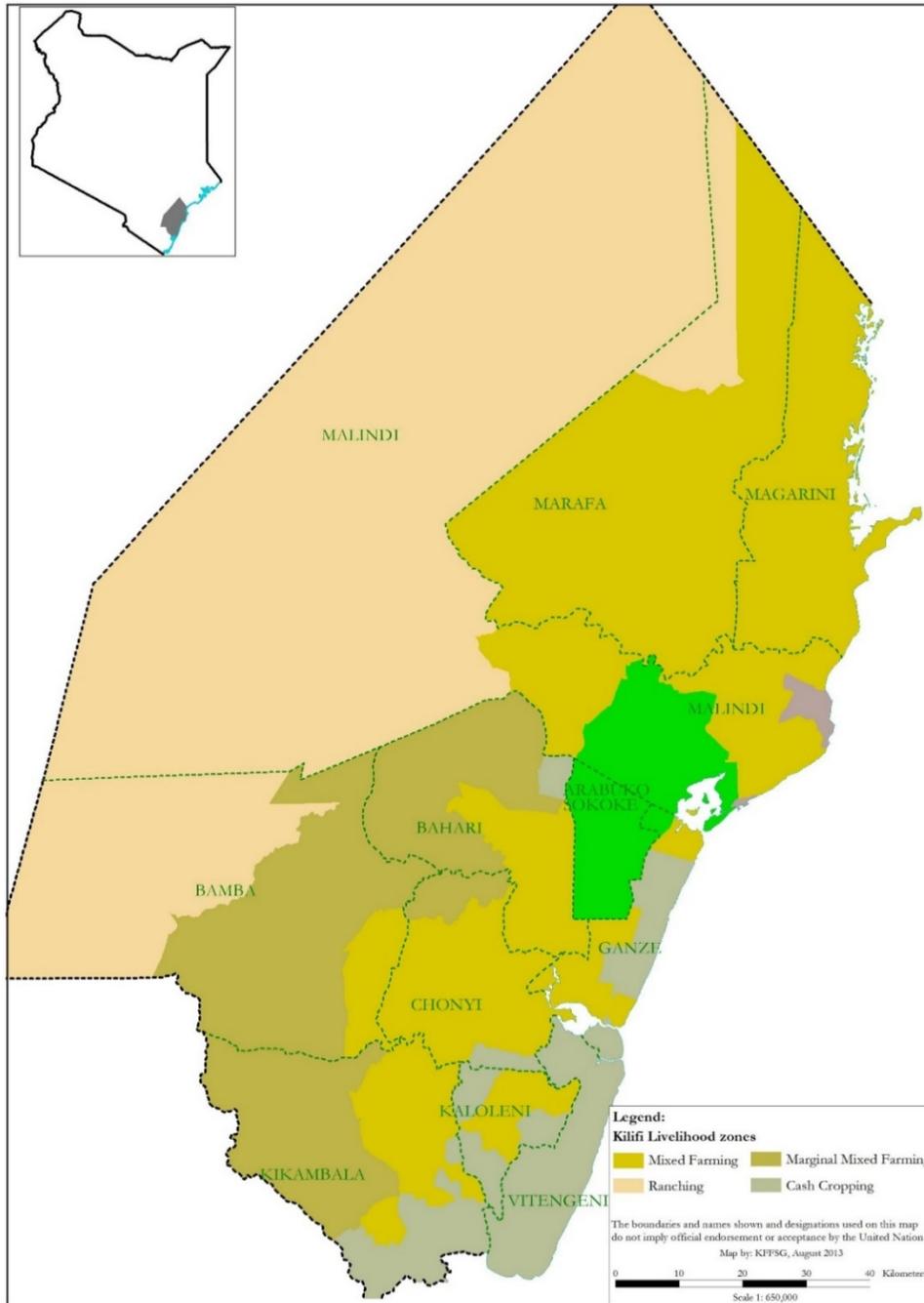


KILIFI COUNTY
2016 LONG RAINS FOOD SECURITY ASSESSMENT REPORT



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

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1.0 COUNTY BACKGROUND

Kilifi County has seven sub-counties namely; Malindi, Magarini, Ganze, Rabai, Kaloleni, Kilifi South and Kilifi North. It covers an area of approximately 12,610 square kilometres with a population of 1,109,735 (KNBS, 2009) and has three main livelihoods zones (Figure 1).

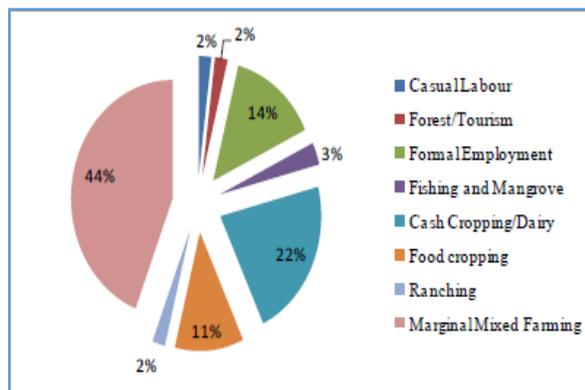


Figure 1: Proportion of population by livelihood zone

2.0 COUNTY FOOD SECURITY SITUATION

2.1 Current Food Security Situation

The ranching, parts of the mixed farming and marginal mixed farming livelihood zones covering parts of Ganze, Bamba, Vitengeni and Marafa are currently in the stressed food insecurity phase (IPC Phase 2). The rest of the county is in the minimal food insecurity phase (IPC Phase 1). The drivers of food insecurity include reduced crop production, decreasing pasture availability, reduced water for livestock and domestic use, lower-than-normal meal frequency and decreasing milk consumption at household level. The Coping Strategies Index (CSI) generally remained stable at 18 in May 2016 compared to 16 in May 2015 with most households employing insurance coping strategies to meet food consumption gaps. The Food Consumption Score (FCS) for households in the acceptable category increased from 58 percent in May 2015 to 67 percent in May 2016. The implication was that there was an increase in the number of households who were consuming at least a staple and vegetables daily, complemented by a frequent consumption of pulses and oil compared to a similar time last year. However, the proportion of children at risk of malnutrition was above normal.

2.2 Food Security Trends

During the short rains food security assessment in February 2016, the whole county was classified in the minimal food insecurity phase (IPC Phase 1). Currently, The ranching, parts of the mixed farming and marginal mixed farming livelihood zones covering parts of Ganze, Bamba, Vitengeni and Marafa are classified in the stressed food insecurity phase (IPC Phase 2) while the rest of the county is classified in the minimal food insecurity phase.

Table 1: Food security trends

INDICATOR	CURRENT SITUATION	PREVIOUS SEASON
Household food stocks	10,300 90-kg bags	160,120 90-kg bags
Livestock body condition		
-Ranching livelihood zone	Poor to fair	Good
-Mixed farming livelihood zone	Good	Good
-Marginal mixed farming livelihood zone	Good	Fair to good
-Cash cropping/dairy livelihood zone	Good	Good
Household water consumption(litres per person per day)	13.5	12
-Ranching livelihood zone	10	10
-Mixed farming livelihood zone	12	15
-Marginal mixed farming livelihood zone	15	10
-Cash cropping/dairy livelihood zone	17	20
Terms of trade (kg/goat)	68	66
Coping strategy index	18 (May 2016)	16 (May 2015)
Food consumption score	(May 2016) Poor - 6.3 percent, Borderline - 26.2 percent Acceptable- 67.4percent	(May 2015) Poor 11.8 percent Borderline 30.3 percent Acceptable 58 percent
Children at risk of malnutrition	4.9 percent	4.8 percent

2.3 Rainfall Performance

There onset of the season was late in the first dekad of April compared to the third dekad of March normally, although there was a false start in the first dekad of March. The spatial distribution of the rainfall was uneven while the temporal distribution was good. The larger portion of the county received between 50 – 75 percent of normal rainfall with the south and southwestern parts receiving 75 – 90 percent. Parts of Magarini received below 50 percent of the normal rainfall. The cessation was early in the second dekad of May compared with the first dekad of July normally (Figure 2).

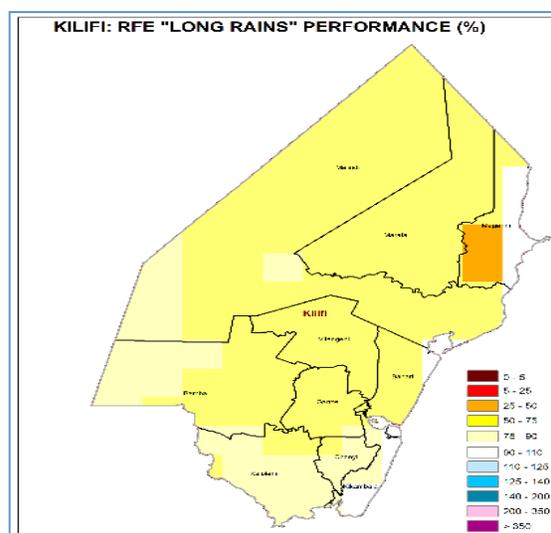


Figure 2: Long rains performance

3.0 IMPACT OF RAINFALL PERFORMANCE, SHOCKS AND HAZARDS

3.1 Crop Production

The county is long-rains dependent for crop production with the season contributing approximately 60 percent of the total annual production. The mixed farming livelihood zone crop production depends mainly on the short rains season contributing the remaining 40 percent of crop production. In the cash crop/dairy livelihood zone, coconuts, cashew nuts and cassava are the main sources of income contributing 30, 25 and 15 percent of cash income respectively while maize and cassava contribute 40 and 20 percent respectively to food. In the mixed farming livelihood zone, maize contributes 25 percent to cash income and 40 percent to food while cassava contributes 18 and 20 percent of cash income and food respectively. In the marginal mixed farming zone, cashew nuts and cassava are the main sources of income and contributes 50 and 30 percent to cash respectively. Maize and cassava contributes 70 percent and 30 percent to food respectively.

Rain-fed crop production

The main crops grown under rain-fed crop production are maize, cowpeas and cassava. Magarini sub-county accounts for about 30 percent of the total area under maize. Cassava is mainly grown in Kaloleni and Magarini sub-counties covering an area of 4,615 and 3,060 hectares respectively. Cowpeas are mainly grown in Magarini and Kilifi south sub-counties. Green grams are also important food crops grown across the county in an area of about 2,930 hectares. Cash crops such as coconuts and cashew-nuts also form part of the crops grown under rain-fed production. The area planted under maize, cowpeas and cassava was about 50, 60 and 40 percent above the LTA mainly attributed to provision of subsidized tractor services for land preparation and distribution of free seeds to farmers. The poor rainfall performance however, led to a reduction in yields and overall crop production. Projected maize production is 30 percent of LTA and that of cowpeas is 20 percent of LTA (Table 2). Yields of cassava, however, increased with the estimated production expected to increase by 50 percent compared to LTA mainly attributed to above-normal previous long and short rains in 2015. Harvesting of maize is expected to start in early August.

Table 2: Rain-fed crop production

Crop	Area planted during 2016 Long rains season (Ha)	Long Term Average area planted during the Long rains season (Ha)	2016 Long rains season production (90 kg bags/MT) Projected/Actual	Long Term Average production during the Long rains season (90 kg bags/MT)
Maize	63,469	41,832	188,121	615,883
Cowpeas	7,042	4,394	15,339	73,794
Cassava	7,474	5,261	186,850 MT	125,220 MT

Irrigated crop production

Irrigation is carried out in Uhai Marikano and Zia Rawari irrigation schemes in Magarini, Jilore in Malindi, Mudachi and Magudho in Ganze. The main crops grown under irrigation are tomatoes, bananas and amaranthus. The area under bananas increased (Table 3) as the crop is gaining importance in the county.

Table 3: Irrigated crops

Crop	Area planted during the 2016 Long rains season (ha)	Short Term Average (3 years) area planted during Long rains season (ha)	2016 Long rains season production kg Projected/actual	Short Term Average (3 years) production during 2016 Long rains season kg
Tomato	115	130	1,140,000	1,300,000
Banana	60	24	620,000	480,000
Amaranthus	70	108	350,000	525,000

Maize stocks

Maize stocks held by households were 25 percent of the LTA mainly attributed to below normal production during the short rains which would have availed some carry-over stocks (Table 4). Additionally, normally there would be some early harvests in late July contributing to household stocks but planting delayed in most of the maize-growing areas due to the late onset of the long rains and harvesting is expected to start in mid-August. The low household stocks also led to about 45 percent increase in stocks held by traders as more households became more dependent on market purchases. Households' maize stocks are expected to increase from the month of August when harvesting is expected to start. In the mixed farming livelihood zone, the expected harvests will last for about three months compared to six months normally. In the marginal mixed farming livelihood zone, stocks will last for about one month compared to three months normally.

Table 4: Available maize stocks versus long-term average

Maize stocks held by	Quantities held currently (90-kg bags)	Long Term Average (90kg bags)
House Holds	10,300	40,280
Traders	89,260	61,700
Millers	300	700
Total	99,860	103,020

3.2 Livestock production

The main livestock species kept in the county are cattle, goats, poultry and sheep. Bee keeping is slowly gaining importance in the county as a mitigation measure against climate change. Livestock contributes 75 percent of cash income in the ranching livelihood zone and 30 percent each in the marginal mixed farming and mixed farming livelihood zones. Cattle are kept for milk production and for sale to cater for significant household expenditure such as paying school fees or medical bills. Goats are rarely milked but are sold to purchase food in times of low crop production especially in the ranching livelihood zone.

Pasture and Browse

Pasture condition was poor to fair in the ranching and marginal mixed farming livelihood zones and good in the mixed farming and cash cropping/dairy livelihood zones. The pastures in the ranching livelihood zone are expected to last less than two months while in the marginal mixed farming and mixed farming livelihood zones, it is expected to last for 3 – 4 months. The browse condition was good across all livelihood zones but was tending to fair in the ranching livelihood zone. It was likely to last through to October as no regeneration is anticipated because it is not expected to rain during this period.

Livestock body condition

Livestock body condition was good across all the livelihood zones except some parts of the ranching livelihood zone in Ganze and Magarini sub-counties where the body condition of cattle was fair. Normally the body condition of all livestock species is good at this time of the year. Body condition of cattle is however, expected to deteriorate in the ranching livelihood zone as the dry spell progresses and pastures get depleted compounded by the expected increase in trekking distances. Deteriorating body condition is expected to lead to decline in prices and reduced milk production in cattle.

Tropical livestock units (TLUs)

The TLUs per household stood at four in the mixed farming livelihood zone, two in the cash cropping and dairy livelihood zone and 5 – 8 in both the ranching and marginal mixed farming livelihood zones. There has been no significant variation on the ownership pattern of livestock species as no significant deaths were reported during the period.

Milk availability and consumption

Cattle are the major sources of milk across all livelihood zones. There was a general drop in milk production and consumption in the ranching and marginal mixed farming livelihood zones compared to normal mainly attributed to water stress and increased trekking distances. Milk prices however remained within normal ranges. Due to the reduced milk availability and consumption, intake of milk by children reduced (Table 5).

Table 5: Milk production, consumption and prices

Livelihood zone	Milk Production (Litres)/Household		Milk consumption (Litres)per Household		Prices (Ksh)/Litre	
	Current	LTA	Current	LTA	Current	LTA
Ranching	<1	1-2	<1	1-2	40-45	40-45
Marginal mixed farming	1-2	2-3	1	2	40-50	40-50
Mixed farming livelihood zone	2	3	1	2	30-60	30-50
Cash cropping/dairy	4-7	5-8	2	3	60-70	60-70

Water for Livestock

The main sources of water for livestock are rivers, water pipelines, water pans and wells. In the cash crop/dairy livelihood zone and parts of mixed farming and marginal mixed farming livelihood zones where livestock are mainly dependent on pipelines, water continued to be available for livestock. In the ranching and parts of marginal mixed farming livelihood zone where livestock mainly depend on water pans, there was an increase in trekking distance due to drying up of some pans. The water available for livestock was expected to last for 1 – 2 months in the ranching and parts of the marginal mixed farming and mixed farming livelihood zones compared to the normal three months (Table 6). Livestock are watered once per day in the cash cropping and dairy, parts of the marginal mixed farming and mixed farming livelihood zones where there is no water stress. In the ranching livelihood zone, the watering interval is on alternate days.

Table 6: Trekking distances for livestock

Livelihood zone	Current distances (Km)	Normal distances (Km)	Exceptions	Expected duration to last currently	Expected to last normally
Ranching	5-15	2-7	Kayafungo in Kaloleni, Jila in Ganze	1-2months	3months
Marginal mixed farming	5-10	2-5	Kazandani in Ganze sub County	1-2 months	3months
Mixed farming	5-7	2-5	Mwahera (Dzikunze) in Ganze Sub County	1-2 months	3months
Cash cropping/dairy	1-2	1-2		6 months	6 months

Migration

Migration of livestock was observed from some parts of the ranching livelihood zone such as Bamba and Jila into Giriama Ranch mainly in search of water. Influx of livestock from Tana River County into Hawe Wanje and Shakahola in Magarini sub-county was also observed with a risk of conflicts between pastoralists from Tana River County and crop farmers. Increased livestock movement towards sources of water is expected as the dry season progresses with a consequent further deterioration of body condition and reduced productivity.

Livestock Diseases and Mortalities

No major livestock disease outbreaks were reported during the period. Some cases of Contagious Caprine Pleuro-Pneumonia (CCPP) were noted in Langobaya of Malindi sub-county. A condition similar to bloat was experienced in Magarini during the onset of the long rains claiming some twenty heads of cattle. Samples were submitted to the veterinary department's laboratory for confirmation.

3.3 Water and Sanitation

The main water sources of water for domestic use include pipelines, water pans, dams, boreholes and shallow wells. River Sabaki is a major source of water in parts of Malindi, Magarini and Ganze sub-counties. Many parts of the county are served by water pipelines and water availability was only affected in areas where these were non-existent or where break-downs were reported. Distances were longer than normal in all livelihood zones except the cash cropping and dairy one. The distance to water sources in Marereni in the mixed farming livelihood zone had increased from two kilometers normally to 10 kilometers currently as all the water pans, which were the main sources of water, had dried up. The cost of water increased from Ksh two normally to Ksh 10 – 25 currently in Vitengeni in the marginal mixed farming livelihood zone. The water pans in the area had dried up putting more pressure on piped water sources whose coverage was low. Water consumption was generally within SPHERE standards except in parts of the mixed farming and ranching livelihood zones where water consumption was below 15 litres per person per day due to drying up of water pans. In Bofu in the ranching livelihood zone, water consumption reduced from 14 litres to about four litres due to drying up of water pans which was the main source of water (Table 7).

Table 7: Distances to domestic water sources

Livelihood zone	Distance to water for domestic use (Km)		Cost of water (Kshs / 20litres)		Waiting time at source (minutes)		Water consumption per person per day (litres)		Projected duration to last (months)	Normal duration (months)
	Normal	Current	Normal	Current	Normal	Current	Normal	Current	Normal	Current
Marginal mixed farming	1.4	2.5	4	7	8	15	20	15	Continuous 1 – 2	Continuous 4 – 6
Cash cropping and dairy	1	1	3	4	8	12	20	17	Continuous (pipeline) 1.5 (water pans)	Continuous (pipeline) 6 (water pans)
Mixed farming	2	3	4	10	10	20	18	12	2	4 – 6
Ranching	2	5	0	0	10	20 -30	15	10	1.5 (water pans)	6

3.4 Markets and Trade

The main markets for livestock include Bamba, Guru Guru, Mariakani, Kanagoni and Kayafungo while those for food include Kilifi, Mtwapa, Kaloleni, Mariakani, Malindi and Gongoni. The markets were operating normally and were well provisioned with major food commodities. The most common food commodities traded in the markets included maize, maize flour, cassava, beans, green grams and cowpeas. Most of the food commodities were sourced from outside the county as farmers had minimal stocks when normally they would be sourced from farmers within the county. Cassava, coconuts and mangoes were sold from the farms in the county and enabled some households to access food and other household needs.

Maize price

The price of a kilogram of maize in July decreased from June 2016 by eight percent which may be attributed to higher stocks with traders compared to the LTA. The prices between January and July were however within the LTA but slightly higher than those of 2015 (Figure 3). Prices are expected to follow the seasonal trends but remain higher than those of 2015 attributed to the expected below – average production. Some marginal decline in prices may be experienced from Mid-August to early September when some harvests are expected from some parts of the county. Harvesting from other maize growing areas and inflows from Tanzania are expected to keep maize prices stable for the next six months.

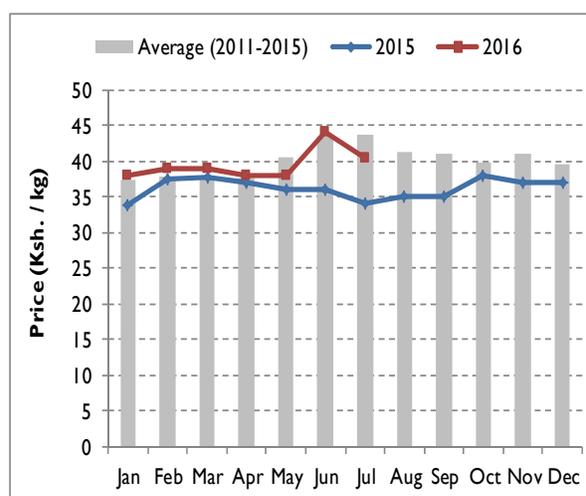


Figure 3: Maize price trends in Kilifi County

Goat prices

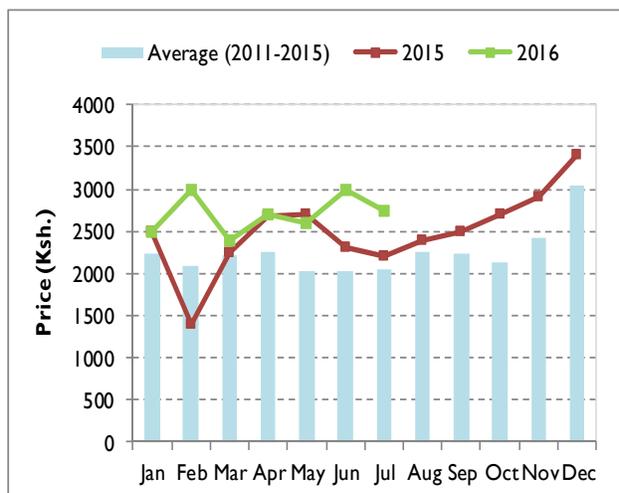


Figure 4: Goat price trends in Kilifi County

Goat prices remained above the LTA and also above those of 2015. The July prices were 35 percent above the LTA (Figure 4). Prices are expected to decrease through to October as the browse reduces in quality and quantity resulting in deterioration of body condition. Goat prices are expected to start rising from the month of November when increased browse availability from the short rains start resulting in improved body condition. Festivities in December are also expected to contribute to increased goat prices.

Terms of trade (TOT)

The TOT in July were 46 percent above the LTA mainly attributed to more favorable goat prices. The TOT are generally following the seasonal trends and are expected to improve from August onwards as a result of some decline in maize prices when harvests begin and increased prices of goats towards the end of the year. The TOT will likely remain above LTA implying that the livestock keepers in the county will be able to purchase more maize with the proceeds from the sale of a goat than normal.

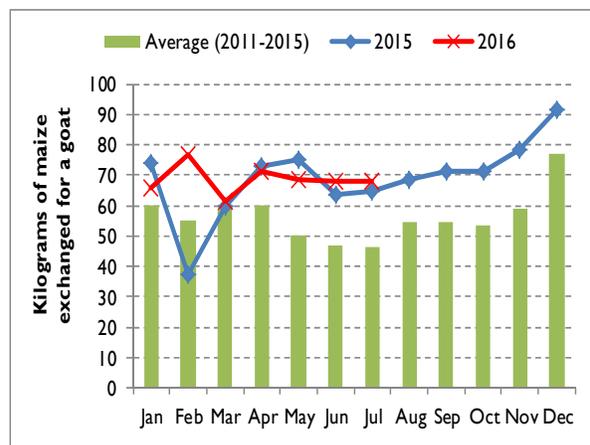


Figure 5: Terms of trade in Kilifi County

3.5 Health and Nutrition

Morbidity and mortality patterns

Upper Respiratory Tract Infections (URTI), malaria, diarrhea, skin diseases and pneumonia are the five most prevalent diseases in children under five years. URTI and malaria prevalence rates decreased by 9 percent and 28.9 percent respectively in 2016 compared to 2015 (Table 8).

Table 8: Morbidity trends in Kilifi County

Reported Morbidity cases for children under five				Reported Morbidity cases for General Population			
Disease	Jan-Jun 2015	Jan-Jun 2016	% Change	Disease	Jan-Jun 2015	Jan-Jun 2016	% Change
Upper Respiratory Tract infection (URTI)	107,506	98,645	-9.0%	URTI	148,488	124,639	-19.1%
Malaria	34,870	27,063	-28.9%	Malaria	94,672	77,320	-22.4%
Diarrhea	32,950	29,745	-10.8%	Skin diseases	55,655	48,862	-13.9%
Skin diseases	28,235	28,018	-0.8%	Urinary Tract Infections(UTI)	25,339	27948	+9.3%
Pneumonia	12,412	11890	-4.4%	Diarrhea	19,881	19972	+0.5%

The five most prevalent diseases for the general population were URTI, malaria, skin diseases, Urinary Tract Infections (UTI) and diarrhea. Cases of URTI, malaria and skin diseases decreased by 19.1, 22.4 and 13.9 percent respectively while UTI caseloads increased by 9 percent (Table 8). The decrease in the prevalence of malaria for both children under five years and the general population is attributable to reported increased usage of insecticide treated nets in the households. An outbreak of chickenpox was reported in Rabai and Vitengeni areas and is under control.

Immunization and Vitamin A supplementation

Vitamin A coverage for children 6-59 months for the period between January and June 2016 was 23 percent compared to 36 percent during the same period in 2015. The coverage remained below the national target of 80 percent mainly because children in the one year and above age bracket stop attending child welfare clinics after completion of the routine vaccination. There are also inconsistent and reduced outreach services due to funding constraints. The percentage of fully immunized children between January and June 2016 was 72 percent compared to 81 percent during the same period in 2015 also attributed to reduced and/or inconsistent outreach services.

Nutrition Status and Dietary Diversity

The percentage of children at risk of malnutrition between June and July 2016 as measured by MUAC<135mm remained relatively stable. The current proportion at risk is above that recorded in 2015 at a similar time and above the LTA by six percent (Figure 6). The percentage of children at risk also reduced from the month of April which may be attributed to increased milk availability and although it is expected remain above the LTA especially in Ganze

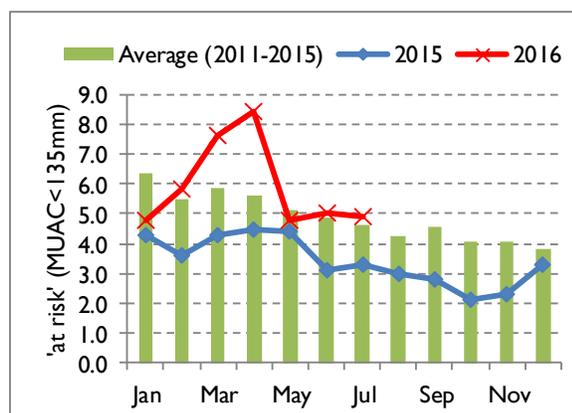


Figure 6: Percentage of children at risk of Malnutrition

to

and Magarini sub-counties which were more severely affected by the poor rainfall compounded by high poverty levels. The ranching livelihood zone and the marginal mixed farming livelihood zones had the highest percentages of children at risk.

Similarly, the percentage of children under five years who are underweight from January to June 2016 was higher than that reported during the same period in 2015 implying a worse nutritional status compared to last year (Figure 7). The number of meals consumed was 1 – 2 meals per day in the ranching and parts of the marginal mixed farming livelihood zones compared to the normal 2 – 3 meals per day. The

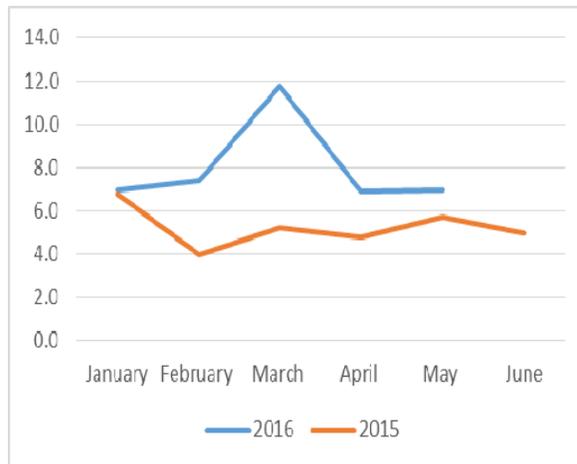


Figure 7: Trends in percentage of underweight children

number of meals per day remained normal at three meals in most parts of the mixed farming and cash cropping and dairy livelihood zones.

Food consumption score

The percentage of households with acceptable food consumption increased from 58 percent in May, 2015 to 67 percent in May, 2016 (Figure 8). The implication was that the number of households who were consuming at least a staple and vegetables daily, complemented by a frequent consumption of pulses and oil, had increased compared to a similar time last year.

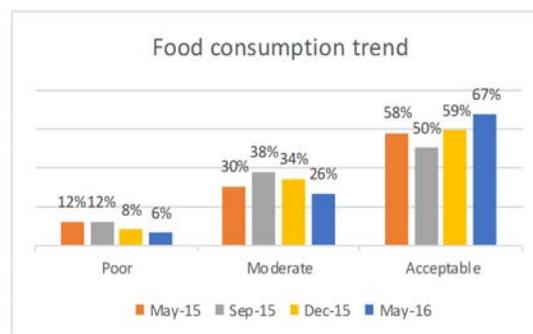


Figure 8: Food consumption scores

3.6 Coping Strategies Index

The CSI generally remained stable and was 18 in May 2016 compared to 16 in May 2015 with most households applying insurance coping strategies to meet food consumption gaps. The proportion of households employing various consumption coping strategies were 44.4 percent that were relying on less preferred and/or less expensive food, 55.6 percent borrowing food or relying on help from friends and relatives and 64.4 percent reducing the number of meals eaten per day. Others included 60.3 percent who reduced their portion sizes and 50.3 percent who reduced the quantity of food consumed by adults to ensure that children had enough to eat.

3.7 Sub-county ranking

Table 9: Sub-county food security ranking

RANK	SUB COUNTY	FACTORS AFFECTING FOOD SECURITY	ALTERNATIVE LIVELIHOOD STRATEGIES
1	GANZE	<ul style="list-style-type: none"> • Crop failure • Water scarcity • Poor livestock body condition • Livestock migration • Depleted to poor pastures • Increased trekking distances 	<ul style="list-style-type: none"> • Mudachi Irrigation scheme (100 acres) • Cassava as alternative crop • Cashew nuts • Charcoal burning
2	MAGARINI	<ul style="list-style-type: none"> • Water scarcity • Crop failure • Poor to depleted pastures • Poor to fair livestock body condition • In-migration of livestock from Tana river possibility of conflicts • Long trekking distances • Lack of dry season grazing areas 	<ul style="list-style-type: none"> • Employment opportunities • Irrigation • Fishing opportunities • Charcoal burning
3	MALINDI	<ul style="list-style-type: none"> • Crop failure (80%) • Livestock diseases • Fish 	<ul style="list-style-type: none"> • Tourist industry • Fishing
4	KALOLENI	<ul style="list-style-type: none"> • Crop failure • Water scarcity 	<ul style="list-style-type: none"> • Cash crops-Coconuts, cashew • Employment opportunities
5	KILIFI NORTH	<ul style="list-style-type: none"> • Poor crop performance 	<ul style="list-style-type: none"> • Cash crops • Cassava, Fishing opportunities, employment opportunities(quarries)
6	KILIFI SOUTH	<ul style="list-style-type: none"> • Poor crop performance 	<ul style="list-style-type: none"> • Employment opportunities • Cash crops (sisal, coconuts, cashew nuts)
7	RABAI	<ul style="list-style-type: none"> • Poor crop performance 	<ul style="list-style-type: none"> • Cash crops (coconut) • Employment opportunities from industries and Mombasa

4.0 FOOD SECURITY PROGNOSIS

4.1 Prognosis Assumptions

- There is a 55 - 60 percent chance of a *La Niña* event affecting the October to December short rains that will likely result in below-normal rainfall
- Pastures will remain in poor condition up to November when the onset of the short rains is expected.
- The short rains are expected to rejuvenate pastures and restore livestock body condition from November onwards.
- The short rains will sustain and lead to production of some short season crops which will be harvested from January into February.
- Maize prices are expected to remain generally stable through to January due to harvesting in the county in August, inflows from Tanzania and up country.
- Most households will continue relying on markets due to reduced crop production.
- Livestock prices are expected to decline until November when the short rains are expected to rejuvenate pasture which will likely result in improved body condition hence better prices.
- The slump in the tourist industry and fishing will continue affecting the livelihoods of households along the coastal strip.

4.2 Food Security Outcomes

Food Security Outcomes (August to October, 2016)

In the ranching and marginal mixed farming livelihood zones, further deterioration in food security situation is expected as the dry spell progresses. Water stress will be expected to increase further as more open water sources get depleted especially in areas with no piped water. There is likely to be further reduction in food consumption and an increase in frequency and severity in the employment of insurance coping mechanisms. Malnutrition in children aged below five years is also likely to increase. Due to influx of livestock from Tana River County, there will be increased risk of conflict between the crop farmers and incoming pastoralists.

In the mixed farming and cash cropping and dairy livelihood zones, the expected harvests from mid-August is expected to lead to increased food availability and consumption. Further to this, the food security situation will be stabilized through availability of other cash-crops and alternative income sources such as employment opportunities along the coast and industries. Nutritional status of children is expected to remain stable over the period as milk is expected to be available through increased availability of maize stovers for feeding of livestock.

Food Security Outcomes (November 2016 to January 2017)

In the ranching and marginal mixed farming livelihood zones, the onset of the short rains will support regeneration of rangeland resources and improve livestock body condition, milk availability and consumption. The TOT is expected to improve with the expected stability in maize prices and improved livestock prices. Food consumption and nutrition status is therefore expected to improve over the period. Households will likely return to normal livelihood activities and there is likely to be reduced application of severe coping mechanisms. In the mixed farming and cash cropping and dairy livelihood zone, the food security situation is expected to remain stable as there will be availability of short rains season crops' harvests from January. The short

rains will improve the pastures and browse and lead to further increase in milk availability and consumption. Other crops such as coconuts will continue cushioning households from severe food consumption gaps and stabilize food access.

5.0 CONCLUSION AND RECOMMENDATIONS

5.1 Conclusion

The food security situation has deteriorated in most parts of the county more specifically in the ranching and marginal mixed farming livelihood zones. In the affected areas, the situation is expected to continue deteriorating up to the onset of the short rains in October when pastures are expected to recover. The short rains are expected to be below normal and the situation will need to be monitored for its impact on pastures and browse. Some households within the ranching and marginal mixed livelihood zones may need food assistance between August and the month of November to help them cope with the current food consumption gaps. In the other parts of the marginal mixed and mixed farming livelihood zones, the food security situation is generally stable and is expected to remain so up to January 2016. The expected harvests from the long rains and early harvests from short season crops later in the year and early 2017 are expected to cushion the households from any food consumption gaps. Other existing livelihood strategies such as the sale of cash crops and employment opportunities are expected to cushion households from food availability gaps.

Meanwhile, the following factors will need to be monitored as the season progresses; performance of the 2016 short rains and its impact on pastures and water sources, trends in prices of main food commodities, market operations in terms of stability and food supplies and livestock disease outbreaks. Others include the possible escalation of conflicts between pastoralists from Tana River County and crop farmers and the risk of increased malnutrition for children aged below five years.

5.2 Summary of Recommendations

Immediate/Short term

Agriculture Sector

- Distribution of seeds and fertilizers for short rains

Water

- Water trucking in Tsangatsini, Marafa, Majengo, Bungale
- Water pipeline extensions, de-silting and storage tanks

Health and Nutrition

- Reintroduction of SFP for moderately malnourished persons
- Reintroduction and/or intensification of outreach services

Medium and Long term

Agriculture Sector

- Development of irrigation schemes-Masindeni, Balagha
- Expansion of tractor subsidy service

Livestock sector

- Livestock development programs to improve production (goats, chicken, cattle, rabbits)
- Construction of water pans and drilling of boreholes for livestock water provision

Water Sector

- Extension of water pipelines
- Drilling of boreholes- Ganze, Magarini, Kaloleni
- Expansion of the existing water reticulation system – Kilifi

6.0 ANNEXES

6.1 On-going Interventions

Table 10: On-going non-food interventions

Sub County	Intervention	Location/ Ward	No. of beneficiaries	Implementers	Impacts in terms of food security	Cost	Time Frame
AGRICULTURE							
All sub counties	Distribution of cassava cuttings and seeds	All wards	1075 HH	Department of Agriculture	To increase food production	33M	March-June 2016
Ganze, Magarini	Development of irrigation schemes	Burangi, Mudachi Magudho	900HH	Department of Agriculture	To increase food production	17M	March-July 2016
Ganze	Construction of water pans for irrigation(3)	Bamba	1500HH	Department of Agriculture	To increase food production	21M	March-July 2016
Countywide	Distribution of fertilizers	Countywide	1000HH	Department of Agriculture	To increase food production	10M	March-July 2016
LIVESTOCK							
Malindi	Provision of Dairy goats Breeding Bucks and does	Jilore, Kakuyuni, Ganda	200	CGOK	Improve milk and meat from goats	-	2015/2016
Malindi	Provision of beehives	Jilore, Kakuyuni, Ganda	200	CGOK	Increase honey availability		2015/2016
Malindi	Provision of Nappier cuttings	Jilore, Kakuyuni, Ganda, Shella, Malindi	100	CGOK	Improve fodder quality and availability		2015/2016
Ganze	Purchase of breeding boran bulls	Ganze		Kilifi county government			Awaiting delivery
WATER SECTOR							
Countywide	52 Water pipeline extensions,	All wards	141,000	County Government, World Vision,	Increased access to water	584 M	3 months – 1 year

	desilting and storage tanks			WORLD BANK,			
Kaloleni, Magarini, Ganze	Water trucking	Tsangatsini, Marafa, Bamba, Magarini	70,000	County Government	Increased access to water	6 M	4 MONTHS

6.2 Proposed Interventions

Table 11: Proposed population in need of food assistance:

Sub County	Population	Poverty level	Poor population	Approx.% in need of food assistance
Ganze	132,688	82.5%	109,468	25-30
Magarini	174,337	84.5%	147,315	20-25
Kaloleni	144,727	55.1%	79,745	15-20
Malindi	170,477	50.1%	85,409	10-15
Kilifi North	212,901	54.8%	116,670	-
Kilifi South	166,408	39.2%	65,232	-
Rabai	108,197	39.1%	42,305	-
	1,109,735		646,143	-

6.3 Non-food Interventions by Sector

Table 12: Recommended Non-food Interventions

Sub County	Intervention	Location	No. of beneficiaries	Proposed Implementers	Required Resources (KShs.)	Available Resources	Time Frame
AGRICULTURE SECTOR							
Magarini and Kaloleni	Development of Irrigation Schemes	Masindeni Bungale	15,000	Department of agriculture	39m	Land	2016/2017
Countywide	Provision of certified seeds	County wide		Department of agriculture	4.8m	Land	2016/2017
County	Rehabilitation of tree crops orchards	County wide		Department of agriculture	3.5	Land	2016/2017
LIVESTOCK SECTOR							
Malindi, Kilifi North, Rabai, Magarini, Ganze	Dairy and meat goat development and promotion	Countywide	1700HH	CDLP, KCB, NSA	10M		1 YEAR
Countywide	Promotion of local poultry, bee keeping and rabbits as alternative income sources	Countywide	2280HH	County department of livestock production, ASDSP	5.3M		1YEAR

Magarini,Ganze, Kaloleni, Malindi	Construction of water pans and drilling of boreholes for livestock	Magarini,Ganze ,Kaloleni,Rabai	1200HH	CDLP, NSA	40M		6MONTHS
WATER SECTOR							
Ganze, Malindi, Rabai, Kaloleni	Development of borehole and extension of water pipelines	All wards	41,000	County Government	181M	Personnel	1YEAR
Kilifi North	7 projects expanding existing reticulation system	All wards	6000	County Government	20 M	Technical personnel	1 YEAR