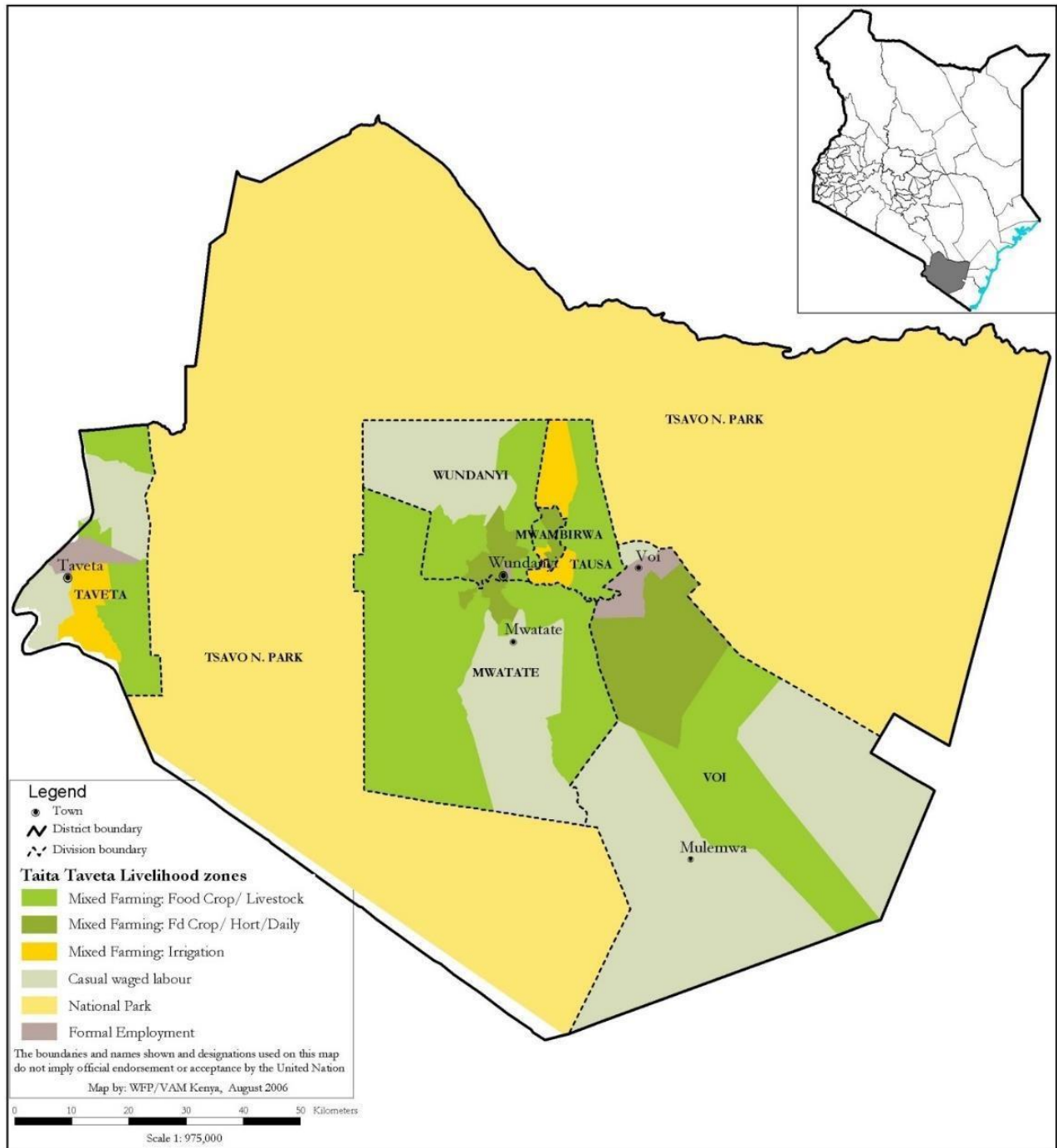# TAITA TAVETA COUNTY
2018 SHORT RAINS FOOD SECURITY ASSESSMENT REPORT

A Joint Report by the Kenya Food Security Steering Group (KFSSG)[1] and Taita Taveta County Steering Group (CSG)

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EXECUTIVE SUMMARY

The Short Rains Assessment (SRA) was conducted by Technical County Steering Group (CSG) of Taita Taveta County. The main objective of the assessment was to develop an objective, evidence-based and transparent food security situation analysis in Taita Taveta County following the short rains season of 2018 taking into account the cumulative effects of previous seasons and to provide recommendations for possible response options based on the situation analysis. The main drivers were performance of short rains that were below to near normal and characterized by poor temporal and uneven spatial distribution. Human-wildlife conflict was reported where elephants strayed into community farms and destroyed crops in Sagalla ward. Livestock diseases particularly confirmed cases of foot and mouth disease (FMD) were reported in Mwatate Sub County and vaccination is underway. Food is currently available as the maize crop production increased from one to three bags per hectare. Irrigation is majorly undertaken in Taita and Taveta Sub Counties and the acreage put under maize and French beans was relatively stable while that of bananas increased by 11 percent compared to the long term average. Rice stocks were available with traders while 27 percent of maize stocks were held by farmers. An estimated 73 percent of maize stocks were held by traders. The stocks held by households are expected to last for three months in the mixed farming: horticulture and dairy livelihood zone, two months in the mixed farming: food crops and livestock and six months in the mixed farming: irrigated crop and livestock livelihood zone. Livestock body condition for all species was good. However, slight deterioration of milking herd was expected during the dry spell. Forage condition was good in all livelihood zones. However, owing to the prevailing dry and hot weather condition, both quality and quantity of forage is expected to deteriorate and on average carry livestock up to the end of March. In the cropping areas crop residues are expected to supplement available fodder. The average milk production in the county was 3.4 litres per household per day which was 17 percent above the LTA of 2.9 litres. The average milk consumption per household per day was 1.1 litres which was within the LTA of 0.9 litres. The trekking distance from grazing areas to water source in the mixed farming: Horticulture/dairy and Mixed frming Irrigated/livestock zones was one km and normal. Mixed Farming crop/livestock zone distance stood at four km with exceptional areas with up to 10km, that is Kisimenyi, Mgeno, Mwakitau, Talio, Kirumbi villages. This is due to most open water sources are silted, increased number of users and high evaporation rates due to prevailing high temperatures. The average milk price per litre was Ksh. 40. The prices in urban centres ranged from Ksh. 50 - 60. The average market price of a kilo of maize was Ksh. 33 compared to the LTA of Ksh 40 which was 18 percent below the LTA. The average market price of a kilo of beans was Ksh. 84 compared with the LTA of Ksh 93 which was 10percent below the LTA. The prices of goats were stable in January 2019 at Ksh. 5,000. In January, 57 percent of households were in the acceptable food consumption score category while the proportions of households under borderline food and poor consumption category were 38 percent and 5 percent respectively. The proportion of children at risk of malnutrition improved by 74 percent in January 2019 compared with same time last year. Overall, the county is in Minimal (IPC Phase 1) where households are able to meet basic food needs without atypical coping strategies with isolated pockets in Taveta Sub County with some areas in the mixed farming: food crops and livestock being classified as Stressed (IPC Phase 2).

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1.0 INTRODUCTION
1.1 County background
Taita Taveta County is one of the five counties located in the Coastal region of Kenya. It borders Tana River, Kitui and Makueni counties to the north, Kwale and Kilifi counties to the east, Kajiado County to the south west and the Republic of Tanzania to the South West. The County covers an area of 17,128.3 square kilometers, consisting of 62 percent Tsavo East and Tsavo West National Park, 24 percent rangeland and 12 percent land suitable for rain fed agriculture. Administratively, the county is divided into four Sub Counties namely; Taita, Voi, Mwatate and Taveta. The county has a projected population of 358,173 persons (Kenya National Bureau of Statistics
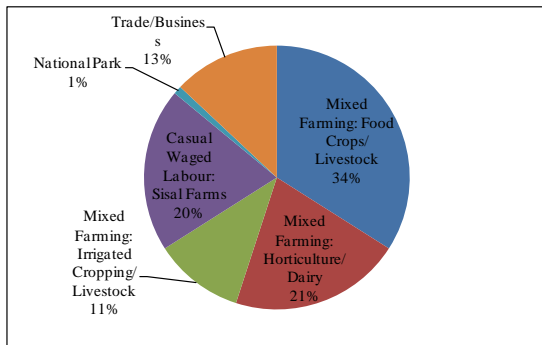

Figure 1: Proportion of Population per livelihood zone

(KNBS, 2016). The county has three major livelihood zones namely; mixed farming: food crops and livestock (34 percent), mixed farming: horticulture and dairy (21 percent), mixed farming: irrigated crop and livestock (11 percent), others (34 percent) as shown in Figure 1.

1.2 Methodology and approach
The main objective of the 2018 short rains assessment was undertake an evidence-based and transparent food and nutriona security situation analysis. The assessment also took into consideration the cumulative effect of previous seasons and seeks to provide the recommendations for possible response options based on the situation analysis. The assessment methodology used both qualitatitive and quantitative data. There were checklists administered by county sector heads and subsequent initial briefing meeting by the technical county security group (CSG). The technical members from key departments embarked on a two days transect drive to validate the initial briefing findings. The transect drive route was chosen ensuring the coverage of the three major livelihood zones, the four Sub Counties and areas that were flagged out in the checklists. The assessment tools used were interview guides administered through focused group discussions, individual farmers and health and education staff. The assessment team also captured information through field observation and conducted market interviews. The team reviewed the data and reports provided earlier as secondary literature and enriched it with field interviews to come up with the report presented before the county steering group for validation and approval.

2.0 DRIVERS OF FOOD AND NUTRITION SECURITY IN THE COUNTY
2.1 Rainfall Performance
The larger area of the county received normal to above normal rains .The onset of the short rains in the county was timely during the last week of October and amount ranged from 91-125 percent of normal except in Voi Sub County where it ranged from 76-90 percent. Temporal distribution
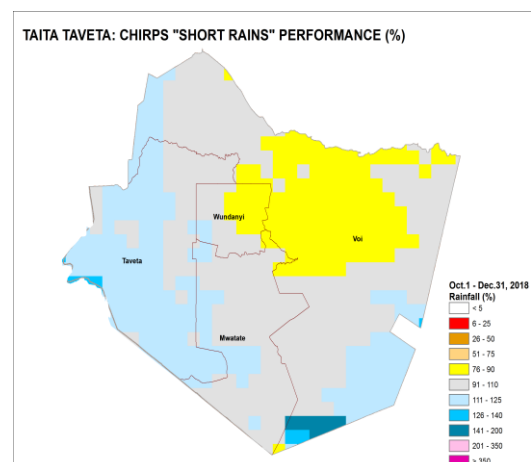

Figure 2: Rainfall Performance as a percent of Normal

was poor as evidenced by a dry spell lasting close to three weeks in parts of the mixed farming; food crop and livestock livelihood zone after the onset of the rains. Spatial distribution was uneven (Figure 2) There were light showers that were continuously experienced in mixed farming; horticulture and dairy livelihood zone. Cessation was normal in the third week of December.

2.2 Insecurity/Conflict
In the mixed farming food crop and livestock livelihood zone; human- wildlife conflict was reported in areas neighboring Tsavo National Park in particular Sagalla ward, Kasigau ward and Ngolia ward where an estimated 500 elephants strayed into farms and destroyed crops.

2.3 Other shocks and hazards
Confirmed cases of Foot and Mouth Disease were reported in Mwatate Sub County in mixed farming: food crop and livestock livelihood zone and the county of Taita Taveta initiated a vaccination process to contain it from spreading to others areas.

3.0 IMPACTS OF DRIVERS ON FOOD AND NUTRITION SECURITY
3.1 Availability
3.1.1 Crops Production
The three main crops grown in the county include; maize, green grams and cowpeas and their contribution to cash and food income varied across livelihood zones. Maize crop contributes two percent of cash income and 17, 30 and 35 percent to food in the mixed farming: irrigated crop and livestock, mixed farming; horticulture and dairy and mixed farming; food crops and livestock livelihood zones respectively. Green grams and cowpeas are mainly grown in mixed farming; food crops and livestock zone and contribute to 20 and 12 percent to cash income. IN the same livelihood, green grams and cowpeas also contribute to six and 10 percent to food respectively.

Table 1: Rain fed Crop Production

Crop	Area planted during 2018Short rains season (Ha)	Long Term Average (5 year) area planted during the Short rains season (Ha)	2018 Short rains season production (90 kg bags) Projected/Actual	Long Term Average (5 year) production during the Short rains season (90 kg bags)
1.Maize	8,895	9,600	23,435	30,900
2.Cowpeas	763	810	3,225.5	4,120
3.Green grams	1,224	1,289	4,735	6,006

The area under maize, cowpeas and green grams reduced by seven, six and five percent of the long term average (LTA) and production is projected to be 76, 78 and 79 percent of the long term average respectively (Table 1). Reduction in acreage was mainly attributed to untimely access to farm inputs by farmers and mostly to those farmers preselected to promote drought tolerant crops like sorghum and green grams. Production losses were attributed to moisture stress during the critical stage of podding for the legumes and tasseling and grain filling stages for maize crop. In the villages neighboring Tsavo National Parks; Sagalla, Kasigau and Ngolia maize crop was destroyed by elephants that were migrating during their calving season.

Table 2: Irrigated Crop

Crop	Area planted during the 2018Short rains season (ha)	Long Term Average (3 years) area planted during Short rains season (ha)	2018Short rains season production (90 kg bags/MT) Projected/actual	Long Term Average (3 years) production during 2018Shortrains season (90 kg bags/MT)
1. Green Maize	720	700	14,400	14,000
2. French Beans	185	180	6,270	9,900
3. Bananas	2,200	1,989	37,400 (Tons)	33,813(Tons)

Irrigation farming in the county is majorly undertaken in Taita and Taveta Sub Counties. The acreage put under maize and French beans was comparable to the long term average while that of bananas increased by 11 percent (Table 2). French beans are grown in Taita Sub County and highlands of Mwatate Sub County under contract farming while maize and bananas are largely grown in Taveta Sub County in established irrigation schemes. French Beans were grown for export resulting to 2.7 percent increase in acreage due to sustained campaigns by the exporter (VEGPRO) to increase volumes and adoption of drip irrigation system by farmers. Banana production increased by 10.6 percent as result of existence of ready buyer at the production area and farmer adoption of tissue culture bananas and good agricultural practices.

3.1.2 Cereals stock

The main staple foods consumed in the county include maize, rice, bananas, cowpeas and green grams as stocks held by farmers and traders. Rice stocks were available with traders while 27 percent of maize stocks were held by farmers compared with the long term average (Table 3). An estimated 73 percent of maize stocks were held by traders compared to 83 percent held in a similar period 2018. Most maize and rice stocks held by farmers are found in the mixed farming: irrigation cropping and livestock livelihood zone while the least were recorded in the mixed farming: food crops and livestock livelihood zone.

Table 3: Quantities held currently (90-kg bags)

Commodity	Maize		Rice		Sorghum		Millet		TOTAL		
	Current	LTA	Current	LTA	Current	LTA	Current	LTA	Current	LTA	%LTA
Farmers	3,950	14,218	0	0	32	314	0	1	3,982	14,532	27
Traders	10,500	24,610	2,000	1,400	95	117	0	0	12,595	26,127	48
Millers	0	0	0	0	0	0	0	0	0	0	
Food Aid/NCPB	40,000	0	0	0	0	0	0	0	0	0	

3.1.3 Livestock Production

The main livestock kept in the county are beef cattle, dairy cattle, poultry, meat goats and sheep and contribute differently to cash and food income to each livelihood due to the diversity of the enterprises (Table 4). Dairy cattle are mainly kept in the mixed farming; horticulture and dairy livelihood zone while beef and meat goat are reared in mixed farming; food crop and livestock and mixed farming; irrigation and livestock livelihood zones. Goats contribute to 20 and 30 percent of cash income in the mixed farming: irrigation cropping and livestock and mixed farming; food crops and livestock livelihood zones respectively. Cattle contribute significantly to both cash and food in the mixed farming: horticulture and dairy livelihood zone (Table 4).

Table 4: Livestock Contribution to Income and Food

Livelihood zone	Percentage Contribution to food & income by main species			
	Cattle		Goats	
	Cash income	Food	Cash Income	Food
Mixed farming: Horticulture and Dairy	50	75	-	-
Mixed farming: food crops and livestock	35	53	30	70
Mixed farming: irrigation cropping and livestock	40	40	20	35

Pasture and browse situation

Pasture and browse condition in the county was generally good except in parts of the mixed farming: irrigation and livestock livelihood zone where pasture was fair and the situation was normal (Table 5). The current status is attributed to adequate regeneration of vegetation during the short rains. In the mixed farming: food crops and livestock and the mixed farming: horticulture and dairy livelihood zones, pastures are expected to last the normal two and three months respectively. In the mixed farming; irrigated crop and livestock livelihood zone pasture is expected to last for one month compared to the normal three months. In the cropping areas crop residues are expected to supplement available fodder to livestock. In the mixed farming: food crops and livestock, browse will last the normal three months while in the mixed farming: horticulture and dairy and the mixed farming; irrigated crop and livestock livelihood zones, browse is expected to last for 2 months compared to the normal three months.

Table 5: Pasture and Browse Condition

Livelihood zone	Pasture					Browse				
	Condition		How long to last (Months)		Factors Limiting access	Condition		How long to last (Months)		Factors Limiting access
	Current	Normal	Current	Normal		Current	Normal	Current	Normal	
Mixed Farming: Food Crop/ Livestock	Good	Good	2	2	None	Good	Good	3	3	None
MF: Horticulture/ Dairy	Good	Good	3	3	None	Good	Good	2	3	None
MF: Irrigated/ Livestock	Fair	Good	1	3	None	Fair	Good	2	3	None

Livestock Productivity
Livestock body condition

The livestock body condition for all species was good and normal across the livelihoods except in parts of mixed farming: irrigation and livestock livelihood zone where cattle were reported to be in fair condition (Table 6). Previous in the mixed farming: irrigation and livestock zone herders benefited from forage in the neighboring rangelands in Taveta sub county that have since been fenced off by the owners reducing availability and access to pastures and access water from

Lake Jipe. The current body condition is expected to be sustained by the available forage up to the onset of the long rains in March while slight deterioration is likely to be witnessed in milking herds in mixed farming; irrigation and livestock zone. Prevailing body conditions are expected to sustain good livestock market prices, milk production and consumption across the county except in the hotspots in the mixed farming; irrigation and livestock zone where they are expected to decline.

Table 6: Livestock Body Condition

Livelihood zone	Cattle		Sheep		Goat	
	Current	Normal	Current	Normal	Current	Normal
Mixed Farming: Food crops and livestock	Good	Good	Good	Good	Good	Good
Mixed farming : Horticulture and dairy	Good	Good	Good	Good	Good	Good
Mixed farming : Irrigated cropping and livestock	Fair	Good	Good	Good	Good	Good

Tropical livestock units (Tropical Livestock Units) and Birth

The average tropical livestock units for both poor and middle income households are slightly lower than normal (Table 7). The decline was attributed to losses as a result of death during the 2016/2017 drought and sales. Additionally, sub-division of agricultural land into small parcels has majorly contributed to the reduction in tropical livestock unit numbers especially in the horticulture and dairy zone where little land was available for fodder establishment. Birth rates are normal for all livestock species in all livelihood zones.

Table 7: Tropical Livestock Units (TLUs)

Livelihood zone	Poor income households		Medium income households	
	Current	Normal	Current	Normal
Mixed Farming: Food Crop/ Livestock	2	3	3 - 4	6
MF: Horticulture/ Dairy	1	3	2 - 3	5
MF: Irrigated/ Livestock	2	3	6	6

Milk Production and Consumption

In the mixed farming: horticulture and dairy livelihood zone, average milk production was five litres per household per day compared with a normal of six litres per household per day (Table 8). In mixed farming: food crop and livestock and mixed farming: irrigation cropping and livestock livelihood zones, milk productivity were two and four litres per household per day respectively. The current milk production was lower than the normal three and five litres per household per day in the mixed farming: food crop and livestock and mixed farming: irrigation cropping and livestock livelihood zones respectively (Table 8). The average milk productivity at households was relatively lower across the livelihood zones compared to the long term averages. Variations in production are most likely as a result of reduction in the average number of tropical livestock units per household held by small holder farmers across the livelihood zones. Milk consumption was normal at one litre per household per day and this was attributed to the prevailing good body conditions.

Table 8: Milk Production and Price

Livelihood zone	Milk Production (Litres)/Household		Prices (Ksh)/Litre	
	Current	LTA	Current	LTA
Mixed Farming: Food Crop/ Livestock	2	3	45	45
MF: Horticulture/ Dairy	5	6	35	30
MF: Irrigated/ Livestock	4	5	40	40

Livestock Migration, Diseases and Mortalities

There were no migrations reported across all livelihood zones except for the minimal livestock movements in few parts of mixed farming irrigated cropping and livestock zone areas of Taveta where cattle have been moved from Salaita to Rombo and from Chumvini/Njukini to Chyulu hills in search of better pastures.

Confirmed cases of foot and mouth disease (FMD) were reported in food crops and livestock livelihood zones of Mwatate sub-county especially in ranches (Mramba, Lualenyi ranches) and vaccination and treatment and movement restriction measures have been put in place to contain spread. Additionally, livestock disease surveillance has been intensified in the hotspot areas. There were no unusual livestock deaths reported across all livelihood zones of the county.

Water for Livestock

The current water sources are boreholes, piped water, earth dam/ pan, lake Jipe, springs and water canals which are normal. Slight increased return distance to water was reported in mixed farming; food crop and livestock and mixed farming; irrigation and livestock as result of fencing of individual rangelands and parks that had direct routes to water sources. The available water sources in both zones are expected to last for two months. Livestock were watered daily as usual in mixed farming: horticulture and dairy livelihood zone and mixed farming: food crops and livestock zones. In the mixed farming; irrigated and livestock livelihood zone, livestock were watered five times in seven days due to increased distances (Table 9).

Table 9: Water for Livestock

Livelihood zone	Return trekking distances (Km)		Expected duration to last (Months)		Watering frequency	
	Current	Normal	Current	Normal	Current	Normal
Mixed Farming: Food Crop/ Livestock	3.5 – 6	3 – 4	1 - 2	3	7	7
MF: Horticulture/ Dairy	1	1	4	4	7	7
MF: Irrigated/ Livestock	2	1	2	3	5	7

3.1.4 Impact on availability

The current season improved food availability in diverse ways; regeneration and growth increased fodder for livestock, proceeds from the crop harvests increased household's food stocks as well markets stocks, availability of forage sustained livestock body condition for provision of meat and milk.

3.2 Access
3.2.1 Markets
Market operations

Markets were operating normally and the market supplies and traded volumes were steady for all commodities. The main food commodities traded in the markets included; maize, rice, beans and vegetables, and were sourced from local production and across the border from neighbouring Tanzania. Cross border market has resulted to cheaper food commodities entering the county through Taveta Sub County. Prices of maize in Taveta market are lower by 18 percent compared to other markets. Demand for cereals was slightly below normal owing to good performance of the previous long rains season and an estimated 32 percent of the population relied were reported to be consuming stocks from own production. Chumvini and Tambarare livestock markets were fully operational where the former majors with goat and latter deal with cattle
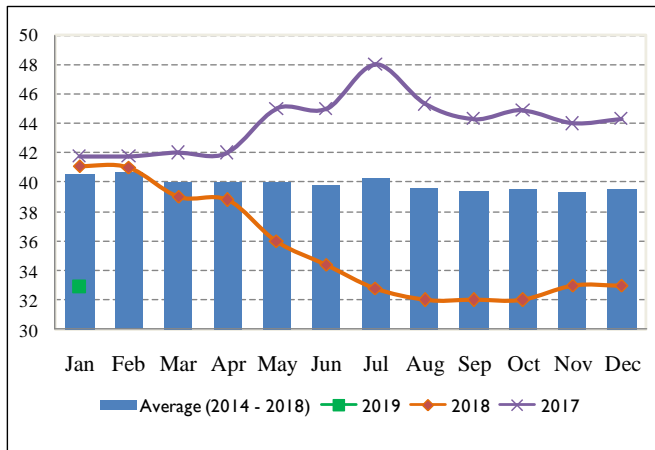
Market Prices

Figure 3: Prices of Maize in Taita Taveta County

The price of maize declined by three percent compared to January 2019 and lower than the long term average by 21 percent (Figure 3). Lower prices were reported in mixed farming: irrigated cropping/livestock zone at Ksh. 28. The County has relatively enjoyed a favorable maize production over the last three seasons leading to a stable supply of the commodity in the markets and access to the same at household level. The prices are expected to remain stable during the harvesting season through April.

Goat price

The average price of goats relatively remained stable and consistently above the long term average (LTA). In January price was at Ksh 5,033 and this price was 19 percent above the long term average and 16 percent above that which was recorded at a similar period in 2018 (Figure 4). Better prices of Ksh. 7,000 were recorded in the Mixed farming: horticulture and dairy livelihood zone while Ksh. 4,032 was reported in mixed farming: food crops and livestock livelihood zone due to better breeds. Owing to availability of food

Figure 4: Goat Prices in Taita Taveta County

commodities and the prevailing good body conditions the price are expected to remain stable and favorable.
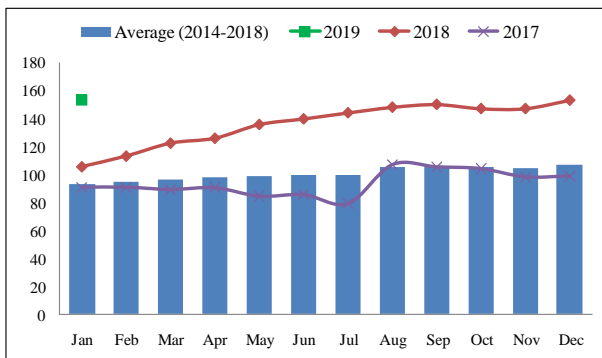
3.2.2 Terms of trade

Figure 5: Terms of Trade in Taita Taveta County

The terms of trade (ToT) recorded in January, 2019 were favorable and consistently above the long term average by 64 percent across all livelihood zones (Figure 5). Proceeds from the sale of a goat could be used to purchase 153 kilograms of maize. The current situation is expected to prevail over the next three months as price of maize is anticipated to stabilize with stocks from the ongoing harvest while the prevailing

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good body condition for goats and market environment will sustain good prices.

3.2.3 Income sources

Household main source of income in January was casual labour (Figure 6). Casual labour opportunities were available in the sisal and banana plantations, irrigation schemes, mining sector, herding, ranches, building sites and town centres. Other sources of income were trade, sale of crops, employment and sale of livestock products at lower proportions. Sale of livestock products and crops were on an upward trend compared to previous months.

Figure 6: Main Sources of Income

3.2.4 Water access and availability
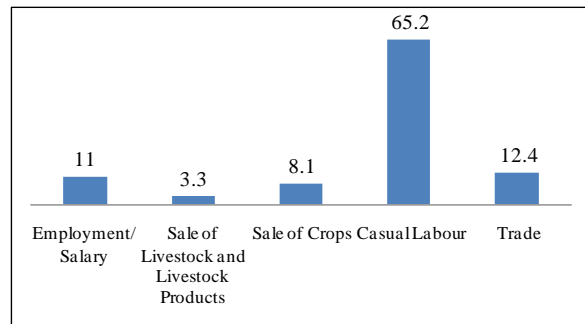**Major water sources**

The major sources of water for domestic use in the county were; rivers, springs and boreholes and were depended upon by 44, 22 and 13 percent of the population respectively (Figure 7). Other sources included shallow wells and pans and dams. The short rains were able to recharge the surface water sources and shallow wells to at least 80 percent of their capacity. During the assessment period most open water sources were 50 percent recharged.
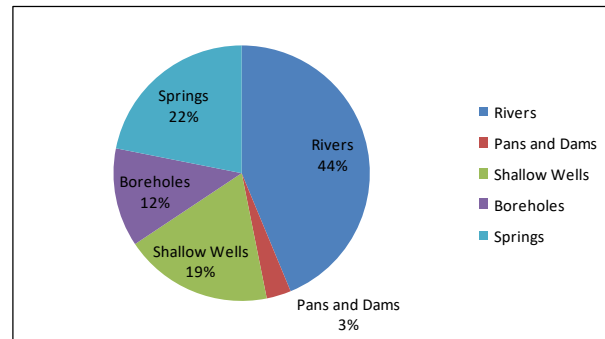
Figure 7: Water Sources in Taita Taveta County

Operating boreholes functioned normally and are expected to discharge water up to the next rain season. Currently there are seven boreholes (Mixed farming: food crops and livestock and irrigation cropping and livestock) and five springs (Mixed farming: horticulture and dairy) and that are non-operational due to breakdown of pumping systems, low recharge and destruction of catchments. High population concentration was observed in Godoma-Mwakitau Pipeline, Bura Pipeline, Marapu Borehole and Kishushe Pipelines due to water rationing occasioned by breakdown of alternative water sources.

Distance to water sources

The average return distance was 2.4 km which was normal compared to the same period last year. In the mixed farming: food crop and livestock zone recorded four kilometers while in the mixed farming: irrigation cropping and livestock and mixed farming: horticulture and dairy zone distances were less than one kilometre which was normal. In some areas in mixed farming: food crops and livestock livelihood zones such as Kisimenyi, Mwakitau, Mgeno, Talio, Kirumbi villages, household covered up to 10 kilometres return due to breakdown of boreholes.

Waiting time at the source and Cost of Water

The average waiting time ranged between 10 to 20 minutes which was normal except in the mixed farming; food crops and livestock livelihood zone villages of Bura, Kwandoto and Marapu where households waited for 45 minutes due to increased concentration at water points. The cost of water (20 litre Jerry can) was normal and ranged between Ksh. 2-5 across all livelihood zones. The variation in price was related to the source with high prices being recorded in motorized water systems (boreholes) and lower in piped springs. The cost of water from vendors mainly for drinking and cooking in the mixed farming: Food crop and livestock livelihood zone ranged from Ksh. 20–40 for a 20ltr jerrican in Mata, Chunga Unga, Alia, Manoa, Mwakitau and Ngambenyi.

Water consumption

Water consumption was 19 liters per person per day and normal at this time of the year. The amount varied across livelihood zones with households in mixed farming: food crops and livestock zone, mixed farming: horticulture and dairy livelihood zone and mixed farming: Irrigation and livestock livelihood zone consuming 15, 22 and 18 litres per person per day respectively. However, in some areas consumption is at 10 liters per person per day as communities travel longer distances to water points or have to pay more for water and these include; Talio, Mgeno, Kisimenyi, Kirumbi, Orkung and Mahandakini.

3.2.5 Food Consumption

During the month of January 2019, NDMA bulletin indicated that 57.0 percent of the households had acceptable food consumption score indicating that they consumed an acceptable diet in terms of meal frequency, dietary diversity, nutritional value and amount. The proportion of households with borderline food consumption category was 41.4 percent and 1.3 percent respectively (Figure 8). This was a slight improvement compared to 65.5, 31.2 and

Figure 8: Food Consumption Scores Per Sub County

3.3 percent recorded in similar period 2018. Currently, about 54 percent households interviewed reported to have consumed grains for six days, 31.7 percent of these households consumed pulses for an average of four days in a week while 51.9 percent consumed vegetables for an average of four days in a week. Most households consumed three food groups (cereals, pulses and vegetables).

3.2.6 Coping strategy

The average coping strategy index (CSI) for January 2019 was recorded at 4.05 compared to 4.56 posted in similar period in 2018. Coping strategy index recorded was below long term average by 28 percent (Figure 9). The slight decrease demonstrates
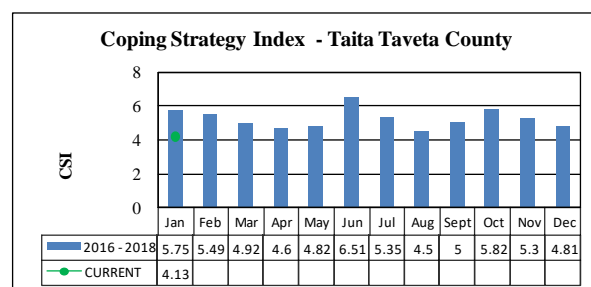

Figure 9: Trends of Coping Strategy Index

households were employing less consumption based coping strategies to meet gaps in food consumption. About 14 percent of sampled households during focus group discussions indicated that households engaged in reduction of meals for two to three days in a week while 16 percent reduced portion of meals for two to three days in a week.

3.3 Utilization
3.3.1 Morbidity and mortality patterns

The three most common diseases from July to December 2018 were diseases of the upper respiratory system, diarrhoea and malaria for both the children under five years of age and the general population (Figure 10). Upper respiratory tract infection (URTI) and Diarrhea increased by 71 and nine percent respectively due to low numbers recorded at the facilities during the nurse strike in 2017 while that of
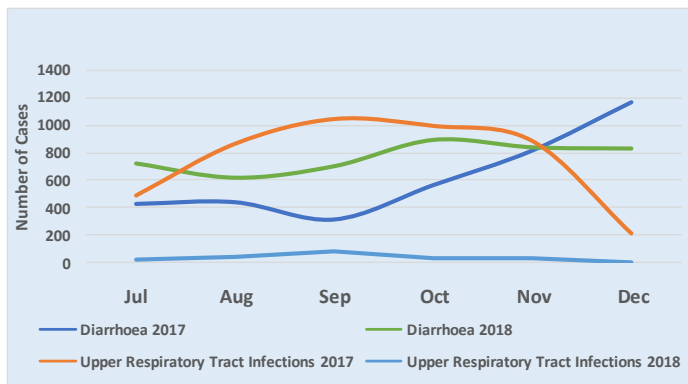

Figure 10: Morbidity Trends for the Under fives

malaria declined by 11 percent for children under five years. In general population, URTI, Diarrhea and Malaria increased by 76, 34 and 25 percent respectively. The general decline of malaria cases over the years was attributed to intervention such as issuance of nets for under one year and pregnant mothers in 2018 among other interventions towards malaria control. No epidemic prone diseases have been reported between the month of July and December 2018.

An average distance to reach a facility was approximately five km for most population in the County with an exception of Zungulukani in Voi Sub County, Mgeno, and Kamtonga in Mwatate Sub County and Jipe areas in Taveta Sub County where households travel up to a distance of 20 km. Construction of health facilities by county government would reduce households access to facilities especially in hot spot areas (Bughuta, Paranga, Mata, Salaita, Kamtonga, Kishushe, Zungulukani) where malnutrition cases were reported to be high.

3.3.2 Immunization and Vitamin A Supplementation

There was a slight improvement for the fully immunized children in July to December 2018 at 76.5 percent compared to the July to December 2017 of 63.2 percent, and this was due to the integrated outreaches which were conducted at different facilities situated in the hard to reach areas with support from the Department of health and Kenya Red Cross Society. A tremendous improvement was noted in Vitamin A Supplementation 6-11months children July to December 2018 was at 67 percent compared to July to December 2017 at 23.3 percent. Vitamin A Supplementation for 12-59 months, July to December 2018 was at 67.9 percent as compared to July to December 2017 when it was at 13 percent during the nurse strike. Overall Vitamin A Supplementation coverage among children 6-59 months in the County improved from 20.4percent in July-December 2017 to 71.9 percent in July-December 2018 period. Improvement in coverage for 2018 was due to the following interventions; conducting integrated outreaches, malezi bora campaign and ECDE Vitamin Supplementation, training and distribution of new data collection tools and intensifying routine supplementation boosted that coverage.

3.3.3Nutritional status and dietary diversity

The nutrition situation is stable and has been acceptable for the last three seasons. The nutrition situation is likely to remain the same in the March to May 2019 period of projection.
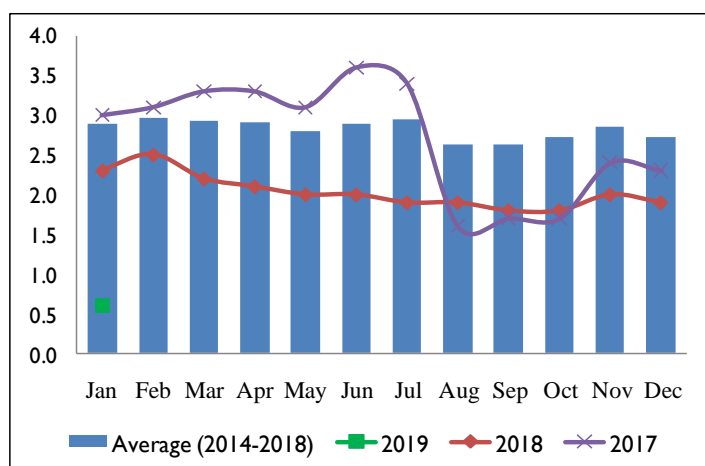

Figure 11: Proportion of Children with MUAC <135mm

The percentage of children at risk of malnutrition was 0.6 percent and was 79 percent below the long term average and 74 percent below what was recorded during a similar period 2018 (Figure 11). The most likely cause of malnutrition in Taita Taveta is sub optimal Infant and childhood practices (low number of feeding per day, early introduction of food to young children below six months) among other factors like morbidity and food insecurity.

Exclusive breastfeeding in the county is 80.5 percent, these rates are above the national prevalence of 61.4 percent and within the WHO recommendation of 80 percent. However, Infant and Young Child feeding practices for children aged 6-23 months are sub optimal as evidenced by Minimum Dietary Diversity (MDD), and Minimum Acceptable Diet (MAD) which is at 43 and 27.9 percent respectively. Minimum Meal Frequency (MFF) and Introduction to solid and semisolid foods was is good at 82 percent and 83.3% respectively.

3.3.2 Sanitation and Hygiene

An estimated 50 percent of the households in the county treated water either by boiling or using chemicals. Water treatment in the MF: Food crops/livestock livelihood zone was at 54 while in the horticulture/Dairy zone and MF: Irrigation/Livestock livelihood zone was 60 and 50 respectively. The water supplied by Taita Taveta and Voi Water Company (TAVEVO) is treated at source. Communities fetch water from various sources using jerricans and water tanks for rain harvesting. Hand washing at four critical times is at 45 percent while water treatment is at 54 percent. Latrine coverage in Taita Taveta County is 71.2 percent.

3.4 Trends of key food security indicators

Table 10: Food security trends in Taita Taveta County

Indicator		Long rains assessment, July 2018	Short rains assessment, January 2019
% of maize stocks held by households (agro-pastoral)		38	27
Livestock body condition		Good	Good
Water consumption (litres per person per day)		19	19
Price of maize (per kg)		33	32
Distance to grazing		3.1	3.6
Terms of trade (pastoral zone)		148	144
Coping strategy index		2.68	4.05
Food consumption score	Acceptable	57	54
	Borderline	38	30
	Poor	5	16

4.0 CROSS – CUTTING ISSUES
3.5 Education
3.5.1 Enrolment

Enrollment increased in Term I 2019 in all levels of the education sector due to inward transfers in Early Childhood Development Education (ECDE) and primary especially after National Education Management Information System (NEMIS) was made operational as well parents intention to seed ground for national exam registration. Transition from primary schools to secondary schools was 82 percent in the entire county (Table 11). Enrolment in secondary school increased as result of 100 percent transition from primary education being emphasized by the Ministry of Education and other partners.

Table 11: Enrolment in the county

ENROLLMENT	TERM III 2018			TERM 1 2019 (includes new students registered and dropped since term iii 2018)			COMMENTS (reasons For increase or Decrease)
	NO. BOYS	NO.GIRLS	TOTAL	NO. BOYS	NO.GIRLS	TOTAL	
ECD	4,322	4,529	8,851	4,644	4,231	8,875	In ward transfers
PRIMARY	32,043	28,256	60,299	31,858	31,858	62,976	In ward transfers
SECONDARY	11,816	11,448	23,264	11,905	13,426	25,331	100% transition from primary to secondary

3.5.2 Participation

The average monthly school attendance was very stable in September, October and November due to the existence of school feeding programs (Table 12).

Table 12: Participation in schools

	TERM 111 2018						TERM 1 2019			
	Sep 2018		Oct 2018		Nov. 2018		Jan. 2019		Feb. 2019	
School Attendance	No. Boys	No. Girls	No. Boys	No. Girls	No. Boys	No. Girls	No. Boys	No. Girls	No. Boys	No. Girls
ECDE	4,322	4,519	4,322	4,529	4,322	4,529	4,384	8,670	4,384	8,670
PRIMARY	25,241	23,566	25,241	23,566	25,241	23,566	14,932	38,269	14,932	38,269
SECONDARY	8,109	6,931	8,109	6,931	8,109	6,931	8,566	61,099	8,566	61,099

3.5.3 Retention

Retention was very stable in all schools; dropout primary school was 0.02 percent (Table 13). ECDE and Secondary school retention was at 100 percent. Retention of learners in school in 2018 was stable as a result of availability of food in schools. However, it was noted that there were marginal dropout cases. About 11 girls dropped out of school due to pregnancy while two boys from primary school dropped out due to indiscipline. Retention levels were also influenced by health and nutrition services offered in school such as deworming of pupils that has been supported by Ministry of Health. Prevention programs for communicable diseases have also supported.

Table 13: Retention in schools

Students Dropped out from School	END OF TERM II 2018		END OF TERM III 2018		
	No. Boys	No. Girls	No. Boys	No. Girls	%
ECDE	0	0	0	0	0%
PRIMARY	2	11	0	0	0.02%
SECONDARY	0	0	0	0	0%
TOTAL	2	11	0	0	0%

3.6 School meals programme

The beneficiaries under the school meal programs were 87,207 where about 90 percent of the school population. The Expanded School Meals programme was not continuous and it is usually implemented as a mitigation measure during drought period or when food deficit is being experienced by the community. In Taveta sub-county a total of 39 schools (11,105 pupils) are not benefiting school meal program.

3.7 Inter Sectoral

Water sanitation and hygiene situation was relatively good in most sub- counties except Taveta Sub County where 20 schools (51%) were reported not to have hand washing facilities out of the 39 schools in Taveta. About 10 schools lacked clean drinking water reflecting 25 percent of the schools. Limited access to clean drinking impacted negatively on school attendance. In Taita Sub County, two schools did not have functional toilets due to long rains that made the latrines sink. Absenteeism in schools was also curbed by provision of sanitary towels to girls and enforcement of child labour laws by the administration department. The availability of food also in the homes of most families reduced absenteeism drastically in schools. Schools have also become more children friendly and thus learners enjoy being in schools attributed to enforcement of ban on corporal punishment.

5.0 FOOD SECURITY PROGNOSIS
5.1 Prognosis Assumptions
The prognosis assumptions are based

- Weather outlook for the period March April May (MAM2019) where the county is expected to receive depressed rains in Voi, Mwatate and Taita Sub counties and normal to above normal in Taveta Sub County.
- It is expected that farm inputs will be available in time both from farmer initiatives and government and non-governmental programs thus facilitating early planting.
- Flooding is expected in the flood zones of Taveta Sub County leading to destruction of crop.
- Staple food commodity prices are likely to remain stable and below long term average due to availability of stock and household level from own production and markets.
- Availability of pasture and water is expected to sustain good livestock body conditions and improve milk production and lastly terms of trade are expected to remain stable.

5.2 Food Security Outlook
5.2.1 Food security Outcome (March, April, May)
Based on the above assumptions the food security situation is expected to remain stable sustained by the expected harvest from the short rains season and promoted by the expected near normal long rains. Majority of the population are likely to have borderline and acceptable food

consumption scores, employ normal food coping strategies. Nutrition status will remain stable and no mortalities as a result of food insecurity are expected. The food security situation is expected to improve and as such the county is likely to be classified in the Minimal (IPC Phase 1).

5.2.2 Food security outlook for (June, July and August)

The long rains are project to be depressed in the mixed farming: food crops and livestock and horticulture and dairy livelihood zone and likely to lead to depressed food crop production and regeneration of pastures while in the irrigated livelihood zone they may lead to flooding and crop destruction. Access to food commodities is likely to be compromised in the flooding zones leading to contamination, price hikes, destruction of food stocks and shelter leading to disruptions in food consumption patterns, outbreak of water borne diseases, increasing frequency of coping strategies and compromise the nutrition status.

6.0 CONCLUSION AND INTERVENTIONS
6.1 Conclusion
6.1.1 Phase classification

The county is classified under Minimal (IPC Phase I) implying most households are able to meet their food needs without employing severe coping strategies. Food is available, accessible of good nutrition and is expected to be available over the next three months. Some isolated pockets in the mixed farming: food crops and livestock livelihood zone in Taveta Sub County are classified as Stressed (IPC Phase 2).

6.1.2 Summary of Findings

The short rains were good in amount but poor in temporal distribution. Both the onset and cessation were timely and they managed to support near normal crop production. The amounts of rain received were sufficient to nurture regeneration of pasture and browse to maturity and recharged water facilities to at least 80 percent. The livestock body condition for all species was good and normal across the livelihoods. The nutrition situation is stable and has been acceptable for the last three seasons and there were no exceptional mortalities reported.

6.1.3 Sub-county ranking
Table 14: Sub County Ranking

Sub county	Ranking	Population	Percentage affected	Number	Reasons
Taita	4	56,021	5	2801	
Taveta (rain fed Areas)	3	67,665	5-10	3383 - 6767	Fair body condition and forage Migration of livestock
Mwatate	2	73,168	5-10	3658 - 7317	Break down of water facilities
Voi	1	87,803	5-10	4390 - 8780	Human wildlife conflict

6.2 Ongoing Interventions
6.2.1 Non Food Interventions
Table 15: Non Food Interventions

Sub County	Ward	Intervention	No. of beneficiaries	Implementers	Impacts in terms of food security	Cost (Ksh)	Time Frame

Agriculture							
Mwata te	All	Farm pond construction	3,000	WV, NDMA, CGTT	Improve availability of micro nutrients	35Million	On going
Mwata te	All	Post-harvest management	6,000	CGTT	Improve food storage	1.6M	On going
Taita	Werugh a	Water harvesting	1,000	County Government (agric) Community	Increase French beans/sno w peas and other vegetables	2.3Million	July 2018 – June 2019
Taita	Wundan yi	Water harvesting	500	County Government agric Community	Increase vegetables production in the lowlands	2.5Million	July 2018 – June 2019
Voi	All wards	Improved extension services	13,888	County Government of Taita Taveta	Increased food security	5M	5 years
Livestock							
Taita Taveta	All	Artificial insemination	More than 2,000 farmers	CGTT	Breed improvem ent	2M	On going
Taita Taveta	Taita, Mwatat e	Pasture improvement (Bracheria promotion)	1,000 farmers	KARLO-Katumani	Pasture improvem ent	4M	On going
Health							
Entire Count y		Micro Nutrient supplementation and deworming(Procure ment, supply and distribution of micronutrients Vitamin A, and dewormers in all the facilities to Children under-fives (through facilities, ECDEs, Campaign and outreaches, Health education on micronutrient supplementation and deworming(	28,265(Child ren 6 – 59 months) 67 health Facilities	TTCG/ UNICEF	Reduction in morbidity rates	UNICEF –Vitamin A capsules Other partners programme costs- 1 million	Continuo us

		Facilities, Community dialogues, house to house)					
Entire County		Supply of essential commodities for Integrated Management of Acute Malnutrition (IMAM) (Training and OJT of staff on quantification and forecasting of nutrition and health commodities, Procurement, supply and distribution of commodities, Data collection and reporting)	1000	TTCG/ UNICEF/WFP	Proper management of acute malnutrition	2 million (TTCG) Support in kind from UNICEF and WFP	Continuous
		Capacity building on LMIS of health workers	90 health workers	TTCG/NHP plus, Afya Pwani, KEMSA	To build the capacity of health workers on LMIS	2 million	October 2019
		Coordination among stakeholders(Quarterly CNTF, Joint Monitoring and supervision	30 participants per meeting	TTCG/Partners	To Strengthen coordination among stakeholders	20,000(TTCG)	February, July and December 2019
Education							
All school in Taita , Voi, Mwatate and Taveta		Provision of Food (under ESMP)	All Schools (241) - 53,232	MoE partners	Improved attendance and Retention	Ministry of Education World Food Program	Oct (2018)- March (2019)
Voi and Mwatate		Provision of Food (under HGSMP)	134 - 22,975	Moe WFP	Improved attendance and Retention	Ministry of Education World Food Program	continuous

6.3 Recommended Interventions
6.3.1 Food Interventions
Table 16: Food Interventions

Sub county	Population	Pop in need (% range Min-Max)
Taita	56,021	5
Taveta (rain fed Areas)	67,665	5-10
Mwatate	73,168	5-10
Voi	87,803	5-10

6.3.2 Non Food Interventions

Table 17: Non Interventions

Sub County	Ward	Intervention	No. of beneficiaries	Proposed Implementers	Required Resources	Available Resources	Time Frame
Agriculture							
Immediate interventions							
All four Sub Counties	All	Post-harvest management trainings	6,000FFs	CGTT	1M	Staff	On going
Livestock							
Immediate interventions							
Mwatate	Mwachabo, Bura	Strengthening livestock disease surveillance		CGTT and other stakeholders	800,000	200,000	2 months
Mwatate	Mwachabo, Bura	Vaccination of FMD	40,000 animals	CGTT	900,000	100,000	1 month
Voi	Kasigau - Kisimenyi	Provision of water	2,000 animals	CGTT, other Stakeholders	600,000	Technical support	1 month
Medium and Long term Recommended Interventions							
County	Kisimenyi, Ndara, Mwatate, Mbulia, Mata	Desilting of existing and excavation of new water pans	10,000 animals	CGTT, other Stakeholders	30M	2M	8 months
Water							
Immediate interventions							
Bura Ward		Repair of Nyangoro borehole - Godoma	5000	CGTT	2.2M	200,000	1 month
Medium and Long term Recommended Interventions							

Kasigau	Zungulukani	Construction of Tank tower. Storage tanks and installation of R.O machine for Zungulukani B/H	2,000	CGTT	7M	1.5M	3months
Kishushe /Wumingu		Construction of Mlilo-Kishushe pipeline	12,000	CGTT/National	15M	Technical staff	Planning &design stage
Sagalla		Construction of rock catchment in Kajire	3,000 Human population &livestock	CGTT	50M	Technical staff	6months
Voi sub county		Conservation of water sources/ Spring protection at Sagalla Juu,	10,000	CGTT,	50M	Technical staff	3months

Health

Immediate interventions

Entire County	Entire County	Conduct a KABP(Knowledge, attitude, beliefs and practices) Survey	319141	TTCG/ Partners	2.5M	Health Personnel	March 2019-July 2019
COUNTY		Conduct Nutrition assessment and integrated outreaches for malnutrition cases to the most affected areas in all children below 5 years (Mass screenings and outreaches)	45,529	MOH, UNICEF, KRCS /NDMA	2M		March 2019-July 2019
COUNTY		Scale up Vitamin A Supplementation	45,529	MOH/UNICEF/ PARTNERS	2M	Donations from UNICEF	March 2019-July 2019
COUNTY		Scale up Management of Acute Malnutrition (IMAM) through training of HCWs.	100	CGTT/ UNICEF	1.6M		March 2019-July 2019

Medium and Long term Recommended Interventions

Taita Taveta County		Strengthen and Scale up of SFP and OTP	1,000	TTCG/WFP/UNICEF	1M	Trained Health workers, HFs	April 2019 - Dec 2019

Sub-County	Intervention/ Activity	Justification/ Reason/ Need For This Activity	Location	No. of Beneficiary Targeted	Proposed Implementers	Required Resources	Time Frame
		Procurement and Prepositioning of Supplemental and therapeutic Feeds and equipment (RUSF,RUTF,CSB, MNPs, weighing scales)				5.5M	
Taita Taveta county		Strengthen Disease surveillance	319,141	TTCG/Partners	DSA, Transport & air time (Ksh 66,000)	Personnel	Jan 2019- July 2019
All four subcounties		Strengthen Outreach services and malnutrition screening	50,000	TTCG/Partners	DSA, Transport (550,000)	Personnel & commodities	Jan 2019- July 2019
Sub-County	**Intervention/ Activity**	**Justification/ Reason/ Need For This Activity**	**Location**	**No. of Beneficiary Targeted**	**Proposed Implementers**	**Required Resources**	**Time Frame**

Education

Immediate Interventions

Taveta	ASAL/ dry zones of Challa and Kimorigho	Wash facilities For the 20 schools in Taveta (Supply of water and leaky tins or container)	ASAL /dry zones of Challa and Kimorigho	8,600	World Vision TTCG Red Cross MoE	600,000	Continuous

Medium and Long term Recommended Interventions

Taveta	Jipe location	Provision of water and food ration	Jipe location	2,371	-World Vision -TTCG -Red Cross -MOE	6.5M	Jan - Oct
Taita	Kishushe/ Sangenyi	Provision of food and provision of water	Kishushe/ Sangenyi	3,600	-MoE TTCG	10M	Jan – Oct
Voi	Mbololo/ Kasigau	Provision of food and Provision of water	Mbololo/ Kasigau	10, 216	MoE TTCG	28M	Jan – Oct

Mwatate	Mwakitau/ Kamtonga	Provision of food and Provision of water	Mwakitau/ Kamtonga	8,557	MoE TTCG	24M	Jan – Oct
All sub-counties	Mining and irrigation area	Awareness on sexuality	Mining and irrigation area	3,500	Moe County education Office	2M	Continuous