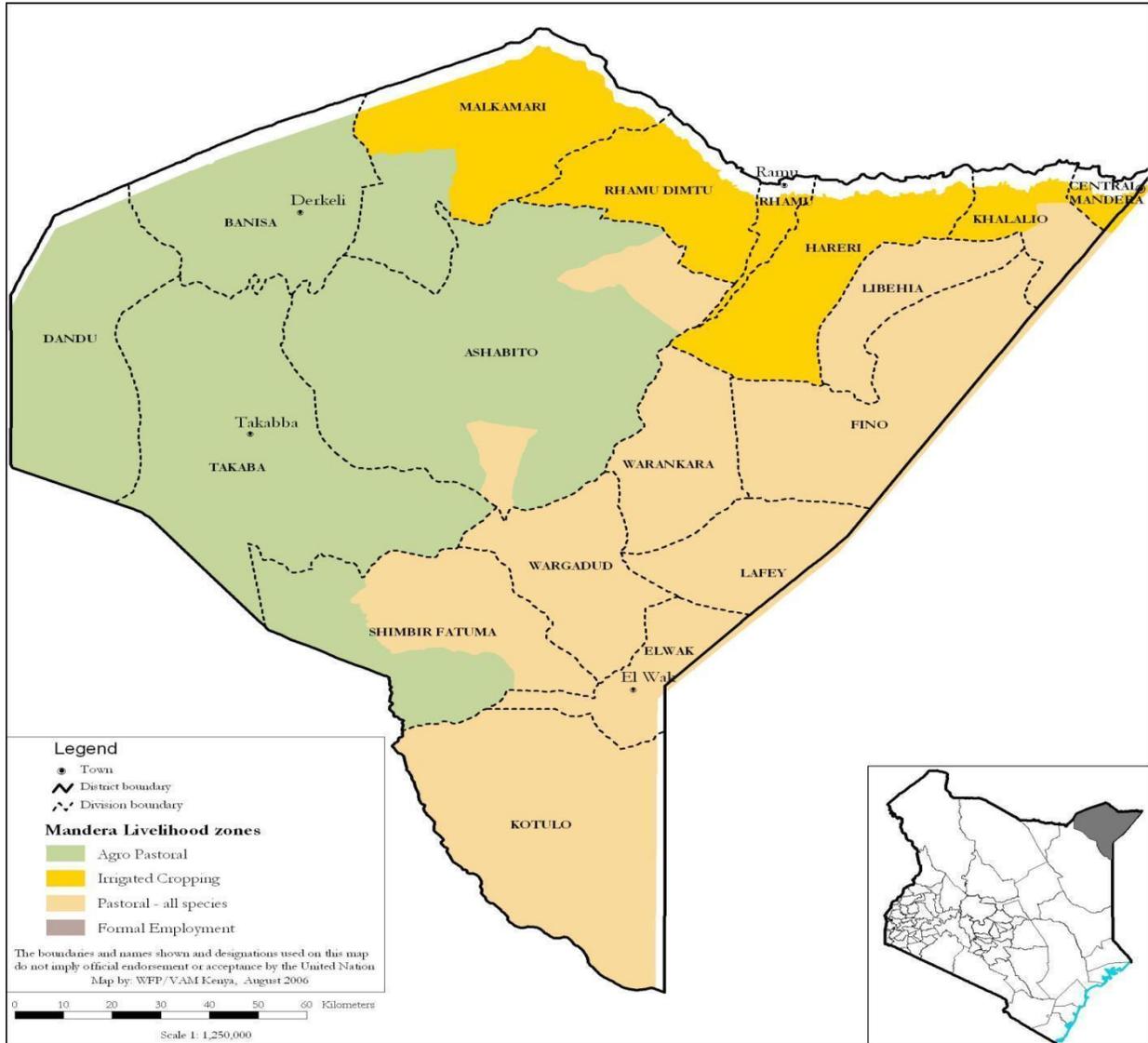


# MANDERA COUNTY

## 2016 LONG RAINS FOOD SECURITY ASSESSMENT REPORT



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

**August 2016**

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## 1.0 INTRODUCTION

### 1.1 County Background

Mandera County is located in the northern eastern part of the Country. It has an area of 26,470 square kilometres. There are six sub counties namely: Mandera East, Mandera North, Mandera South, Mandera West, Banissa and Lafey with total population of 1,025,786 persons (KNBS, 2009). The County has three major livelihood zones that include Pastoral all species livelihood zone, Agro-pastoral livelihood zone and irrigated cropping zone (Figure 1).

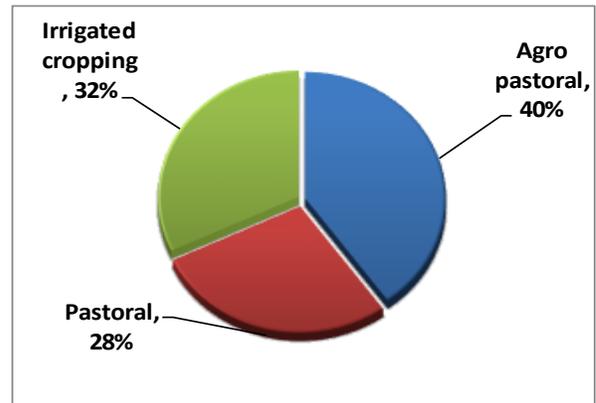


Figure 1. Population proportion per livelihood zone

## 2.0 COUNTY FOOD SECURITY SITUATION

### 2.1 Current food security situation

The current food security situation across all livelihood zones is classified as stressed phase (IPC phase 2). The key drivers of food insecurity include: terror threat in areas neighbouring Somali border (IPC phase 1). Insecurity along the Kenya and Somalia border, human disease outbreaks, livestock diseases, floods along river Daua are key drivers of food insecurity.

The food consumption scores for poor, moderate and acceptable in July 2016 are 2.6, 5.6 percent and 91.8 percent respectively compared with 5.0, 12.1 and 82.2 percent in July 2015 showing improved food security situation (SMART Surveys). The coping strategies index was 19 in May 2016 compared to 33 in May 2015 (Food security outcome Monitoring FSOM) where 60.9 percent are employing stress coping strategy. Percentage of children under-five of age at risk of malnutrition, using mid upper arm circumference (MUAC < 135 millimetres) was 21.3 percent in July 2016, which was below the long term average (LTA) of 23.6 percent. The GAM rate for July 2016 is 22.6% and SAM rate of 4.3%. The current terms of trade are 61 kilograms of maize per goat compared with the long term average of 45 kilograms of maize per goats.

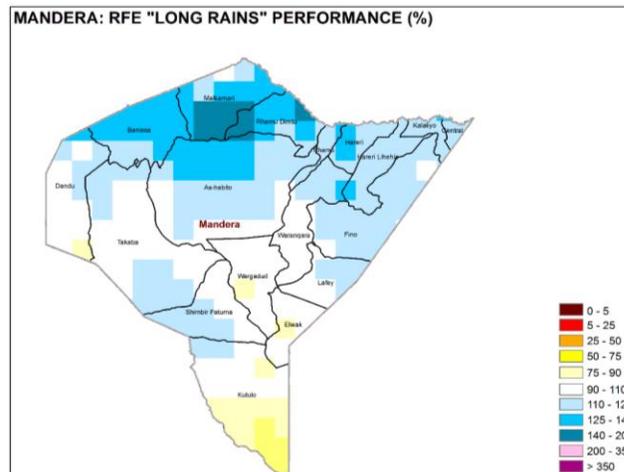
## 2.2 Food Security Trends

**Table 1: Food security trends**

Indicator	Current situation	Previous season
Food security phase	Stressed (IPC phase 2)	Stressed (IPC phase 2)
Maize stocks held by households (agro-pastoral)	48.5 % of LTA	29 % of LTA (2015 LRA)
Livestock body condition	Fair for all species	Fair for all species
Distance to grazing (KM)	10-15	10-20
Water consumption (litres per person per day)	10 ( pastoral, agro-pastoral); 12 (irrigated cropping)	8.5 (all livelihood zones )
Price of maize (per kg)	Ksh. 66	Ksh. 60
Return trekking distance to watering points(km)	14	10
Terms of trade	61 kg maize / one goat	64 kg maize / one goat
MUAC (Children at risk of malnutrition < 135mm)	21.3	21.7
Acute Malnutrition Levels (GAM)	22.6%	24.7%
Food consumption score (percent)	Poor 2.6%; Borderline 5.6%; Acceptable 91.8%	Poor 5%; Borderline 17 %; Acceptable 78 %
Meals per day	1-2	2-3
Coping strategy index	19	31

## 2.3 Rainfall Performance

The onset was late in the first dekad of April compared with third dekad of March normally. Generally, the county amount received 90 to 125 percent of normal rains with the highest recorded in irrigated cropping zone and agro pastoral livelihood zones. However, some parts of pastoral livelihood zone of Kutulo, Elwak and Wargadud received 50 to 90 percent of normal rainfall. The temporal distribution was good with fair spatial distribution across the county. The cessation of was early in first dekad of May compared with second normally.



**Figure 2: Percent of normal rainfall**

### 3.0 IMPACT OF RAINFALL PERFORMANCE, SHOCKS AND HAZARDS

#### 3.1 Crop Production

The county is long rains dependent for crop production. The major crops are maize, sorghum, and cow peas (Table 2). Water melons and bananas are also widely produced as cash crop in the irrigated livelihood zone. Crop production is mainly practised in agro pastoral and irrigated livelihood zones.

**Table 1: Contribution of crops to food and income**

Livelihood Zone	Crop	Percent Contribution	
		Food	Income
Agro Pastoral	Maize	30	30
	Sorghum	70	70
Irrigated cropping	Maize	85	2
	Bananas	36	7
	Cow peas	1	5

#### Rain-fed crop production

Overall, the area put under rain-fed crop production was 35 percent compared with LTA. The reduction was realised for three main crops (Table 3). Consequently, production is projected to be lower than LTA by 65 percent. The variation in area planted and seasonal production is attributed to the late onset of rains, inadequate supply of certified seeds for replanting, coupled with pest and disease infestation.

**Table 2: Rain-fed crop production**

Crop	Area planted during 2016 long rains season (Ha)	Long Term Average area planted during the long rains season (Ha)	2016 long rains season production (90 kg bags) Projected/Actual	Long Term Average production during the long rains season (90 kg bags)
Maize	144	370	3,039	7,810
Sorghum	237	671	6,580	18,638
Cow Peas	53	169	1,471	4,518

#### Irrigated crop production

In irrigated crop production, area planted was 59 percent compared with the LTA. There was a decrease in acreage for both maize and cowpeas. Overall production is projected to be 46 percent of LTA (table 4).

**Table 4: Irrigated crop production**

Crop	Area planted during the 2016 long rains season (ha)	Long Term Average (3 years) area planted during long rains season (ha)	2016 long rains season production (90 kg bags) Projected/actual	Long Term Average (3 years) production during long rains season (90 kg bags)
Maize	413	802	6,717	16,929
Cowpeas	434	622	9,054	17,277

Variation in area cultivated and seasonal production was due to among other reasons floods which swept the crops, al-Shabaab terror threats which affected movement of extension staff to farms, inadequate supplies and availability of certified seeds and general farm inputs for proper land preparations and replanting of farms, increase in pest and disease infestation during and after flooding, and harvesting of cow peas and maize for fodder before maturity.

### Maize stocks

The current maize stocks in the county were 19 percent of the LTA (Table 5). Households held 48 percent of the LTA since harvesting while traders held lower stocks because of insecurity threats which interfered with market supplies from Nairobi, Moyale and cross border trade from Somalia and Ethiopia.

**Table 5: Available stocks**

Mize stocks held	Quantities of maize held (90-kg bags)	Long term average quantities held (90 kg bags) at similar time of the year
House Holds	263	542
Traders	569	1,650
Millers	65	85
NCPB	1,365	9,050
<b>Total</b>	<b>2,222</b>	<b>11,327</b>

### 3.2 Livestock Production

Livestock production contributes 80% to food income. The main livestock in the county are camel, cattle, goats, and sheep (Table 6). Bee keeping also significantly contributes to house hold income across all the livelihoods.

**Table 6: Contribution of livestock production to income**

Livelihood zone	Percent contribution to income
Pastoral	60
Agro-pastoral	52
Irrigated	10

### Forage condition

Pasture condition in the county was poor across all livelihood zones except in the agro pastoral livelihood zone which was fair. Despite of the good rains, pasture regeneration was poor because of land degradation. In pastoral livelihood zone, pasture condition is projected to deplete by October. In agro pastoral livelihood zone, pasture is projected to last for one month, end of September. The concentration of livestock around areas with fair pasture is likely to accelerate depletion.

The browse conditions across all livelihood zones ranges are fair with exception in pastoral livelihood zone especially in Lafey sub-county and parts of Mandera south sub-county which are near depletion. In agro pastoral and irrigated livelihood zone, browse in the two livelihood zones is expected to last one month.

## Livestock Productivity

### Body condition

The livestock body condition for all species is good in irrigated and agro pastoral livelihood zones which is normal at this time of the year. However, the body condition for all species is fair in pastoral livelihood zone compared with good normally.

### Milk Production, consumption and prices

Average milk production per household dropped by 67% compared to long term average. The low production which has affected consumption is attributed to outbreaks of diseases. The price of milk has increased due to better accessibility of markets because of improved road networks and use of *boda boda*. Income from milk is used to purchase other household goods, and high demand from urban centres especially Mandera town.

**Table 7: Milk production, consumption and prices**

Livelihood zone	Milk Production (Litres)/Household		Milk consumption (Litres)per Household		Prices (Ksh)/Litre	
	Current	LTA	Current	LTA	Current	LTA
Irrigated	4	6	1.5	3.5	95	80
Agro-pastoral	4	6	2	3	85	80
Pastoral	3	5	2.5	4	100	80

### Tropical livestock units (TLUs)

The average TLU for poor households is 10 while for middle income households it is 100 for goats, 50 for cattle and 20 for camel. The herd numbers for both poor and middle income households have increased following favourable pasture and water conditions and absence of drought for the last three years.

### Birth rate

The birth rate was within seasonal norms for all species. This is attributed to normal rainfall experienced across the county during the long rains season and the mass treatment and vaccination exercise by the county government.

### Migration

Outward migration from Banisa and Mandera west into Ethiopia was observed because pasture condition is good across the border. Mandera south migration was from Kutulo, Shimbir fatuma, Wargadud and parts of Lafey sub-county to Burmayo and Bolowle of Mandera west sub-county. There was also inward migration from Lafey sub-county to parts of Mandera north due to insecurity. Migration has affected household milk availability and access due to increased distance.

### Livestock Diseases and Mortalities

There were reported outbreak diseases across all livelihood zones. The main ones were *Pestes des Petits Ruminants* (PPR), Contagious Caprine Pleuro Pneumonia (CCPP), and sheep and goat pox. There was also suspected cases of Haemorrhagic Septicemia disease (HSD) in camels across all livelihood zones. The department of Livestock and Veterinary Service carried out disease

surveillance and vaccination campaigns against PPR and CCPP across the county.

### Water for Livestock

**Table 8: Livestock water sources, return trekking distances, watering frequency and expected duration**

Livelihood zone	Sources		Return trekking distances(km)		Expected duration to last(Months)		Watering frequency (days)	
	Current	Normal	Current	Normal	Current	Normal	Current	Normal
Irrigated	River Daua	River Daua	10	10	5	5	1-3 for cattle, sheep and goats.	1-3 for cattle, sheep and goats.
Agro-pastoral	Earth Pans	Earth Pan	10	10	2	2		
Pastoral	Earth pans, Boreholes	Earth pans; Boreholes Shallow wells.	15	15	1	1	5-7 for camel	5-7 for camel

### 3.3 Water and Sanitation

The main sources of water are boreholes, earth pans, shallow wells and underground water tanks across all livelihood zones. River Daua serves the irrigated livelihood zone. All open water sources and underground water tanks recharged up to 90 percent. The available water is projected to last until the next rain season. However, in the agro pastoral livelihood of Kiliwehiri, there were observed water stress as the most reliable pan did not impound water due to poor precipitation in the catchment areas and seepage of major pans.

**Table 9: Water for domestic consumption**

Sub county / 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
Lafey	7.5	7	5	5	45	30	12.5	9
Banisa	10	5	10	8	60	30	12	7.5
Mandera East	12.5	6	5	9	60	30	12	12
Mandera North	10	4	4	4	90	30	12	12
Mandera South	10	2	5	5	60	30	10	11
Mandera west	10	3	8	5	60	30	15	10

The average return distance to water source is currently 4.5 KM compared to 10 KM last season due to more water facilities that has been constructed. The current average waiting time at water source, the price is within normal across all the livelihood zones. The average water use has improved from previous of 8.5 liters to 10 litres per person attributed to improved access and availability of water.

### Sanitation

The latrine coverage stands at 61.4 percent; own latrine (36.9 percent) and shared (24.5 percent). However, 38.6 percent are using undesignated open places (July 2016 SMART Survey). Compared with the population using unsafe water sources and in times flooded shallow wells, then this proportion of community runs a risk of contracting waterborne diseases. Further, a majority of households (83.1 percent) do not treat their drinking water. Considering that 98.8 percent of the population use unsafe water sources is a risk factor for water borne diseases. However, water

treatment at household level and water sources (shallow wells, underground water tanks) were done to contain spread of cholera outbreaks.

### 3.4 Markets and Trade

#### Market Operation

Mandera town market is the main market in the county. Other markets are, Rhamu, Banissa, Takaba, Lafey and Elwak. Major food commodities traded are maize, rice, and beans which are mainly sourced from Moyale, Thika, Ethiopia and Somalia. Livestock traded are mostly goats, camels and cattle which are obtained locally and also from the neighbouring Somalia and Ethiopia. There was disruption of supply volumes to Mandera, Rhamu, Elwak and Lafey markets due to insecurity along the border which affected movements of food commodities and livestock.

#### Maize prices

The trend for maize prices is below five year trend as well as 2015 prices but on an increasing trend (Figure 3). The steady increase in maize prices is attributed to low supplies to the main market due to disruption of cross border trade and limited flow of commodities to the markets due to insecurity.

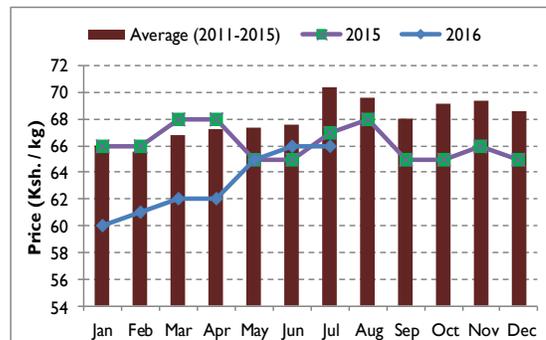


Figure 3: Maize prices

#### Goat price

Goat prices have generally been above LTA and 2015 prices. The highest prices were recorded in May and June 2016 due to high demand during Ramadan and Idul Fitri celebration. The prices have however assumed a decreasing trend in July (Figure 4).

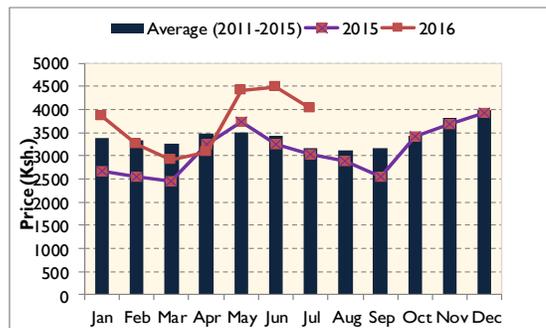


Figure 4: Goat prices

#### Terms of trade

Goat-to-cereal terms of trade (ToT) are higher than LTA and 2015 trends. The favourable ToT is as a result of high goat prices and stable maize prices. Proceed from sale of a goat can currently buy a household 61 kilograms of maize compared with long term average of 45 kilograms (Figure 5).

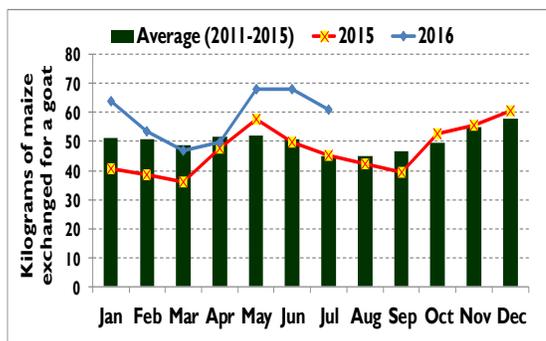


Figure 5: Terms of trade

### 3.5 Health and Nutrition

#### Morbidity patterns

The main causes of morbidity for under five general population remained the same when compared to previous season. Trends in morbidity for the general population and under five children shows increased incidences. The highest morbidity is pneumonia which increased by 89.6% compared the same period 2015. There was a reduction in intestinal infection, URTI, skin infection by 75%, 3.4% and 15% respectively compared to same period 2015 in under five. Diarrhoea and pneumonia infections increased by 7% and 89% respectively compared to same period in 2015 in under five. Incidences of UTI, URTI and skin diseases reduced by 8.4%, 6.4% and 25% respectively compared to same period in 2015, while diarrhoea and pneumonia increased by 21.8% and 11.6% respectively compared to same period in 2015. The increase in diarrhoea could be attributed to use contaminated water with coliforms and E. coli from open water sources.

**Table 10: Morbidity cases for children under five and general population**

Reported Morbidity cases for children under five				Reported Morbidity cases for General Population			
Disease	Jan-June 2015	Jan-June 2016	% Change	Disease	Jan-June 2015	Jan-June 2016	% Change
Intestinal worms	3,301	3,054	7.5	UTI	13,991	12,817	8.4
URTI	22,903	22,130	3.4	URTI	24,226	22,665	6.4
Diarrhoea	11,202	12,033	7	Diarrhoea	6,052	7,737	21.8
Pneumonia	7,429	71,988	89.6	Pneumonia	7,999	7,075	11.6
Skin Disease	4,658	3,935	15	Skin Disease	6,835	5,119	25

#### Epidemic prone diseases

Cholera out breaks occurred as from March 2016 in the county, while diarrhoea have been the leading causes of morbidity especially during the wet season when water is contaminated. Cases of acute watery diarrhoea and suspected cholera cases were reported in health facilities in the month of March 2016. A total 1792 cases and 18 deaths have been recorded in Mandera east Sub County. Other epidemic prone diseases cases reported includes Chikungunya/ dengue out beaks with 35,952 cases reported in Mandera east Sub County. Measles cases were higher (162) in Jan-June 2016 compared to 24 cases in Jan- june2015 with 2 deaths in 2016. Cholera cases have been contained while Chikungunya cases are still being felt.

**Table 11: Epidemic diseases**

Epidemic	January –June 2015		January –June 2016	
	No of cases	Reported Deaths	No of cases	Reported Deaths
Measles	25	0	162	2
Cholera	0	0	1,792	18
Dysentery	830	0	890	0
Diarrhoea	11,202	0	12,033	0
Malaria	3,208	0	2,218	0
Typhoid	3,602	0	3,129	0
Others(Chikungunya)	0	0	35,952	0

## Immunization Coverage

Immunization coverage for fully immunized child (FIC) in the county reduced from 26.9% in Jan-June 2015 to 21.3% for current season (Jan- June 2016), This low coverage was attributed to low out reaches services, lack of immunization facilities and staff turnover due to insecurity.

**Table 12: Percentage immunization coverage**

Year	Percentage of fully immunized children in the district (Source DHIS MOH 710 Vaccines and Immunizations)	Percentage of children immunized against the mentioned diseases in the district Source Nutrition survey
January to June 2016	21.3%	1. OPV 1 30.2% 2. OPV 3 25.7% 3. Measles 27%
January to June 2015	26.9%	1. OPV 1 38.5% 2. OPV 3 33.5% 3. Measles 29.1%

## Vitamin A supplementation

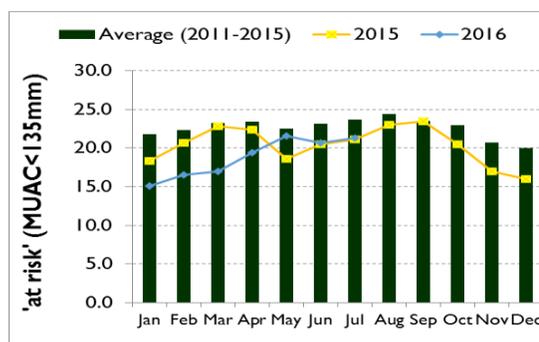
Vitamin A coverage for children under 12 months decreased by 29 percent. The decrease could be attributed to poor health seeking behaviour, long distances to health facilities and poor documentation.

**Table 13: Vitamin A supplement**

% Children < 12 months who received Vit A (DHIS 710)		% Children 1 to 5 years old who received Vit A (DHIS 710)		% Children 12-59 Twice (SMART Survey)	
Jan –June 2015	Jan –June 2016	Jan-June 2015	Jan-June 2016	Jan -June 2015	Jan –June 2016
63%	34%	12%	10%	33	51.6

## Nutrition Status and Dietary Diversity

Global acute malnutrition (GAM) level has remained Critical (IPC Phase 4) at 22.6 percent, although a slight improvement from 24.7 percent in 2015. The percentage under five children at risk of malnutrition (MUAC) remained stable over the last six month due (Figure 6). The proportion of households with acceptable food consumption score (FCS) has increased while those with poor and borderline FCS has decreased (Table 14). The improvement is attributed to better household dietary diversity and meal frequency. Currently, most households are consuming tea with milk, maize meal with milk or rice with pulses.



**Figure 6: Percentage at risk of malnutrition**

**Table 14: Food consumption score**

Period	Poor	Borderline	Acceptable
2015 SMART Survey	5%	12.10%	82.90%
2016 SMART Survey	2.60%	5.60%	91.80%

The coping strategy index was 19 in May 2016 compared to 33 in May 2015. The stressed strategy was most utilized livelihood coping strategy at 60.9 percent in May 2016.

## **4.0 FOOD SECURITY PROGNOSIS**

### **4.1 Prognosis Assumptions**

Food security in the county will be determined by the following assumptions:

- The October to December short rains are expected to be below normal due to possible La-Nina effects.
- Rangeland conditions are expected to deteriorate during the months of August and September and thereafter improve after the onset of short rains in October 2016.
- Food prices are expected to remain high but maintain a stable trend.
- Availability of milk will decline from September to November.
- Water availability and accessibility is likely to remain stable until the next rain season
- No extreme coping mechanisms are expected to be employed by households.
- Malnutrition rates are expected to remain stable at critical level.

### **4.2 Food Security Outcomes for the Next Three Months (August to October)**

Food availability at household level is projected to improve in the irrigated cropping zones following long rains harvest in September. The harvest is expected to last for three months. Food prices are expected to remain high but maintain a stable trend. Livestock body condition will worsen due to deteriorating pasture and browse condition. As a result, livestock market prices are expected to fall, leading to a decline in ToT hence limiting food access for pastoral and agro pastoral households who rely on markets. Household milk availability and consumption will reduce due to livestock diseases, migration and low productivity. Water availability and accessibility is likely to remain stable until the next rain season.

### **4.3 Food Security Outcomes for November 2016 to January 2017**

There is 50 percent chance of La Niña occurring in the period of October to December short rains which will greatly affect crop production in agro pastoral and irrigated cropping livelihood zones leading to low household stocks. Livestock productivity will be low due to low forage regeneration resulting in low or none milk consumption at household level. Prices of livestock will also decrease further compromising the ToT in pastoral and agro pastoral livelihood zones. Distance to water sources for both domestic and livestock will increase and more settlements will require water trucking to ease water stress.

## 5.0 CONCLUSION AND RECOMMENDATIONS

### 5.1 Conclusion

The current food security situation across all livelihood zones is classified as stressed phase (IPC phase 2). Factors to be monitored closely in the coming months with include: resource based conflict and cross border insecurity, nutrition status, human diseases, livestock diseases, livestock migration, maize and livestock prices.

### 5.2 Summary of Recommendations

- Proper water sources management.
- Improve access to certified seeds
- Promote fodder production and conservation
- Mass vaccination and treatment of livestock
- Human disease surveillance especially for cholera and chikungunya.
- Livestock disease surveillance
- Promote community cohesion through peace initiatives.

### 5.3 Sub-County Ranking

**Table 15: Sub-county food security ranking (worst to best)**

Sub County	Food security rank (1-10)	Main food security threat (if any)
Lafey	1	High insecurity incidence, Roads were impassable, Market disruption, depleted pasture and browse, High Milk prices, out breaks of human and livestock diseases, highly severe
Mandera south	2	Insecurity incidence were medium, poor livestock markets, poor pasture and browse, out breaks of human and livestock diseases, low purchasing power, slightly highly severe
Mandera east	3	Insecurity were low, flooding, diminishing pasture and browse, out breaks of cholera, High morbidity cases highly severe
Mandera north	4	Flooding in Irrigated farms, crop failure in Argo pastoral zone, diminishing pasture and browse, out breaks of livestock diseases, High trekking distance to water, moderately severe
Banissa	5	Poor livestock markets, flooding, crop failure, measles outbreak and livestock diseases, more centres under water stress, less moderately severe
Mandera west	6	Water scarcity, human disease, crop failure, low latrine coverage

## 6.0 ANNEXES

### 6.1 On-going Interventions by Sector

**Table 16: Ongoing interventions by sector**

Intervention	Objective	Specific Location	Cost (Ksh) (Million)	No. of beneficiaries	Implementation Time Frame	Implementation stakeholders
<b>Agriculture</b>						
Excavation of earth pans for crop production	Increase food production	Yatani and HarGatha	50	5000	Ongoing	Mandera county Government
Construction and rehabilitation of irrigation infrastructure	Increase water use efficiency and crop production	Aresa, Gadudia, Rhmau Dimtu, rhamu Girisa, Sala	45	15,000	Ongoing	
Flood control	Reduce floods impact	Shantoley , Sala	25	10,000	Ongoing	
Construction of Underground water tanks and Green houses	Expansion of production	All 5 wards		220	Continuous	
<b>Livestock</b>						
Construction of water troughs at strategic livestock boreholes	Improves livestock watering	County wide	17.6	34,000	ongoing	Mandera county Government
Honey production program	Diversification of livelihoods	County wide	14	3500	Ongoing	
Fodder production and construction of Hay stores	Improve livestock foods	County wide	18	4000	Ongoing	
Vaccination and treatments of livestock	Reduce livestock diseases	County wide	14.2	25,000	Ongoing	
Construction of cattle crush and loading / offloading rump	Improve livestock marketing	County wide	2	3800	Ongoing	

Intervention	Objective	Specific Location	Cost (Ksh) (Million)	No. of beneficiaries	Implementation Time Frame	Implementation stakeholders
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**Health and Nutrition**

Vitamin A Supplementation at health centres	Reduced childhood illness	County wide	- <sup>2</sup>		Continuous	Mandera county Government
Zinc Supplementation	Reduced childhood illness	County wide			Continuous	
Management of Acute Malnutrition (IMAM)	Reduced malnutrition cases	County wide			Continuous	
IYCN Interventions (EBF and Timely Intro of complementary Foods)	Reduced childhood illness	County wide			Continuous	
Iron Folate Supplementation among Pregnant Women	Reduced maternal mortality rates	County wide			Continuous	
De-worming and food fortification	Reduced intestinal worms	All			Continuous	

**EDUCATION**

Construction of classrooms	Enhanced learning and enrolment enhanced	Banisa county	2.8		Ongoing	Mandera County government and CDF
Construction of water tank in Schools and Heath facilities	Enhanced hygiene	Mandera west and Banisa			Ongoing	Save the children

**WATER**

Construction of Darwed bore-hole and water supply system	Increased access to water supply for domestic and livestock	Takaba	98	34000	Ongoing	Mandera county Government
Construction of	Increased	Takaba and	168	26800	Ongoing	

<sup>2</sup> Data was not available for areas not filled

earth pan (2000m3)	access to water supply for domestic and livestock	Dandu division				
Drilling and equipping of Borehole(10 centres)	Increased access to water supply for domestic and livestock	Lafey , fino kiliweheri , sarohindi, odha , Darab Adadi, Ashabito, Makutano, Woritho, ,Nyati Alio, Aba Bosone, Gode, Dololo  Tuuli, Harsanga	144.6M	107,700	Ongoing	Mandera County Government
Construction of earth pan	Increased access to water supply for domestic and livestock	Bamboo, Trabey kiliweheri, merille,derakel, ootgotn, hardawa, Arabia , odha, dayday, Harshilmi, Sukela, Filtu, Choqorey, Har Dimtu, Itilal & Dug Dera	233M	756,970	Ongoing	
Expansion of water supply sytem	Increased access to water supply for domestic and livestock	Warankara	15	9360	Ongoing	
Rehabilitation of RWSs	Improved availability and accessibility to water for domestic and livestock needs	Banissa			Ongoing	
Rehabilitation of Rural W/Supplies	Improved accessibility to water for domestic needs	Shafshafey – Kamor, Khalalio, Gududiya, rhamu dimtu, Rhamu Darab Adadi, Ashabito	99,400,000	127,200		
Construction of Masonry Tank	Construction of Masonry	Khalalio Girls sec school,	22.6M	24,924	Ongoing	Mandera County gov-

at Khalalio Girls Sec School	Tank at Khalalio Girls Sec School	Donkhey, Af-falo, Har Buyyo, Maasho, Lag Sure, Bolowle				ernment
Falama-Elwak Water Supply and Sewerage Project	Falama-Elwak Water Supply and Sewerage Project	Elwak	700M	58,000	On going	
Construction of Darwed – Takaba Water Supply	Improved accessibility to water for domestic needs	Darwed, Lag Sure, Affalo, Takaba and B/Mpya	98M	68,800	ongoing	
Construction of 6 Mega Dams and Man-made Lakes	Improved accessibility to water for domestic needs	Lag Warera Base reinforced Dam in Wangay Dahan	150M	69,000	Ongoing	

## 6.2 Proposed Intervention

### Food Intervention Required (Proposed population in need of assistance)

**Table 17: The percentage of the population in need of food assistance**

S/No.	Sub-County	Population in the division	Population in need (percent range min – max)	Proposed mode of intervention
1.	Lafey	109,856	25-30	FFA
2.	Mandera south	247,619	25-30	FFA
3.	Mandera east	178,831	25-30	FFA
4.	Mandera north	169,675	20-25	FFA
5.	Banissa	158,074	20-25	FFA
6.	Mandera west	161,701	20-25	FFA
	Total	1,025,756		

### Non-food Interventions

**Table 18: Non- food interventions by sector**

Sub county	Intervention	Location (s)	No. of beneficiaries	Proposed Implementers	Required Resources	Available Resources	Time Frame
<b>WATER</b>							
Lafey	Ground Water Aquifer pro-	Bambo, Warranqara and	22,000	MCG, GoK (NG), NDMA,	15,000,000	Cost of profiling	2016/17FY

	filing and drilling of 3 Boreholes	Gari		Partners		600,000	
	Provision of Standby and Replacement Gen-sets	Damasa, Lafey-1 and Lafey-2 Boreholes	14,600	MCG, GoK (NG), NDMA, Partners	9,000,000	0	2016/17FY
	Drilling and equipping of 1 Borehole	Sheikh Barrow	12,600	MCG, GoK (NG), NDMA, Partners	9,000,000	0	2016/17FY
	Drilling and equipping of 1 Borehole	Jabi Bar	17,400	MCG, GoK (NG), NDMA, Partners	9,000,000	0	2016/17FY
<b>Banissa</b>	Equipping of Borehole	Kiliweheri	10,900	MCG, GoK (NG), NDMA, Partners	34,000,000	34,000,000	3 YEARS
<b>Mandera East</b>	Augmentation of Mandera Urban Water Supply	Township, Jamhiuria, Bulla Mpya, Barwako, Neboi, Shafshafey,	106,000	MCG, GoK (NG), NDMA, Partners	3.3B	58M	48 months
	Design and Construction of Mandera Urban Sewerage System	Township, Jamhiuria, B/Mpya, Barwako, Neboi, Shafshafey,	106,000	MCG, GoK (NG), NDMA, Partners	2,320,000,000	27,000,000	48 months
	Rehabilitation of RWSs	Bur Abor	8,200	MCG, GoK (NG), NDMA, Partners	11,200,000		10
	Drilling and equipping of Boreholes	Hussein Hared Bambi	7,000	MCG, GoK (NG), NDMA, Partners	23,000,000	23,000,000	10
<b>Mandera North</b>	Drilling and Equipping of Boreholes	Sarman, Goofa, Lan-Qurac Ogorwein and Kubi Deg Marer, R/Dimtu, Kobandaqa and Bur John	5,600	MCG, GoK (NG), NDMA, Partners	108M	108M	12
<b>Mandera South</b>	Equipping of Boreholes	Woritho, Kutulo, falama, tuuli, Gode and Makutano,	92,700	MCG, GoK (NG), NDMA, Partners	50M	50M	
<b>Sub county</b>	<b>Intervention</b>	<b>Location (s)</b>	<b>No. of beneficiaries</b>	<b>Proposed Implementers</b>	<b>Required Resources</b>	<b>Available Resources</b>	<b>Time Frame</b>

<b>Livestock Sector</b>							
<b>County-wide</b>	Fodder production and conservation	Mandera East, Mandera North and parts of Bannisa	5,000	County Government, Livestock Resilience Project, NDMA	10M	5M	2016/2017 FY
	Mass treatment and vaccination	All sub-counties	30,000	County Government, Livestock Resilience Project	10M	5M	2016/2017 FY