeding	HGSM		Total number of beneficiaries	
		№ Boys	№ Girls	№ Boys	№ Girls
Lamu West		2,304	3,704	2,304	3,704
Lamu East		737	450	737	450
<b>Sub total</b>		3,041	4,150	3,041	4,150
<b>Grand total</b>		7,191		7,191	

## 4.0 Food Security Prognosis

### 4.1 Assumptions

- The long rains season (March – May 2018) will be below average tending to average over counties in Coastal region.
- Markets will continue to operate normally
- Cases of insecurity will be contained
- Food prices are expected to increase
- Nutrition cases are expected to increase
- Term of trade is expected to decline due to increase in maize prices.

### 4.2 Outlook for the next three months (February – April)

Food security situation is expected to decline until the second week of April. Distance to water sources is expected to increase as livestock body condition deteriorates thus affecting milk production, consumption and prices. After the onset of the long rains, pasture and browse conditions are expected to improve resulting into better livestock body condition, production and



water availability. Food availability at household level is expected to improve leading to improvement in households' purchasing power.

### 4.3 Outlook for the next six months (May – July)

The pasture and browse condition is expected to improve leading improvement in livestock body condition and prices of livestock thus increasing the purchasing power of households. Malnutrition cases are expected to decrease due to milk availability at household level and access to foods. After mid-June, the food security situation is expected to worsen due to poor harvest and below normal rains.

## 5.0 Conclusion and Interventions

### 5.1 Conclusion

The county is in stressed food security phase classification (IPC Phase 2) with few select spots sliding into crisis (IPC Phase 3) fishing/mangrove livelihood zone areas of Lamu East Sub County. Forage conditions have deteriorated and water sources reduced. Insecurity in the Boni Forest area has prevented agro pastoralist from accessing the rich pasture there.

#### 5.1.1 Phase classification

The county is classified in the Stressed phase (IPC phase 2), with a likelihood of moving to IPC phase 3 (crisis) depending on the performance of the season. There is improvement in livestock body conditions, open water sources were recharged only partially, pasture and forage conditions is poor and deteriorating. Frequent attacks by militants has brought an atmosphere of fear and disrupted economic activities in the county.

#### 5.1.2 Summary of Findings

The county is facing relatively food and water stress. Maize stocks are held by only household in irrigated crop/livelihood zone with resultant effect of raising maize prices. Lack of income from livestock due to poor market demand and low milk production has forced the mixed farming and livestock zone to be wholly dependent on the markets for food. As a result there is loss of incomes from milk and livestock sales thus reduced purchasing power pushing many households to adopt emergency coping strategies.

#### 5.1.3 Sub-county ranking

Table 12: Sub County ranking

Sub County	Food security rank (1-2) (worst to best)	Wards	Main food security threat (if any)
Lamu East	1	Faza and Kiunga	Crop failure Low food stock levels Water stress- lack at sources and high cost poor pasture and browse condition Condition, low milk production
Lamu West	2	Witu and Hindi	Extreme Water stress- salinity, lack at sources and high cost, Declining pasture and browse condition fair livestock body condition, low milk production Reduced purchasing power

## 5.2 Ongoing Interventions

### 5.2.1 Food interventions

EDUCATION							
Sub-county	Interventions	Location	No. of beneficiaries	Implementers	Impact in terms of food security	Cost	Time frame
Lamu West	Meals programme	Witu, Mpeketoni	8,514	MOE	Improvement in Education indicators.	10M	Immediate and continuous
Lamu East	Meals Programmes	Kiunga and Faza	1,187	MOE	Improvement in education indicators.	2.5M	Immediate and continuous

## 5.3 Recommended interventions

### 5.3.1 Food interventions

Table 13: Population in need of assistance

Sub County	Population	Poverty level	Poor population	Approx.% in need of food assistance
Lamu West	104,365	34 %	35,484	34-42
Lamu East	23,778	25 %	5,945	25-33
Total	128,143	59 %	41,429	59

### 5.3.2 Non-food interventions

Immediate Interventions							
County/Sub County/Wards	Intervention	Specific Location	Activity target	Cost	No. of Beneficiaries	Time Frame	Implementation stakeholders
Water sector							
Lamu west	Construction of three wells and a	Shella water supply	Water supply	5M	30,000	June 2018	County gov't Partners

	pump in Shella water supply.						
Lamu West	Pipeline extension to Bargoni	Bargoni	Water supply	1.2M	5,000	June 2018	County gov't Partners
Lamu West	Drilling of Boreholes	Witu	Water supply	1.5M	5,000	June 2018	County gov't Partners
County	Water trucking	Mtanga wanda, Kiunga, Bargoni, Pandanguo, Kiangwe and others.	Water Supply	1.8m	8,000	2months	County gov't Partners
Medium and Long Term Interventions							
Lamu East	Installation of 3000 metric cubic/Desalination Plant	LAPSS ET	Water supply	600M	20,000	June 2018	County gov't Partners, National gov't
Lamu	Sourcing water from Tana River	-	Water supply	18B	100,000	June 2018	County gov't Partners

	Recommendations	Proposed interventions	Available resources	Gaps
Peace and Security Sector				
Lamu	Enhance peaceful co-existence among communities in Lamu County	Carrying out peace dialogues with communities in the whole county (2 sub counties)	Human resource	8 peace meetings with 30 community leaders in 8 hot spot areas(Ksh. 800,000)
Agriculture		Conduct peace building meetings in 2 sub-counties	Human Resources	Funds for conducting two meetings@(Ksh 150,000)
		10 Sensitization meeting on natural resource management	Human resources	Resource for conducting 10 meetings Ksh 560,000.00)

Inter-County Health and Nutrition		Inter-County peace meeting		Meetings between Lamu Tana River and Garissa Counties		Personnel's		Funds to conduct three meetings @ Ksh 580,000.00			
Lamu		Enhance Conflict activity		Facilitation of conflict Rapid Response teams, 10 different occasions		Human Resources		Rapid Response facilitation on 10 occasions @ksh420,000			
Education		Supplementation		Total		Improved immunity hence less frequencies of illnesses		Ksh 2,510,000			
Lamu County	Meal & Program	Retention of 40 pupils in 10 acres under irrigation system	All Wards Mpeketoni, Witu, Bahari and Kiunga -Bahari	9500	150	Department of Fisheries and Livestock	MOE, County Govt. & other Agencies	15M	Nil	Immediately and continuously	
Lamu East & West	Food for Fees	Retention of pupils in school	" -Faza Wards	6000	5,000	State MOE, County Govt. & other Agencies	MOH/NHP/USMOE, County Govt. & other Agencies	15M	9.37M	Immediately and continuously	
Lamu West	Water Tanks	Manure mechanization	Amu -Bahari Mpeketoni, Faza Witu, Hindi	6000	40,000	MOH/NHP/USMOE, County Govt. & other Agencies	RPLRP/USMOE, County Govt. & other Agencies	12M	3M	Immediately and continuously	
	Classrooms	Improves MIVCN transition to schools	" All - Kiunga facilities	7000		MOE, County Govt. & other Agencies	MOE, County Govt. & other Agencies	130M	Nil	Immediately and continuously	
	Low cost boarding schools	Improve access to education	Faza and Kiunga All wards	1000	5,000	State MOE, County Govt. & other Agencies	MOE, County Govt. & other Agencies	100M	10M	End of June 2018	
Medium and Long Term Interventions		Provision of certified maize seeds		All wards		Improved food security		12M		End of June 2018	
Lamu west/East		Pasture cultivation/hay	all	12000	00	RPLRP, Lamu	Funds	community	3m	months	
County wide		making Provision of tissue culture banana(planting materials)	Bahari Witu Amu	200		Department of Fisheries and Livestock	Enhance food security & income		720,000		June 2018
Lamu west		Desalting of water pans	( areas with fresh water for irrigation)	89,000		RPLRP, Department of Fisheries and Livestock	funds	Community staff		1 year	
County wide		Provision of coconut seedlings	Lamu east	100		LCG	Enhance income		4.0M		June 2018

Lamu East	Tsetse control	Kiunga, Basuba	All county	Kentek	Funds staff	staff	2yrs
Lamu west	Nagele Livestock market	Witu	All county	RPLRP, Lamu Departmen t of Fisheries and Livestock  State department of Livestock production	Funds	funds	1yr