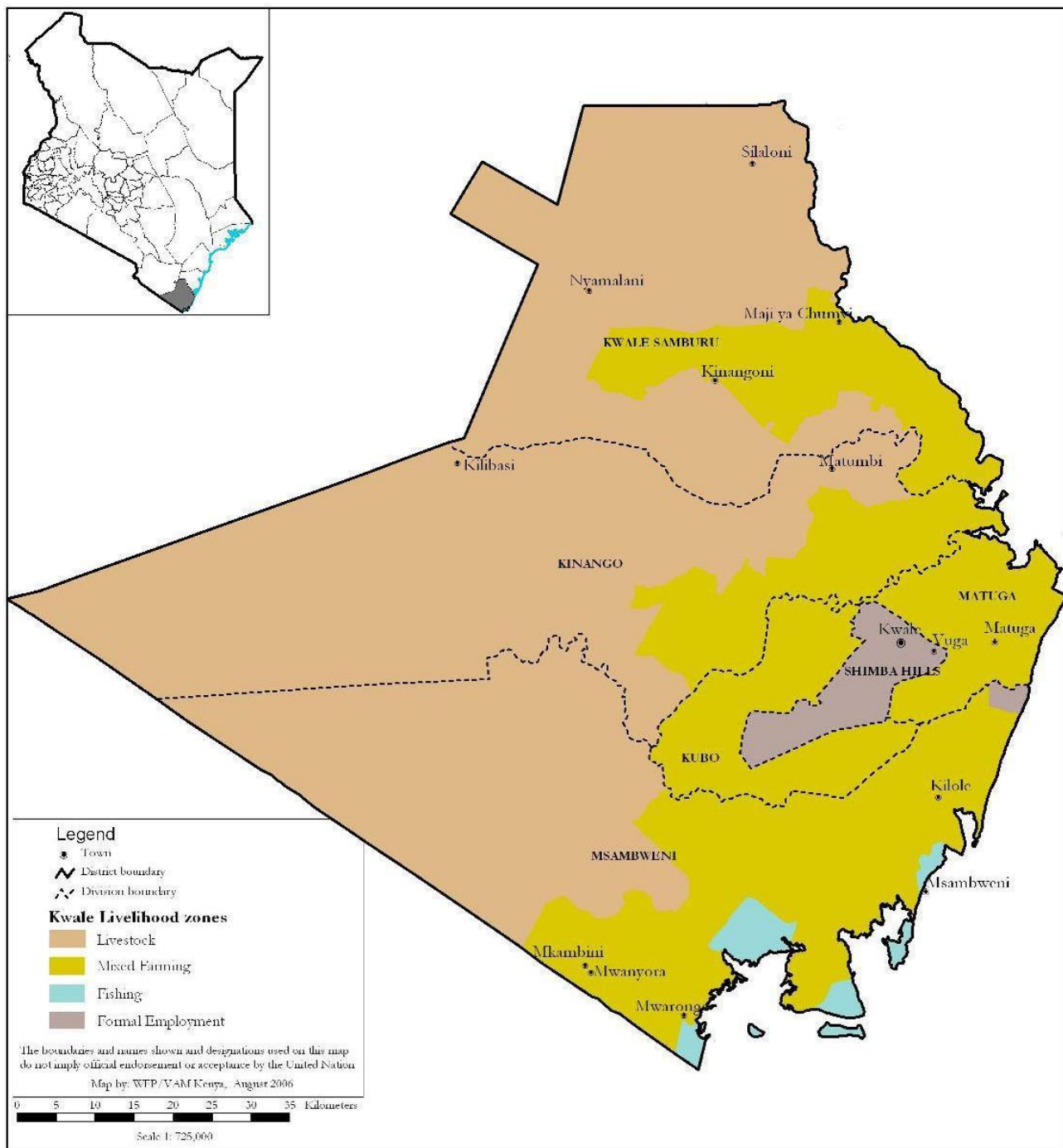


# KWALE COUNTY 2015 SHORT RAINS FOOD SECURITY ASSESSMENT REPORT



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

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## 1.0 INTRODUCTION

### 1.1 County Background

Kwale County is located in the coastal region of Kenya. It has four sub counties Matuga, Msambweni, Kinango and Lungalunga which are further fragmented into 20 wards. The county covers an area of 8,960 square kilometers and has an estimated population of 649,931 (Kenya National Bureau of Statistics census 2009). The county borders Taita Taveta County to the West, Kilifi County to the North, Mombasa to the Northeast, Indian Ocean to the East and the Republic of Tanzania to the South. The main livelihood zones are mixed farming, livestock farming and fishing (Figure 1).

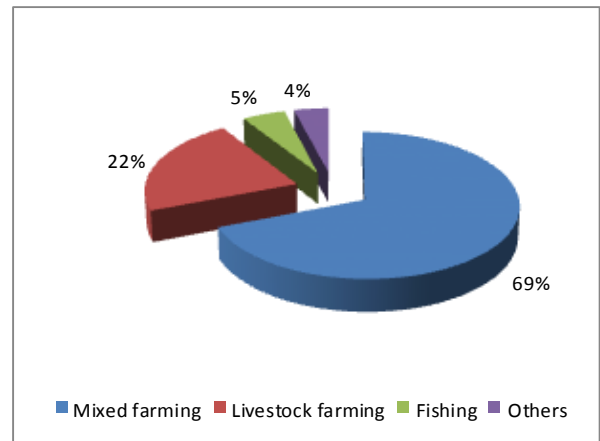


Figure 1: Population by Livelihood

### 1.2 Current Factors Affecting Food Security

The main factors affecting food security include the late onset, poor temporal distribution and early cessation of the short rains, an influx of livestock from neighboring counties,

## 2.0 COUNTY FOOD SECURITY SITUATION

### 2.1 Current Food Security Situation

Kwale County is classified as Minimal (IPC Phase 1). The body condition of sheep and goats is good across the county due to pasture and browse availability. Most households are consuming the normal 15-20 litres of water per person per day in the livestock zone and between 20 and 30 litres per person per day in the mixed farming zone. Morbidity cases have remained stable during the season except for malaria which increased by 32 percent in December 2015 attributed to conducive breeding sites for mosquitoes especially the poorly drained low lying areas and urban centres. The nutritional status has remained stable across the county and the proportion of children (6 – 59 months) at risk of malnutrition has also remained stable at 4.6 percent in January 2016 and compares favourably with the Long Term Average (LTA) of five percent. Children under five years of age are feeding between 2 – 3 meals in a day in the livestock zone. Terms of trade are favourable with households able to purchase 95 kilograms of maize with the sale of one medium-sized goat instead of the LTA of 69 kilograms of maize for short rains.

### 2.2 Food Security Trends

The county is classified as Minimal (IPC Phase 1) as was the case in February 2015 in all livelihood zones. The percentage of children at risk of malnutrition has reduced from 6.4 percent in July 2015 to 4.6 percent in January 2016. Water consumption per person per day has remained between 15-20 litres in the livestock zone and between 20 – 30 litres in the mixed farming zone. Milk prices have increased to Ksh. 80 per litre compared with Ksh. 50 per litre in July 2015. The average price of one kilogram of maize is Ksh. 37 compared with Ksh. 40 in July 2015. Terms of trade have slightly improved with households able to access 95 kg of maize from the sale of a goat compared with 60 Kgs in July 2015.

### 2.3 Rainfall Performance

The onset of the short rains was late with rainfall experienced in the third dekad (10 day period) of October across the county instead of the normal 1<sup>st</sup> dekad of October. However, some parts of Kubo in the mixed farming zone received timely rainfall in the 1<sup>st</sup> dekad of October. The temporal distribution was poor, with most parts experiencing high rainfall intensity in the second dekad of November followed by a dry spell of one month, especially in Kinango Sub-county. Excessive rainfall was experienced in Vanga ward of Lunga Lunga Sub-County in the last dekad of December which caused flooding and human displacement. Spatial distribution was uneven with most parts of the county receiving between 90 and 120 percent of normal rainfall. The rains ceased earlier than usual in the 3rd dekad of December in most parts of the county except in Ndavaya and Vanga parts of Lunga Lunga where the rains ended in the second dekad of December.

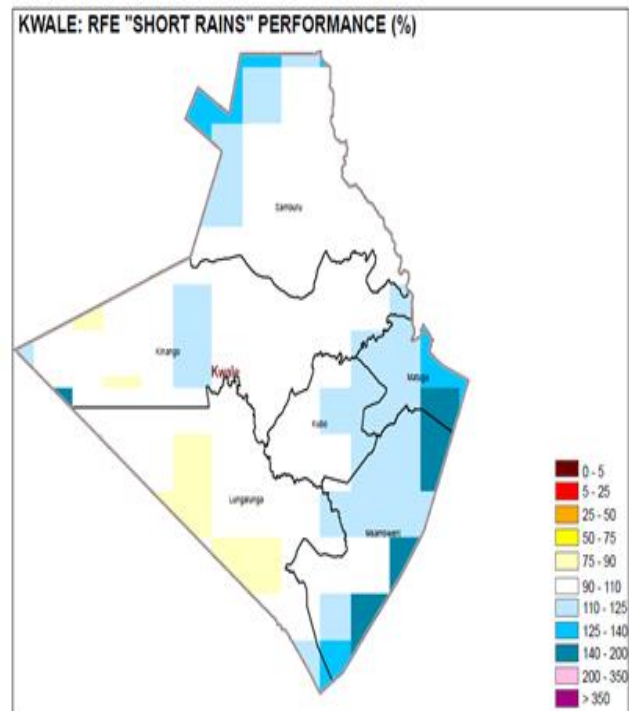


Figure 2. Rainfall performance in Kwale County

### 2.4 Current Shock and Hazards

Other shocks and hazards contributing to food insecurity in the county include endemic livestock diseases which have continued to reduce livestock productivity, and an influx of livestock into Chengoni, Samburu and Lunga Lunga Sub-Counties. Poor hygiene and sanitation especially in Kinango exacerbate the risk of water-borne diseases.

## 3.0 IMPACT OF RAINFALL PERFORMANCE, SHOCKS AND HAZARDS

### 3.1 Crop Production

Crop production is mainly carried out in the mixed farming livelihood zones. Crop production is a significant source of food and income in the county. In the mixed farming livelihood zone, maize accounts for 50 percent and nine percent of household food basket income respectively. . In the livestock farming livelihood zone, green grams and cowpeas contribute 15 percent and 14 percent of household income respectively.

#### Rain-fed Crop Production

The three major crops grown under rain-fed agriculture in the mixed farming and livestock livelihood zone are maize, cowpeas and cassava. The area planted under maize declined by 15 percent of the Long term average (LTA) while the area planted under green grams declined by 40 percent of the LTA. Crop production declined by 32, 51 and 49 percent of the LTA for Maize, cowpeas and green gram respectively. Farmers were advised not to plant along the river beds as flooding was expected. However, no flooding occurred along the river beds in the Livestock zone and therefore

farmers lost the opportunity for a good harvest. Table 1 illustrates the current acreage and production compared with the LTA.

**Table 1: Area Planted and Production in the Rain-fed Crop farming**

Crop	Area planted during 2015 Short rains season (Ha)	Long Term Average area planted during the Short rains season (Ha)	2015 Short rains season production (90 kg bags) Actual	Long Term Average production during the Short rains season (90 kg bags)
Maize	15,200	17,931	57,400	85,000
Cowpeas	2,248	2,390	10,475	21,240
Green grams	1,851	3,095	9,475	18,520

### Irrigated Crop Production

The three main crops under irrigation are vegetables, water melons and onions. Vegetables were planted on 13 hectares, water melons on 11 hectares and onions covered 10 hectares (table 2). These crops have been put under relatively new Micro- irrigation projects supported by the County Government. Rice farming is practiced in Vanga ward in Lungalunga Sub- county with water from the Uмба River, and also on a small scale in Kizibe, Golini, Shimba Hills and Mwaluphanga sub-locations in Matuga Sub-County.

**Table 2: Area Planted and Production in the Irrigated Crop farming**

Crop	Area planted during 2015 Short rains season (Ha)	Long Term Average area planted during the Short rains season (Ha)	2015 Short rains season production (90 kg bags) Projected/Actual	Long Term Average production during the Short rains season (90 kg bags)
Vegetables	13	N/A	155.5	50
Water melon	10.8	N/A	438.2	N/A
Onions	10.2	N/A	172.7	N/A

### Maize stocks

The maize stocks currently held by households are approximately 36 percent below the LTA (Table 3). The source of the current stocks is the carryover stocks from previous seasons and the short rains harvest. Traders have about 91 percent of the LTA stocks, most being sourced locally. A total of 3,800 bags are in the National Cereals and Produce Board (NCPB) as strategic reserve. The stocks at the household level are expected to last for three months in the mixed farming zone while no stocks are available in the livestock zone.

**Table 3: Maize stocks held in the County**

<b>Maize stocks held by</b>	<b>Quantities of maize held (90-kg bags)</b>	<b>Long Term Average quantities held (90-kg bags) at similar time of the year</b>
<b>Households</b>	156,407	245,296
<b>Traders</b>	72,092	79,350
<b>Millers</b>	0	0
<b>NCPB</b>	3,800	3,800
<b>Total</b>	<b>232,299</b>	<b>328,446</b>

### **3.2 Livestock Production**

The main livestock species kept in the county are cattle, sheep and goats, and poultry. Livestock productions contribute 70 percent of the cash income in the Livestock farming zone compared with 50 percent in the Mixed farming zone.

#### **3.2.1 Livestock Body Condition**

##### **Livestock Productivity**

The body condition for cattle goats and sheep is good in the mixed farming zone. In the livestock zone, the body condition of goats and sheep is good while that of cattle ranges from good to fair. Body condition is normal for this time of the year, attributed to fair to good pasture regeneration and water availability. The body condition of cattle is expected to deteriorate after one month, especially in the livestock zone. However, the body condition of cattle, goats and sheep in mixed farming zones is expected to remain good over the next two months.

#### **3.2.2 Forage Condition**

##### **Pasture and Browse**

The condition of pasture and browse is good and fair in mixed farming and livestock farming zones respectively. The pasture condition is likely to deteriorate after early cessation of the rains. The inward migration of livestock from Tanzania and Tana River County also exert pressure to the available pastures and browses in the county. The forage situation may last for two months in the mixed farming zone and one month in the livestock farming zone.

#### **3.2.3 Birth Rates**

The birth rate is normal for cattle and above-normal for goats and sheep in both the livestock and mixed farming zones. The deterioration of pasture and browse over the next three months will negatively affect the livestock birth rates

##### **Milk availability and consumption**

Households were found to be getting an average of 1.5 litres per day in the livestock zone while those who keep dairy cattle in the mixed farming zone were getting 8-10 litres per day which is normal at this time of the year. Average milk consumption per household was found to normal for this season. Consumption was one litre in the livestock zone compared with two litres in the mixed farming zone..

The milk price was Ksh. 80 per litre compared with the LTA price of Ksh. 70 across all the livelihood zones.

## **Gender in Livestock sector**

Men in the livestock livelihood zone are in charge of grazing cattle while women are in charge of milking and marketing of milk. Men make decisions about the sale of the large stock or when a large number of the small stock is being sold because it is considered that a major asset is leaving the household. Women are allowed to make decisions on small stock and poultry. This is attributed to the fact Sale of livestock is mainly done when food stocks are very low or for payment of school fees.

## **Tropical Livestock Unit (TLU)**

The average TLU per household is two in the mixed farming zone and five in the livestock farming zone which is within the normal range for both livelihood zones. Most households have 5 - 10 goats. The average livestock holding in the livestock zone is two TLU for low-income earners while the middle-income is 10 - 20 TLU. In the mixed farming zone the range is two TLU for low-income households and five TLU for middle-income households. Most households hold a minimum of 20 goats.

## **Water for Livestock**

The main sources of water for livestock are boreholes and water pans which are the normal sources at this time of the year. The return trekking distances between water points and pasture have remained stable at 2 – 4 kilometres in the mixed farming zone. However, distances have increased from LTA of 4 – 8 kilometres to 5 – 10 kilometres in the livestock farming zone. The watering frequency is once per day in the mixed farming zone compared with once every two days in the livestock zone. Available water may last for one month in the pastoral zone and three months in the mixed farming zone.

## **Migrations, Livestock Diseases and Mortality**

There were reported cases of inward migration of livestock from Tanzania by the Maasai in areas of Godo and Kilimangodo. Herders from Somali and Boran were also reported to be seen grazing along the Kisol farms all the length from Msambweni, Ramisi ,Kanana, Kidimu, Shimoni and Majoreni. Herds of cattle also moved into the Samburu/Chengoni area from Tana River and North Eastern part of the county. The migration along the border by the Maasai is mainly due to seasonal changes but close inter-relationship between the Kenya Maasai and Tanzania Maasai makes movement across the border inevitable. . For the Samburu Chengoni, the migration was mainly in search of pasture and closeness to slaughter houses. Immigration could have contributed to livestock diseases within the county. There were cases of Foot and Mouth Disease (FMD), CBPP and CCPP outbreak reported in parts of Makobe in Matuga Sub-County and Magombani in Lunga Lunga Sub-County.

## **3.3 Water and Sanitation**

### **Major water sources**

The main sources of domestic water are boreholes, water pans, dams, shallow wells, piped water, earth dams, springs, rivers and rock catchments. Water pans and dams are the dominant sources of water in the livestock farming livelihood zone. Water pipelines are more common in Matuga and Kinango Sub-Counties where households are able to access water kiosks. Open water sources were recharged up to 80 percent of their capacity following the high quantity of rainfall received during the short rains season. Most water pans and dams in both livelihood zones currently have water and may last for the next two to three months.

### Distance to water sources

The average return distances to domestic water sources in the mixed farming zone range from 1 – 2kilometers while in the livestock farming zone they range from 1 – 3 Kilometres. Distances are normal at this time of the year and are expected to remain within normal ranges until the next rainy season.

### Waiting time at the source

Waiting time at the water source across all livelihood zones is within the normal range of between 10 – 30 minutes. Most sources have a separate collection point for livestock and people thus no queuing.

### Cost of Water

Most households in the rural areas rely on open water sources such as shallow wells, water pans, rivers and springs hence no cost is incurred. However, households relying on water kiosks in the mixed farming zone are paying an average of Ksh. 2 – 5while in the livestock zone the average cost is five shillings per 20 litre jerrycan. In a few areas of Msambweni and Lunga Lunga, vendors are selling water for between Ksh. 10 – 20 per 20 litre jerrycan.

### Water Consumption

The average water consumption in the mixed farming zone ranges from 20 – 30 litres per person per day and from 15 – 20 litres per person per day in the livestock zone. The current consumption level is normal at this period of the year as most sources are still operational. Consumption levels are expected to decline in the livestock zone after one month especially in areas where in-migration of livestock is expected.

### Sanitation and Hygiene

Latrine coverage in the county stands at 71 percent. Matuga and Msamweni have over 70 percent coverage while Kinango and Lunga Lunga have coverage of less than 50 percent. Low latrine coverage is attributed to the loose soil condition, which leads to latrine collapsing during the rainy season. Contamination of water sources in the county is prevalent due to open defecation especially in most parts of Kinango and Lunga Lunga. In a few cases, households relying on open water sources in the Livestock farming zone don't have a separate water collection points for livestock thereby contaminating domestic water sources. Water treatment by households in most parts of the county remains below 20 percent. The Poor hygiene and sanitation practices may be linked to the high incidence of waterborne diseases across all livelihood zones including typhoid, diarrhoea and dysentery.

## 3.4 Markets and Trade

### Market operations

The major markets in the county include Samburu, Kinango, Vigurungani, Mwakijembe, Taru and Mwangulu. Markets were functioning normally in all livelihood zones with households accessing main food crops and livestock products. The three main foods sold in the markets were

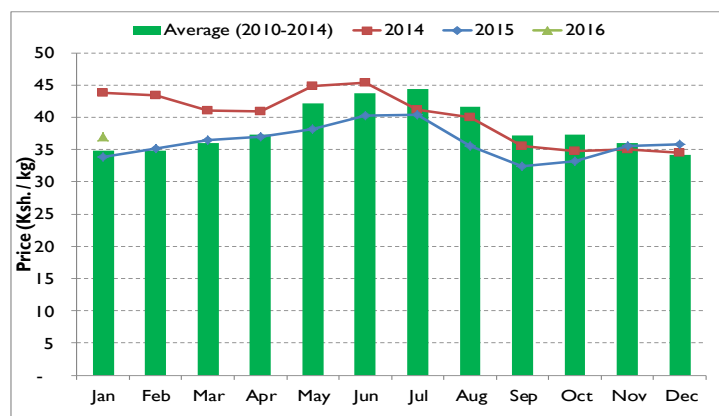


Figure 4: Trend of Average Maize Prices in the County



maize, potatoes and vegetables. The main source of maize supply was local production which is expected to continue until April. Access to the major markets in the livestock livelihood zone was favourable as some of the markets such as Mwangulu and Mwakijembe have been rehabilitated. Other important markets are Ndavaya, Mkangombe and Samburu which feed the major markets. Supplies of dairy products was mainly from traders and livestock farmers.

### Maize price

The average maize price in the county is Ksh. 37 per kilograms, which is 6 percent above the long term average of Ksh. 35 per kilogram (Figure 4). The average price of maize in the mixed farming livelihood zone ranges from Ksh. 30 – 35 per kg while in the livestock zone the average is Ksh. 40 per kilogram. Supply is expected to remain stable and hence no price increase is expected until April when households stocks are expected to get depleted.

### Goat price

The average market price for a medium-sized goat was Ksh. 3,525 approximately 46 percent above the five-year average of Ksh. 2,422 (Figure 5). There was no major price variation across the livelihood zones. Goat prices are expected to remain stable as body condition is generally good in all livelihood zones and forage is available.

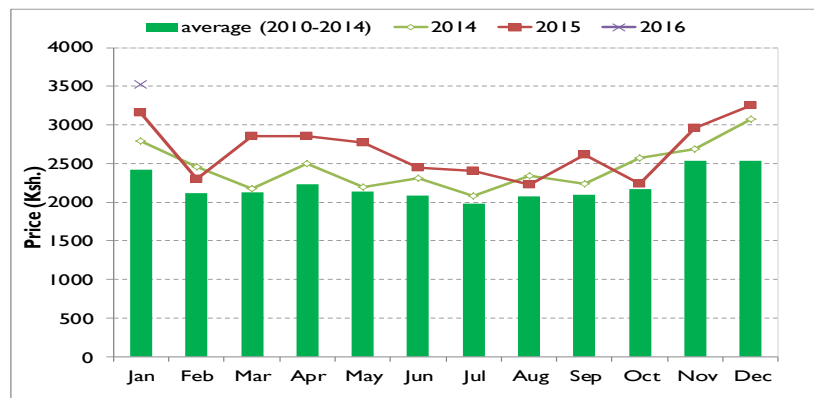


Figure 5: Trend of Average Goat Prices in the

### Terms of trade

Households were able to purchase 95 kilograms of maize with the sale of one medium-sized goat. Normally, households would access 69 kilograms with the sale of a goat (Figure 6). Terms of Trade are anticipated to decrease from April when maize prices are expected to rise.

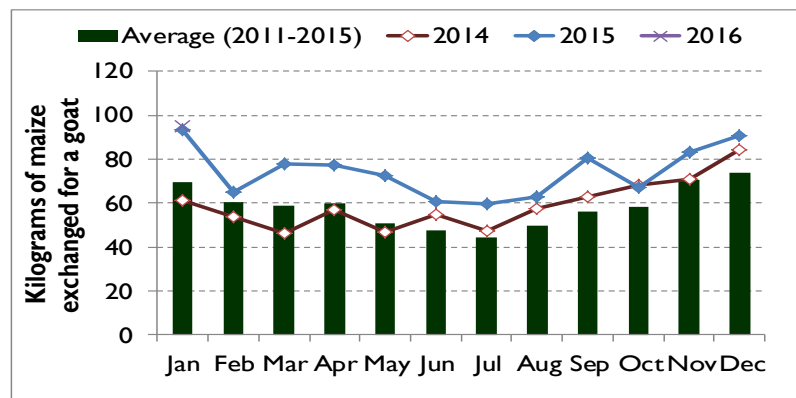


Figure 6. Terms of trade for Kwale County

## 3.5 Health and Nutrition

### Morbidity and Mortality Patterns

The five most common diseases among under-fives and the general population are upper respiratory tract infections (URTIs), malaria, diarrhoea and pneumonia and skin diseases.

The most common diseases among the under-fives and the general population remained stable during the season. However, cases of malaria among the under-fives increased in December by about 32 percent compared with November 2015. The Cases of diarrhoea reported could be attributed to poor hygiene and sanitation practices.

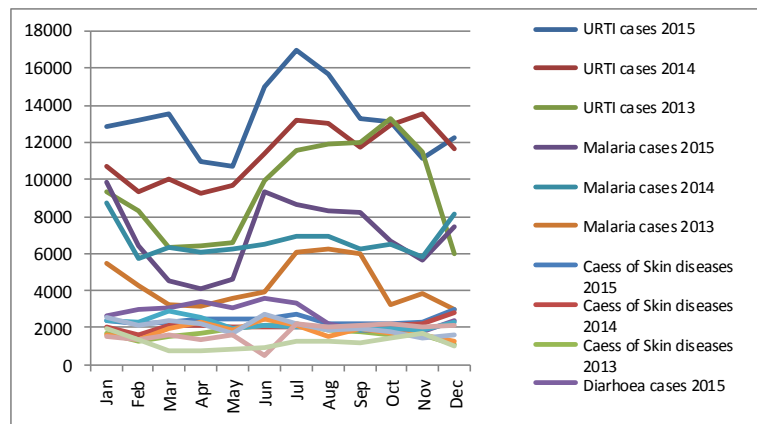


Figure 7: Under Fives Morbidity Trends

### Immunization and Vitamin A supplementation

Immunization coverage for the fully immunized children is 81 percent slightly above the national target of 80 percent. Vitamin A supplementation for children 6 – 11 months from July – December 2015 improved to 53 percent compared with 44 percent during the same period in 2014. However, Vitamin A supplementation for children between 12 – 59 months reduced to 14 percent compared to 22 percent reported at the same period in 2014. Decrease in Vitamin A coverage for children in this cohort was attributed to mothers not attending child welfare clinics and poor documentation.

### Nutrition Status and Dietary Diversity

The proportion of children 6 – 59 months at risk of malnutrition in January 2016 remained stable at 4.6 percent, slightly below the LTA of 5 percent (Figure 8). Most households in the mixed farming livelihood zone are consuming an average of the normal 2 – 3 meals in a day and similarly most households in the livestock farming zone are consuming the normal two meals in a day. Meals comprise of tea, ugali, potatoes, beans and fish. The mixed farming zone also has access to vegetables. Children Under-five years are fed 4 – 5 times in the mixed farming zone and 2 – 3 times a day in the livestock farming zone. In December 2015, 59 and 34 percent of the population had adequate and borderline food consumption score (FCS) respectively. FCS has stabilized compared with September 2015 when 51 and 38 percent of the population had adequate and borderline FCS respectively.

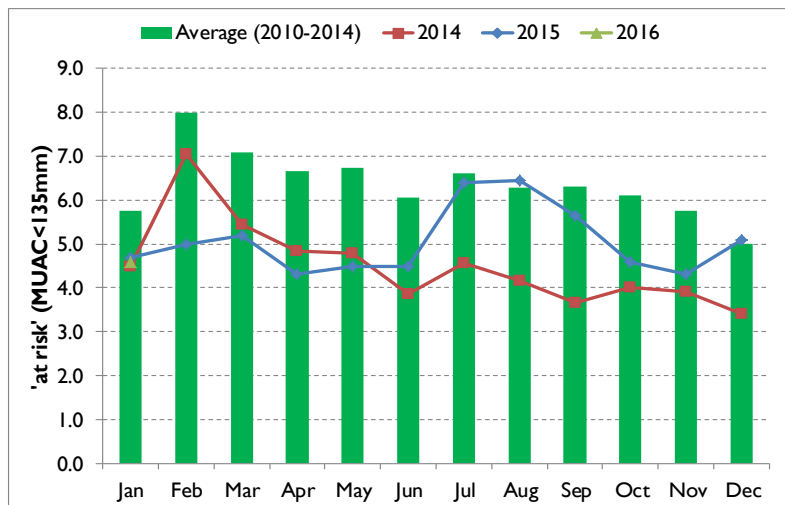


Figure 8: Percentage of Children at Risk of Malnutrition

Women are responsible for child care practices in both mixed farming and livestock farming zones. Most mothers in the mixed farming zone reported to practise exclusive breastfeeding for six months while mothers in the livestock farming zone breastfeed exclusively up to two months and children are introduced to porridge. Most mothers continue to breastfeed up to two years of age..

The trend of children admitted in the Supplementary Feeding Programme (SFP) and Out-patient Therapeutic Programme (OTP) remained stable within this assessment period. However stock outs for SFP nutrition commodities were reported in some health facilities.

### **3.6 Education**

Kwale County has a total of 432 public primary schools distributed as follows: Kinango 173, Msambweni 54, Lungalunga 107 and Matuga 98. The county has a total of 1,144 Early Childhood Development Education (ECDE) centers. 890 of these are public while 254 are private. Msambweni has the highest number of ECDE centers with 243 while Lungalunga has the least with 144. The other sub-counties are Kinango and Msambweni with 346 and 243 ECDE centers respectively.

#### **Enrolment**

There has been a noticeable increase in ECDE enrolment that can be attributed to the establishment of new ECDE centers by the County Government. Enrolment in ECDE was 79,760 compared with 72,837 enrolled in term 1 of 2015. This comprise of 40,470 boys and 39,290 girls. Total number of children enrolled in primary schools was 238,262 (119,524 boys and 118,738 girls) compared with 226,077 (116,827 boys and 109,250 girls) in term 1 of 2015. Boys enrolment has increased by 2.3 percent while girls enrolment increased by 8.6 percent. Good enrolment was attributed to increased sensitization of the importance of education, school feeding programmes, grants, scholarships, and bursary funds. Current attendance in schools is 90 percent for boys and 91 percent for girls in primary schools and 92 and 94 percent for boys and girls respectively in the ECDE centers.

#### **Retention**

A retention rate of 66 and 65 percent for girls and boys respectively has been realized at primary level and 89 percent for ECDE. The ECDE attendance rate has risen due to the employment of trained ECDE teachers by the county government, education scholarships, and the provision of porridge. Other factors that were reported to affect daily attendance in schools was unfavourable weather conditions, illnesses and family emergencies.

#### **Transition**

The average transition rate from class eight to form one was 67 percent for boys and 66 percent for girls which is below the national transitional rate of 82 percent. In Kinango sub-county the transition rate from primary to secondary school was 77 and 65 percent for boys and girls respectively, while in Matuga sub-county it was 72 and 70 percent for boys and girls respectively. The number of children admitted to class one without passing through ECDE was gradually reducing. This was because more centres had been opened by the County Government and children enrolment to ECDE had improved.

Poor performance in examinations and lack of school fees were the main causes of low transition from primary to secondary schools.

School dropout rate was high among girls than boys from class four onwards due to pregnancies and early marriage. Boys dropping out of schools turned to the provision of cheap labour such as charcoal burning, tapping of palm wine, sand harvesting and bodaboda businesses.

### School Meals Programme (SMP) data

The only school meals programme implemented in the county is the Home Grown School Meals Programme. There are 43 schools under this programme supporting 21,669 pupils (11,171 boys and 10,498 girls). SMP covers Kasemeni, Ndavaya, Kinango, Samburu, Matuga and Kubo Division. A total of two schools are involved in Matuga comprising 832 boys and 764 girls. In Kubo, the programme covers three schools with a total of 1,326 boys and 1,257 girls. The SMP has contributed to improved retention and attendance. However there is no School Meals Programme in Mwereni in Lungalunga which has a similar level of food insecurity as parts of Kinango Sub County.

### 3.7 Coping Mechanisms

The coping strategy index (CSI) for the county in December 2015 was 16 compared with 20 in September 2015. The index implies that 16 percent of the population is engaging in consumption-related coping strategies. The main coping mechanisms employed include relying on less preferred and less expensive food, borrowing food or relying on help from friends or relatives, limiting portion size at mealtimes, restricting consumption by adults in order for small children to eat and reducing the number of meals eaten in a day.

### 3.8 Ongoing Interventions

**Table 4: On-going Interventions**

Sub-County	Intervention	No. of beneficiaries	Proposed Implementers	Impacts in terms of food security	Cost in Ksh. (Millions)	Time Frame
<b>Livestock Sector</b>						
Kinango Lungalunga Msambweni	Beef cattle improvement	300 150 100	Livestock section	Increased market weight Reduced market age Improved prices for animals	21	July2013- June 2016
Lungalunga Msabweni Matuga	Dairy goats promotion	240 800 800	„	Dairy goats to sell to farmers Goat milk to sell	8	July2013- June 2016
Matuga Lungalunga	Dairy cow promotion	580 360	„	Raised income through sale of milk used to buy food	27	July2014- June2016
Kinango Lungalunga	Livestock market improvement	Over 300 1000 and Above	„	Improved sale condition lead to more sales and more income	25	July2013- June 2016

Sub-County	Intervention	No. of beneficiaries	Proposed Implementers	Impacts in terms of food security	Cost in Ksh. (Millions)	Time Frame
Lungalunga	Bee keeping promotion	360	„	Increased income from sale of honey	1	July2013- June 2016
Matuga		60				
Kinango	Meat goat improvement	8538	“	Increased quality for increased income	19	July2013- June2016
Msambweni		912				
Matuga		510				
Dairy Products Value Addition	Dairy products value addition	300	„	Increased income	3	June 2015 - July2016
<b>Agriculture Sector</b>						
Matuga, Msambweni, Kinango and Lungalunga	Capacity building on best agricultural practices.	120,000	County Government (MOAL&F) and other stakeholders	Sensitization and awareness creation		October-December 2015
Matuga, Msambweni, Kinango and Lungalunga	Promotion of micro irrigation	400	”	Increased food production hence food security		October-December 2015
Matuga, Msambweni, Kinango and Lungalunga	Promotion of mechanized agriculture	120,000	County Government	More land under agriculture hence food security		October-December 2015
<b>Education Sector</b>						
Kinango	HGSMP	17469	G.o.K	Access,retention,completion	4.9	6 months. May-july, sep-nov 2016.
Matuga	"	4179	"	"	1.5m	

Sub-County	Intervention	No. of beneficiaries	Proposed Implementers	Impacts in terms of food security	Cost in Ksh. (Millions)	Time Frame
<b>Health and Nutrition Sector</b>						
	Vitamin A Supplementation	Kwale		MOH		Continuos
	Vitamin A Supplementation	Kwale		MOH		Continuos
	Zinc Supplementation	Kwale		MOH		Continuos
	Management of Acute Malnutrition (IMAM)	Kwale		MOH		
	IYCN Interventions (EBF and Timely Intro of complementary Foods)	Kwale		MOH		Continuos
	Iron Folate Supplementation among Pregnant Women	Kwale		MOH		Continuos
	Deworming	Kwale		MOH		Continuos
	Food Fortification	Kwale		MOH		Continuos
<b>Water and Sanitation Sector</b>						
Samburu	Water pan	5,381	Coast Water	Reduction in trekking distance to water source	10	
	Water Tank	640	CDF	Improvement in hygiene	3.5	
	Water pipeline	8,764	CDF	Reduction in trekking distance to water source Reduction on waterborne diseases	3	
	Water dam	4,955	CDF	Reduction in time and distance to water source	4.5	

Sub-County	Intervention	No. of beneficiaries	Proposed Implementers	Impacts in terms of food security	Cost in Ksh. (Millions)	Time Frame
	Water pan	5,597	NDMA	Reduction in time and distance to water source	15	
	“	3,500	CGK	Reduction in time and distance to water source	2	
	”	3,500	CGK	Reduction in time and distance to water source	2	
Ndavaya	Water pan	27,816	Coast Water	Reduction in time and distance to water source	10	
	”	9,881	NWCP	Reduction in time and distance to water source	6	
	”	7,342	NWCP	Reduction in time and distance to water source	6	
	”	3,500	CGK	Reduction in time and distance to water source	2	
Kinango	Water pan	6,148	CDTF	Reduction in time and distance to water source	4.5	
		7,548	NWCP	Reduction in time and distance to water source	6	
		6148	NWCP	Reduction in time and distance to water source	6	
		6000	NWCP	Reduction in time and distance to water source	6	
	Water dam	28,164	REDCROSS	Reduction in time and distance to water source	28,164	
	Water pipeline	13,315	CDF	Reduction in time and distance to water source	13,315	
Matuga	Construction	15,000	CGK	Reduced human,	56	

Sub-County	Intervention	No. of beneficiaries	Proposed Implementers	Impacts in terms of food security	Cost in Ksh. (Millions)	Time Frame
	of Marere Mkongani pipeline			wildlife conflict		
Matuga	Drilling of Mkongani Youth Polytechnic B/hole	6,000	CGK	Reduction in time and distance to water source Water cost saving	2	
Matuga	Mtsaviani B/hole	5,000	CGK		2.5	
	SIMANYA B/HOLE	1,500	CGK		2	
	VYONGANI B/HOLE	3,500	CGK		2	
KUBO	LUKORE B/HOLE	4,500	CGK		2	
	SHIMBAHILLS WATER SUPPLY	4,500	CGK		2	
L/Lunga	Repair of main canal	160	CGK	Reliable farming	Kshs.140,000	

### 3.9 Sub-County Food Security Ranking

**Table 5: Sub-County Food Security Ranking**

Sub County	Food security rank (1-10)	Main food security threat (if any)
	Very Good (9-10)    Good (7-8)    Fair (5-6)    Poor (3-4)    Very Poor (<2)	
Msambweni	7	Low literacy levels
Matuga	6	Low literacy levels
Lunga Lunga	5	In-migration of livestock, crop failure, poor hygiene and sanitation, degenerating pasture and browse, low literacy levels
Kinango	4	In-migration of livestock, crop failure, poor hygiene and sanitation



### Ward Ranking (1 represent best in terms of food security status)

Rank	Ward	Sub County	Rank	Ward	Sub County
1	Dzombo	Lungalunga	11	Tsimba Golini	Matuga
2	Pongwe-Kikoneni	Lungalunga	12	Tiwi	Matuga
3	Kubo South	Matuga	13	Kinango	Kinango
4	Vanga	Lungalunga	14	Macknon Road	Kinango
5	Ramisi	Msambweni	15	Mwavumbo	Kinango
6	Ukunda	Msambweni	16	Puma	Kinango
7	Gombato-Bongwe	Msambweni	17	Ndavaya	Kinango
8	Mkongani	Matuga	18	Kinondo	Msambweni
9	Ngombeni Waa	Matuga	19	Samburu-Chengoni	Kinango
10	Kinondo	Msambweni	20	Mwereni	Lungalunga

## 4.0 FOOD SECURITY PROGNOSIS

### 4.1 Prognosis Assumptions

The food security prognosis for Kwale County over the next six months is based on the following assumptions

- Nutrition status is expected to remain stable in most areas.
- Livestock in-migration will be minimal and necessary measures taken to avert conflicts.
- The long rains March to May 2016 are expected to be normal.
- Markets will continue operating normally without any disruption with the prices of commodities remaining stable.
- The prices of livestock may remain high due to the availability of pasture in the mixed farming zone. Agriculture will improve as the County Government continues to support farmers with free inputs and tractor farming as well as support from other stakeholders in improved technologies.
- The attendance rates in schools are normal and are expected to remain stable.

### 4.2 Food Security Outcomes for the Next Three Months (February - April)

The food security situation is expected to stabilize in some areas until the onset of the long rains. However, in the livestock zone, livestock body condition may deteriorate as pasture and browse gets depleted leading to low milk production. The current domestic water sources will continue to be relied on until April when pans and dams will be recharged. Livestock are expected to continue grazing in the current seasonal grazing areas and in-migration is expected to be minimal.

No outbreaks of livestock disease are expected. Though no maize stocks are available in the livestock zone, households are expected to rely on markets which are well-provisioned. Overall, food security is expected to remain stable with most areas of the county being classified as Minimal (Phase 1).

#### **4.2 Food Security Outcomes for the Last Three Months (May to June)**

Crop production is expected to perform fairly over the next three months as harvesting continues for late planted crops. The expected good rainfall performance will enable planting and good performance of field crops while recharging water sources for irrigated crops. The prices of food commodities are expected to come down with release of household stocks into the markets thereby improving access to food. Regeneration of pasture and browse is expected during the long rains season which will improve milk production and consumption. A high incidence of water-borne disease is likely to be experienced from April. Long rains harvests are expected to start around June.

### **5.0 CONCLUSION AND RECOMMENDATIONS**

#### **5.1 Conclusion**

The current food security situation is likely to remain stable for the next two months. Vulnerable households need to be supported for the next six months to enable them meet their basic food requirements. Vulnerable households and institutions specifically schools and health facilities need to be supported but more focus put on cash transfers which have proven to be effective and less expensive in terms of logistics than the distribution of food. It is positive to note that the county is out of general food distribution (GFD) and the focus is on cash transfers which have led to market activation and the creation of assets by engaging in community-owned projects. It is important for the National and County Government and all NGOs to put more focus on medium and long-term interventions to enhance community resilience.

#### **Monitoring Required**

- Disease prevention through treatment and animal husbandry management pasture conditions, pasture conservations efforts and creation of grazing reserves
- Conflicts that may arise out of common resource use
- Human disease outbreaks
- Nutrition status of children under five years
- Onset of the coming long rains
- Influx of livestock from neighbouring counties/countries
- Situation of water sources for both domestic and livestock
- Livestock diseases surveillance and vaccinations
- Market food commodity and livestock prices

#### **5.2 Summary of Recommendations**

##### **Agriculture**

- Capacity building on proper agronomic practices
- Development of irrigation infrastructure
- Water harvesting technologies for crop production

### Livestock

- Conflict management in Kinango and Lunga Lunga sub-Counties
- Mass deworming, vaccinations and treatment

### Water and Sanitation

- Drilling of boreholes and extension of pipelines
- Promotion of sanitation facilities to improve latrine coverage
- Provision of water treatment chemicals

### Health and Nutrition

- Scale up High Impact Nutrition Interventions at all service delivery points
- Provision of water, drugs and lab services
- Identification of a partner to take over the role WFP was playing in providing nutrition commodities to children

### Education

- Provision of food to public schools and ECDE centres
- Mass de-worming of pupils

## 6.0 ANNEXES

### Annex I: Recommended Food Interventions

**Table 6: Proposed population in need of food assistance**

Wards	Population in the Wards	Pop in need ( % range min – max	Proposed mode of intervention	Remarks
<b>Kinango Sub-County</b>				
Chengoni/Samburu	32,641	20-25	CFA	
Mackinon Road	31,128	20-25	CFA	
Kinango	32,571	20-25	CFA	
Kasemeni	33,642	15-20	CFA	
Mwavumbo	31,902	15-20	CFA	
Puma	19,860	20-25	CFA	
Ndavaya	27,816	20-25	CFA	
<b>Lunga Lunga Sub-County</b>				
Mwereni	34,628	20-25	CFA	

### Annex II: Recommended Non-food Interventions

**Table 2: Recommended Non-food Interventions**

Sub-County	Intervention	Location	No. of beneficiaries	Proposed Implementers	Required Resources	Available Resources	Time Frame
<b>Livestock Sector</b>							
KWALE	DAIRY CATTLE IMPROVEMENT	MATUGA LUNGALUNGA	1000 AND ABOVE	COUNTY LIVESTOCK DEPARTMENT	TECHNICAL EXPERT	TECHNICAL EXPERTRIET	2016-2017

		MSAMBWENI			FUNDS(CASH)		
	DAIRY GOATS IMPROVEMENT	MATUGA LUNGALUNGA MSAMBWENI	2000 AND ABOVE	‘ ‘	‘ ‘	‘ ‘	‘ ‘
	MEAT GOAT IMPROVEMENT	KINANGO MATUGA	1000 AND ABOVE	‘ ‘	‘ ‘	‘ ‘	‘ ‘
		LUNGALUNGA MSAMBWENI	500 AND ABOVE	‘ ‘	‘ ‘	‘ ‘	‘ ‘
	BEEF CATTLE IMPROVEMENT	KINANGO LUNGALUNGA	500 AND ABOVE	‘ ‘	‘ ‘	‘ ‘	‘ ‘
	VALUE ADDITION OF LIVESTOCK PRODUCTS(DAIRY)	LUNGALUNGA	500 AND ABOVE	‘ ‘	‘ ‘	‘ ‘	‘ ‘
	IMPROVEMENT OF MARKET INFRASTRUCTURE	KINANGO	300 AND ABOVE	‘ ‘	‘ ‘	‘ ‘	‘ ‘
	DAIRY PRODUCTS VALUE ADDITION	KINANGO	300	„	INCREASED INCOME	3M	JUNE 2016 - JULY2017

### Water and Sanitation

Samburu	Water pan	Gonja Chengoni	5,597	NDMA	15m		2015/2016
	Waterpan	Macknon RD	3,500	CGK	2M		2015/2016
Kasemeni	Water pan	Gandini	13,315	Coast Water	15m		2015/2016
	Earthdam	Mtaa	4,500	CGK	2M		2015/2016
Kinango	Water Weir/dam	Kirazini river	19,256	Kwale county	40m		2015/2016
	Water pan	Gonzani	6,200	Coast Water	15m		2015/2016
	WATERPAN	Magulani	3,500	CGK	2M		2015/2016
	WATERPAN	Kibandaongo	3,500	CGK	2M		2015/2016
	Water pan	Tahuni	3,500	CGK	2M		2015/2016
Kubo	Borehole drilling	Mkongani	3,000	CGM	8M		2015/16

### Water and Sanitation Sector

Matuga	Dam construction	Mbuguni	5,000	CGK, Community and Stakeholders	funds	Land and human resources	6months
	Rehabilitation of Minywani springs	Tsimba golini	2,000	CGK	FUNDS	Land and hman resources	6 months

L/Lunga	Construction of diversion canal	Machane	200	CGK	funds	Land, water	3months
L/Lunga	Construction of a weir and diversion canal, desilting of lake	Phuni	100	GOK ,Irrigation department	Funds	Land, water	2 Yrs
L/Lunga	Implementation irrigation project	Mpepeni	200	GOK, Irrigation dept.	Funds	Land , water	2years

### Agriculture Sector

Kinango	Small scale irrigation projects	Puma Kisimani- 2 acres	30	County government	Irrigation kits/Training funds	Irrigation kits	2016
		Kibandaongo- 2 acres	20				2016
		Mkoba – 1 acre	18				2016
		Nyalami -105 acres	420				2016
Kinango	Water harvesting	Selected wards  (There are 50 Food distribution points/sites each with 50 members on average )	2500	National and County governments	Funds	None	2016

### Health and Nutrition Sector

County wide	Conduct rapid assessment to screening for malnutrition cases in all children below 5 years		130890	MOH, UNICEF, WFP, KRCS, KRDP/ND MA	2,000,000	-	On going
County wide	Conduct Supplementary feeding to children under 5yrs			MOH, UNICEF, WFP, KRCS, KRDP/ND MA	500,000,000		continuous
County wide	Scale up coverage of High Impact Nutrition Interventions in Kwale county to reach at least 80% of the target population			MOH,, UNICEF, WFP, KRCS, KRDP/ND MA	3,900,300		continuous
	Conduct integrated outreaches in the hard to reach areas			MOH, UNICEF, KRCS, KRDP	1,400,000		continuous

				P/NDMA			
County wide	Strengthen and train Health workers on CLTS			MOH, UNICEF, KRCS, KRD P/NDMA, P LAN	2,000,000		July 2016
County wide	Procure and distribute water treatment chemicals			MOH /Water/ND MA/Plan international			
Msambweni, Lungalunga and Kinango	Training of ECD teachers on Vit A supplementation						