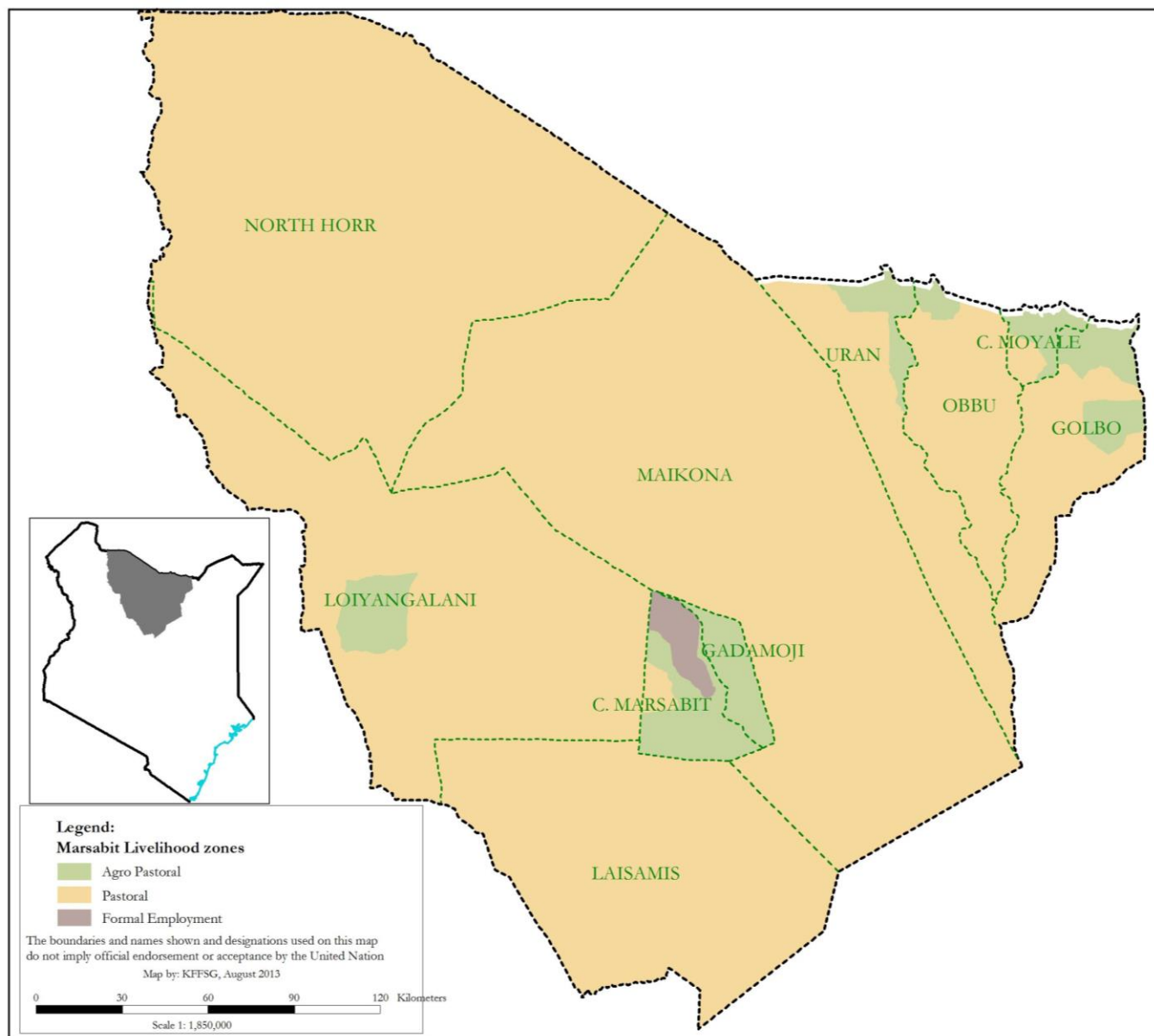


# MARSABIT COUNTY 2015 SHORT RAINS FOOD SECURITY ASSESSMENT REPORT



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

**February 2016**

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## **Table of Contents**

<b>1.0 INTRODUCTION.....</b>	<b>3</b>
1.1 County Background.....	3
1.2 Current Factors Affecting Food Security .....	3
<b>2.0 COUNTY FOOD SECURITY SITUATION.....</b>	<b>3</b>
2.1 Current Food Security Situation.....	3
2.2 Food Security Trends .....	4
2.3 Rainfall Performance.....	5
2.4 Current Shocks and Hazards .....	5
<b>3.0 IMPACT OF RAINFALL PERFORMANCE, SHOCKS AND HAZARDS .....</b>	<b>5</b>
3.1 Crop Production .....	5
3.2 Livestock Production.....	7
3.3 Water and Sanitation .....	9
3.4 Markets and Trade.....	10
3.5 Health and Nutrition.....	11
3.6 Education.....	13
3.7 Coping Mechanism .....	14
3.8 Ongoing Interventions.....	14
3.9 Sub County Ranking .....	17
<b>4.0 FOOD SECURITY PROGNOSIS.....</b>	<b>18</b>
4.1 Prognosis Assumptions .....	18
4.2 Food Security Outcomes (February – April).....	18
4.3 Food Security Outcomes (May – July) .....	18
<b>5.0 CONCLUSION AND RECOMMENDATIONS.....</b>	<b>19</b>
5.1 Conclusion.....	19
5.2 Summary of Recommendations .....	19
<b>6.0 ANNEXES .....</b>	<b>19</b>
6.1 Annex I Food Interventions .....	19
6.2 Annex II Non-Food Interventions by sector .....	19

## 1.0 INTRODUCTION

### 1.1 County Background

Marsabit County is one of the largest counties, situated in the northern part of Kenya, bordering Turkana County to the West, Samburu County to the South, Wajir County to the East and Ethiopia to the North. It covers an area of about 75,750 squared kilometres with a population of 291,179 (KNBS 2009 census). Administratively, it has four sub-counties: Moyale, North Horr, Saku and Laisamis, which are further divided into 20 wards. The pastoral livelihood zone is the largest which supports approximately 81 percent of the population (Figure 1). The agro-pastoral livelihood zone accounts for 16 percent of the population while the employment and fisher folk livelihood zone along Lake Turkana accounts for three percent of the population.

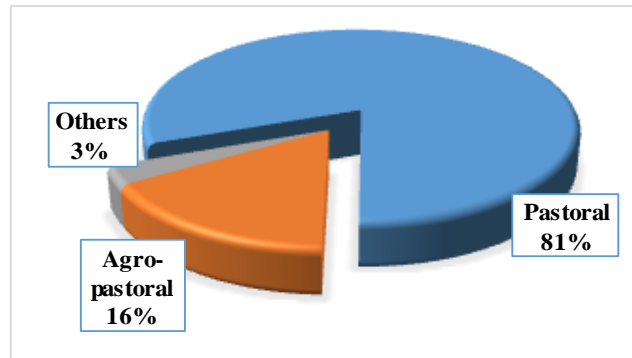


Figure 1. Population by livelihood zone

The agro-pastoral livelihood zone accounts for 16 percent of the population while the employment and fisher folk livelihood zone along Lake Turkana accounts for three percent of the population.

### 1.2 Current Factors Affecting Food Security

These include the poor temporal and uneven spatial distribution of the short rains, especially in the pastoral livelihood zone in Moyale and Laisamis, endemic livestock diseases and high food prices especially in El Molo, Olturot and Loiyangalani.

## 2.0 COUNTY FOOD SECURITY SITUATION

### 2.1 Current Food Security Situation

The pastoral livelihood zone is currently classified as Stressed (IPC<sup>2</sup> Phase two) and the agro-pastoral livelihood zone is in the Minimal phase (IPC Phase one). The performance of the short rains was above-average in most parts of the county except north-eastern parts of Moyale and southern parts of Marsabit (Laisamis) which received below normal rains. The projected production of maize was expected to be 46 percent above the Long Term Average (LTA). In the pastoral livelihood zone, meal frequency had improved from 1 – 2 meals normally to 2–3 meals during the assessment while in the agro-pastoral livelihood zone, it was 2 – 3 meals which was normal. The current terms of trade (TOT) were favorable to pastoralists at 34 percent above the LTA attributable to increased goat prices against reduced maize prices.

Milk availability at the household level was one litre compared with the normal of 1.5 litres per household per day in the pastoral livelihood zone. In the agro-pastoral livelihood zone, milk availability was 1 – 2 litres compared to three litres normally. Consumption of water in both the pastoral and agro-pastoral livelihood zones was 15 – 20 litres per person per day which was normal. The proportion of children at risk of malnutrition as measured by the mid-upper arm

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<sup>2</sup> Integrated food security Phase Classification

circumference (MUAC<135 mm) was 17.9 percent which was lower by 27 percent of the LTA.<sup>3</sup> The crude mortality and under-five mortality rates were 0.13 and 0.19 deaths per 10,000 persons per day respectively from July to December 2015 similar to the same period in 2014.

The Food Consumption Score (FCS) in December 2015 <sup>4</sup>according to the FSOM reported indicated that 90 percent of households had an acceptable score similar to the same period in 2014. The coping strategy index was 19 in December 2015 compared with 22 during the same period in 2014 implying that households were employing less severe consumption-based coping strategies less frequently.

## **2.2 Food Security Trends**

During the long rains assessment (LRA) in 2015, the county was classified as stressed (<sup>5</sup>IPC Phase two) in both livelihood zones. The county remained at stressed (IPC Phase two) except Saku sub county which has improved to minimal phase (IPC Phase one). In February 2016, water consumption in the pastoral and agro-pastoral livelihood zones was 15 – 20 litres per person per day compared to 10 – 15 litres in August 2015. Households' purchasing power had improved by 25 percent as the proceeds from the sale of a goat could enable them to purchase 75 kilogram of maize in January 2016 compared to 60 kilograms in August 2015. The food consumption scores for the poor, borderline and acceptable categories were one, nine and ninety percent respectively similar to the same period last year implying that the majority of households had adequate dietary diversity, food frequency and nutrition. The meal frequency had improved from 1-2 meals during the last assessment to 2 – 3 meals per day in February 2016 in the pastoral livelihood zone while it remained 2 – 3 meals in the agro-pastoral livelihood zone. The distance to water sources for households reduced from 5 – 10 kilometres in August 2015 to 1 – 4 kilometres in February 2016. The proportion of children at risk of malnutrition measured by the Mid-Upper Arm Circumference of less than 135 mm remained the same at 17.9 percent in both August 2015 and January 2016. The Coping Strategy Index for December 2015 was 19 compared with 22 in December 2014, implying that households were engaging in severe coping strategies fewer times than the same time last year.

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<sup>3</sup> National Drought Management Authority Drought Early Warning System bulletin, January 2016

<sup>4</sup> Food Security Outcome Monitoring report , December 2015

<sup>5</sup> Integrated food security Phase Classification

## 2.3 Rainfall Performance

The onset of the 2015 short rains was timely and normal in the first dekad of October. Most parts of the county received 90 – 200 percent of normal rainfall. The spatial distribution was uneven with the north-eastern parts of Moyale and Shurr received 50 – 75 percent of normal rainfall. Other areas in Laisamis received 90-100 percent of the normal rains. Areas around Loiyangalani, Kargi, Illeret, Maikona and Turbi received 200 and even more than 350 percent of normal rainfall (Figure 2). Temporal distribution was poor with the county receiving most rains in the first dekad of November and the second dekad of December. Cessation was normal in the third dekad of December, although the county received off-season rains in January.

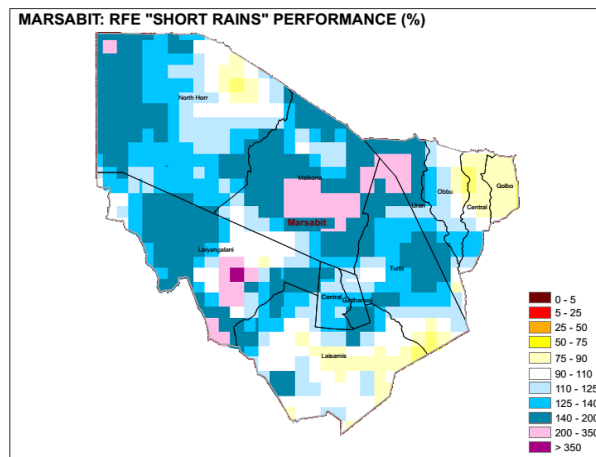


Figure 2. Rainfall performance

## 2.4 Current Shocks and Hazards

The shocks and hazards experienced include:

- The poor temporal distribution of short rains, especially in the pastoral livelihood zone of Moyale and Laisamis sub-counties
- Disease outbreaks (49 active cases of cholera) in humans and Foot and Mouth Disease and Acute Camel Death Syndrome in livestock resulting in over 600 deaths of camels
- Flash floods in November killed an estimated 15,000 sheep/goats, 1,200 camels, 200 donkeys and 1,300 cattle.

## 3.0 IMPACT OF RAINFALL PERFORMANCE, SHOCKS AND HAZARDS

### 3.1 Crop Production

The short rains season is the most reliable in the county. Crop production, which is largely practiced in the agro-pastoral zone, accounts for less than 20 percent of the total cash income in the county. The main food crops grown are maize, beans and wheat. Other crops are teff, fruit crops such as tomatoes, bananas, mangoes, oranges and vegetables. In the agro-pastoral livelihood zone, food crop and cash crop production contribute 20 per cent and 10 percent respectively to cash income. Maize contributes 22 percent and 30 percent to cash income and food respectively, while beans contribute 20 percent to both cash income and food.

### Rain-fed Crop Production

The acreage under maize increased by 46 percent above the LTA as communities were advised to prepare land early. Subsidized and free mechanized land preparation was also offered to farmers and vulnerable households/learning institutions respectively by the county government. The area under beans and wheat decreased by 16 and 33 percent respectively compared with the LTA (Table 1). Area under beans reduced due to a preference for growing beans during the long rains season as above-average rains were not favorable for beans production. The area under

wheat reduced due to limited access to certified wheat seeds, which were previously provided as a subsidy by the county government.

The maize production was projected to be 46 percent above the LTA, due to increased acreage, use of certified seeds supported by partners, the above-normal performance of the short rains in the agro-pastoral livelihood zone in Saku sub county, good agronomical practices and improved extension service delivery through the local FM radio station (Sifa FM).

The actual beans production decreased by 16 percent compared to the LTA due to reduced acreage, the use of non-certified seeds and rampant crop damage by elephants in Karare ward of Saku Sub-County. The poor temporal distribution also affected the crop during the flowering stage and bean pods also rotted due to heavy rains in the second dekad of December. The production of wheat was below the LTA due to the use of uncertified seeds.

**Table 1: Rain-fed crop production**

<b>Crop</b>	<b>Area planted during 2015 Short rains season (Ha)</b>	<b>Long Term Average area planted during the Short rains season (Ha)</b>	<b>2015 Short rains season production (90 kg bags) Projected</b>	<b>Long Term Average production during the Short rains season (90 kg bags)</b>
1.Maize	789	540	15,784	10,820
2.Beans	179.2	213.6	2,150	2,563.2
3.Wheat	30	45	240	540

### **Irrigated Crop**

The area under maize was 50 percent below the LTA as farmers were advised to leave the land fallow in order to reduce the occurrence of the Maize Streak Virus disease. The water intake system at Kurungu irrigation scheme in Laisamis Sub-County kept breaking down reducing the water available for irrigation. The area under kales and tomatoes was 58 and 50 percent respectively below the LTA, mainly due to limited access to water in irrigated farms (Table 2).

The projected production of irrigated maize, kales and tomatoes was 50, 39 and 40 percent respectively below the LTA. The reduction in maize production was attributed to reduced acreage and water deficit as the water intake system had broken down. The production of kales and tomatoes also reduced by limited supply of water in the farms since the community water committees rationed water supply.

**Table 2. Irrigated crop production**

Crop	Area planted during 2015 Long rains season (Ha)	Long Term Average area planted during the Long rains season (Ha)	2015 Long rains season production (90 kg bags) Projected/Actual	Long Term Average production during the Long rains season (90 kg bags)
1.Maize	6	12	120	240
2. Kales	10.2	24.4	11.2MT	18.4MT
3. Tomatoes	4	8	4.8MT	8MT

**Maize stocks**

The stocks held by households in the agro- pastoral livelihood zone were 45 percent of the LTA (Table 3). Stocks were expected to increase once harvesting commences. Traders' stocks were 53 percent of the LTA since they were waiting to buy after the expected harvests.

**Table 3. Maize stocks in the county**

Maize stocks held by	Quantities held currently (90-kg bags)	Long Term Average quantities held (90-kg bags) at similar time of the year
House Holds	7,354	16,312
Traders	3,270	6,160
Millers	0	0
NCPB	0	0
<b>Total</b>	<b>10,624</b>	<b>22,472</b>

**3.2 Livestock Production**

The main livestock species are cattle, camels, goats, sheep and donkeys. In the agro-pastoral livelihood zone, livestock production (including meat, milk, hides and skins and by-products) contributes 60 percent to cash income while poultry production (meat and eggs) contributes five percent to cash income. In the pastoral livelihood zone, livestock production contributes 82 percent to cash income.

**Pasture and Browse Condition**

The pasture condition was good in both the agro-pastoral and pastoral livelihood zones which was normal especially in North Horr, Gas, Balesa, Barambate, Nairibi and Kargi. The available pasture was expected to last for 2 – 3 and 1 – 2 months in the agro-pastoral and pastoral livelihood zones respectively. The browse condition was good to fair across all the livelihood zones and was expected to last for three months compared with the normal period of 4 – 5 months. Crop residues were being used as supplements for livestock feed especially in the agro-pastoral livelihood zone.

Access to grazing areas was hampered in Mt Kulal and Loiyangalani as there had been clashes in those areas in 2015 which still instilled fears among herders. Camel deaths due to Acute Camel

Death Syndrome in Shurr, Toy, Garabgutha, Bule Bandera, and Hawaye in Moyale sub-county was also a major constraint in accessing pasture in those areas.

## **Livestock Productivity**

### **Livestock Body Condition**

Livestock body condition was good for all species across the livelihood zones. Good body condition was associated with good pasture and browse conditions, and shorter trekking distances to water and pasture.

### **Tropical Livestock Units (TLU) and Birth Rates**

Livestock birth rates for all species were normal across all livelihood zones. The average TLUs per household were 3 – 4 compared with the normal of four per household. In the pastoral livelihood zone, poor and medium-income households had two and 2.5 TLUs respectively, while in the agro-pastoral livelihood zone they had one and 1.5 TLUs respectively.

### **Milk Availability and Cost**

Milk availability at the household level was 0.5 – 1.5 litres per household per day compared to the normal amount of two litres. In the pastoral livelihood zone, milk availability was one litre compared to 1.5 litres normally, while in the agro-pastoral zone it was 1 – 2 litres compared to three litres normally. The average price of milk was Ksh70 – 80 per litre across all livelihood zones which was normal at this time of the year.

### **Water for Livestock**

The sources of water for livestock were boreholes, earth pans and shallow wells, which were the normal sources at this time of the year. The water sources had good recharge after the short rains, with more than 70 percent of the open sources having recharged. Open water sources were expected to last for 2 – 3 months, which was normal at this time of the year. The return trekking distances from grazing areas to water points in the pastoral livelihood zone was 15 – 20 kilometres, and 10 kilometres in the agro-pastoral livelihood zone, both of which were normal at this time of the year. The frequency of watering livestock in the agro-pastoral livelihood zone was 2 – 3 days for all species, while in the pastoral livelihood zone it was after every two days for cattle, 2 – 3 days for goats and 5 – 7 days for camels, all of which were normal at this time of the year.

### **Livestock Migration, Diseases and Mortalities**

In-migration had been observed especially to Funakumbi areas in Moyale, from Wajir County and Hidlilola and Miyo areas in Ethiopia where conflict had occurred. About 1500 – 2000 goats and 600 cattle had migrated to Funakumbi thereby putting pressure on available pasture, browse and water. Livestock movement within the county was normal at this time of the year. The current livestock diseases reported included Foot and Mouth Disease in Karare, Qargarsa, Laisamis and Mount Kulal, Contagious Caprine Pleuropneumonia (CCPP) in North Horr and Laisamis, Contagious Bovine Pleuro-pneumonia (CBPP) and Peste des Petits Ruminants (PPR). Other diseases were Enterotoxaemia, Sheep and Goat Pox, and helminthes. The current mortality rates were 2 – 3 percent for cattle, sheep, goats and camels. Over 600 camel deaths were reported in Golbo ward especially in Dabel, Koloba, Badan, Laki, Amballo, Dirbsey, Shurr and Bubisa areas and neighbouring Korondile (Wajir County) due to Acute Camel Death Syndrome.



### **3.3 Water and Sanitation**

The main water sources were boreholes, springs, shallow wells, pans and dams. In the pastoral livelihood zone, the main water sources were natural ponds, boreholes, shallow wells, pans and dams, while in the agro-pastoral livelihood zone they were roof catchments, boreholes, pans, springs, earth dams and shallow wells.

#### **Major Water Sources**

About 70 percent of the all water sources recharged during the short rains. Most of the open water sources still had water though some had started drying up. Currently six, five and eight percent of the boreholes, water pan and wells respectively were not in use due to poor recharge, breakdown, silted or dried up. Areas in Golbo and Central parts of Moyale Sub-County, and Maikona, Malabot, Korr, LogoLogo and other areas in Laisamis had received depressed rains thereby affecting the underground recharge and the surface water sources. Power outages, broken-down of power transformers and road construction in parts of the county were some of the challenges affecting some boreholes in Moyale and Laisamis. Due to the concentration of livestock in most pans, water was expected to last for 1 – 2 months.

#### **Distance to Water Sources and Waiting Time**

The current average return distances were 1 – 4 kilometres across the livelihood zones compared to the normal distances of 1 – 2 kilometres. Longer distances were attributed to the drying up of pans especially in Badanrero, Godoma and Didiko, breakdown of the borehole in Korr and Farakoren in Laisamis where households were trekking about 10 – 20 kilometres for water due to the low yield from boreholes. Waiting time currently ranged between 30 minutes to almost an hour which was normal at this time of year. In urban areas of Marsabit and Moyale, households were waiting for two to three hours as result of breakdowns of boreholes and power outages thereby affecting pumping especially in Moyale. At Serima borehole, households, particularly those from the internally displaced camp, were waiting for more than five hours due to the high concentration of livestock and low yield of the borehole. In Karare areas, waiting time was 2 – 3 hours due to households' congestion at the water tank since it was the only source of clean drinking water.

#### **Cost of Water and Water Consumption**

The average cost of water was Ksh 2 – 5 per 20-litre jerrycan which was normal. In the urban areas of Moyale and Marsabit, water from vendors cost Ksh 25 – 50 per 20-litre jerrican. Household water consumption was 15 – 20 litres per person per day in both the pastoral and agro-pastoral livelihood zones, which was normal.

#### **Hygiene and Sanitation**

Contamination of open water sources was mainly caused by open defecation and humans sharing water sources with livestock. The county's latrine coverage averaged 49.6 percent as at December 2015 similar to the same period in 2014. In Laisamis, 47 percent of the population was using unprotected water sources, only five percent was treating water and owned latrines. In addition, only 25 percent of the population washed their hands after visiting the toilets and 60.1

percent washed their hands before eating<sup>6</sup>. Water treatment practices were low mainly due to inadequate access to water treatment chemicals while the low latrine coverage was attributed to cultural practices, limited awareness of the importance of using a latrine to dispose human waste and the nomadic way of life. Poor human waste disposal and low water treatment level raised the exposure to disease out-breaks which had led to the prevalence of water-related diseases such as diarrhea.

### 3.4 Markets and Trade

#### Market Operations

The main markets for food commodities include Moyale and Marsabit in the agro-pastoral livelihood zone and Laisamis and North Horr in the pastoral livelihood zone. The key livestock markets include Moyale, Marsabit, Turbi and Merille. Other terminal markets for livestock include Nairobi and Ethiopia. All markets were operating normally without disruption. The main livestock sold in the markets include goats and sheep while food commodities include maize, beans, kales, cabbages and potatoes. The traded volumes varied according to the distance and the level of supply to the market, which was associated with traders influencing the price and low demand in the terminal markets.

#### Market Prices

##### Maize Prices

The average price of maize was Ksh 42 per kg which was 14 percent lower compared with the LTA of Ksh 49 per kg (Figure 3). The lowest maize prices were recorded in Saku and border points of Moyale, Elhadi and Dukana at Ksh 30 – 40 per kg and highest in the southern parts of Laisamis, including Loiyangalani, Olturot and El Molo, where the price ranged between Ksh 80 to 120 per kg. High maize prices were attributed to long distances from the source markets, rough terrain and poor infrastructure increasing the cost of food items. The price of maize was likely to remain stable in the next three months.

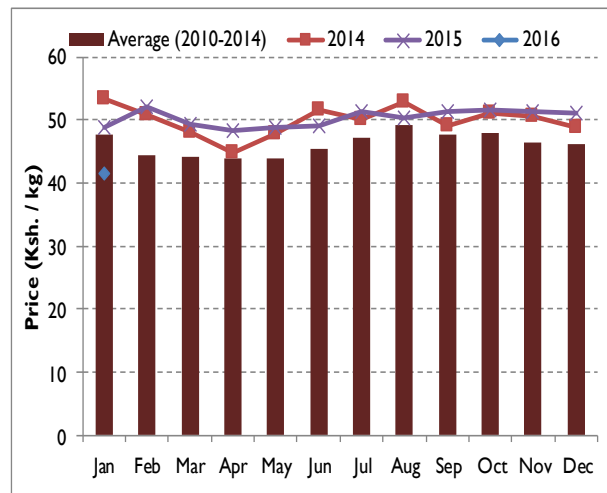


Figure 3 . Maize prices

<sup>6</sup> SMART SURVEY, Laisamis sub-county, September 2015

## Goat Prices

The current average goat price was Ksh 3,132, which was 18 percent above the LTA of Ksh 2,651. The increase in goat prices was attributed to good body condition resulting from good quality of browse. Additionally, it was normal for pastoralists to hoard their livestock immediately after the short rains in anticipation of lambing and kidding hence the few livestock in the market fetch higher prices. Goat prices were slightly higher by seven percent in 2016 at Ksh 3,132 than in 2014 at Ksh 2,917 (Figure 4). Goat prices were likely to marginally decline in the next three months.

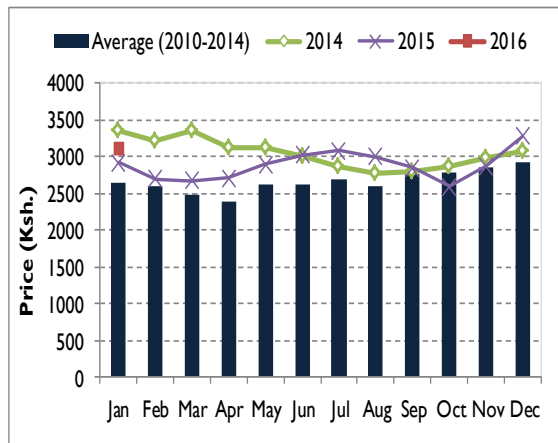


Figure 4. Goat prices

## Terms of Trade

The current terms of trade were favorable to pastoralists and were 34 percent above the LTA due to higher-than-normal goat prices against stable maize prices. Households could purchase 75 kg of maize from the sale of one goat compared to 56 kilograms normally (Figure 5). The current TOT were also higher by 25 percent than at a similar time last year when households could purchase 60 kilograms of maize. The TOT were expected to decline marginally in the next two to three months as goat prices decrease slightly against stable maize prices.

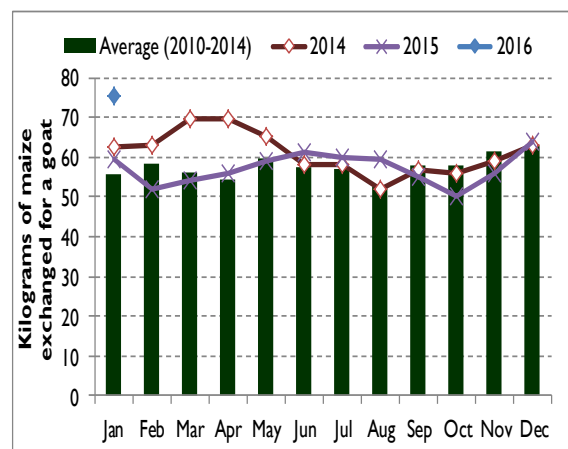


Figure 5. Terms of trade

## 3.5 Health and Nutrition

### Morbidity and Mortality

The most common diseases for both under-fives and the general population between July and December 2015 were Upper Respiratory Tract Infections (URTI), diarrhea, malaria, pneumonia and skin diseases, similar to the same period in 2014. In children aged below five years, the morbidity incidence of these diseases was relatively higher than during the same period in 2014. Between October and December 2015, the incidences of diarrhea and malaria rose due to use of contaminated water, increase in mosquitos transmitting disease and limited access to health services. The morbidity trend in the general population was similar in 2015 to that in 2014. The crude mortality and under-five mortality rates were 0.13 and 0.19 deaths per 10,000 persons per day respectively from July to December 2015 similar to the same period in 2014. There were 49

active cases of cholera reported (31 laboratory-confirmed cases and 18 portable cases).<sup>7</sup> Between July and December 2015, dysentery, diarrhea and typhoid cases increased by four, nine and nine percent respectively compared with the same period in 2014, attributed to the contamination of water sources.

### Immunization and Vitamin A supplementation

The proportion of fully-immunized children (FIC) declined to 71.8 percent between July and December 2015 from 78.4 percent during the same period in 2014 due to limited integrated outreaches as a result of low funding to partners supporting health and nutrition. The coverage in Vitamin A supplementation for children aged below five years also reduced from 57.5 percent to 56.6 percent for the same reason.<sup>8</sup> Care-givers did not value growth-monitoring during which time Vitamin A supplementation is usually carried out.

### Nutrition Status and Dietary Diversity

The admission trends for Supplementary Feeding Programme (SFP) to manage acute malnutrition have been on a downward trend indicating improving nutritional status (Figure 6). The proportion of children at risk of malnutrition as measured by mid-upper arm circumference (MUAC<135 mm) was 17.9 percent in January 2016 which was lower by 27 percent compare with the LTA of 24.6 percent (Figure 7). The proportion was lower than those recorded in both 2014 and 2015. The improved nutritional status was due to accelerated screening for malnutrition.

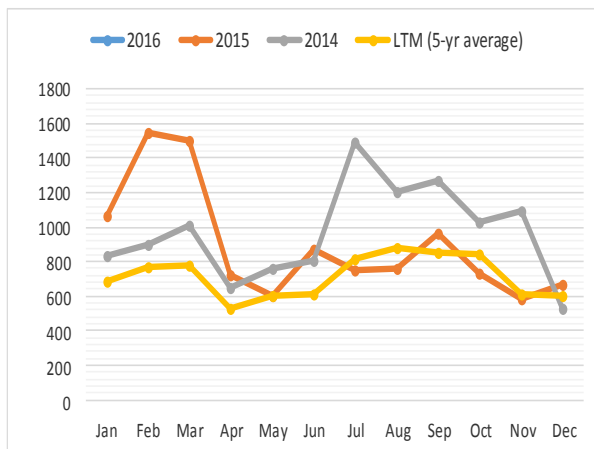


Figure 7: Supplementary Feeding Program

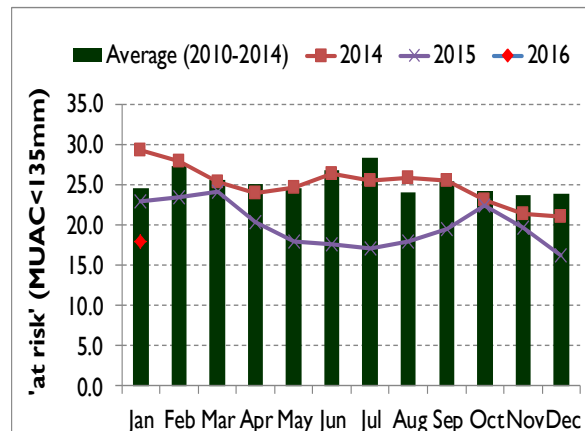


Figure 6: Proportion of children at risk of malnutrition

The Food Consumption Score (FCS) in December 2015 according to FSOM indicated that 90 percent of households had an acceptable score. The implication was that the majority of the population was consuming a staple and vegetables every day, complemented by a frequent consumption of oil and pulses (at least four days a week). In the pastoral livelihood zone, meal

7 (Unicef Cholera situation report, 25th January 2016)

8 District Health Information System (DHIS)

frequencies had improved from 1 – 2 to 2 – 3 meals per day while in the agro-pastoral livelihood zone, households were consuming 2 – 3 meals per day which was normal. Dietary diversity was fair across all livelihood zones and composed of cereal, pulses, oil and milk.

### 3.6 Education

The county has 170 primary schools with a total of 63,433 pupils out of which 16,444 learners were in the Early Childhood Development Centres (ECDE). The enrolment in ECDE increased by 3.6 percent and 4.4 percent for boys and girls respectively compared with February 2015 (Table 4). The increase was attributed to the county government’s establishment of additional ECDE centres and the recruitment of ECDE teachers, the availability of school meals, and the enrolment drive supported by the Kanacho Nomadic Education Fund (KNEF) and Concern World Wide.

**Table 4. School enrolment**

INDICATOR	FEB.2015			FEB.2016		
	Boys	Girls	Total	Boys	Girls	Total
Enrolment						
Primary	25,494	23,920	49,414	25,829	23,160	48,989
Percentage (%) In Growth Rate				1.31%	0.29%	0.82%
ECDE	8,365	7,447	15,812	8,666	7,778	16,444
Percentage (%) In Growth Rate				3.6%	4.4%	4%

### Transition

The transition rate from ECDE to primary remained relatively stable at 88.2 percent and 85.8 percent for boys and girls respectively in 2015, compared with 86.3 percent and 85.6 percent for boys and girls respectively in 2014 (Table 5). The transition rate from primary to post-primary in 2015 was also stable at 97 percent and 96 percent for boys and girls respectively, compared with 94 percent and 93 percent for boys and girls respectively in 2014. The increase in transition rates was attributed to synergies from various stakeholders including lower fee guidelines by the national government, bursaries from the Constituency Development Fund, the Chalbi Scholarship Fund and the clan-based bursary fund in the Rendille community. The transition from primary to post-primary was affected by poor performance at national examinations, poverty or lack of school fees, despondence from parents about education, and early marriages.

**Table 5. Transition rates**

	2014		2015	
	BOYS	GIRLS	BOYS	GIRLS
% Transition				
Primary to post primary	94%	93%	97%	96%
ECDE to primary	86.3%	85.6%	88.2%	85.8%

### School Attendance and Drop-out

School attendance in both ECDE and primary schools was stable throughout 2015. Inadequate infrastructure and shortages contributed to the non-attendance of pupils in some schools in rural

areas. Drop-out rates were less than five percent in 2015 and attributed to engaging in casual labor, petty trade, fishing, drug abuse and herding, especially for boys.

### School Meals Programme

A total of 165 public primary schools and 44,224 pupils were under the regular school meals programme (RSMP) supported by the World Food Programme (WFP) (Table 6). However, 17,080 ECD children were not currently being supported. Five schools were not in the feeding list for the first term in 2016: two were not included due to misappropriation, two were new schools (one in Moyale and one in Saku sub-counties), and one school in North Horr – Chalbi was closed down. Primary and ECD pupils were sharing food supplied by WFP. Water shortages, lack of firewood and inconsistency in stocks in some schools had affected the provision of meals to pupils. Kanacho Nomadic Education Fund (KNEF), Concern World Wide, the International Institute of Rural Reconstruction (IIRR) were supporting some schools by installing water storage tanks and energy-saving stoves. WFP was providing modern kitchens in two schools and energy-saving jikos in 50 primary schools.

**Table 6. School meals programme**

Sub-County	No. of Schools	Primary		
		Boys	Girls	Total
<b>Moyale</b>	52	8,664	7,236	15,900
<b>North Horr</b>	35	3,570	3,887	7,457
<b>Saku</b>	33	6,068	5,372	11,440
<b>Laisamis</b>	45	4,764	4,663	9,427
<b>Total</b>	<b>165</b>	<b>23,066</b>	<b>21,158</b>	<b>44,224</b>

### 3.7 Coping Mechanism

In December 2015, the coping strategy index was 19 compared with 22 in December 2014, implying that households were not engaging frequently in consumption-based strategies. In December 2015, 92.5 percent of households relied on less preferred and/or less expensive food, 90.9 percent borrowed food or relied on help from a friend or relative, 89.8 percent reduced the number of meals eaten per day, and 90.9 percent reduced the portion size of meals. About 81.2 percent of households reduced the quantity of food consumed by adults to ensure that children had enough to eat.

### 3.8 Ongoing Interventions

The Food for Assets (FFA) Programme is targeting 24,000 beneficiaries in Moyale Sub-County while the Hunger Safety Net Programme (HSNP) was targeting 20,400 households across the county. The regular school meals programme supports 165 public primary schools with beneficiaries of 44,224 pupils (23,066, boys and 21,158 girls). However 17,080 (9,105 boys and 7,975 girls) for ECD were not in any school meals programme.

## Non-Food interventions (Food security related)

**Table 7. On-going interventions**

Intervention	Objective	Specific Location	Activity target	Cost	No. of beneficiaries	Implementation Time Frame	Implementation stakeholders
<b>Agriculture</b>							
Purchase of additional two tractors	Increase acreage under crops	Saku, Moyale	Saku, Moyale	12M	3,000HH	By July 2016	County Government
Irrigation system rehabilitation and installation -Green houses & Water tanks ( Sirata, Mirigo Women Group), Green houses and tree nursery	Improve food production and income generation	Laisamis , Saku North Horr	Laisamis, Saku	160 M		By July 2016	County Government (Dept. of Agric, Livestock and Fisheries)
<b>Livestock</b>							
Construction of modern export abattoir	Improvement of marketing and value addition of livestock products Improvement of livestock prices	North Horr	North Horr	2.4 Billion	35,000	By December 2017	Department of Agriculture, livestock and Fisheries(DOALF) DRSLP State Department of Livestock
Fodder bulking	Improve access to pasture	North Horr and Saku	North Horr and Saku		120HH	July 2016	DOALF/state Department of Livestock/KALRO
Construction of veterinary pharmacy store and equipping	Improve access to veterinary service and disease control	North Horr and Saku	North Horr and Saku			July 2016	DOALF/state Department of Livestock/KALRO
<b>Water</b>							
Drilling, rehabilitation and equipping of boreholes	Improved water availability and access	All sub counties	All sub counties	172.2M	16,000HH	2016	County Gov. of Marsabit
Construction of water pans and dams	Improved water availability and access	All sub counties	All sub counties	98.6 M	21,000HH	2016	County Gov. of Marsabit

Intervention	Objective	Specific Location	Activity target	Cost	No. of beneficiaries	Implementation Time Frame	Implementation stakeholders
Construction and rehabilitation of pipeline and infrastructure and construction of tanks, purchase of plastic tanks and storage	Improved water availability and access	All sub counties	All sub counties	306.5M	22,400HH	2016	County Gov. of Marsabit
<b>Education</b>							
School meals program for public schools	Improve attendance, retention and nutritional status of pupils	All sub counties	All sub counties		48,989 in 170 schools	2015	WFP County Government of Marsabit
Modern energy saving jikos installation and kitchen stores construction	Improves cooking of meals and save energy due to scarcity of firewood	Saku and Laisamis , North Horr and Moyale	Saku and Laisamis, North Horr and Moyale		50 schools (7 in Saku, 17 in Laisamis , 12 in North Horr and 14 in Moyale	2015	WFP, County Government of Marsabit
Building of modern kitchen	Improve in food cooking	Saku and Laisamis	Saku and Laisamis		2 schools (Manyata Daaba in Saku and Kamatonyi in Laisami	2015	WFP, County Government of Marsabit
<b>Health and Nutrition</b>							
Vitamin A and Zinc supplementation	Improve the micronutrient status of the community-hence food security.	All sub counties	All sub counties	76,463,643	51,236 children between 6 to 59 months	continuous	MoH,UNICEF, WFP Concern WW, WVK, FHK,GAIN,APHIA IMARISHA, GIZ, NHP plus
Management of Acute Malnutrition	The OTP and the SFP products – food	All sub counties	All sub counties	5,741,88	2,488 SAM & 7,963	continuous	MoH,UNICEF, WFP Concern WW, WVK,



Intervention	Objective	Specific Location	Activity target	Cost	No. of beneficiaries	Implementation Time Frame	Implementation stakeholders
(IMAM)	supplements improve/adjust the nutrient status of the affected community.			9	MAM		FHK,GAIN,APH IA IMARISHA, GIZ, NHP plus
IYCN Interventions (EBF and Timely Intro of complementary Foods)	A community with good or high rates of MIYCN status means that the morbidity and mortality rates will be low hence they will be more productive on their day to day activities hence improved food security.	All sub counties	All sub counties	6,05 9,79 2	11,992 children < the age of 1 year	continuous	MoH,UNICEF, WFP Concern WW, WVK, FHK,GAIN,APH IA IMARISHA, GIZ, NHP plus
Iron Folate Supplementation among Pregnant Women	Improve the Micronutrient status of the community-hence food security	All sub counties	All sub counties	2,75 3,75 8	14,784 Pregnant women	continuous	MoH,UNICEF, WFP Concern WW, WVK, FHK,GAIN,APH IA IMARISHA, GIZ, NHP plus

### 3.9 Sub County Ranking

**Table 8. Sub-county food security ranking (worst to best)**

Sub County	Food security rank (1-10)	Main food security threat (if any)	Remarks
Moyale	1	Poor distribution of short rains, crop failure especially in the agro-pastoral livelihood zone in Moyale, low livestock trade, livestock diseases, camel deaths, immigration from Wajir County and Ethiopia, low underground water recharge for boreholes and shallow wells, water pans, breakdown of boreholes	Golbo, Obbu, Uran and Sololo, Ambalo, Badesa

Laisamis	2	Low rangeland regeneration, limited access to livestock markets, reduced milk, livestock disease	Korr, Kargi, Laisamis and Loiyangalani
North Horr	3	Livestock diseases, distance to water points, poor livestock market access	Maikona, Turbi, Dukana, Ilalet, Forore, North Horr
Saku	4	High cost of water	Sagante/Jaldessa
Very Good (9-10) Very Poor (<2)		Good (7-8)    Fair (5-6)	Poor (3-4)

## 4.0 FOOD SECURITY PROGNOSIS

### 4.1 Prognosis Assumptions

- The March – May rainfall is likely to be near-normal to above-normal.
- The rangeland conditions are likely to deteriorate faster than normal but with the near-normal long rains, rangeland conditions will be expected to improve.
- Water sources are expected to be recharged during the long rains thereby reducing the distances for households and livestock.
- Improved body condition and improved rangeland will likely increase the productivity of livestock and household food consumption after resumption of the long rains.

### 4.2 Food Security Outcomes (February – April)

Rangeland resources are expected to support livestock through the dry season. Limited calving, kidding and lambing will likely occur. Movement of livestock to the grazing areas and water points is likely to be observed more gradually. Milk production is likely to decline through to March. Migration of livestock is likely to increase in search of pastures and water. Livestock prices are likely to gradually decline thereby further affecting household purchasing power. Livestock migration out or into the county will likely increase. In the pastoral livelihood zone, households are expected to continue to rely more on market supplies. Livestock prices will likely decrease with the gradual deterioration of body condition thereby affecting the terms of trade. Low purchasing power will likely affect household food security. Food consumption will decrease and the nutritional status will likely deteriorate. Households will likely remain in the Stressed phase (IPC Phase two).

### 4.3 Food Security Outcomes (May – July)

With near-normal -rainfall performance, rangeland resources are expected to improve and lead to a gradual improvement in livestock productivity. Migrated livestock are expected to return to their normal grazing areas. Birth rates are expected to increase. Food consumption is likely to increase, with a gradual increase in milk production and a few early maturing crops eventually improving household food stocks in both the pastoral livelihood zone and agro-pastoral livelihood zone.

## 5.0 CONCLUSION AND RECOMMENDATIONS

### 5.1 Conclusion

The pastoral livelihood zone is currently classified as Stressed (IPC<sup>9</sup> Phase two) while the agro-pastoral livelihood zone is classified in the Minimal phase (IPC Phase one). Several factors need close monitoring, including livestock migration, livestock diseases and water consumption at the household level.

### 5.2 Summary of Recommendations

Based on the impact of the short rains, the sectors recommended the following interventions.

- Early mobilization of farmers in land preparation, farm input support (certified seeds and pesticides), rehabilitation of irrigation schemes and water harvesting for crop production
- Up-scaling of livestock insurance coverage, support for livestock disease surveillance and enhanced routine vaccination and capacity building for community disease reporters.
- Desilting, expansion and construction of 14 water pans and dams, provision of water treatment chemicals for water supplies and household use, construction, expansion and rehabilitation of existing water supply infrastructure.
- Food fortification (micro-nutrient powder supplementation), support for monthly integrated outreach, bi-annual mass screening of children less than five years and their mothers, support for the national nutritional days particularly malezi bora, breast-feeding week and World Food Day.
- Construction of kitchen stores and energy-saving jikos for schools, supply of tanks and water to schools and school meals support to ECD.

## 6.0 ANNEXES

### 6.1 Annex I Food Interventions

**Table 9. Proposed population in need of food assistance**

<b>Division/Ward name</b>	<b>Population in the division</b>	<b>Pop in need (% range min – max)</b>	<b>Proposed mode of intervention</b>
Moyale	103,799	30 - 35	CFA/FFA
Laisamis	65,669	15 - 20	CFA/FFA
North Horr	75,196	20 - 25	CFA/FFA
Saku	46,502	10 - 15	CFA/FFA

### 6.2 Annex II Non-Food Interventions by sector

**Table 10. Recommended interventions: medium to long-term**

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<sup>9</sup> Integrated food security Phase Classification

Sub County	Intervention	Location	No. of beneficiaries	Proposed Implementers	Required Resources	Available Resources	Time Frame
<b>Agriculture</b>							
County wide	Early mobilization of farmers for land preparation	All agro-pastoral livelihood zone wards	35,00HH	County Government of Marsabit	0.7M	0.2M	By the end of February 2016
County wide	Farm input support (certified seeds and pesticides )	All Agro-pastoral livelihood zone wards	2,000HH	Depart. Of Agric, Livestock & Fisheries and Partners	7.4M	1.2M	By the end of March 2016
Laisamis	Rehabilitation of irrigation schemes and water harvesting for crop production	Laisamis Agro-pastoral areas	800HH	Depart. Of Agric, Livestock & Fisheries	156M	33M	By the 15 <sup>th</sup> March-April 2016
Saku	Establishment of County strategic grain reserve	Saku	56,000HH	Depart. Of Agric, Livestock & Fisheries and Partners	500M	0	By the end of March 2016
<b>Livestock</b>							
County wide	Up scaling of livestock insurance coverage	All sub counties	5,000HH	National Government, County Government of Marsabit and Individual pastoralists	50M	0.1M	2016
County wide	Livestock support on disease surveillance and vaccination	All sub counties	60% of livestock and 150 HH	Government of Marsabit, VSWG, Solidarite Internationale (SI)	55M	1M	2016
County wide	Improve the capacity for CDR (Community Disease Reporters)	All sub counties	150	National Government, County Government of Marsabit and Individual pastoralists	10M	0	2016
<b>Water</b>							
County	Desilting,	County	22,000	County	320M	0	2016/17

Sub County	Intervention	Location	No. of beneficiaries	Proposed Implementers	Required Resources	Available Resources	Time Frame
wide	expansion and construction of 14 water pans and dams	wide		Government of Marsabit and Partners			
County wide	Provision of water treatment chemicals for water suppliers and households	County wide	10,600	County Government of Marsabit and Partners	4M	0	2016/17
County wide	Construction, expansion and rehabilitation of existing water supply infrastructure	County wide	22,000	County Government of Marsabit and Partners	40M	0	2016/17
<b>Health and Nutrition</b>							
All the 4 sub counties	Food Fortification( MNPS- micronutrient powder supplementati on	All the 84 facilities	51,236 children between 6 to 59 months.	MOH/Partners	8,945,805	2,981,935	Continuous (yearly)
All the 4 sub counties	Support monthly Integrated outreaches for hard to reach areas( 40 sites)	All the Hard to reach areas of the 84 health facilities	Children <5 years, their mothers and the general population.	MOH/Partners	18,240,000	9,120,000	Continuous (yearly)
All the 4 sub counties	Bi annual Mass Screening of the children< 5 years and the mothers.	In the Hot spots areas of the 4 sub counties – especiall y the hard to reach areas.	Children < 5 years and their mothers.	MOH/Partners	2.200,000	780,000	March & July 2016

Sub County	Intervention	Location	No. of beneficiaries	Proposed Implementers	Required Resources	Available Resources	Time Frame
All the 4 sub counties	Support the national Nutrition days- particularly Malezi Bora, breastfeeding week and world food day.	All the 4 sub counties	Targeting the community within the health facilities catchment area-330	MOH/Partners	1.8M	Health workers and CHVs	May and August each year.
<b>Education</b>							
All the 4 sub counties	Construction of kitchen store and energy saving Jiko for schools	All primary schools	Improve on storage and energy in cooking	County Government of Marsabit, WFP, NDMA and other Partners	10M	1M	2016/17
All the 4 sub counties	Supplies of tanks and water to schools	All primary schools	Access water in schools	County Government of Marsabit, WFP, NDMA and other Partners	10M	1M	2016/17
All the 4 sub counties	ECD support by County Government (structure and food)	All primary schools	Improved retention in schools	County Government of Marsabit, WFP, NDMA and other Partners	60M	1M	2016/17