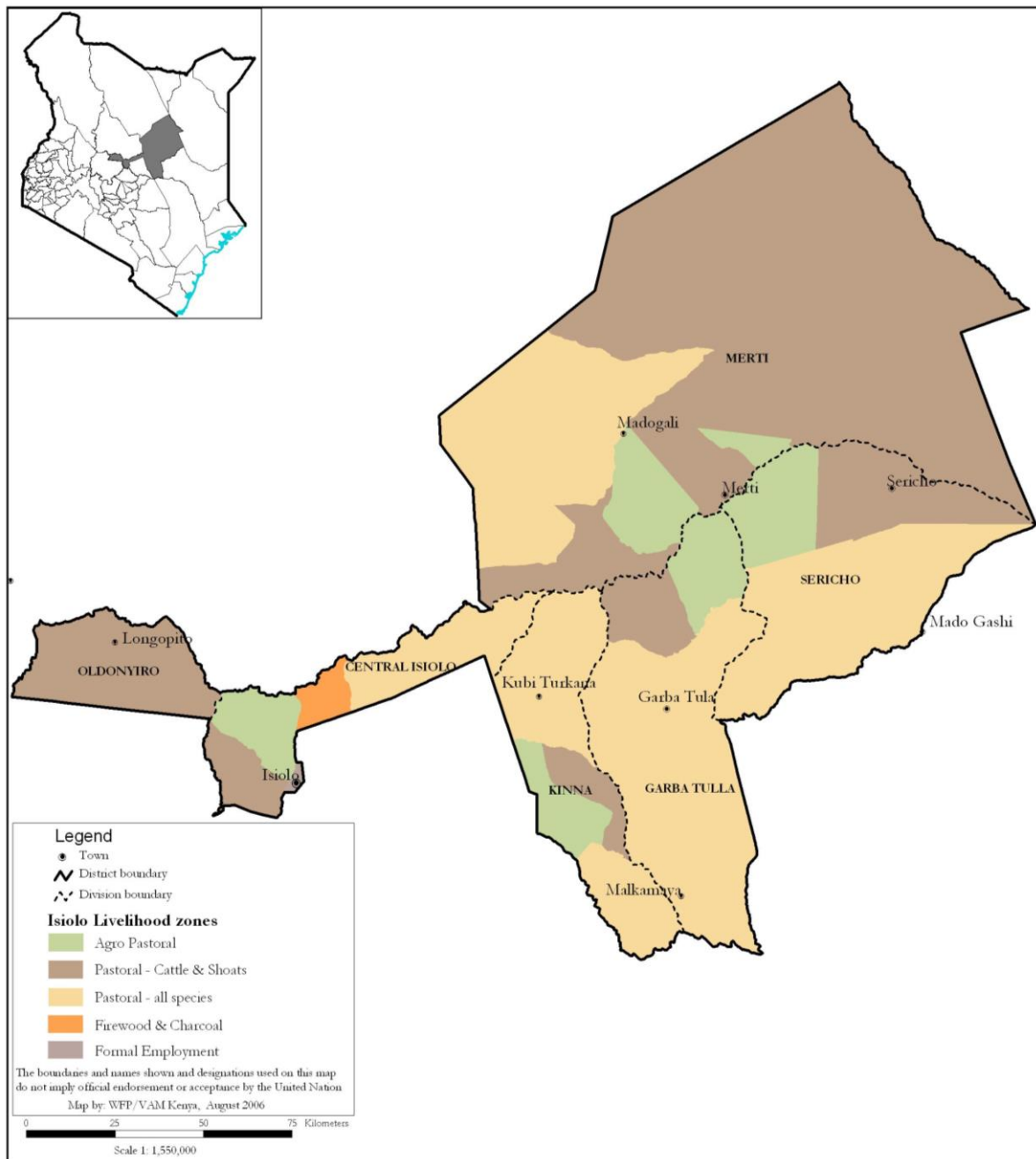


ISIOLO COUNTY 2017 LONG RAINS FOOD SECURITY ASSESSMENT REPORT



A Joint Report by the Kenya Food Security Steering Group (KFSSG)¹ and the Isiolo County Steering Group (CSG)

July 2017

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EXECUTIVE SUMMARY

Isiolo County's current food insecurity situation is classified as Crisis (IPC 3) majorly in pastoral areas of Sericho, Merti and Oldonyiro and Stressed (IPC 2) in most parts of Kinna and Central wards. According to FSOM May 2017, 29 percent of the households are having poor and borderline food consumptions compared to 6.5 percent of the households in May 2016 and 37.9 percent in same period in 2015. The mean coping strategy index was 17 in June 2017. The proportion of children under five years at risk of malnutrition, measured by mid upper arm circumference ($\geq 125\text{mm}$ and $< 135\text{mm}$) was 29.6 percent as at June 2017. In June 2017 MUAC was 73 percent above the five year averages and 111 percent above the same period in 2016.

Food security in the county was affected by below average performance of three consecutive seasons. Most households are more dependent on market supplies. Relief food supplies support have been implemented targeting the poor households. Abnormal livestock migrations, resource based conflicts in the dry season grazing zones and increased distance to water points has affected the livestock productivity thereby typically lowering the household's incomes. Shortages of staple food commodities in the markets and high food prices have been reported in most parts of the county. Livestock prices are typically low thereby negatively impacting on the household purchasing power, though all markets are functioning despite relatively low number of traders. Livestock deaths attributed to drought were also reported in Merti and Oldonyiro.

In the casual waged labour livelihood zone, the distance to water sources ranged from 0 – 5 kilometres while in the pastoral areas it is 5 – 10 kilometres compared to the normal of 2 – 4 kilometres. In agro pastoral areas, the distances are stable at 2 – 5 kilometres between the same period. Water consumption, in the pastoral livelihood zone has reduced from 10 - 15 litres/person/day to less than 10 litres/person/day. In the agro pastoral livelihood, water consumption has remained stable. In pastoral livelihood zone, milk availability at household is averagely at 0.5 litres per household per day while in agro pastoral is 0.5 - 1 litre per household per day compared to the normal 2 - 3 and 1.5 - 2 litres respectively.

The main factors that drive food insecurity in the county includes; below average performance of rainfall over three consecutive seasons resulting to no or low household stocks, poor rangeland conditions have led to frequent conflicts and insecurities. Livestock migration which occurred early than normal, crop pests and diseases especially in the irrigated crops and human – wildlife conflicts.

1.0 INTRODUCTION

1.1 County Background

Isiolo County borders eight counties namely: Marsabit to the North, Wajir to the East and Garissa to the South East, Tana River, Kitui, Meru to the South, Laikipia to the South west and Samburu to the west. The county covers about 25,605 square km² with a population of 155,465 persons according to the Kenya National Bureau of Statistics (KNBS projection of 2016). The county is divided into two sub counties; Isiolo North and Isiolo South. There are four main livelihood zones (Figure 1) in the county where pastoral livelihood zone covers 50 percent of the population where the population is semi nomadic while 15 percent are fully and occasionally nomadic. In the agro pastoral livelihood zone, 45 percent of the population is fully settled while 30 percent are semi nomadic.

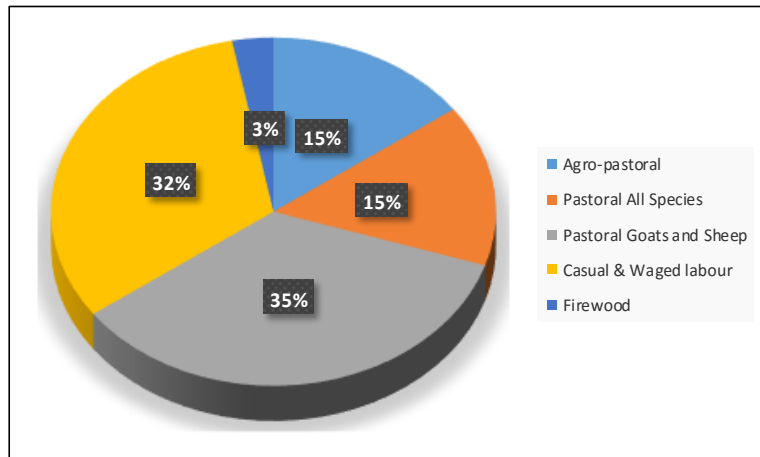


Figure 1: Population proportion by livelihood

Figure 1) in the county where pastoral livelihood zone covers 50 percent of the population where the population is semi nomadic while 15 percent are fully and occasionally nomadic. In the agro pastoral livelihood zone, 45 percent of the population is fully settled while 30 percent are semi nomadic.

1.2 Objectives and Approach

Long rains assessment was aimed at developing an objective, evidence based and transparent food security situation. The overall methodologies were coordinated by Kenya Food Security Steering Group. The data was collected using sectoral checklist tools from various sites such as livelihood baseline data, sectoral reports, price data, Nutrition SMART survey and monthly bulletins before the arrival of national team. Initial County Steering Group was conducted on 3rd July, 2017 where the preliminary county report was shared. Thereafter, the teams for field exercise were constituted with representatives from the various sectors. Sample sites, transect drive routes and interview sites were also selected depending on various criteria such as below or no rainfall performance, conflicts areas, sites that never got visited before, farming areas, livelihood zones, markets, schools, water stress among others. The interview sites were Dadacha Bassa, Gafarsa, Garbatulla, Kinna, Lonkopito, Kipsing (Market), Labarsherik, Nororoi, Ngaremara and Ntirim areas.

The assessment was conducted from 3rd July to 15th July 2017. The team conducted a minimum of two communities, two key informants and two market interviews in each of the sample site. Visual inspection techniques were also used during the transect drives to obtain qualitative data. The field data was collected, reviewed, analysed and triangulated to verify its validity. A multi sectoral and multiagency approach was adopted during the assessment covering agriculture, livestock, health and nutrition, water and sanitation, education and humanitarian partners. Livelihood zone was used as a unit of analysis to understanding the changes in food security and identifying populations that are affected and in need of assistance. The results from sampled sites were discussed in the County Steering Group (CSG) and used to infer other areas not visited. The findings and recommendation were provided for planning purposes.

2.0 DRIVERS OF FOOD AND NUTRITION SECURITY IN THE COUNTY

2.1 Rainfall Performance

The onset of the long rains was late and started in the first dekad of April compared to the normal third dekad of March. Most parts of the county received 25 – 50 percent of the normal rainfall with the exception of parts of the pastoral livelihood zone (Sericho, Merti, Madogali and Modogashe receiving depressed rainfall of about 5 – 25 percent of normal. Few parts in northern areas and Oldonyiro received between 75-90 percent of the normal rains. Temporal distribution was poor characterized mainly by dry spells and spatial distribution was uneven. Cessation was early

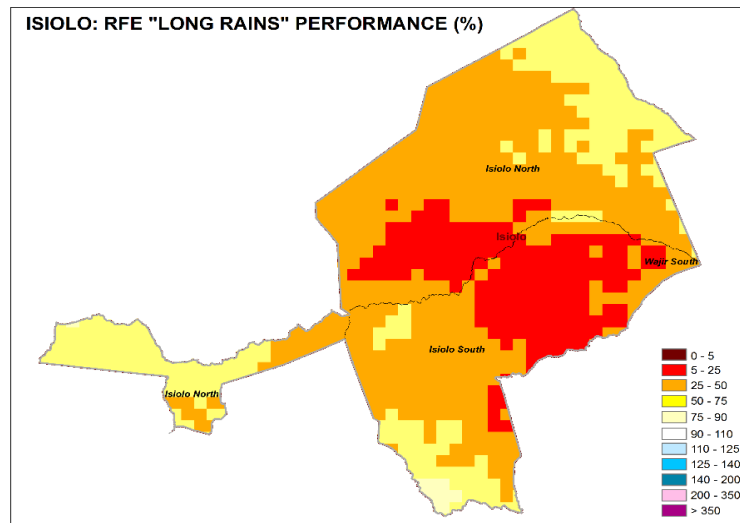


Figure 1: Rainfall Performance

2.2 Insecurity/Conflict

Resource based conflicts and insecurity have increased especially in Barchuma, Sabarwawa and Delbeg areas where tension exists between Rendilie and Boran communities. Poor pasture and inadequate water sources for livestock especially in the dry season grazing areas has led to frequent recurrence of conflicts and insecurities. In Delbeq in Merti and Kinna, several persons were reported killed due to conflicts related to rangeland resources access.

2.3 Other shocks and hazards

Herders drove their livestock to Meru National Park in search of pastures at night and during the day they remove them. Kenya Wildlife Service was also involved in driving away livestock within the park which led to loss of livestock. There was invasion of monkeys and elephants to farms in agro pastoral areas of Kinna and Ntirim. Crop pests and diseases such as thrips and red spider mites in onions and tomatoes have also invaded several farms in the agro pastoral areas of Kinna and Ntirim resulting to crop losses. Pastoralists led their livestock into farms at Ntirim areas resulting to frequent conflicts between farmers and pastoralists.

3.0 IMPACTS OF DRIVERS ON FOOD AND NUTRITION SECURITY

3.1 Availability

There was a total crop failure from rain fed cropping while production for irrigated crop such as maize, onions and tomatoes declined by 73, 78 and 74 percent of the LTA. Households across all the livelihood zone entirely depending on markets for staple food commodities, which are inadequately provisioned in the markets.

3.1.1 Crop Production

The county relies more on short rains season for rain fed crop production. The main staple food crops grown in the county particularly in agro pastoral livelihood zones are maize and beans with maize contributing 45 percent to food and 15 percent to cash income while beans contribute 19 percent to food and 25 percent to cash income respectively.

Rain Fed Crop Production

The area planted for rain fed crop production decreased for the three main crops. The acreage planted for maize decreased by 52 percent while the area under beans and cowpeas decreased by 36 and 31 percent respectively. The decrease in area planted for rain fed crop production can be attributed to erratic and below normal rainfall performance, delayed and unrealized onset in some areas. The projected production for rain fed crop production in the county is nil due to rainfall failure and high surface temperatures that led to wilting of crops at germination stage.

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	180	372	Nil	1500
2.Beans	170	265	Nil	1800
3.Cowpeas	45	65	Nil	15

Irrigated Crop Production

Major crops grown in small scale under irrigation include maize, onions and tomatoes. Like rain fed crops, the acreage planted for irrigated crops also decreased compared to three-year long term averages. The decrease was attributed to low water levels in the rivers due to prolonged drought and abstraction of water from upstream for irrigation. Irrigated maize acreage has declined by 76 percent of the LTA while area under onions and tomatoes decreased by 72 and 75 percent respectively (Table 2). The decrease in acreage consequently resulted in reduction in actual production of tomatoes by 74 and projected reduction in maize and onions by 73 and 78 percent respectively. Production decrease in irrigated crops was linked to inadequate water supply for irrigation and destruction by wildlife in Nitirim. Additionally, crops pests such as spider mites were also reported affecting crops in irrigated farms.

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.Maize	80	330	1100	4200
2.Onions	22	79	237	1074
3.Tomatoes	20	80	372	1440

Main Cereal Stocks

Stocks held by household for the staple food commodities was zero for maize and rice while traders are currently holding 48 percent and 60 percent of maize and rice stocks respectively (Table 3). In the last two rainy seasons the county experienced crop failure due to depressed and erratic rainfall. Most households continue to rely on market supplies despite low purchasing power. Relief supplies have been supporting some beneficiaries targeted by different interventions.

Table 3: Quantities Held currently (90 kgs bags)

Commodity	Period	Households	Traders	Millers	NCPB	Total
Maize (in 90 kg bags)	Current	0	122	132	0	254
	LTA	3696	234	100	0	4030
Rice (in 50 kg bags)	Current	0	2000	0	0	2000
	LTA	0	5000	0	0	5000
Millet (in 90 kg bags)	Current	0	24	0	0	24
	LTA	0	250	0	0	250
Sorghum (in 90 kg bags)	Current	0	43	0	0	43
	LTA	0	300	0	0	250

3.1.2 Livestock Production

Livestock rearing is the main source of cash income within the county contributing approximately 80, 45, 44 and 27 percent cash income to the county's economy in pastoral, agro pastoral, firewood/charcoal and casual waged labour livelihoods respectively (Table 4). The main livestock types reared includes cattle, goats, sheep and camels. Other livestock kept in small numbers in the county include donkeys mainly used as means of transport and poultry as income generating activity for women.

Table 4: Proportion of Livestock Contribution to Cash Income by Livelihood

Livelihood Zone	% Cash Income Contribution
Pastoral	80
Agro Pastoral	45
Firewood and Charcoal	44
Casual Waged Labour	27

Pasture and Browse Condition

Forage conditions is very poor in pastoral livelihood zone with marginal pockets of dry season grazing areas of Kom, Delbeg and Duma having little pasture and browse; however, the area is inaccessible due to resource based conflicts and shortage of water. In agro pastoral livelihood zone, pasture condition is poor compared to normally good at this time of the year

and is expected to last for one month as opposed to normally four months. Browse condition in agro pastoral is relatively fair compared to good normally, and expected to last for two months instead of four months normally (Table 5). The poor quality and quantity of forage is attributed to poor performance of long rains resulting to pronged dry spell and high land surface temperatures which heighten deterioration.

Table 5: Pasture and Browse Condition

Livelihood zone	Pasture					Browse				
	Condition		How long to Last		Factors Limiting Access	Condition		How long to Last		Factors Limiting Access
	Current	Normal	Current	Normal		Current	Normal	Current	Normal	
Pastoral	Very poor	Fair - Good	3 weeks	3 months	Insecurity Lack of water	Poor	Good	1 month	3 months	Insecurity, Lack of water
Agro pastoral	Poor	Fair Good	1 month	4 months	Farmers and pastoralists conflicts	Fair	Good	2 months	4 months	Farmers and pastoralists conflicts

Water Availability and Access for Livestock

The current sources of water for livestock are boreholes, springs (Bisanadi and Kinna) and shallow wells in comparison to normally rivers, water pans and borehole. Normally, the main sources would last for two to three months (Table 6). Most water pans in pastoral livelihood zone have dried up while in agro pastoral livelihood, few water pans with low volumes of water which include *Bibi* water pan in Isiolo North sub county that has higher than normal concentration of livestock.

Return trekking distances for livestock from grazing areas to water points increased to approximately 15 km in agro pastoral as compared to normally five kilometres while in pastoral areas it was 20 kilometres compared to a normal of 10 kilometres. Marginal pockets of Basa, Belgesh, Lonkopito, Yamicha and Eresa Boru in pastoral areas recorded longest trekking distances to watering points of about 26 – 30 km.

Table 6: Water Availability and Access for Livestock

Livelihood zone	Sources		Return Average Distances (km)		Expected Duration to Last (months)	
	Current	Normal	Current	Normal	Current	Normal
Agro-pastoral	Springs, Boreholes, Shallow wells	River, water pans, Natural ponds	15	5	2	3
Pastoral	Boreholes, Shallow wells	Water pans, boreholes, Natural ponds	20	10	1	2

Livestock Body Condition

The body condition for cattle and sheep is poor in pastoral livelihood while fair in the agro pastoral livelihood which is not normal at this time of the year. The body condition of camels and goats can be described as good (Table 7). The deterioration in livestock body condition is attributed to prolonged dry spell occasioning poor rangeland resources and long trekking distances from grazing fields to watering points. The body conditions for all livestock types is projected to deteriorate further as forage depletes more and trekking distances from grazing fields to watering points increases till the onset of the short rains probably in October.

Table 7: Livestock Body Condition

Livelihood zone	Cattle		Sheep		Goat		Camel	
	Current	Normal	Current	Normal	Current	Normal	Current	Normal
Pastoral	Poor	Good	Poor	Good	Fair	Good	Good	Good
Agro pastoral	Fair	Good	Fair	Good	Fair	Good	Good	Good

Livestock Migrations

Abnormal in-migration of livestock was observed into Kinna in the Meru National Park, Duse and Komu from Meru, Wajir and Garissa (Table 8). The influx of livestock into the park has sparked conflicts between the Kenya Wildlife Service (KWS) rangers and the herders as the KWS undertake operations to flash the herders out of the park. Livestock from Duma and Yamicha in Merti migrated to Moyale in Marsabit County in search of pasture and water. Other livestock especially camels moved towards Kom although insecurity and inadequate water access are currently hindering access into the area. Livestock from Oldonyiro are concentrated along the Ewaso Nyiro River in the border of Laikipia and Isiolo County.

Table 8: Livestock Migration

Livestock Types	From	To
Cattle and Camel	Meru, Wajir and Garissa	Kinna
Camel, Cattle goats, sheep	Merti, Gafarsa, Sericho	Kinna
Cattle	Merti	Moyale
Cattle, goats and sheep	Oldonyiro	Laikipia
Camel, goats	Merti south	Kom

Milk Availability and Consumption

In pastoral livelihood zone, milk availability at the household is averagely 0.5 litres per household per day while in agro pastoral zones it is 0.5 - 1 litre per household per day compared to the normal 2 - 3 and 1.5 - 2 litres per household respectively. According to the community focus group discussions, milk availability and consumption was low at the household level and households in Dadach Basa and Oldonyiro reported entirely depending on processed milk from the shops sold at a price of between Ksh. 80 - 100 per 500 ml packet. The available milk in pastoral areas was mainly from goats and camels. The available camel milk was majorly for sale to traders from Nairobi retailing at Ksh 80 – 120 per litre due to high demand for camel milk in the market (Table 9). The decrease in milk production was attributed to depletion of forage, poor body condition of livestock and migrations in search of pasture and water.

Table 9: Milk Production, Consumption and Cost

Livelihood zone	Milk Production (Litres)/Household		Milk consumption (Litres)/ Household		Prices (Ksh)/Litre	
	Current	LTA	Current	LTA	Current	LTA
Pastoral	0.5	2 - 3	0.5	3	80 - 120	60 - 80
Agro pastoral	0.5 - 1	1.5 - 2	1	2	80 - 120	60 - 80

Livestock Diseases and Mortality

There were no notifiable disease outbreaks reported across the livelihood zones; however, cases of endemic diseases such as sheep and goat pox, Contagious Caprine Pleuropneumonia (CCPP) and Trypanosomiasis have been reported across the livelihood zones. Unusual livestock deaths mainly for cattle and sheep were observed in Cherab and Chari wards in Isiolo North Sub County predominantly attributed to starvation due to prolonged drought.

Tropical Livestock Units (TLUs)

Low income households' average TLUs was 4 in agro pastoral and 10 in pastoral areas while medium income households TLUs was approximately 15 and 50 in agro pastoral and pastoral respectively (Table 10). The normal TLUs is 5 and 20 in agro pastoral and pastoral areas for low income households, 15 and 50 for medium income households in agro pastoral and pastoral respectively. The reduction in TLUs can be attributed deaths due to starvation, diseases and loss through cattle rustling.

Table 10: Livestock ownerships

Livelihood zone	Low Income Households		Medium Income Households	
	Current	Normal	Current	Normal
Agro pastoral	4	5	10	15
Pastoral	10	20	30	50

3.2 Access to food

Main markets within the county are functional although the traded volumes for both livestock and staple food commodities are very low. Low livestock prices due to poor body conditions and absence of staple food commodities in the markets resulting to high food commodities prices at a time of high market dependence negatively impacted on household purchasing power thus limiting food access.

3.2.1 Markets Prices

Market Operations and Prices

The main markets both for food items and livestock are operational and they include Isiolo town centre, Oldonyiro, Kipsing and Kinna. According to community interviews, traders particularly in Dadacha Basa are not willing to buy weak animals which would not be able to fetch good prices in terminal markets. Shortage of staple food commodities such as maize and rice was observed in most markets across the livelihood zones.

Goat Price

The current market selling price for a goat has decreased by 23 percent compared to both long term average and June 2016 price (Figure 3). The decrease in market prices can be attributed to deteriorating body conditions and inadequate established market structures for livestock. The prices are projected to decrease further as the dry spell continues. Low prices were observed in pastoral areas of Merti in Isiolo North ranging between Ksh. 1000 – 2000 while

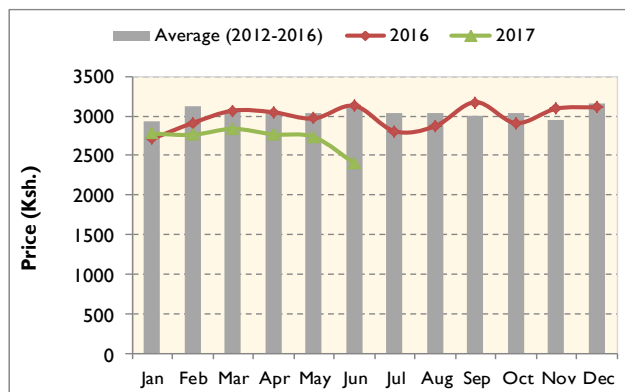


Figure 2: Goat prices in the county

in Kinna market in agro pastoral livelihood zone, the goat price was ranging between Ksh. 2500 - 4000. The variation in livelihoods can be attributed to better established transport structure and close proximity to terminal market in Meru County in agro pastoral.

Maize Price

Maize market prices trend stabilized in the last three months; however, the price remained above the LTA. The current average maize price was Ksh. 60 per kilogram which was 40 percent above the LTA and 33 percent above June 2016 price (Figure 4). High food prices were noted in Kipsing and Merti market centres with a kilogram of maize retailing at Ksh 80. The increase can be attributed to lack of the commodity within the county and even in the neighbouring counties' markets. Maize prices are likely to increase gradually till the next season harvest.

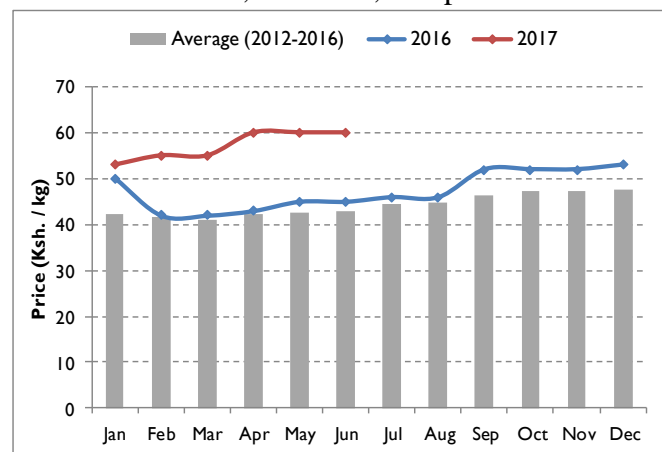


Figure 3: Maize prices in the county

3.2.2 Terms of Trade

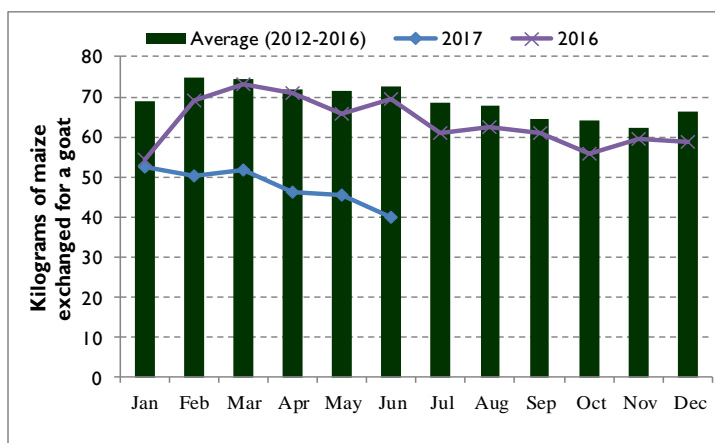


Figure 4: Terms of Trade

Since January 2017, the terms of trade have been on downward trend and remained below the LTA and the 2016 average. The current terms of trade were 42 and 44 percent below the June 2016 and LTA levels respectively. Currently, income from a sale of one goat can purchase 40 kilograms of maize compared with long term average of 72 kilograms (Figure 5). The low livestock prices and high maize prices has resulted to low

purchasing power and unfavourable terms of trade to pastoralists who are entirely depending on markets for staple food commodities. The ToTs are projected to gradually decrease further as the staple food commodities prices escalate up due to shortage in the markets and livestock prices decrease due to poor body conditions.

3.2.3 Income Sources

The main source of income for most households in the county was sale of livestock and livestock products (Table 11). Other sources of income include sale of firewood/charcoal, casual labour and social protection through cash transfer programmes implemented by National government, ACF and Action Aid.

Table 11: Incomes Sources

Livelihood Zone	% Cash Income Contribution
Pastoral	80
Agro Pastoral	45
Firewood and Charcoal	44
Casual Waged Labour	27

3.2.4 Water Access and Availability

The main water sources in the county include rivers (Ewaso Nyiro, Isiolo and Bisanadi), boreholes, water pans, sand dams and shallow wells. All boreholes have water, though some have increased depths resulting to low yield. Open water sources recharge at about 20-30 percent however, most open sources have dried up especially in pastoral livelihood zone. Shallow wells in Hawaye, Dadacha Bassa, Alango and Dololo Dakiye dried up over a month ago. The rivers are flowing downstream but the flow is very low. Bulla Pesa and Wabera wards are supplied with piped water from Isiolo Water and Sewerage Company.

Status of Major Water Sources

The major sources of water by ward are indicated (Table 12). For domestic water, there is no concentration of households in particular livelihoods or areas due to existence of boreholes.

Table 12: Major sources of water in the county

Ward	Water Source (Three (3) major sources)	No. of Normal Operational	No. of Current Operational Sources	Projected Duration (Operational Sources)	Normal Duration that water last in months	% of full Capacity Recharged by the Rains	Locality of Non-operational Water Sources
Sericho	boreholes	3	3	Don't dry up	Till next season		None
Garbatulla	Boreholes	5	5	1 month	3 months		None
	Water pans	4	4	Less than 1 month	3 months		None
Kina	Boreholes	4	4	1 month	3 months		None
	River-Bisanadi	1	1	Don't dry up	Till next season		None
	Shallow wells(Bibi Morti)	10	10	1 month	3 months		None

Chari	Boreholes	5	5	1 month	3 months		None
	River-Ewaso Nyiro	1	1	Don't dry up	Till next season		None
Cherab	Water pans	5	1	Less than 1 month	3 months		None
	Boreholes	5	5	1 month	3 months		None
Burat	Boreholes	6	6	1 month	3 months		None
	River-Isiolo	1	1	Don't dry up	Till next season		None
Oldonyiro	Sand dams	10	3	1 month	3 months		None
	River-Ewaso Nyiro	1	1	Don't dry up	Till next season		None
	Boreholes	2	2	1 month	3 months		none
Ngaremar a	Boreholes	8	8	1 month	3 months		None
	Shallow wells	20	20	1 month	3 months		None
Wabera	Pipe water						
Bullapesa	Pipe water						

Water Access and Utilization

The distance to water sources in the casual waged labour livelihood zone ranges between 0-5 kilometres. In the pastoral livelihood zones, the distance ranges between 5-10 kilometres compared to the normal of 2-4 kilometres, while other areas such as Malkagala, Modogashe, Lakole and Dogogicha in Cherab ward, parts of Oldonyiro ward households are covering between 15 - 20 kilometres. In agro pastoral livelihood zones, the distances remained stable at 2 -5 kilometres. Water consumption, in the pastoral livelihood zone has reduced from 10 - 15 litres/person/day to less than 10 litres/person/day especially in Oldonyiro, Malkagalla and Sericho (Modogashe) areas.

In the agro pastoral livelihood, water consumption has remained stable. The waiting time in the pastoral livelihood zone was 30 minutes compared to normal of 15 - 20 minutes while in the agro pastoral and casual waged labour livelihood zones; waiting time was five to 10 minutes. The cost of water has remained at Ksh 5 for a 20 litre jerrican which is normal, for both livelihood zones. Water vendors in Modogashe and Malkagalla are selling water at Ksh 30 – 50 per 20 litre jerrycan. The cost of water has been set by Water Services Regulatory Board and the community (Table 13). There is no function or operational irrigation schemes.

Table 13: Water Access and Utilization

Livelihood zone	Distance to Water for Domestic Use (Km)		Cost of Water (Ksh./20litres)		Waiting Time at Water Source (Minutes)		Average HH Use (Litres/person/day)	
	Normal	Current	Normal	Current	Normal	Current	Normal	Current
Agro pastoral	2-4	2-5	5	5	20	20	15-20	15
Pastoral	1-5	5-10	5	5	30	30	10-15	8-10

3.2.5 Food Consumption

According to Food Security and Outcome Monitoring (FSOM) July 2017, 29 percent of the households are having poor and borderline food consumptions compared to 6.5 percent of the households in May 2016 and 37.9 percent in the same period in 2015 (Table 14). Households are frequently engaging in consumption based strategies. Most households are consuming an average of 2 - 3 meals per day in the pastoral and agro pastoral livelihood zones with poor dietary diversity. Common foods groups mainly consumed are cereals, pulses and occasionally meats. Relief food supplies supported most poor households.

Table 14: Food Consumption Trends

	Food consumption group			
	Period	Poor	Borderline	Acceptable
North-eastern Pastoral	May-14	93.3%	6.7%	0.0%
	May-15	6.9%	31.0%	62.1%
	May-16	1.4%	5.1%	93.5%
	May-17	3.4%	25.5%	71.0%

3.2.6 Coping Strategy

The mean coping strategy index was 17 in June 2017 compared to 12.3 in May 2017 indicating that most households are employing irreversible consumption based coping strategies. Notable coping mechanisms employed by households include reduction in the number of meals and the sizes of food portions, reliance on less preferred or less expensive foods and skipping of meals. The FSOM data also indicates that 53.1 percent of the households are engaging in stress coping strategies in July 2017 compared to 44 percent in May 2016 (Table 15). Households that are engaged in stress coping strategies include purchase of food on credit, borrow money and spent on savings. Some households are willing to sale more livestock but buyers are not available. Households engaging in emergencies coping strategies such as begging and depositing off their last female animals has been reducing from 69 percent in 2015 to 17.9 percent in same period in 2017.

Table 15: Coping Strategy Index

Summary of livelihood strategies					
	Period	HH not adopting coping strategies	Stress coping strategies	Crisis coping strategies	Emergencies coping strategies
North-eastern Pastoral	May-14	86.4%	13.6%	0.0%	0.0%
	May-15	0.0%	31.0%	0.0%	69.0%
	May-16	9.4%	40.6%	21.0%	29.0%
	May-17	5.5%	53.1%	23.4%	17.9%

3.3 Utilization

Utilization of food at household level is mainly influenced by access to food either at market or own production, preparation of foods and health state of the individual. Most households depend on market supplies which was limited by low purchasing power hence influencing utilization of foods. Household water consumption remains at critical levels due to water scarcity.

3.3.1 Nutritional Status

Morbidity patterns

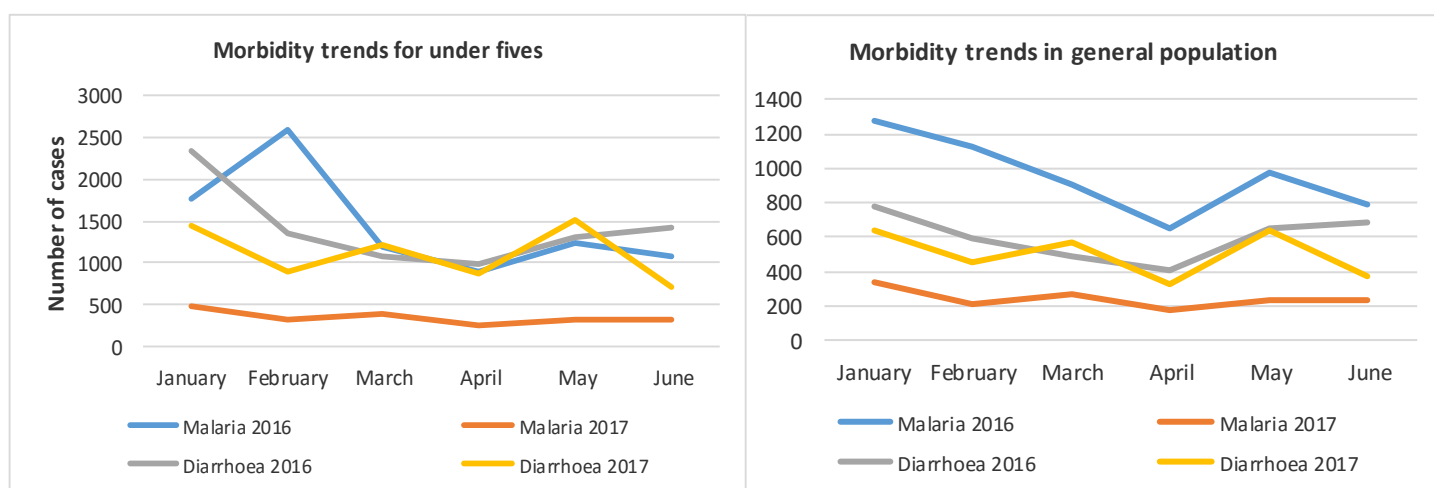


Figure 5: Morbidity Trends in the county

Amongst the three major causes of morbidity among children under five years, Upper Respiratory Tract infections were the leading cause of morbidity, followed by diarrhoea and malaria respectively as illustrated in Figure 6 above. The prevalence of the two diseases are highest during the month of January to March for same period. A decrease in diarrhoea and malaria among both the general population and under-fives years' children has been noted, however this might be due to service interruptions early in the year and current health workers strike. Amongst the general population, Upper Respiratory Tract infections were the leading cause of morbidity in the first half of the year in the period of reference.

Immunization and Vitamin A supplementation

Immunization coverage has significantly dropped in the period under review (2017) compared to last year and majorly attributed to acute service interruption by health workers strikes that have been experienced this year (Table 16). Additionally, due to the current drought situation, migration has been experienced in areas of the county which in turn has affected access to health care and continuum of care.

Table 16: Immunization coverage

Year	%of fully immunized children in the county	% of children immunized against the mentioned diseases in the county
January to June 2017	OPV1-66.6	OPV 1 - 89.4
	OPV3-55.2	OPV 3 -78.1
	Measles-59.1	Measles -73.3
January to	OPV1- 99.3	OPV 1 -96.3

June 2016	OPV3 -83.6 Measles -77.3	OPV 3 -86.8 Measles -75.3
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Vitamin A supplementation semester coverage for children aged 6 -59 months was slightly below the national target of 80 percent for all semesters (Table 17). This was mainly due to clinic attendance coupled with low measles vaccination thereby forcing upscaling the services. However, emphasis was put on Malezi Bora campaigns and Early Child Development Centre supplementation to ensure an improved coverage. No variations were noted across the livelihood zones.

Table 17: Vitamin A supplementation and coverage

Year	Children 6-11 months	Children 12 to 59 months
	Proportion of children Received Vit A supplementation in the last 6 months	Proportion of children Received Vit A supplementation in the last 6 months
January to June 2017	54	21.5
January to June 2016	69.9	37.9

Nutrition Status

A nutrition SMART survey conducted in February 2017 reported Global Acute Malnutrition of 18.2% which was classified as critical. The proportion of children under five years with MUAC (<135mm) was 29.6 percent in the month of June 2017 compared to 14 percent in 2016 same period, according to the NDMA June EWS bulletin (Figure 7). In June 2017 MUAC was 73 percent above the five year averages and 111 percent above the same period in 2016. The increase in acute malnutrition was attributed to reduced amounts of food, reduced meal frequencies especially for poor households in the pastoral areas and limited dietary diversity coupled by high food prices.

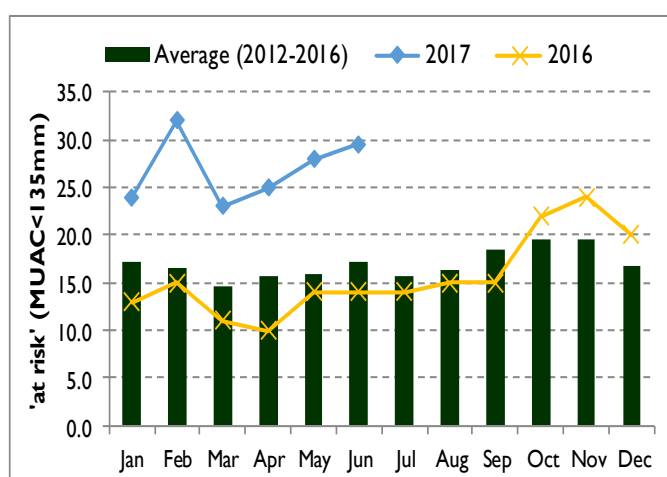


Figure 6: Proportion of children at risk of malnutrition (MUAC)

3.3.2 Sanitation and Hygiene

Based on community interviews, human waste disposal was very poor across all the livelihood zones, with less than 50 percent of households interviewed owned latrines. Over 50 percent of households go to the bush to relieve themselves while a few of them shared latrines. Burning of household waste was highly reported and no waste was observed, most of the compounds were clean. Over 50 percent of the communities have knowledge on at least three critical times of hand washing out of the four (before eating, after visiting the toilet, before cooking). Very few household treat drinking water with next to none of the household use boiled water. Shortage of water treatment chemicals were reported across all the livelihood zones.

3.4 Trends of key food security indicators

Table 18: Key Indicators Showing Previous and Current Season

	Short Rains Assessment, Feb 2017		Long Rains Assessment, July 2017	
% of maize stocks held by households (agro-pastoral)	Nil		Nil	
Livestock body condition	Cattle and Sheep	Good	Cattle and Sheep	Poor - Fair
	Goat and Camel	Good	Goat and Camel:	Fair
Water consumption (litres per person per day)	Less than 10 litres/person/day in the pastoral		Less than 10 litres/person/day in the pastoral	
	10-15 in the agro pastoral		15 litres/person/day in the agro pastoral	
Price of maize (Ksh per kg)	53		60	
Distance to grazing (km)	Pastoral	15	Pastoral	20
	Agro pastoral	15	Agro pastoral	15
Terms of trade (pastoral zone)	59		40	
Coping strategy index	11.67		17 as at June 2017	
Food consumption score (% of households with acceptable FCS)	87.3 % of households had acceptable		71% of households had acceptable	
Proportion of children at risk of malnutrition (MUAC <135mm)	32%		29.6%	
Global Acute Malnutrition (GAM)	18.2%		-	

3.5 Education

Enrolment

Early Child Development Centre (ECDC) enrolment between Term I and Term II 2017 has decreased by 1.2 percent as a result of migration, lack of extension of ECD teacher's contracts and inadequate school meals program (Table 19). Enrolment in primary between Term I and Term II 2017 also dropped by 0.2 percent due migration and lack of school meals program while enrolment in secondary schools between Term and Term 2017 was stable as result of increased establishment of free day secondary schools and bursaries (County government, CDF, Wings to Fly, KCB, Coop bank).

Table 19: Enrolment in Schools

Enrolment	February 2017			June 2017			Comments
	N ₂ Boys	N ₂ Girls	Total	N ₂ Boys	N ₂ Girls	Total	
ECD	6880	9469	16349	6812	9336	16148	
Primary	18442	17017	35459	18364	17012	35376	
Secondary	3005	4732	7737	3005	4732	7737	

3.5.2 Participation

Attendance

Boys attended school more than girls in primary and secondary which was represented by 52 percent each (Table 20). The low attendance of girls was associated with early marriages, family labour responsibilities/household chores, household doesn't see value of schooling, marriage and or pregnancies.

Table 20: Attendance in Schools

Indicator	End of Term III 2016		End of Term I 2017		Start of Term II 2017		Comments
	N ₂ Boys	N ₂ Girls	N ₂ Boys	N ₂ Girls	N ₂ Boys	N ₂ Girls	
ECD					6294	9148	
Primary					17634	16534	
Secondary					3005	2721	

Retention

In ECD and primary, pupils drop school due to insecurity and or violence, lack of schools or high cost of schools and migration of pastoralist (including displacements). While in secondary drop out cases are mainly associated with insecurity and or violence, lack of schools or high cost of schools and marriage and pregnancies cases among the girls.

3.5.3 School meals program

In all the 105 schools with pupil population of 59,261(Boys-28,181 and girls-31,080) in the county are not receiving any school meals program. Some pupils have switched schools as result of drought. Belgish primary school in Garbatulla has remained closed due to armed conflicts.

4.0 FOOD SECURITY PROGNOSIS

4.1 Prognosis Assumptions

The prognosis will likely be based on the following assumptions:

- According to National Oceanic and Atmospheric Administration/Climate Prediction Centre (NOAA/CPC), preliminary forecasts for the 2017 short rains between October to December are likely to be above average.
- Livestock migration will likely increase before and towards the lean season thereby increasing the likelihood of diseases, conflicts and insecurity over limited rangeland resources.
- The below-average total cumulative seasonal rainfall performance (long rains) is likely to result to below average stocks at household level. However, it might be lessened by injections from other areas to support supply in the markets. Relief support is likely to be upscale to support household food stocks.
- Livestock prices are likely to remain typically low with limited livestock related earning opportunities, supply and demand of trading, household income is likely to remain unusually low.
- With declining food availability and access, through August and September, prevalence of Global Acute Malnutrition (GAM), is likely to worsen to critical and very critical especially among the children according to the historical trends.

4.2 Outlook for 3 and 6 months.

Food Security Outcomes (August – October)

Food security is likely to continue deteriorating due to below poor performance of the long rains. Severe rangeland resources stress (forage and water stress) were observed across the livelihood zones. Most pastoralists will prospectively maintain their livestock in the dry season grazing areas and eventually migrate outside the county as a result of poor pasture hence incidences of resource based conflict likely to occur. Migration of livestock will likely result in limited livestock products such as meat and milk at household level. Household income is expected to remain low due to fewer and limited livestock sales, as result of low prices and mortalities are expected to occur due to drought. Household food consumption score will likely deteriorate further as result of limited income to support food access. Most households in the affected areas such as Belgeish, Modogashe, Old nyiro, Merti, Lakole, Malkagalla, Bassa, and Dakiye are likely to be in Crisis (IPC Phase 3).

Food Security Outcomes (November – January)

Rangeland resources are expected to improve as from October with the likelihood of above average short rains. Improved rangeland will likely drive back the livestock from outside the county to homesteads. Livestock body condition will likely gradually improve henceforth fetching better market prices and provision of livestock products such as meat and milk. Improved market prices will likely improve the household incomes thereby improving the purchasing power. Improved food access will likely reduce the malnutrition levels at household and overall food security. Majority of households are likely to remain at Stressed (IPC Phase 2) phase, even those that had moved to Crisis (IPC Phase 3) are likely to move back to Stressed (IPC Phase 2).

5.0 Conclusion and Interventions

5.1 Conclusion

Generally, major parts of the county especially in pastoral livelihood zone are classified as Crisis (IPC 3) with localized areas in agro pastoral areas in Stress (IPC 2). Currently 29 percent of households have poor and borderline food consumption score with consumption based coping strategies increasing. The situation is projected to worsen further until the short rains season as rangeland resources deplete, resource based conflicts likely to increase and food commodity prices increases. Key factors to closely monitor in the next three to six months include August 2017 elections, staple food commodity market prices, conflict over rangeland resources, distances to water, livestock deaths, malnutrition rates, drop-outs or absenteeism in schools and impacts of programmes and interventions.

5.1.1 Phase classification

The county is classified as Crisis (IPC 3) majorly in pastoral areas of Sericho, Merti and Oldonyiro and Stressed (IPC 2) in most parts of Kinna and Central wards. The main drivers of food insecurity were poor rainfall for the last three successive seasons resulting into crop failure for three consecutive seasons, abnormal livestock migrations, resource based conflicts in dry season grazing areas and increasing distances to watering points. Additionally, shortage of staple food commodities in the markets, high priced food commodities and poor livestock prices impacted negatively on household purchasing power instigating increased food consumption gaps. Livestock deaths attributed to drought were also reported in Merti and Oldonyiro.

5.1.2 Summary of findings

The performance of rain over three seasons has been below average thereby resulting in typically low or no production. Households have continued to rely on market supplies and or relief supplies especially those under food assistance interventions. Livestock migration due to limited access to pastures and water has continued to deprive households with low or no income hence affecting the overall food security at household level. Increased migration of livestock has spark frequent conflicts and insecurities over rangeland resources .Acute malnutrition levels of children are likely to increase more as result of food insecurity, inadequate dietary practices and morbidity. Households are likely to continue to intensify their coping strategies.

5.1.3 Sub-county ranking

Table 21: Sub County Ranking

Ward	Food Security Rank (1-10 from worst to best)	Main Food Security Threat (if any)
Sericho	1	Poor rangeland conditions, livestock migration, high food/water prices, increased distances, livestock mortalities, unfavorable terms of trade, poor performance of rains, high distances to water points, malnutrition are worsening
Oldonyiro	2	Livestock migration to Laikipia, poor rangeland conditions, security operations bordering to Laikipia, high food prices, shortages of water for livestock

Merti	3	Reserve dry grazing areas, conflicts and insecurities
Garbatulla	4	
Central	5	
Kinna	6	

5.2 Ongoing Interventions

5.2.1 Food Interventions

The World Food Programme (WFP), NDMA and Action Aid Kenya supports 40,000 beneficiaries in assets creation covering Isiolo South (Garbatulla and Kina wards), Isiolo North (Ngaremara, Burat, Oldonyiro wards). Action Against Hunger (ACF) support 1187 beneficiaries with cash transfers. The Supplementary Feeding Programme (SFP) supports 1600 beneficiaries across the livelihoods.

5.2.2 Non-food Interventions

Table 22: Non Food On-going Interventions

Immediate On-going Interventions							
Ward	Intervention	Location	No. of beneficiaries	Implementers	Cost	Time Frame	Implementation Status (% of completion)
Water							
Burat	Borehole development	Attir	1200	Catholic Relief Services	18.0M	24 months	70%
Burat	Rehabilitation of Livestock Marketing Division community borehole	West	2000	World Vision	2.0M	60 days	90%
Oldo Nyiro	Rehabilitation of Raap borehole	Oldonyiro	1000	World Vision	2.0M	60 days	90%
Health and Nutrition							
County wide	Vit A, Zinc supplementation, Iron Folate supplementation among pregnant women, Deworming and Food fortification	All health facilities	Vit A-29486, Zinc-350, Iron folate-7508, deworming-26102, food fortification-29366	MOH/U NICEF ACF	1.415M	Continuous	80%
County wide	Management of acute malnutrition (IMAM)	36 health facilities	5126	MOH/U NICEF ACF	130,000	Continuous	70%

County wide	IYCN Interventions (EBF and Timely Intro of complementary Foods)	All health facilities	6766	MOH/U NICEF ACF	130,000	Continuous	70%
Medium and Long Term On-going Interventions							
Agriculture							
County wide	Supply of certified seeds	Countywide	15000	County and National Government	10M	March – April 2017	30%
Isiolo, Merti, Garba Tula	Enhanced Subsidized tractor services	Countywide	8,000	County Government	12 M	March – April 2017	90%
Isiolo sub county	Subsidized fertilizer	Bula Pesa, Wabera, Burat	8,000	County Government	12 M	March – April 2017	60%
Education							
county wide	Water storage tanks and facilities	5 (Name of schools)	1000	UNICEF , MOE	2.0M	2017	90%
county wide	Hygiene kits for girls	5 (Name of schools)	500	UNICEF , MOE	2.0M	2017	90%
county wide	Soap and other hygiene promotional materials	5 (Name of schools)	500	UNICEF , MOE	2.0M	2017	90%

5.3 Recommended Interventions

5.3.1 Food interventions

Table 23: Population in Need of Assistance

Sub County	Population (KNSB Projection 2016)	Pop in need (% range min-Max)
Isiolo North	108,685	60 - 65
Isiolo South	46,780	55 - 60

5.3.2 Non-food interventions

Table 24: Non-food Recommendation Intervention

Immediate recommended Interventions							
Sub County/ Ward	Intervention	Location	No. of beneficiaries	Proposed Implementers	Required Resources	Available Resources	Time Frame

Water								
Merti, Grabatulla, Oldo Nyiro	Water tracking	Malkagalla, Lakole, Matarba, Modogashe, Oldo Nyiro	5500HH	Ministry of Water, NDMA, Caritas Isiolo, World Vision, National Government	4.4M	1.0M	90 days	
Social Protection								
Isiolo North and Isiolo South	Food assistance and Cash transfer	Isiolo, Merti, Garbatulla	20,000HH	County and National Government, Action Aid	60.0M	0M	July 2017-18	
Livestock								
Isiolo North and Isiolo South	Slaughter destocking	Sericho, Cherab, Garbatulla, Chari and Oldonyiro	4000 sheep and goats 200 cattle	County and National Government, Action Aid, Ministry of Livestock and RPLRP	12.0M	0	July-Aug 2017	
Isiolo North and Isiolo South	Livestock feed support for core herd	Isiolo North and Isiolo South	400 tons of range cubes, survival mash, hays, pellets and mollases	County and National Government, Action Aid, Ministry of Livestock and RPLRP	13.0M	0	July-Aug 2017	
Education								
countywide	Provision of emergency school meals programs	countywide	51524	MOE, County Government, NDMA, other development partners	100.0M	0M	2017-2018	
countywide	Water trucking to schools, Water hygiene and sanitation	countywide	51524	MOE, County Government, NDMA, other development partners	15.0M	0M	2017-2018	
countywide	Food for fees	countywide	7737 (All 23 public secondary schools)	MOE, County Government, NDMA, other development partners	7.0M	0M	2017-2018	
Peace and Conflict Resolutions								
Isiolo North and Isiolo South	Peace and conflict resolutions (Peace Building meetings with	countywide	12 meetings (communities near Belgesh and Kom schools) Moran youth	MOE, County Government, NDMA, other development partners, Caritas Isiolo, Ministry	3.0M	0M	2017-2018	

	Morans (youth and cross border meetings)		and cross border meetings)	of Interior, NRT			
Health and Nutrition							
Merti, Isiolo, Garbatulla	Conduct Mass Screening for under 5yrs, lactating and pregnant women	Merti, Isiolo, Garbatulla	80 sites	MOH, UNICEF AAH KRCS, DOWT Action Aid	3.0 M	1.0M	3 months
	Supply and distribution of Nutrition supplies, water treatment chemicals – Pur, Water guard, water maker and chlorine tablets	All the health facilities 36No.(Merti, Garbatulla, and Isiolo county health facilities, Waso, Twale, Oldonyiro, Biliqi, Badana raro, Malkagalla, Awarsitu, Saleti, Mataarba, Fororsa, Belgesh, Gubadida, Duse, Malkadaka, Korbessa	36	AAH, MOH, UNICEF, KRCS	8.0 M	0	3 months
Medium and Long Term recommended Interventions							
Water							
Modogashe and Eldera	Drilling, construction equipping and installation of pipeline	Modogashe and Eldera	3000HH	Ministry of Water, NDMA, National Government	270 M	0	2017-18
Matarba, Korbessa and Biliqi	Equipping and supply of water to Matarba, Korbessa and Biliqi	Matarba, Korbessa and Biliqi	8000HH	Ministry of Water, NDMA, National Government	50M	0	2017-18
Oldo Nyiro and Kipsing	Rehabilitation of Oldo Nyiro and Kipsing water supply	Oldo Nyiro, Kipsing	3000HH	Ministry of Water, NDMA, National Government	160 M	0	2017-18
Cherab	Fast moving spares for strategic boreholes	Delbeq, Duma, Hurura, Yamicha, Bambot,	50,000 heads of cattle	Ministry of Water, Ministry of Livestock, NDMA, Caritas Isiolo, National	2.0 M	0.5M	90 days

		Machallo		Government			
Cherab	Provision of standby genset	Delbeq,	30,000HH	Ministry of Water, NDMA, Caritas Isiolo, National Government	1.5 M	0	90 days
All sub counties	Support rapid response team	All sub counties	15 Boreholes	Ministry of Water, NDMA, Caritas Isiolo, National Government	1.6 M	0	90 days
All sub counties	Provision of collapse tanks	All sub counties	20 tanks	Ministry of Water, NDMA, FAO, National Government	2.25 M	2.25M	90 days
All sub counties	Provision of water storage tanks	All sub counties	20 tanks	Ministry of Water, NDMA, National Government	1.5 M	1.5M	90 days
Agriculture							
All	Provision of certified seeds	County wide	30,000	County Government, National government	10.0 M	0	Sept – Oct 2017
Muchuro, Gafarsa	Support Irrigation Scheme with fuel subsidy	Muchuro, Gafarsa	1000litres	Ministry of Agriculture, NDMA, National Govt and other partners	95,000	0	Sept – Nov 2017
Isiolo Central, Gafarsa & Muchuro	Solar powered pumps	Isiolo Central, Gafarsa & Muchuro	10 pieces	Ministry of Agriculture, NDMA, National Govt and other partners	650,000	0	Aug- Dec 2017
Livestock							
Isiolo North and South	Disease surveillance, vaccination and logistics	Isiolo North and South	100,000 heads of cattle, sheep and goats each	County and National Government, Action Aid, Ministry of Livestock and RPLRP	50.0 M	0	July- Aug 2017
Education							
Countywide	Regular school meals program	countywide	51524	MOE, County Government, NDMA, other development partners	200.0M	0M	2017-2018
Countywide	Vitamin A and Deworming	countywide	16148	MOE, County Government, NDMA, other	1.0 M	0M	2017-2018

				development partners			
Countywide	Temporary boarding facilities	countywide	59261	MOE, County Government, NDMA, other development partners	100.0M	0M	2017-2018
Health and Nutrition							
County wide	Intensify Community Led Total Sanitation initiatives	County wide	33167 HH	MOH,UNICEF	2.0 M	0	2017-18
County wide	Strengthen coordination and feed backing	Sub County and County level	30 Stakeholders in health and nutrition	MOH,UNICEF	0.5 M	0	Monthly
Sub County level	Strengthen community based surveillance system	Sub County level	100	MOH,UNICEF	2.0 M	0	2017-18
Duse, Daaba, Eskot, Tuale, Pepo latumaini, Mataarba, Biliqo Marara,	Scale up of IMAM/nutrition services	Duse, Daaba, Eskot, Tuale, Pepo latumaini, Mataarba, Biliqo Marara,	3500	MOH,UNICEF	2.4 M	0	2017-18
Merti, Isiolo, Garbatulla	Support Integrated Medical Outreach	Malnutrition hot spots in Merti, Isiolo and Garbatulla	100	MOH, UNICEF AAH KRCS, DOWT Action Aid	6.84 M	2.0M	3 months