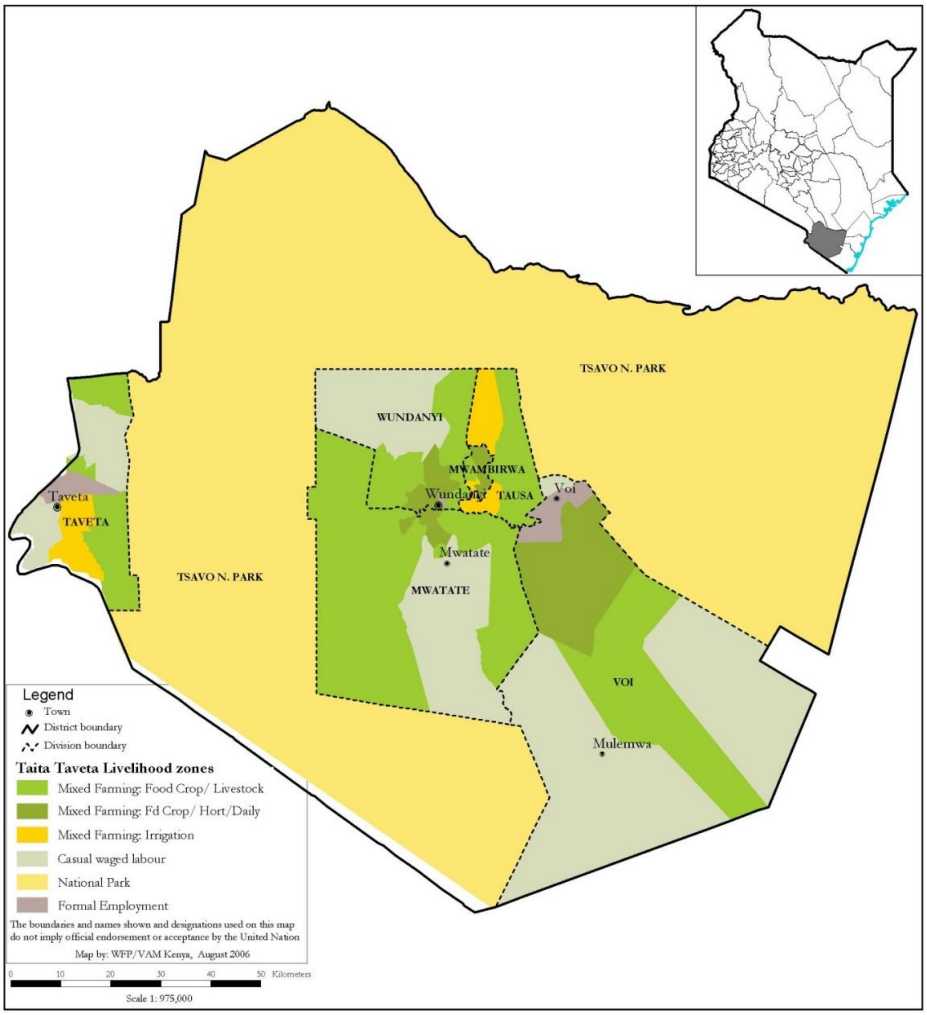
TAITA TAVETA COUNTY

2017 LONG RAINS FOOD SECURITY ASSESSMENT REPORT



A Joint Report of Kenya Food Security Steering Group[1] and Taita Taveta County Steering Group

July, 2017

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Executive Summary

Taita Taveta County is classified in the Stressed (Phase 2) phase of the Integrated Food Security Phase (IPC), which imply that even with any humanitarian assistance, household groups have minimally adequate food consumption but are unable to afford some essential non-food necessities without engaging in irreversible coping strategies. The main drivers to the current food insecurity situation is attributed to the late onset and early cessation of the Long rains that ended a month earlier in most areas coupled by total crop failure during the previous season. Food prices are high with a kilogram of maize was trading at Ksh 60 – 70.

An average goat in June was selling at Ksh 3,850, which was approximately 17 percent above the five-year average of Ksh 3,280. Due to the previous drought, most households in the Food crop/food crop zone lost their livestock and as a result, their income level has deteriorated. Milk production has also reduced. Pasture and browse condition was good in the mixed farming (irrigation/livestock) and horticulture /dairy zones. However, in the mixed farming (crop/livestock) zone, pasture range from fair to poor. As a result, body condition for cattle is poor in the mixed farming (crop/livestock) zone.

The average return trekking distances from grazing area to watering points in the food crops/livestock and irrigation/ livestock livelihood zones have increased to 5 - 8 km compared with the normal 3 - 4 km. In the horticulture and dairy livelihood zone, trekking distances have remained at the normal 0.5-1 km. Though the County is not experiencing major migration, a few cases were reported in Taveta sub-county with livestock migrating from Rombo in Kajiado to Taveta, and from Taveta to Tanzania in search of pasture and browse.

The proportion of children at risk of malnutrition in the month of June was 4.6 percent compared to the Long term average of 3.6 percent. Serious cases of malnourishment for children <5 years were observed in Marungu Ward. High cases of malnutrition can be attributed to poor feeding habits due to poor harvests being experienced in the rain fed lowlands and prolonged drought which also changed the feeding patterns in the community mostly in Voi and Mwatate sub-counties. While there was a general decline in malaria diseases, diarhoea cases increased. There were no market disruptions. However, due to conflicts areas such as Njoro Masaini and Mgeno neighbouring the park are experiencing conflicts between rangers and herders. The food security situation in the Food crop/food crop zone is expected to deteriorate further in most parts of the County.

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1.0 INTRODUCTION

1.1 County Background

Taita Taveta County is one of the 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 north-west and the Republic of Tanzania to the North West and South West. It covers an area of 17,128.3km^2 consisting of 62 percent Tsavo East and Tsavo West National Park, 24 percent Range land and 12 percent land suitable for rain fed Agriculture. Administratively, the county is divided into four Sub Counties namely; Taita, Wundanyi, Voi, Mwatate and Taveta. It has a projected (2016) population of 358,173 persons according to 2009 census. The county is divided into three major livelihood zones namely; mixed farming-food crops and livestock (34 percent), mixed farming- horticulture and dairy (21 percent), mixed farming irrigation and livestock (11 percent), others (34 percent) as shown in Figure 1.

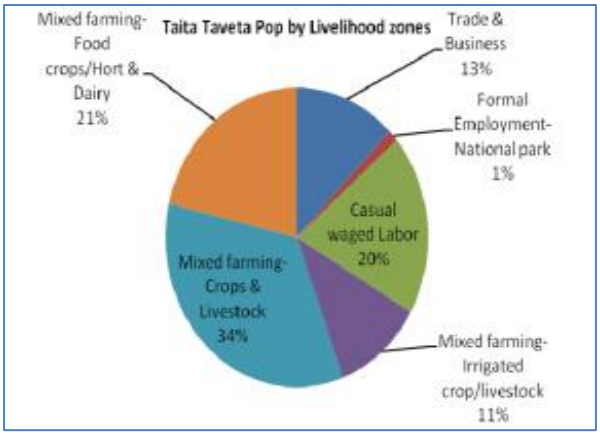

Figure 1. Population by Livelihood zone

1.2 Objectives and Approach

The main objective of rapid long rains food security assessment was to develop an objective, evidence-based and transparent food security situation analysis following the long rains season of 2017, taking into account the cumulative effect of previous seasons, and to provide immediate and medium term recommendations for possible response options based on the situation analysis. Primary data was collected during the field visits at the County where community and market interviews were conducted. Technical reports were also provided by the sectoral technical members at the County level. Secondary data collected from the early warning system was relied upon to provide trends for the different food security indicators.

2.0 DRIVERS OF FOOD AND NUTRITION SECURITY IN THE COUNTY

2.1 Rainfall Performance

The onset of the long rains was late with rainfall being experienced in the third dekad of March in most parts of the county instead of the normal second dekad of March. However, the lowlands of Taita sub-county which include Kishushe, Mlilo and Voi Sub-County such as Mbulia recorded zero amounts of rainfall throughout the season. Most parts of the County received between 75-90 percent of normal rains. The spatial distribution was uneven and the temporal distribution was poor in most parts except for the horticulture/dairy livelihood zone. The rains

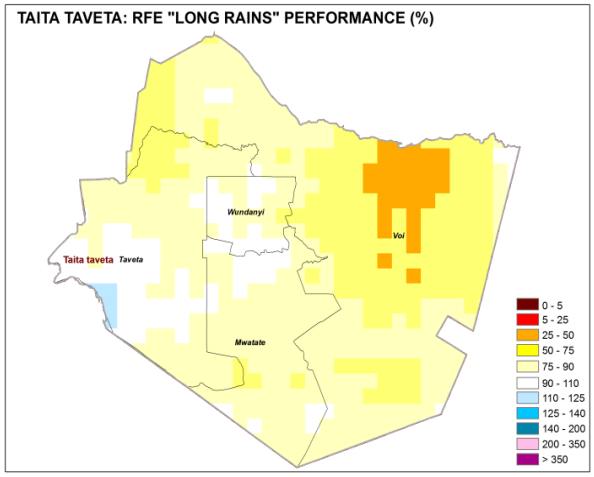

Figure 2. Long Rains Performance

ended earlier towards the end of April instead of the normal first dekad of June in the Irrigated zone and some parts of mixed farming food crop and livestock zones as confirmed by Mwachawaza, Eldoro and Challa rainfall stations. However, rains in the food crop/horticulture/dairy livelihood zone ended a week earlier on the third dekad of May.

2.2 Current Shocks and Hazards

The main hazards contributing to food insecurity in the county include late onset and earlier cessation of the long rains which led to drying up of most crops. High food prices continue to limit household access to food. Human wildlife conflict where there was massive crop destruction by elephants when maize was at tasseling stage in Alia, Kwa Kele, Manoa, Mlughi, Mgama, Jora and Ngambenyi in the mixed farming (food crop/ livestock) zone.

3.0 IMPACT OF DRIVERS ON FOOD AND NUTRITION SECURITY

3.1 Availability

3.1.1 Crop Production

Taita Taveta County is short rains dependent for crop production except for Taveta Sub-County, which depends on long rains. Long rains contribute 20 percent of food requirements in the County. The major crops grown under rain-fed production are maize, beans and green grams. Maize contributes 30 percent and two percent to food and cash income respectively in the mixed farming (food crops and livestock) livelihood zone. In the mixed farming (horticulture and dairy) and mixed farming (irrigation and livestock) livelihood zones, maize contributes to 35 and 17 percent food respectively. Green grams are mainly grown for cash income and contribute 90 percent to cash income and 10 percent to food.

Table 1. Rain fed Crop production

Crop	Area planted during 2017 Long rains season (Ha)	Long Term Average (5 year) area planted during the Long rains season (Ha)	2017 Long rains season production (90 kg bags) Projected/Actual	Long Term Average (5 year) production during the Long rains season (90 kg bags)
1. Maize	3,681	7,380	5,522	22,140
2.Beans	1,069	1,735	3,207	10,410
3.Green Grams	1,123	1,566	4,492	8,613

Area under maize and beans declined by 50 percent and 38.4 percent respectively compared to long term average (LTA). Similarly, area under green grams declined by 28.3 percent compared to long term average. The decline in area under crops was attributed to weather forecasts provided by the Kenya Meteorological Service indicating the possibility depressed long rains. Notably, the immediate October to December short rains of 2016 performed poorly and the farming community was hesitant to invest during the Long rains season in view of the official weather focus predicting below average rains.

The projected production for all the major crops under rain fed is expected to decline significantly by 75 percent for maize, 69.2 percent for beans and 47.8 for green grams compared to long term average production for the crops. Maize harvesting is yet to be completed. Poor distribution of rains both in time and in space, late onset as well as early cessation were major contributing factors to the expected poor crop yield. The crop/livestock livelihood zone recorded a total crop failure.

Irrigated Crops

Irrigated crops in the County are bananas, maize and beans in order of importance and are largely grown in the mixed farming (irrigation and livestock) livelihood zone. Bananas contribute 25 percent to cash income and 22 percent to food. Maize and beans each contribute 19 percent to food. Irrigation is mainly confined in two sub-counties namely Taveta and Taita even though other technologies being promoted especially farm ponds provide additional opening to undertake small scale irrigation in other sub counties mainly Mwatate and Voi.

Table 2. Irrigated Crop production

Crop	**Area planted during the 2017 Long rains season (ha)**	**Long Term Average (3 years) area planted during Long rains season (ha)**	**2017 Long rains season production (90 kg bags/MT) Projected/actual**	**Long Term Average (3 years) production during 2017 Long rains season (90 kg bags/MT)**
1.Bananas	2,120 (MT)	1,975 (MT)	74,186 (MT)	69,550 (MT)
2. Green Maize	1,020 (90 kg bags)	1,267 (90 kg bags)	25,352 (90 kg bags)	31,570 (90 kg bags)
3. Beans	327 (90 kg bags)	400 (90 kg bags)	4,905 (90 kg bags)	7,200 (90 kg bags)

Area under bananas slightly increased by seven percent compared to LTA attributed to intensified campaigns and investment by the County Government as well as availability of markets for the crop. However, area planted under maize and beans decreased by 24 percent and 22 percent respectively compared to LTA due to inadequate water for irrigation Banana production increased by six percent compared to the long-term average attributed to introduction of high-yield varieties, improved general husbandry practices and techniques as well as increased hectarage under the crop. e production of green maize and beans reduced by 25 percent and 47 percent respectively compared to the long-term average. due to insufficient water, hence increased competition for water by many farmers engaging in irrigated production.

Increase in hectarage is mainly due to good management of available water while decreased acreage in Nyolo, Kimala and Kasokoni irrigation scheme is mainly due to poor management and insufficient water. The limiting factors to utilization of potential acreage for irrigation is lack of insufficient water, upstream water over abstraction, lack of knowledge to utilize modern technology and lack of improved infrastructure/ maintenance of canal lining.

Table 3. Irrigation schemes in the County

Ward /Livelihood zone	Name of the Irrigation Scheme and Size (Acres)	Type of irrigation	Acreage During the Previous LRA	Current Acreage	Potential Acreage for Irrigation
Bura	Nyolo	Canal	20	3	60
Ronge	Msau	Canal	25	40	120
Horticulture/dairy	Tambaru	Furrow	15	20	40
	Mraru	Furrow	20	20	40
	Ngalenyi	Furrow	15	15	40
	Mriwa	Furrow	10	10	15
Challa	Challa	Open canal gravity flow	792	800	900
Mata	Kimala	Open canal gravity flow	500	450	507
Mboghoni	Kamleza	Open canal gravity flow	480	500	600
	Kasokoni	Open canal gravity flow	106	100	107
Challa	Njukini	Open canal gravity flow	640	650	700

Cereal stocks

The main staple foods consumed in all the livelihoods zones of the county are maize, rice, sorghum, millet and beans. Total maize stocks held in the county were approximately 25 percent of the long-term average while stocks held by households and traders were 7.4 and 46 percent of the LTA respectively. Low maize stocks held by households is an indication the County is experiencing perhaps a worse drought than ever after a long time. Stocks at household level are largely held in the horticulture/dairy and irrigation/livestock livelihood zones and are expected to last for approximately 1 to 2 months (August/ September) compared with the normal three to four months (November/ December). Farmers in the Crop/ Livestock livelihood zone experienced a total crop failure during the long rains and are relying on markets for their food supplies

Table 4. Cereal Stocks in the County

Commodity	Period	Households	Traders	Millers	NCPB	Total
Maize (in 90 kg bags)	Current	3,292	16,440	0		24,128
	LTA	44,700	35,640	0		80,340
Rice (in 50 kg bags)	Current	2,636	10,000	0	0	12,636
	LTA	7,009	11,080	0		18,089
Millet (in 90 kg bags)	Current	3	60	0	0	63
	LTA	2	70	0		72
Sorghum (in 90 kg bags)	Current	4	275	0	0	279
	LTA	19	293	0		312

3.1.2 Livestock Production

The major livestock in the County are cattle, goats and sheep. Livestock production contributes 33 percent to cash income in the mixed farming (food crops and livestock) livelihood zone and 20 percent in both the mixed farming (horticulture and dairy) and mixed farming (irrigation and livestock) livelihood zones. Goats account for 30 and 25 percent of cash income in the mixed farming (food crops and livestock) and mixed farming (irrigation and livestock) livelihood zones respectively.

Forage condition

The condition of pasture and browse is worse than expected and deteriorating in Mixed farming food crop /livestock zone owing to poor Long rains season and are estimated to last for two months up to August. Some parts of the county like Kishushe, Mbulia, Ndara and Taita Village did not receive rains at all while some parts in Crop/livestock zone had poorly and sparsely distributed rains. Fodder performance in mixed farming (horticulture /dairy) livelihood zone and mixed farming irrigation / livestock livelihood zones is good.

Table 5. Pasture and Browse Condition in the County

Livelihood Zone	Pasture condition			Browse condition		
	Current condition	Situation in June 2016	Projected period to last (Months)	Current condition	Situation in June 2016	Projected period to last (Months)
Mixed farming: Crop/livestock	Fair to poor	Good	1-1.5 (July- mid-August)	Fair	Good	2
Mixed farming: Irrigation/livestock	Good	Good	3 (September-October)	Good	Good	3
Mixed farming: Horticulture /dairy	Good	Good	3 (September-October)	Good	Good	3

However, the trend for fodder and pasture production and availability is downwards. The forage is likely to last for about 2 months in the low land while in mixed farming (horticulture /dairy) livelihood zone, fodder and forages may last for 3 months. Areas such as Njoro Masaini and Mgeno are experiencing conflicts between rangers and herders limiting access to pasture and browse.

Livestock Productivity

Body condition

Cattle body condition in the mixed farming (food crop/ livestock) zone is fair, but projected to deteriorate as pastures and browse dwindle in the hot spot areas including Kishushe, Mwaroko, Sangenyi and Paranga in Taita; Miasenyi, Kisimenyi, Bachuma and Buguta, in Voi; Mgeno, Mwachabo and Mwaktau in Mwatate; Challa, Kitondoni, Mahandakini, Kimorigho, Njukini, Chumvini, Mata and Lotima in Taveta. Body condition of shoats is good across all livelihood zones. The poor body condition for cattle in the mixed farming (food crops and livestock especially in the isolated areas mentioned above is attributed to long trekking distances in search of pasture given the enhanced restrictions on grazing. The body condition of goats and sheep is expected to remain stable until October while that for cattle is expected to marginally deteriorate in the mixed farming (food crops and livestock) livelihood zone until the onset of the short rains in October, due to deteriorating pasture conditions in this zone. Good body condition means better livestock market prices and good productivity. The result is improved on food security, however, as body condition deteriorates, livestock market prices decrease lowering the income at the farm level thus negatively impacting on food security.

Table 6. Body condition of livestock in the County

Livelihood zone	Cattle		Sheep		Goat	
	Current	Normal	Current	Normal	Current	Normal
Mixed farming: Crop/livestock	Poor	Good	Fair	Good	Fair	Good
Mixed farming: Irrigation/livestock	Good	Good	Good	Good	Good	Good
Mixed farming: Horticulture /dairy	Good	Good	Good	Good	Good	Good

Milk Production, consumption and prices

Most households in the mixed farming (food crops and livestock) and mixed farming (irrigation and livestock) livelihood zones consume all milk they produce, but in the mixed farming (horticulture and dairy) livelihood zone, milk production above the household consumption of one litre is sold.

Pasture is good in the mixed farming (horticulture and dairy) zone as a result of the near-normal rainfall received during the long rains season, however, decline in milk production is attributed to prevailing cold weather condition in highland areas while in Crop/livestock zone is due to inadequate and low-quality feeds.

Table 7. Milk production, consumption and farm gate prices

Livelihood zone	Milk Production (Litres)/Household/ day		Milk consumption (Litres)per Household/ day		Prices (Ksh)/Litre	
	Current	LTA	Current	LTA	Current	LTA
Mixed farming: Crop/livestock	1	2	0.5	1	50	40
Mixed farming: Irrigation/livestock	1	2	1	2 s	60	50
Mixed farming: Horticulture /dairy	5	8	1	2	35	30

Tropical livestock units (TLU) and Birth rates

Tropical livestock units (TLUs) were below normal in all livelihood zones as shown in Table 8 below and the decrease in TLUs for the poor and middle-income wealth groups in the mixed farming (irrigation and livestock) and mixed farming (food crops and livestock) livelihood zones was attributed to livestock deaths and voluntary offtake caused during the prolonged drought.

Table 8. Tropical Livestock Units

Livelihood zone	Poor income households		Medium income households	
	Current	Normal	Current	Normal
Mixed farming: Crop/livestock	2	3	4	5
Mixed farming: Irrigation/livestock	2	3	4	6
Mixed farming: Horticulture /dairy	1	2	2	5

In the mixed farming (horticulture and dairy) livelihood zone, decrease in TLUs was attributed to voluntary sales in the last dry season. In addition, TLU is also low due to small land holdings which cannot allow for expansive livestock keeping in the Mixed farming (horticulture and dairy) livelihood zone. Birth rates for all species across the livelihood zones were near normal. Birth rates for cattle in mixed farming (crop and livestock) were 43 percent compared with the normal of 50-70 percent due to insufficient feeds both in quantity and quality but it is normal in goats and sheep. Birth rates were normal for all livestock in the other livelihood zones.

Migration, Livestock Diseases and Mortalities

There were no major reported cases of in/out migration, a few cases of migrations were reported in Taveta sub-county with livestock migrating from Rombo in Kajiado to Taveta Sub-County, and from Taveta to Tanzania in search of pasture and browse. Migrating livestock is estimated to be about 2,000 cattle and 6,000 goats and sheep. The migrations are normal and are due to depleted pastures /browse in neighboring counties/country. Migrations are expected to increase

in crop/livestock zone and irrigation/livestock zone due to enhanced restrictions on grazing in both the national park or on private land. No disease outbreaks were reported in the County but livestock mortalities were slightly higher than normal owing to effects drought in previous and current seasons resulting to inadequate pasture and water.

Table 9. Current Livestock Mortality rates

Livelihood zone	Cattle		Sheep		Goat	
	Current (%)	Normal (%)	Current (%)	Normal (%)	Current (%)	Normal (%)
Mixed farming: Crop/livestock	0.5	0.2	0	0	0.2	0.1
Mixed farming: Irrigation/livestock	0.5	0.2	0	0	0.2	0.1
Mixed farming: Horticulture /dairy	0.15	0.1	0	0	0.1	0.1

Water for Livestock

The main sources of water for livestock in the county are springs, streams, and dams. Piped water is mainly in the horticulture and dairy livelihood zone while springs and rivers are in the irrigation and livestock livelihood zone. Water pans, dams and boreholes are mainly relied on in the food crops and livestock livelihood. The average return trekking distances from grazing area to watering points in the food crops/livestock and irrigation/ livestock livelihood zones have increased to 5 - 8 km compared with the normal 3 - 4 km. In the horticulture and dairy livelihood zone, trekking distances have remained at the normal 0.5-1 km

Table 10. Water availability and access for Livestock

Livelihood zone	Sources		Return average distances (km)		Expected duration to last (months)	
	Current	Normal	Current	Normal	Current	Normal
Mixed farming: Crop/livestock	Water bowsers	Pans, dams, occasionally, boreholes	8	4	4	2
Mixed farming: Irrigation/livestock	Springs and rivers	Springs and rivers	5	3	4	2
Mixed farming: Horticulture /dairy	springs, streams, and dams and piped water	springs, streams, and dams and piped water	1	0.5-1	3	4

The frequency of watering was normal, once daily for all livestock in the irrigation/livestock and horticulture/dairy livelihood zones, while in the food crops/ livestock livelihood zone, all the livestock were watering once every two days due to increased distances to pasture.

Table 11. Watering frequency in days per week

Livelihood zone	Cattle		Goats		Sheep	
	Current	Normal	Current	Normal	Current	Normal
Mixed farming: Crop/livestock	3 days	Daily	3-4 days	Daily	3-4	Daily
Mixed farming: Irrigation/livestock	7 days	7 days	7 days	7 days	7 days	7 days
Mixed farming: Horticulture /dairy	7 days	7 days	7 days	7 days	7 days	7 days

3.2 Access

3.2.1 Markets and Trade

Market operations

The major markets in the county are Wundanyi, Mwatate, Voi, Chumvini and Taveta. No market disruption has been observed across all livelihood zones. Most food commodities in the market are mainly from local supplies and cross border inflows from Tanzania. The key staple foods consumed in the different livelihoods of the county are Maize flour, rice, cow peas and green grams. The main source of maize across the County is mainly from Tanzania.

Maize price

The price of maize varies from Ksh 45 in Taveta market, Ksh 55-60 in Taita and Ksh 60 in Mwatate and Voi markets. The county average market price of maize per kilogram was Ksh 45 in the month of June was Ksh 45, nine percent above the LTA of Ksh 41 per kilogram as shown in Figure 4 due to limited availability. Further rise in prices have been mitigated by cross border flows of maize from Tanzania through the border town of Taveta. Milled maize flour ranges from Ksh 70-80 per kilogram. Supply in the irrigated zone is expected to stabilize from August due to harvesting of early maize crop.

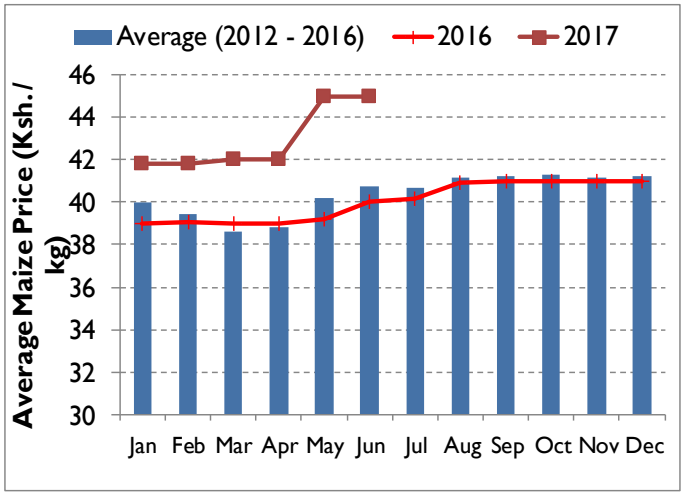

Figure 3. Maize prices

Goat price

The average market price for a medium-sized goat within the County ranges from Ksh 3,000 - 4,000. The farm gate price in June was Ksh 3,850, which was approximately 17 percent above the five-year average of Ksh 3,280 due to good body conditions boosted by the relatively good rains in most parts of the county and a high demand for goats in the market. Goat prices are expected to remain high.

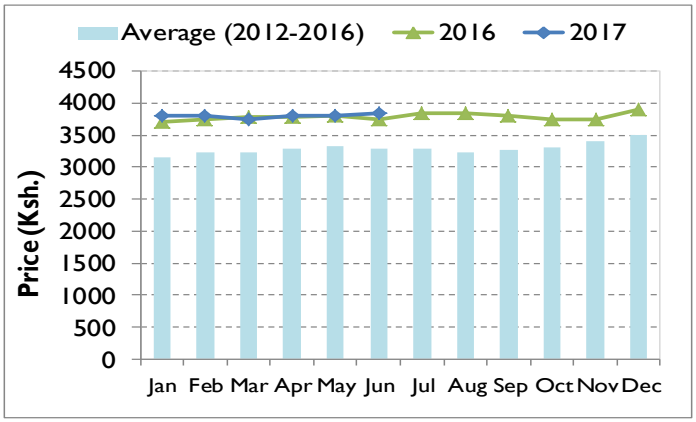

Figure 4. Goat prices

3.2.2 Terms of trade

During the month of June 2017, households were able to purchase 86 kilograms of maize with the sale of one medium-sized goat when normally, they would access 81 kg with the sale of a goat as indicated. The ToT is six percent above the LTA facilitating market purchases in households through livestock sales. ToTs are however expected to decline from August as livestock body conditions deteriorate but stable in the Irrigated zones areas as maize harvests become available and reduce prices.

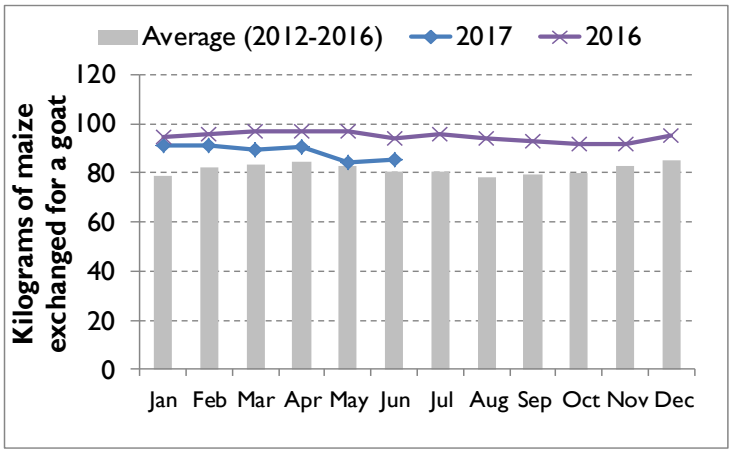

Figure 5. Terms of trade

3.2.3 Income Sources

The current main income sources and proportion of population engaging in them include Casual labour, remittances, Trade and formal employment at 58.9 percent, 22.9 percent, 8.6 percent and 7.8 percent respectively. Casual laborers and remittances have increased due to decreased farm production from the previous season as a result of consecutive failure. Sale of livestock products and sale of crops accounts for 1.9 percent and 0.5 percent of total income respectively.

3.2.4 Water Access and Availability

Major water sources

The current main sources for domestic water in the livelihood zones are pipelines, boreholes and water pans. Springs and rivers/streams are mostly in Mwatate, Taita and Taveta Sub-Counties. Most sources were recharged up to 80 percent of their capacity due to fair rainfall amounts during the season. The level of flow for main rivers is currently normal though they are expected to reduce as drought persists. Except one pipeline, all other are operational while 31 out of 37 boreholes and 21 out of 25 water pans are operational.

Table 12. Most Concentrated Water Points

Ward/ Livelihood zone	Actual Name of the Water Point	Normal No. Served	Current No. Being Served	Reason(s) for Variation
Food crops/livestock livelihood zone				
Kasigau	Marungu-Bughuta pipeline	6000	7000	Drying up of other water sources Water scarcity and distribution pattern
	Rukanga rock catchment	1500	2000	Water scarcity and rationing
	Jora spring	1200	1500	Water scarcity and storage
	Makwasinyi spring	1000	1000	Water scarcity and rationing
Ngolia	Ghazi	3500	3500	Water scarcity and rationing
	Mbulia pipeline	1000	1000	Water scarcity and rationing
Mwatate	Nyangoro borehole	7000	7000	N/A
Marungu	Kale waterpan	100	100	Water distribution pattern and rationing
	Maungu pipeline			N/A
Mwatate	Kwa Ndoto borehole	500	500	N/A
Taita	Kishushe Water project	3500	3500	N/A
Horticulture /Dairy Livelihood zone				
Sagalla	Kirumbi borehole	3000	3000	N/A
Mwatate	Mwaroko Iyombonyi	3500	3500	N/A
Taita – Wundanyi	Irido	1000	1000	N/A
Taita - Werugha	Kishenyi dam	2000	2000	Saghasa Vighombonyi water project has been non-operational due to a broken-down pump at Kishenyi dam.
Irrigation/ Livestock	Mahoo	1000	2000	No distribution has been done

Except for Mzima pipeline supplying water to Mbulia, all other water pipelines are operational. 20 out of 23 boreholes are operational while Bughuta, Ghazi, Mbulia and Jora boreholes in the mixed farming food crop/livestock zone and Chala primary, California and Bura Ndogo in the food crop/livestock zone are not operational due to mechanical breakdown of water pump sets. Mkamenyi, Bughuta, Mengoa and Kale water pans in the mixed farming food crop/livestock zone are not operational due high siltation hence inadequate recharge.

Areas that rely on water trucking throughout the year include Alia, Kituma, Mbulia and Bughuta and Chumvini. More than 80 percent of households in Mbulia and all households in Bughuta rely on water trucking throughout the year. Most institutions in Mbulia and Bughuta have water harvesting structures and water is being supplied by private bowsers at a cost. Alia has a borehole with saline water only fit for livestock and other domestic non-consumption purposes, drinking water is sourced from Bura Station. In Kituma, there is no piped water or borehole and households get water from Bura station. Water pans in the food crop/livestock zone are expected to last for 2 months (until September) instead of 3 months (October) while in the horticulture/dairy zone, water pans will last for about five months, which is normal. Water points that usually experience high concentration are shown in Table 12.

Distance to water sources and Waiting time at the source

Return distances to water sources are normal ranging from 200 to 500 metres in the Mixed farming food crop/horticulture/dairy and in the irrigation/livestock zones. However, return distances in the food crops/ livestock have doubled to four kilometres. The current waiting time at the water source in the mixed farming food crop/horticulture/dairy and in the irrigation/livestock zone is normal at five minutes. However, waiting time in Taita (Kishushe, Mwaroko, Sangenyi and Paranga), Voi (Miasenyi, Kisimenyi, Bachuma and Buguta), Mwatate (Mgeno, Mwachabo and Mwaktau) and Taveta (Challa, Kitondoni, Mahandakini, Kimorigho, Njukini, Chumvini, Mata and Lotima) in the food crops/ livestock has increased from the normal 20 minutes to 100 minutes due to drying up of pans, rationing of the piped sources as a result of reduced discharge at water collection points and increased demand at available water sources.

Cost of Water

The cost of water has remained normal at two shillings per 20 litre jerrycan in the mixed farming food crop/horticulture/dairy zone and three shillings in the irrigation/livestock and food crops/ livestock zones. However, in Mbulia and Bughuta, private water vendors sell water at Ksh 3,500 for 5,000 litres to individuals who own personal storage tanks. In return, individual tank owners sell water to 80 percent of households in Mbulia at Kshs 20 per 20 litres jerrycan throughout the year. Cost of water in Bughuta has increased from the normal Ksh 20 per 20 litre jerrycan to Ksh 30 per 20 litre jerrycan. In Mwatate sub-county, drinking water in Alia cost between Ksh40-50 while in Kituma, a 20 litre jerrycan costs Ksh 25.

Water Consumption

The average water consumption remains stable in the Mixed farming food crop/horticulture/dairy and irrigation/livestock zone at the normal 25 -30 litres per person per day. However, in the food crops/ livestock zone, water consumption has reduced from 20 to 15 litres per person per day. Consumption levels are expected remain stable until the next rainy season in the Mixed farming zone while in the Livestock zone, water consumption will continue to decline especially in the lower zone due to increasing distances.

3.2.5 Food Consumption Score (FCS)

According to the Food Security Outcome Monitoring (FSOM) study carried out by the world food programme (WFP), about 17.3, 42.1 and 40.6 percent of households have poor, borderline and acceptable Food Consumption score (FCS) respectively. Households with poor FCS are mainly in the rain fed lowlands where harvests are yet to be realized for numerous consecutive seasons. Main meals consumed were two food groups that are *ugali* and vegetables. Reduction of meals and poor dietary diversity resulted in reported high levels of malnutrition in areas like Marungu Ward in the month of May. Acceptable score implies that households were consuming at least a staple and vegetables on a daily basis complemented by a frequent consumption of pulses and oil.

3.2.6 Coping Mechanisms

The coping strategy index (CSI) reported by the national drought monitoring authority (NDMA) sentinel site data for the county in June averaged 7.8 in the mixed farming and 6.4 in the irrigated livelihood zone. Reduced CSI in June was: 24.3 in the livestock, mixed farming: 25.9, agro-pastoral: 21.4 and 23.7 in the irrigated livelihood zones. CSI for the mixed farming livelihood zone is on the increasing trend. The index implies that about seven percent of the population is engaging in consumption-related coping strategies. The main coping mechanisms employed include reduced quantity of food consumed by adults / mothers and food, borrowed food, or relied on help from relatives, casual labour and reliance on remittances.

3.2.7 Education

Taita Taveta County has a total of 204 Early Childhood Development Education (ECDE) centres, 204 public primary schools and 78 public secondary schools. There has been a noticeable increase in enrolment in primary school. From the community interviews, enrolment in ECDE and secondary schools has also increased. The total enrolment for primary schools has increased from 29,787 boys and 28,739 girls in term I to 29,947 boys and 28,815 girls in term II as indicated in Table 13. Increase in enrolment is attributed to implementation of ECD policy. Provision of school bursaries in secondary schools has led to increased enrolment.

Table 13. Enrolments in ECDE, Primary and Secondary school

	Term I 2017			Term II 2017 (includes new students registered and drop-outs since Term I 2017)			Comments (reasons for increase or decrease)
Enrollment	Boys	Girls	Total	Boys	Girls	Total	
ECD	8,020	9,066	17,086	8,025	9,063	17,088	ECD Policy
Primary	29,787	28,739	58,526	29,947	28,815	58,762	The enrolment increased due to interventions
Secondary	9,952	10,531	20,483	10,152	10,346	20,498	Steady

Participation

Participation has remained stable in ECDE, primary schools and secondary schools mainly due to school feeding in ECDE and primary schools as shown in Table 14. Attendance in the ECD centres has increased due to the ECD policy, while enrollment has increased due to effective interventions.

Table 14. School attendance

	Term III 2016		Term I 2017						Term II 2017			
Indicator	November 2016		January 2017		February 2017		March 2017		May 2017		June 2017	
School Attendance	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls
ECD	7,946	7,732	8,199	7,960	8,200	7,963	8,199	7,962	8,199	7,962	8,044	9,066
Primary	30,147	29,307	29,872	28,833	29,873	28,830	29875	28,831	29,875	28,831	29,879	28,815
Secondary	10,055	10,770	9,942	10,455	9,952	10,531	9,952	10,531	9,952	10,531	9,952	10,531

Retention

A total of 82 pupils in ECDE dropped out of school in Taveta sub-county in Term I due to implementation of ECD policy where pupils are supposed to join class one at the age of six years, 513 pupils drop out in primary school in Taveta sub-county in Term I and 100 boys and 89 girls have been transferred to other schools within the County and outside the country to Tanzania in Term II.

Table 15. School drop outs and Transition

Indicator	End of Term III 2016		End of Term I 2017	
Students dropped out from school	Boys	Girls	Boys	Girls
ECD	100 (Taveta)	-	82 (Taveta)	-
Primary	48 (Taveta)	55	386	513
Secondary	28 (Taveta)	20 (Taveta)	315	362

The main reason for transfers to Tanzania from class seven is this level qualifies them to join secondary school. Pupils from Tanzania prefer to have a good education foundation from Kenya and later go back to their country from class seven, which qualify them to join secondary school at that level. Secondary education is also cheaper in Tanzania hence most pupils leave Kenyan schools. The main reasons why children have dropped out of ECD in order of priority are absence of a nearby school, migration, moving away from school area and household not seeing the value of schooling. Drop outs in primary schools is due to engaging in household chores/ responsibilities, household not seeing the value of schooling and early marriage and pregnancy for girls. In secondary school, reasons for dropping out include high school fees in addition to those previously mentioned. Schools that lack hand washing facilities number about 32 while 30 schools have no functional drinking water within 100 metres. The de-worming exercise reached

107 schools and 12 schools have communicable disease prevention programmes. Transition rate from ECDE to primary school is over 90 percent while transition rate from class eight to form one averages around 67 percent. Transition rates from primary to secondary for boys and girls are 66 percent and 68 percent respectively.

School Meals Programme (SMP)

All ECDE centres have access to porridge and a total of 22,293 pupils under school means program while a total of 31 schools with 7,237 boys and 6,859 girls are not covered. School meals programme is hampered by delays in food delivery, lack of water for cooking and surplus of children leading to insufficient food to cater for all.

Table 16. Data on School meals programme

COUNTY	No. of schools with school feeding	HGSM		RSMP		Total number of beneficiaries	
		Boys	Girls	Boys	Girls	Boys	Girls
Taveta	31	7237	6859	-	-	7237	6859
Mwatate	11	913	800	-	-	913	800
Taita	13	-	-	1278	1279	1278	1279
Voi	16	2082	1846			2082	1846
Grand Total	**71**	**19737**		**2557**		**22,294**	

Small conclusion on effects of drought on schools and effects of school meals programme on food security among school going children

3.3 Utilization

3.3.1 Health and Nutrition

Morbidity and Mortality Patterns

The leading diseases during the season were Upper Respiratory Tract Infections (URTI), diarrhoea and Malaria for both under five populations and the general population. The trends for the same period (January to June) are normal compared to a similar period in 2016. However, there was a general decline in malaria diseases in all the sub-counties where malaria was not among the top three diseases and this is similar compared to the same time last year. This can be attributed to interventions like issuance of nets for children under one year and pregnant mothers including a mass net distribution conducted in 2015, among other interventions towards malaria control.

In the Month of February, March and May there was an increased number of diarrhoea cases reported especially in Voi, Mwatate and Taveta sub-counties respectively as a result of the dry spell and water shortage experienced in the three sub-counties. No epidemic prone diseases have been reported between January to June 2017. This is similar compared to the same time last year as well as the long term mean (LTM).

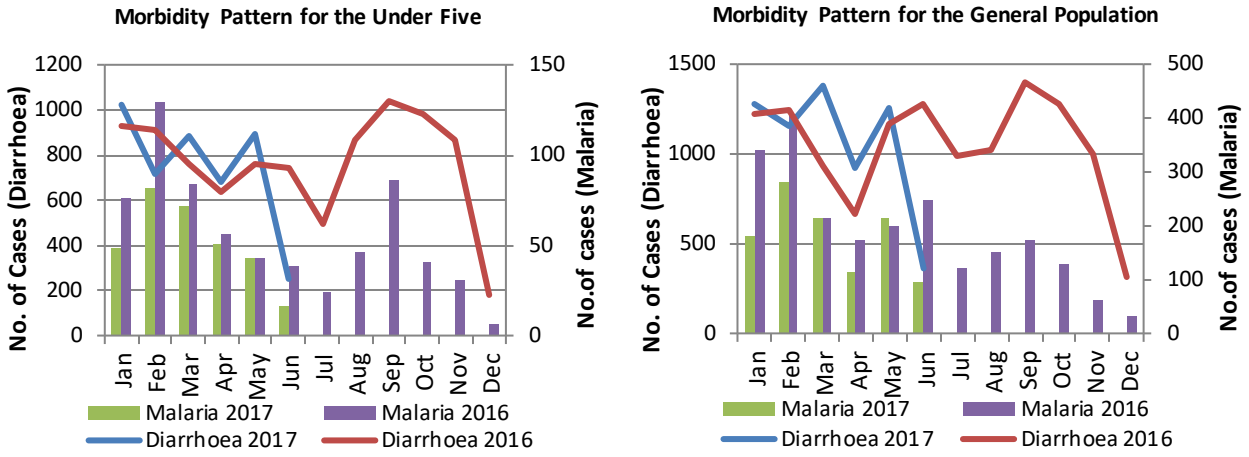

Figure 6. Morbidity patterns

The average distance to reach a facility is approximately 5km with an exception of 30km in a place like Bagau, Mole and Kironge where the nearest facility is Mwambirwa sub-county Hospital. Other areas like lower Sagalla. in Voi sub-county, Mgeno in Mwatate subcounty and Jipe in Taveta sub-county, people travel a distance of up to 20km. However, this is expected to improve with several numbers of facilities being set up by the County government in those areas.

Immunization and Vitamin A supplementation

The immunization coverage by June 2017 was at 64.8 % which is slightly lower than 80 percent at a similar period in 2016. This can be attributed to nurses' strike in early June. Vitamin A coverage by June 2017 was at 45.3% which is slightly lower compared to a similar period in 2016 where the coverage was 47.5 percent. The coverage remains below the national target of 80 percent. Vitamin A coverage for children aged between 6-11 month stands at 59.1% and for children 12 – 59 months at 43.8%.

Nutrition Status and Dietary Diversity

The CHANIS data indicates a normal trend however, there was an increase in number of cases in the month of March which was at 10.2 percent and a drop in May 7.8 percent. This can be attributed to interventions done after rapid malnutrition screening in the month of March. Similar trends are observed in the MUAC screening done by NDMA. The proportion of children at risk of malnutrition in the month of June was 4.6 percent which is higher compared to the long term average (LTA) of 3.6 percent. Serious cases of malnourishment for children <5 years were observed in Marungu Ward. High cases of malnutrition can be

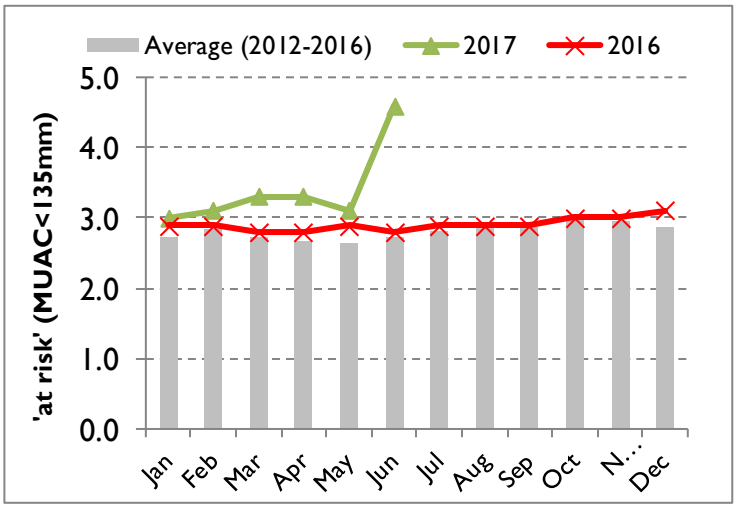

Figure 7. MUAC trends

attributed to poor feeding practices, prolonged drought and poor harvests experienced in the rain fed lowlands which affected the feeding patterns in the community. Voi and Mwatate reported consumption of two meals a day constituting of mostly carbohydrates (ugali and porridge) and vegetables (kales). The most affected areas are Rukanga, Mgeno and Orkung. This coincides with increased enrollment to the OTP programme throughout the months compared to other months and LTA. Prevalence of underweight for Taita Taveta is 11.7 percent. Moderate Acute Malnutrition (MAM) is at 5.1 percent and Severe Acute Malnutrition (SAM) at 0.5 percent.

Stunting depicts a child's failure to achieve linear growth potential due to lack of optimal nutrition intake or/and health services. Stunting levels have dropped in Kenya over the past decade from 35.3 percent to 26 percent. Stunting levels in Taita Taveta County is close to national level at 25.3 percent denoting medium levels of stunting according to the UNICEF classification. Exclusive breastfeeding rate of the County is at 80.5%, above the national average of 61 percent. Timely initiation of breastfeeding (those fed on breast milk within 1 hour of birth) was at 73.5% and continued breastfeeding to one and two years recorded 84.4 % and 61.1 % respectively. The minimum dietary diversity (at least four food groups) has improved from 23.5% in 2013 to 42.94 % in 2016. Under five mortality and crude mortality rates average 0.25 and 1.33 deaths per 10,000 persons per day.

3.3.2 Hygiene and Sanitation

The households that used protected water sources were 70 percent while 80 percent boiled and used aqua tabs to treat water. Cases of water related diseases increased compared to similar period in 2016 except for malaria. The following cases were reported as indicated in Table 17 below. Latrine coverage is at 84 percent in Voi, 97.8 percent in Mwatate, 81 percent in Taveta and 97 percent in Wundanyi Sub-Counties.

Table 17. Reported cases of water related diseases

Disease	2016	2017
Dysentry	331	485
Diarrhoea	6967	9971
Malaria	1597	1285
Typhoid	168	371

3.4 Trends of key food security indicators

The trends of the food security in Taita Taveta county are as follows.

INDICATOR	LRA 2017	SRA 2017
Percent of maize stocks held by households (Agro-pastoral) compared to the LTA	24.6	37
Livestock body condition; Mixed farming (horticulture and dairy) & irrigated zones	Good	Good-Fair
Livestock body condition; Mixed farming (food crop and livestock)	Cattle is poor, shoats are Fair	Good-Fair
Price of maize (Ksh per kg)	60-75	41
Household water consumption (Mixed farming (horticulture and dairy) and irrigated zones	25-30	20-30
Household water consumption Mixed farming (food crop and livestock)	15	10-15
Terms of trade as at January 2017	86	81
Coping strategy index	7.1	22
Food consumption score (%)	Poor:56.7 Borderline: 35 Acceptable: 8.3	Poor: 20 Borderline: 46 Acceptable: 34

4.0 FOOD SECURITY PROGNOSIS

4.1 Prognosis Assumptions

Taita Taveta County food security prognosis for the next six months is based on the following assumptions:

- From August, the County may experience influx of livestock from neighbouring pastoral counties increasing the likelihood of resource based conflict
- Food deficits in the county are likely to be mitigated by cross border trade especially through Taveta border. This is likely to stabilize staple food prices though at elevated levels.
- Farm inputs including certified seed stock, fertilizers and tractor services are likely to be availed in good time and subsidized by the County Government facilitating increased crop production activities.
- The onset of the Short rains is likely to be timely with above average rainfall amounts expected.

4.2 Food Security Outlook

July to September: The food security situation is expected to improve in July as the long rains harvest though below average, increases food availability and consumption. From August, as household food stocks dwindle, there will be an increased dependence on markets for food

commodities. Staple food prices will remain above average constraining food access at household level through September. In-migration of livestock is likely to increase through September and increase incidences of livestock disease outbreaks and reduced livestock productivity. In addition, livestock body conditions will deteriorate reducing milk production and consumption at household level resulting in increased malnutrition for children under five years of age. Human wildlife conflict and conflict between the herders and rangers is likely to continue as the drought persists constraining livelihood activities. A majority of households will be able to achieve minimally adequate food consumption but unable to achieve their non-food needs and will remain in the "Stressed" (IPC Phase 2) food insecurity phase. Some households will move into the "Crisis" (IPC Phase 3) phase.

October to December: The forecasted average October to December short rains will begin in October improving food security as crop production activities increase providing wage labour opportunities and income at household level. In November, forage and water resources will improve boosted by the rains improving livestock productivity hence food and milk availability at household level. With the improved forage in November, livestock that had in-migrated will likely return to their counties with human-wildlife conflict significantly reducing. From November, the nutrition status is likely to improve most households experiencing improved food consumption and dietary diversity. There will be improvements in food security with a majority of the households in the "Stressed" (IPC Phase 2) improving to None (IPC Phase 1). The county will improve and be classified in the Minimal (IPC Phase 1) phase.

5.0 CONCLUSION AND RECOMMENDATIONS

5.1 Conclusion

5.1.1 Phase classification

The County is currently classified under the "Stressed" (IPC Phase 2) phase implying that even with any humanitarian assistance, household groups have minimally adequate food consumption but are unable to afford some essential nonfood expenditures without engaging in irreversible coping strategies. Food security is deteriorating and an urgent action is required to protect livelihoods and reduce the risk of disasters.

5.1.2 Summary of the findings

The main drivers of food insecurity in Taita Taveta County include the poorly performing March to May long rains that were late and ended earlier than expected, destruction of crops by wildlife and high food prices. The market price of maize floor was between Ksh 60 to 70 per kilogram. Most parts of the mixed farming (food crop/livestock) zone did not receive any rains. As a result, no pasture is available and cattle body condition is poor. The proportion of children at risk of malnutrition in the month of June was 4.6 percent compared to the long term average of 3.6 percent. Households are consuming the minimum recommended water amounting to 15 litres per person per across the County except isolated areas in Mwatate Sub-County where households are likely to consume less than 10 litres per person per day in the next one month.

Monitoring Required

- Maize and maize flour availability and prices
- Human- wildlife conflict
- Human disease outbreaks especially water borne diseases

- Nutrition status of children under five years
- Onset of the coming short rains
- Influx of livestock from neighbouring counties experiencing drought and potential for conflict
- Situation of water sources for both human and livestock especially in the livestock zone
- Livestock diseases surveillance and vaccinations
- School attendance

5.1.3 Sub-County Food Security Ranking

Table 18. Sub-County Food Security Ranking

Sub County	Food security rank-Worst to Best (1-10)	Main food security threat (if any)
Voi	1	• Severe water scarcity • Total crop failure • Lack of pastures • Influx of livestock into the ranches causing conflict • Low TLUs due to livestock deaths • High malnutrition rates • Market access challenges
Mwatate	2	• Crops failure • Inadequate pasture • Market access challenges • High food prices • Influx of livestock into the ranches causing conflict between the herders
Taita	3	• Destruction of crops by wildlife • Low pasture in the lowlands • Fair livestock body condition • Total crop failure in the last two seasons • Water scarcity • High food prices
Taveta	4	• Floods • Early cessation of rains • Influx of livestock into the ranches causing conflict between the herders, • Destruction of crops by wildlife • High food prices

5.2 Ongoing Interventions

5.2.1 On-going Food Interventions

Sector	Planned intervention	Target areas/Wards	Cost of intervention	Quantified achievements	Contributions from partners	Remarks
Health and Nutrition	Distribution of Therapeutic and supplementary feed to health facilities	County wide 57 facilities	140 bags CSB 140 cartons RUTF 16 cartons MNPs	27 facilities received commodities	UNICEF - Commodities NDCF/NDMA - Fuel CG - Logistical support	Ongoing
Food and safety nets	Food aid	Mwatate, Voi, Taita, Taveta	5000 bags Maize 934 beans 600 bags Rice 450 cartons Veg. oil	10,000HHs have received relief food	NG - Food commodities, logistical support and distribution	Ongoing
	Cash transfers (Cash for Asset)	Mwatate, Voi, Taita, Taveta	11,062,255	5848 HH paid incentives for month Dec 2016	World Food Programme - Cash incentives	Ongoing

5.2.2 On-going Non Food Interventions

Sub County	Ward	Intervention	No. of beneficiaries	Implementers	Impacts in terms of food security	Cost (M Kshs)	Time Frame
Agriculture sector							
Taveta	Challa, Mahoo, Mata	Soil & water conservation; Zai pits under cash for asset	1500	NDMA, World Vision, MoAL&F	Increased harvestable crop	1.5	April 2017 to date
Taita	All Wards (4)	Distribution of Traditional High Value Crops (THVC)	1000	County Government of Taita Taveta & National Government	Increased Food Production	2.2	Oct 2016 – Aug 2018
	Werugha Kishushe Wumingu	Soil & water conservation; Zai pits under cash for asset	1000	NDMA, World Vision, MoAL&F	Increased food production	1	April 2017 to date
Mwatate	All	Food relief	Approx 25,000	National Government	Mitigation of food insecurity	5	July - September 2017
Medium and Long term							
Taveta	All	Aflatoxin	15,000	MoALF, Public	Reduced	0.2	All year

Sub County	Ward	Intervention	No. of beneficiaries	Implementers	Impacts in terms of food security	Cost (M Kshs)	Time Frame
	wards	surveillance		health	post-harvest losses		
Taveta	All	Traditional High Value crops	3,000	MoAL&F	Increased food production	3	July 2017-June 2018
Mwatate	All	On farm soil and water harvesting structures	1000	CGTT/ WV/NDMA/WFP	Increased water availability for crop production	1.5	July 2017-June 2018
Livestock Sector							
Taita	All wards	Dairy Upgrading	100	CGTT, ILRI	Increased milk production	1.5	3 years
Taita	Werugha Wudanyi Mbale, Mghange Mwanda	Feed Improvement	150	CGTT, ILRI, ADS Pwani, NDMA	Increased milk and meat production	0.8	3 years
Taita	All	Animal Health Improvement	250	CGTT, ILRI, ADS Pwani,	Increased milk and meat production	2	3 years
Taita	All	Livestock Marketing	1000	CGTT, ASDSP, Land 'O' Lakes, MTDC,	Streamlined marketing	20	5 years
Mwatate	Mwatate, Bura Mwaktau	Dairy and beef Upgrading	500	CGTT, ILRI	Increased milk and meat production	5	5 years
Mwatate	All	Feed Improvement	700	CGTT, ILRI, ADS Pwani, NDMA, WVK, KPMC	Increased milk and meat production	10	3 years
Mwatate	All	Animal Health Improvement	300	CGTT, ILRI, ADS Pwani,	Increased milk and meat production	4	3 years

Sub County	Ward	Intervention	No. of beneficiaries	Implementers	Impacts in terms of food security	Cost (M Kshs)	Time Frame
Mwatate	All	Livestock Marketing	2000	CGTT, ASDSP, Land 'O' Lakes, MTDC, KPMC	Streamlined marketing	30	5 years
Voi	All	Dairy and Beef Upgrading	75	CGTT, ILRI	Increased meat and milk production	1	3 years
Voi	All	Feed Improvement	100	CGTT, ILRI, ADS Pwani, NDMA, KPMC	Increased milk and meat production	0.8	3 years
Voi	All	Animal Health Improvement	150	CGTT, ILRI, ADS Pwani, NDMA	Increased milk and meat production	2	3 years
Voi	Maungu	Livestock Export Processing Zone	2000	GoK, CGTT, Investors	Increased access to International Market	10 B	15 years
Taveta	All	Feed Improvement	700	CGTT, ILRI, ADS Pwani, NDMA, WVK, KPMC	Increased milk and meat production	10,000	3 years
Taveta	All	Animal Health Improvement	300	CGTT, ILRI, ADS Pwani,	Increased milk and meat production	4	3 years

Water Sector: Immediate On-going Interventions							
Sub-county/ Ward	**Intervention**	**Location**	**No. of beneficiaries**	**Implementers**	**Cost (M Ksh)**	**Time Frame (Months /Years)**	**Implementation Status (percent of completion)**
Kasigau	Water trucking	Zungulukani Kisimenyi Bughuta	4,000	Tavevo CGTT	1.2	3 M	On-going
Ngolia	Water trucking	Mbulia	1,000	Tavevo CGTT	0.7	3 M	On-going
Bura ward	Water	Mwakitau	3,000	Tavevo		3 M	On-going

Water Sector: Immediate On-going Interventions							
	trucking						
Chawia ward	Water trucking	Mwachabo, Manoa	2000	Tavevo		3M	On-going
Horticulture /dairy	Extension of Mraru irrigation scheme	Mraru	1500	Ministry of water and irrigation	1.9	3 M	55 percent
Medium and Long Term On-going Interventions							
Kasigau	Drilling of Zungulukani borehole	Zungulukani	600	CGTT	3.0	I M	-
Ngolia	Extension of Ghazi - Mbulia pipeline	Mbulia	1000	CGTT/ADS Pwani	-	-	on-going
Mwatate	Drilling of kipusi borehole	Kipusi	6,000	CGTT	1.8	3M	complete
Bura	Drilling of mlughi borehole	Mlughi	2500	CGTT	1.7	3M	Site handing over done
Challa	Canal lining	Challa	300				
	Borehole	Challa	300				
	Dam construction	Nakruto	607				

Health and Nutrition							
Sub County/ Ward	Intervention	Location	No. of beneficiaries	Implementers	Impacts in terms of food security	Cost (M Ksh)	Time Frame
Entire County	Micro Nutrient supplementation and deworming,	Entire County	34675 (Children 6 – 59 months) 56 health Facilities	TTCG/ UNICEF	Reduction in morbidity rates	1	Continuous
Entire County	Supply of essential commodities for	26 health facilities OTP Sites	1000	TTCG/ UNICEF/WFP	Proper management of acute	5	Continuous

	Integrated Management of Acute Malnutrition (IMAM)				malnutrition		
	Capacity building on IMAM, MIYCN, IDSR	56 health facilities		TTCG/Partners	To buid the capacity of health workers	0.05	Continuous
	Coordination among stakeholders	4 meetings in a year		TTCG/Partners	To Strengthen coordination among stakeholders	0.02	
	Disease and nutrition surveillance	Surveillance from 56 facilities		MOH	To strengthen disease surveillance and early warning system		Continuous

Education						
Sub-county	Intervention	Name of school	No. of beneficiaries	Implementers	Impacts in terms of food security	Timeframe
Mwatate	Carrying of water from home by students	All schools	All learners	Parents	Students stay in their respective schools	Continuous
Taveta	Supply of food-Beans and rice	36	31	N.G.Os (World vision),MOE Government	Enrolment increased	January to December
Taita	Carrying of water from home by students	All schools	All learners	Parents	Students stay in their respective schools	Continuous
Voi	Carrying of water from home by students	39	28	N.G.Os (World vision),MOE Government	Enrolment increased	Continuous

5.3 Recommended Interventions

5.3.1 Recommended Food Interventions

Table 17: Proposed population in need of food assistance

Sub-County	Population in the Sub-County	Projected 2016 Population in the Sub-County	Pop in need (Percent range min – max)	Proposed mode of intervention
Taveta	67,665	85,140	10-15	Cash transfers
Mwatate	73,168	92,065	30-35	Cash transfers
Taita	56,021	70,489	15-20	Cash transfers
Voi	87,803	110,479	30-35	Cash transfers

5.3.2 Recommended Non-Food Interventions

Sub County	Ward	Intervention	No. of beneficiaries	Proposed Implementers	Required Resources (M Ksh)	Available Resources	Time Frame
Agriculture Sector-Immediate							
Taveta	Challa, Mata, Mahoo	Zai pits	3000	-do-	3	0	June-July
	All	GGB Surveillance	3000	-do-	0.02	0	All year
	All	Army worm surveillance	3000	-do-	0.05	0	All year
Medium term/Long Term interventions							
Taveta	All	Water pan excavation	3,000	Mo ALF, Irrigation	15	0	July – June 2018
	All	Farmers capacity building	20,000	Mo ALF, Extension stakeholders	1	Personnel	All year
Mwatate	All	Relief seeds	5000HH	CGTT/NG/DP	10	0	2017

Livestock sector							
Mwatate, Voi	Wumingu/ Kishushe	Fodder supply and supplementary feeding	500	CGTT, NDMA and other stakeholders	9.7	Ksh 1Million, Personnel, Equipment	July – October 2017
Mwatate, Taita, Voi, Taveta	All	Disease surveillance and routine vaccinations, Ecto and endo parasite control	1,300(HH)	CGTT, NDMA and other stakeholders	14.9	Ksh 2.294M, Personnel	Continuous

Immediate recommended Interventions							
Sub-county/ Ward	**Intervention**	**Location**	**No. of beneficiaries**	**Proposed Implementers**	**Required Resources (M Ksh)**	**Available Resources**	**Time Frame**
All	Water trucking	Kishushe, Mwakitau, Mengo, Mwachabo, Nakuruto, Zungulukani		CG, NG	5	0.5	
Rong`e ward	Equipping of Shelemba borehole & distribution	Shelemba	2000	CGTT	8	3	3M
Wusi, Kishamba ward	Equipping of Malembenyi borehole	Kishamba	1500	CGTT	8	3	3M
Kasigau	Rehabilitation of Bughuta East borehole	Bughuta	2,000	CGTT/NDMA	3	Technical staff	-
Medium and Long Term recommended Interventions							
Mwatate sub county	Conservation of water sources	Ngangu, Ngulu, Mwanginyi, Mwaroko,	10,000	CGTT,	6	2	3M

Challa	Canal lining	Challa, Kimala	400	CG	2	-	3M
Mata	Dam excavation	Mata, Kasokoni	220 +607	CG, NG	1	-	3M
Challa	Shallow wells	Njukini	500	CG	0.4	-	3M

Division	**Intervention**	**Location**	**No. of beneficiaries**	**Proposed Implementers**	**Required Resources (M Kshs)**	**Available Resources**	**Time Frame**
Taita Taveta County	Conduct a health and Nutrition Survey	County wide	319,141	TTCG/Partners	2.5	Health Personnel	Feb 2017
Taita Taveta County	Conduct monthly CNTF	County wide	4 Sub-counties	TTCG/Partners	0.1	Personnel	Jan - July 2017
Taita Taveta County	Strengthen and Scale up of SFP and OTP	26 sites plus	1000	TTCG/WFP/UNICEF	1	Trained Health workers, HFs	Jan - July 2017
	Procurement and Prepositioning of Supplemental and therapeutic Feeds				5.5		
Taita Taveta county	Strengthen Disease surveillance	All wards	319,141	TTCG/Partners	0.066	Personnel	Jan - July 2017
All Sub-County	Strengthen Outreach services and malnutrition screening	Taita-Mwatate-Voi-Taveta-	50,000	TTCG/Partners	0.55	Personnel & commodities	Jan - July 2017
Taita Taveta	CHW Training	Taita-Mwatate (	485	TTCG/Partners	0.89	Personnel	Jan - July

County		Mpizzinyi) Voi (Ndome, Kasighau), Taveta					2017
Taita Taveta county	Water testing	County wide	319,141	TTCG/Partners	0.11	Personnel, paqua lab	Jan - July 2017
Taita Taveta County	Joint Monitoring and Supervision	County wide	All health Facilities and outreach sites	TTCG/Partners	0.5	Personnel	Jan - July 2017

Education Sector

Sub-county	Intervention	Location	Beneficiaries targeted	Proposed implementers	Required resources	Available resources	Timeframe
Taveta	Provision of water tanks	All	All leaners	G.O.K, CDF, NGO'S NDMA	Funds,	Pupils carrying water to schools	Continuous
Taveta	Provision of food to all schools	All	All learners	G.O.K	Funds, Employment of school cooks	Fire wood Water,	Continuous
Voi	Provision of water tanks	All	All leaners	G.O.K, CDF, NGO'S NDMA	Funds,	Pupils carrying water to schools	Continuous
Voi	Provision of food to all schools	All	All learners	G.O.K	Funds, Employment of school cooks	Fire wood Water,	Continuous
Voi	Relief food to be taken to schools	Voi	All learners	G.O.K, N.G.Os,County Governmen	-Food stuffs -Transport	None	Jan- Dec

				t	s -Storage facilities		
Mwatate	Provision of water tanks	All	All leaners	G.O.K, CDF, NGO'S NDMA	Funds,	Pupils carrying water to schools	Continuous
Mwatate	Provision of food to all schools	All	All learners	G.O.K	Funds, Employment of school cooks	Fire wood Water,	Continuous
Taita	Provision of food to all schools	All	All learners	G.O.K	Funds, Employment of school cooks	Fire wood Water,	Continuous
All	Provision of water tanks	All	All leaners	G.O.K, CDF, NGO'S NDMA	Funds,	Pupils carrying water to schools	Continuous