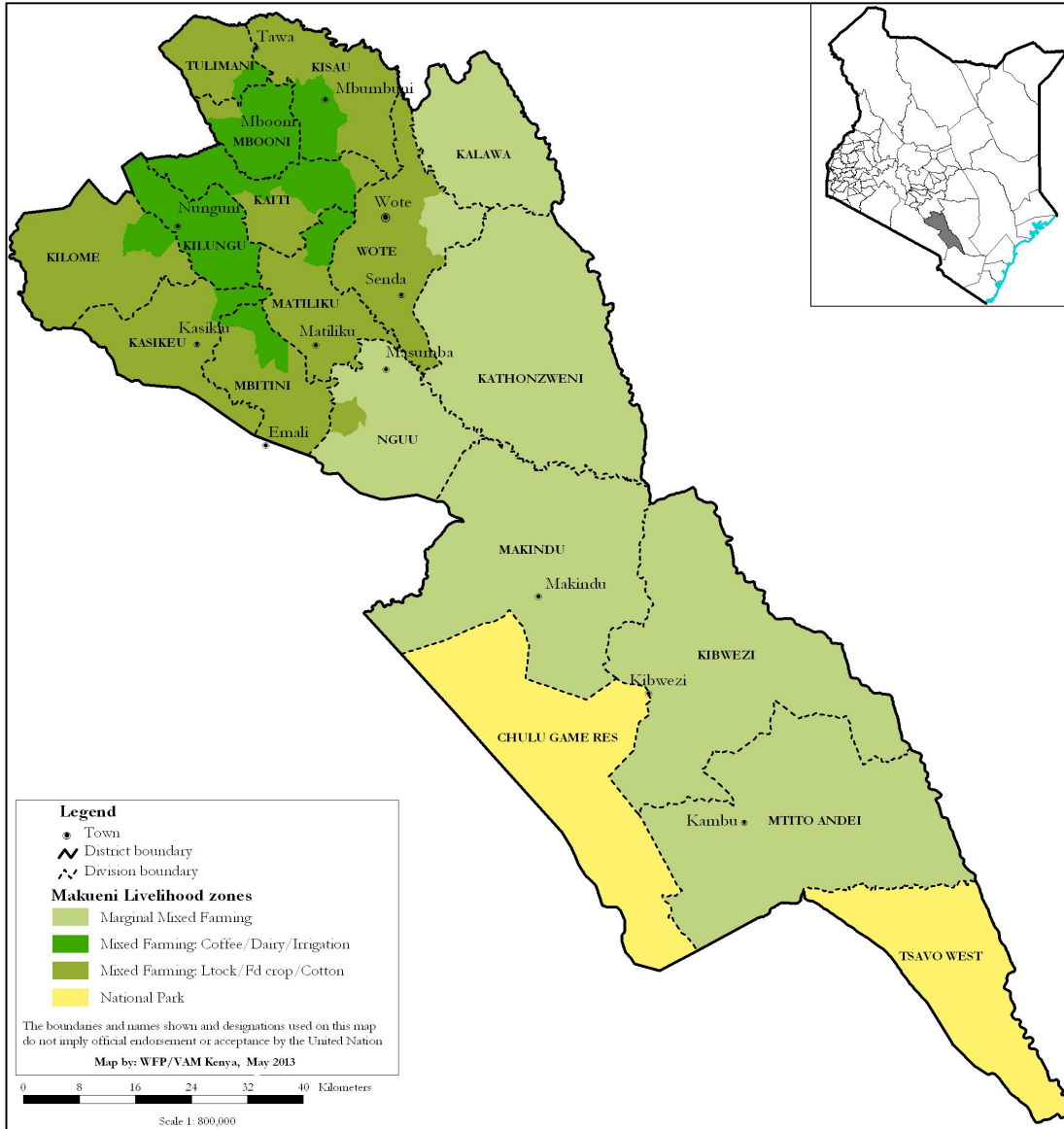


MAKUENI COUNTY
2013 LONG RAINS FOOD SECURITY ASSESSMENT REPORT
29TH JULY – 2ND AUGUST 2013



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1.0 INTRODUCTION

1.1 County Background Information

Makueni County is located in the Southern end of Eastern Province. It covers an area of 7,965.8 square kilometres and has a total population of 883,671 people (2009 census). The County borders Machakos County to the Northwest, Kitui County to the East, Taita Taveta County to the South and Kajiado County to the West. The County, which was formerly Makueni district, has

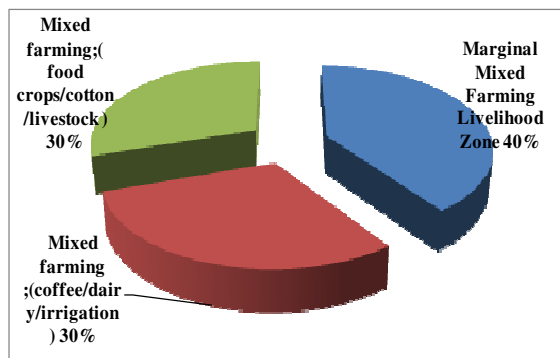


Figure 1: Population proportion per livelihood

nine (9) sub counties namely; Makueni, Kathonzweni, Kilungu, Mbooni East and West, Kibwezi, Makindu, Nzau and Mukaa. There are The three main livelihood zones in the County with respective populations are marginal mixed farming and two mixed farming zones-coffee/dairy/irrigation and food crops/cotton/livestock.

The major crop grown in the County is maize, which is the main staple food. Other crops grown in order of importance are cow peas, beans, pigeon peas and green grams.

1.2 Current Relief Operations

Currently, a total of 61,000 beneficiaries are receiving food assistance in three divisions within the County under the Food for Assets (FFA). The three divisions covered are Kathonzweni (30,200), Kalawa (4,800) and Kibwezi (6,000). In addition, there are 140 schools are under the Home Grown School Meals Programme (HGSMP) with 92,638 beneficiaries.

1.3 Food Security Trends

The food security situation in both mixed farming livelihood zones after short rains assessment of February 2013 had generally improved to the minimal phase owing to normal short rains. The current food security situation in the County remains at the minimal food security phase, with isolated sections in Katithi, Kathuni, Mwanja Kwa Kavisi and Nguu which are in Stressed Phase. The distances to water for livestock have increased across the livelihoods, and the terms of trade have decreased by 11 percent in comparison to the short rains assessment period, but improved by 29 percent above the long term average where 100 Kg of maize can be accessed from the sale of a goat compared 71 Kg of maize per goat long term.

1.4 Current Factors Affecting Food Security

Factors that affect food insecurity in Makueni County include; leaching and water logging in the Mixed Farming zones due to enhanced rainfall. Poor performance of the 2013 long rains characterized by poor distribution in time and space. Uneconomical land units and poor soil fertility in the Mixed Farming zones. Poor crop variety choice by resource poor farmers across the County and environment degradation in some parts of the County leading to soil erosion and infertility, e.g. Kilungu, Nguu and Kwakavisi (Kathonzweni).

1.5 Summary of Recommendations

- Promotion of Traditional High value crops (THVC).
- Pasture/fodder conservation/preservation and utilization campaigns.
- Livestock disease surveillance and vaccination.
- Promotion irrigation potential in the County
- Promote value addition of mangoes and oranges and enhanced linkage to better markets.
- Promotion of rain water harvesting in schools and institutions.
- Promotion of soil and water conservation technologies/interventions.
- Livestock improvement especially upgrading of goats.

2.0 COUNTY FOOD SECURITY SITUATION

2.1 Current Food Security Situation

Maize production is at 42 percent decrease of long term average; cowpeas at 74 percent decrease in comparison to the long term average and 79 percent decrease in green grams productivity. In the Marginal Mixed livelihood zone there was 70-90 percent crop failure of main staple crops. Household milk has remained low in the Marginal Mixed Farming, and a household can access less than a litre of milk, which compares to normal. Pasture and browse condition was poor to fair in Mixed Farming (livestock/food crop /cotton) and Marginal Mixed Farming. In Mixed Farming (Coffee/Dairy/Irrigation) pasture condition was fair to good. The current distance to household water is three kilometres compared to the normal four in the Marginal Mixed Farming, whereas in the Mixed Farming Zones, it is two kilometres compared to normal of three kilometres. The average cost of water is normal at Ksh. 4-5 per 20 litre jerrycan at water kiosks.

The nutritional status of children under five years of age has improved in May 2013 as depicted by Mid Upper Arm Circumference (MUAC) trend compared to long term averages. In January 2013, the MUAC was 14 percent and as at July, 2013 the MUAC has decreased to 7.58 percent.

2.2 Current Shocks and Hazards

2.2.1 Rainfall Performance

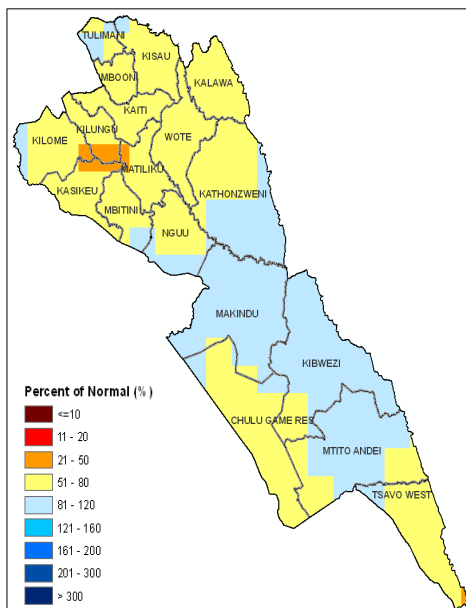


Figure 2: Rainfall estimate as a percent of normal

The onset of the long rains was late in the second dekad of March across the livelihoods compared normal in first dekad of March. The rains were above normal in the second dekad of March, and the Marginal Mixed Farming zone received between 81 and 120 percent of the normal rains. The Mixed Farming zone received 51-80 percent of normal, and the rains ceased earlier than normal in the first dekad of May.

2.2.2 Other Shocks and Hazards

Human wildlife conflict was experienced especially in Marginal Mixed Farming near the Chyulu game reserve and Tsavo National Park. There have been some conflicts involving livestock farmers and foresters in search of pasture in the game reserve, forest and national park especially in the Marginal Mixed Farming.

3.0 IMPACT OF SHOCKS AND HAZARDS

3.1 Crop Production

The three major crops grown in the Mixed Farming zone; maize, beans, kales, and oranges. In terms of food; maize, beans and kales contribute 77, 10 and three percent respectively. The main sources of cash income from crops include French beans, kales, bananas and tomatoes contributing 21, 20, 14 and 15 percent respectively. Maize is the highest contributor to food at 59 percent, followed by beans at 20 percent and pigeon peas and mangoes at three percent each. Maize, mangoes and citrus contribute 58 percent, 20 percent and 10 percent of household cash income. In the Marginal Mixed Farming livelihood zone, maize, cowpeas and pigeon peas contribute 70, eight and two percent respectively to food, with the main cash crops being cowpeas, maize and pigeon peas that contribute 34, 27 and 14 percent respectively.

3.1.1 Crop Performance

The poor performance of rains resulted in poor performance of crops in both mixed farming zones, and some farmer used the failed crops as livestock feeds. In the Marginal Mixed Farming Livelihood Zone, there was total crop failure, and in particular, the maize crop did not reach knee high.

Table 1: Rain Fed Crop Production

Crop	Area planted (Ha)		Production (90 Kg bags)	
	Achieved	Long Term	Achieved	Long Term
Maize	54,755	60,090	292,372	501,100
Cowpeas	27,404	29,325	70,237	269,265
Green grams	23,650	25,880	50,637	236,080

Table 1 shows that the area under maize crop and green grams decreased by nine percent, while the area under cow peas decreased by seven percent compared to the long term average. The decrease in the acreage for maize, cowpeas and green grams could be attributed to poor distribution of the long rains thus farmers did not prepare their land on time. Maize production decreased by 42 percent of long term average; cowpeas at 74 percent and 79 percent decrease in green grams production. The decline more pronounced in the Marginal Mixed Livelihood zone where over 90 percent of crop failure was experienced in some parts.

3.1.2 Irrigated Crop Production

Only 84 percent of the LTA was planted with tomatoes, while that of kales was 75 percent of the LTA and Onions increased by 14 percent of the long term average as indicated in Table 2 below. Tomatoes production reduced by 24 percent, kales reduced by 28 percent and onions production increased by 6 percent.

Table 2: Irrigated Crop Production

Crop	Area planted (Ha)		Production (90 Kg bags)	
	Achieved	Long Term	Achieved	Long Term
Tomatoes	225	269	2,677	3,524
Kales	127	170	1,527	2,126
Onions	16	14	85	80

3.1.3 Maize Stocks

Table 3: Maize Stocks (90 Kg bags)

Maize stocks held by	Quantities of maize held	Long Term Average quantities held
House Holds	76,195	528,750
Traders	112,048	246,790
Millers	25,500	1,300
NCPB	52,056	6,113
Total	265,799	782,953

Currently, the stocks held in the County by traders and households are 45 percent and 14 percent respectively below the long term average as shown in Table 3. NCPB and Millers had abnormally high stock levels, and it has been noted that stocks at the NCPB are kept as strategic reserves for the County, while traders are anticipating increased demand. Available stocks are likely to for the next two months.

3.2 Livestock Production

Makueni County has three agro ecological zones (AEZ), namely Mixed Farming coffee and dairy zone I, Mixed Farming food crops/cotton/livestock zone II and Marginal Mixed Farming cotton/beef zone III. In the Mixed Farming zone I, the contribution of livestock to household food and income is about 39 percent. In the Mixed Farming zone II, livestock contribute about 40 percent. The main livestock species include goats, indigenous chicken and sheep. The average contribution of livestock to food security and income is about 50 percent.

3.2.1 Forage Condition

Pasture and browse condition is poor in the Marginal Mixed Farming zone, but good in both Mixed Farming zones, and this is the normal situation for this period of the year. The feed available will decline gradually through August and September in terms of both quality and quantity, and is expected to last two to three months.

3.2.2 Livestock Productivity

Livestock Body Condition

The current body condition for cattle ranges between fair and good, while for goats and sheep it is good across all the three livelihood zones. This is due to current availability of forage and water. Poorer body condition is expected if the short rains delay. The good body condition also implies increased productivity in terms of milk, eggs, meat and other livestock products and by-products. In addition it means improved fertility and enhanced reproduction hence increasing herd and flock sizes.

Birth Rate

Birth rates are normal for all livestock species across the livelihood zones, and it is expected that the rate will increase in the next two to three months. Livestock currently in their gestation period are expected to calve/lamb in next few months hence improve the household food security situation.

Milk Availability

Milk availability in all livelihoods zones is relatively stable compared to the same period last year. In the Marginal Mixed Farming zone, most households depend on goats' milk, where a goat yields between 125 to 250 ml per day. The availability of milk per day per household ranges from 125 to 400ml compared to the normal half a litre. In the Mixed Farming zone II, zebu cattle and crossbreeds account for most milk produced, which is between 300 and 700ml compared to the normal of 800ml. In the Mixed Farming zone I, milk availability ranges between one to three litres compared to the normal of 3 litres.

Milk Consumption

In the Marginal Mixed Farming zone, all the milk produced is consumed at household level, while in the Mixed Farming zone II, milk consumption per day is about 0.5liters. In the Mixed Farming zone I, the consumption is about 1.2 litres taking into account the amount imported from the other sources.

Average Milk Prices

Currently, price of milk is between Ksh. 50 and 60 per litre in Marginal Mixed Farming zone compared to the normal Ksh. 50, while in both Mixed Farming zones it is going for between Ksh. 45 to 50, which is normal. Milk prices in Kee division in zone II were much higher than normal, selling at Ksh. 87.5 per litre due to increased demand hence reducing the supply and access.

3.2.3 Tropical Livestock Units (TLUs)

Average TLUs vary across the livelihoods, where a household in the Marginal Mixed Farming zone has about 3 TLUs compared to normal which is 4.5. In the Mixed Farming zone II, TLUs are 2.compared to normal of 3 while in the Mixed Farming zone I the TLU is 1 compared to normal 1.2. Below normal TLUs was occasioned by high off-takes during the prolonged drought between 2009 to 2011, of which most sub counties have not recovered. As a result of low TLUs, households are vulnerable to food insecurity as their sources of income have declined, particularly income from livestock.

3.2.4 Water for Livestock

The main sources of water in Marginal Mixed Farming zone include rivers, shallow wells and piped water. The trekking distance is four kilometres compared to a normal of two kilometres. In the Mixed Farming zone II, the distance is two kilometres compared to normal of one kilometer. Mixed Farming zone I, the trekking distance are two kilometres compared to 0.5-1 kilometre. Frequency of watering is thrice a week for Marginal Mixed Farming zone III while it is daily in other zones.

3.2.5 Migration

There is no migration currently in the County, but it is expected in next one-two months especially in the Marginal Mixed Farming, migration to the Chyulu Hills, forests, game reserves and National Park as result of declining pasture conditions.

3.2.6 Livestock Diseases and Mortalities

Suspected case of Foot and Mouth Disease has been reported in Ngaamba location in Mukaa district, Kiboko location in Makindu district and Kitise location in Kathonwzeni district but they are yet to be confirmed. Incidences of endemic diseases reported were low, and no unusual

mortalities livestock were reported.

3.3 Water and Sanitation

The major water sources for domestic use in the County are boreholes, piped water schemes and dams. However shallow wells and springs form a reliable source in the Marginal Mixed Farming livelihood zone and some parts of the Mixed Farming zones of Makindu and Mbooni divisions.

3.3.1 Distance to Water Sources

Current distance to water sources for household consumption has slightly reduced across the livelihood zones in the County. The distance in the marginalized mixed livelihood zone is three kilometres compared to the normal four kilometres whereas in the Mixed Farming livelihood zones it is two kilometres compared to normal of three.

3.3.2 Waiting Time

Current waiting time at the source has reduced across the livelihood zones from 25 minutes compared to normal of 0.5 to 1.5 hours. Improvement in waiting time is attributed to increased water interventions which were recommended in the previous short rains assessment and implemented.

3.3.3 Water Cost and Consumption

The price of water is normal and ranges between Ksh. four and five per 20 litres at the water kiosks. Water vending charges range from Ksh. 10 -20 per 20 litres across the livelihood zones. No implications associated with usage because the rates are lower compared to dry spell time. Water consumption is 20 litres per person per day across all livelihood zones, and this is normal at this time of the year, but it is likely to reduce to 15 litres per person per day by end of September.

3.3.4 Sanitation and Hygiene

The latrine coverage is 85 percent across the County, but over 90 percent of households in the County have access to pit latrines. Overall, only about 40 percent practice good food handling and hygiene practices such as washing hands before handling food and after visiting the toilets. Cases of waterborne diseases along Athi River belt have been reported to include bilharzias, typhoid fever and amoebiosis. These were mentioned in Mwanja, Athi, Kamunyuni, Musalala and Nguluni of Kee division. These diseases could be attributed to upstream contamination of water sources, poor protection and drainage of water sources such as shallow wells and dams, lack of water treatment practices and poor storage.

3.4 Markets and Trade

3.4.1 Market Operations

The main markets in the County for foodstuffs and livestock are Kathonzweni, Matiliku, Kibwezi, Machinery and Kangili. Market operations were normal with no disruptions, and this is projected to remain as such for the next three months.

3.4.2 Market Supply and Traded Volumes

The main staples within the County include green grams, cow peas and pigeon peas, where the supplies are currently normal. Maize is sourced from outside the County, while livestock

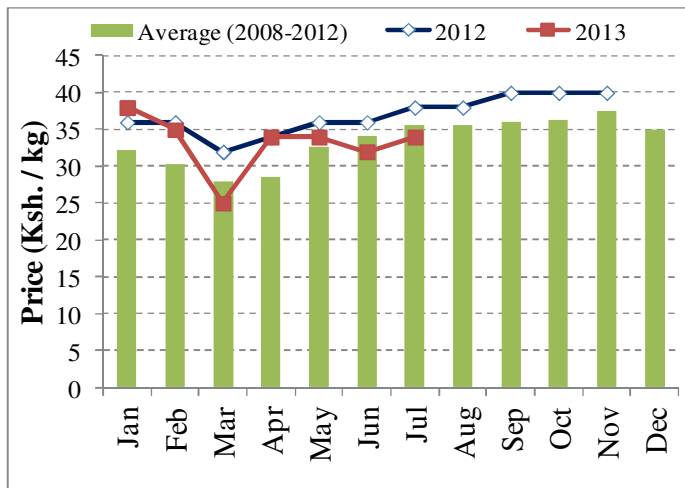
especially goats, poultry and cattle supplies and sources vary across the major markets with most being from Garrisa, Nairobi and Loitoktok. Traded volumes for livestock have slightly increased as livestock owners are offering stocks to avoid losses owing to declining pasture conditions especially in the Marginal Mixed Farming zone. The price of various household items has remained normal compared to previous seasons.

3.4.3 Commodity Demand

Majority of households in the Marginal Mixed Farming zone equivalent to 95 percent purchase food items from either sale of livestock or remittances. In Mixed Farming zones, 90 percent households depend on farm supplies, which is normal although the situation may deteriorate in next two months. Prices are expected to rise as stocks at household level are depleted.

3.4.4 Market Prices

Maize Price



The decline in maize prices during the month of March 2013 may be attributed to the 2012 short rains fair harvest. The households were able to access food commodities from own production. The prices have stabilized in consecutive months, and in July, 2013 the maize price was Ksh. 34 which is five percent lower than the long term mean. The maize prices is likely to increases for the next four months in the mixed farming zones

Figure 3: Maize Price Trends

Goat Prices

Prices of goats stabilized are above long term mean by 29 percent but below last years', owing to oversupply in the market as households get school fees and other non- food items. Currently, prices are steadily increasing due to good body condition, high demand as a result of festivities and reducing supply. This trend is expected to continue favorably to end of August.

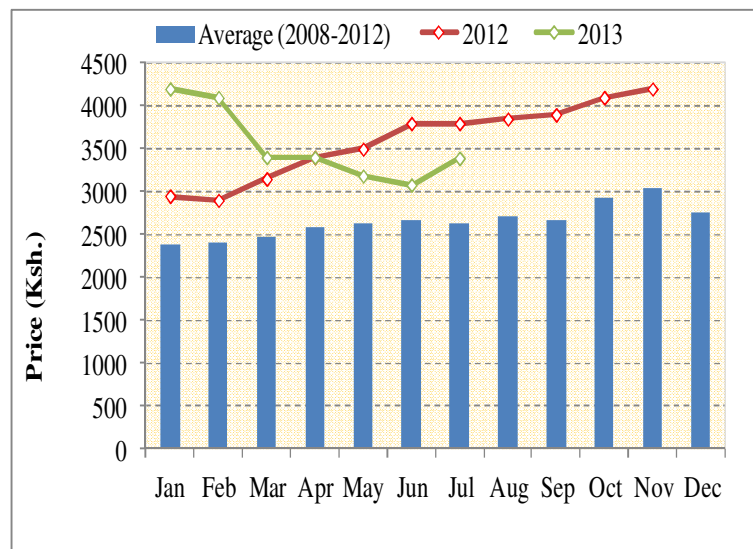


Figure 4: Goat Price Trends

3.4.5 Terms of Trade

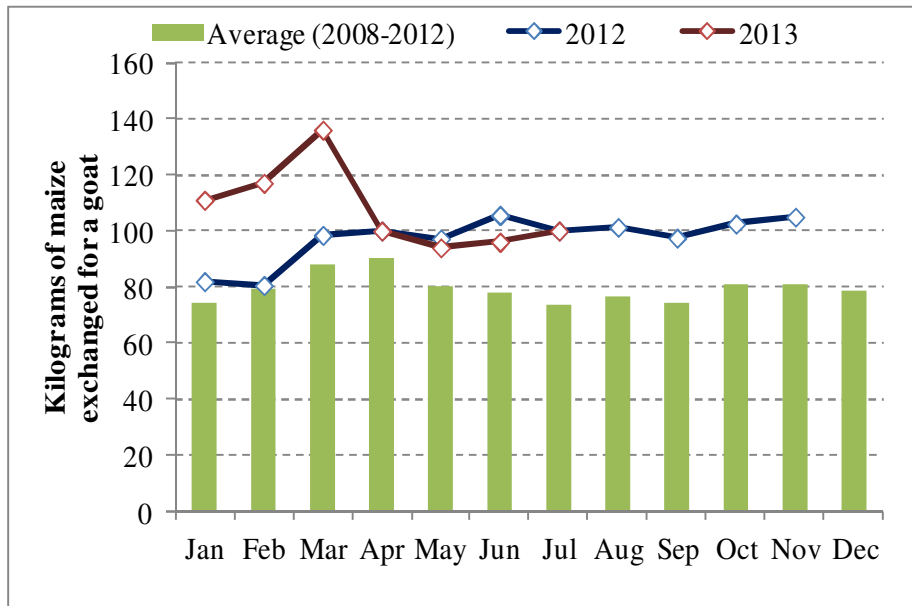


Figure 5: Trends in Terms of Trade

The current terms of trade have improved for goat keepers as one goat exchange for 100 Kg of maize compared to the long term mean of 74 Kg in July, 2012. The trend is likely to remain stable as prices of both maize and goats stabilize.

However, households are increasingly relying on alternative sources of income owing to reduced livestock numbers,

and both poultry and pulses are major sources of household income besides remittances, casual labor, livestock and crop sales.

3.5 Health and Nutrition

3.5.1 Morbidity and Mortality Patterns

The top five leading causes of morbidity for both under-five year olds and the general population are Upper Respiratory Tract Infections (URTI), Clinical Malaria, Diarrhea and Skin Infections, which are common across all livelihoods. Prevalence of common diseases was on increase except malaria, and the incidence of URTI was high in 2013 compared to 2012 due to experienced cold weather from the month of May to July 2013. Malaria prevalence on the other hand showed a decline in the 2013 when compared to 2012 probably due to increased sensitization, distribution and utilization of long lasting insecticides treated nets. A similar trend in was noted amongst the general population, where prevalence of common diseases was on increase except malaria and diarrhea.

3.5.2 Immunization and Vitamin A Supplementation

The percentage of fully immunized children (FIC) across the County has increased to 80 percent, which is also the national target for immunization. The increase is attributed to mobile outreach services available in the County and strengthened collaboration with partners. Vitamin A supplementation is at about 81 percent among infants within 6-11 months, however only 27 percent of 6-59 months have been covered.

3.5.3 Nutrition Status and Dietary Diversity

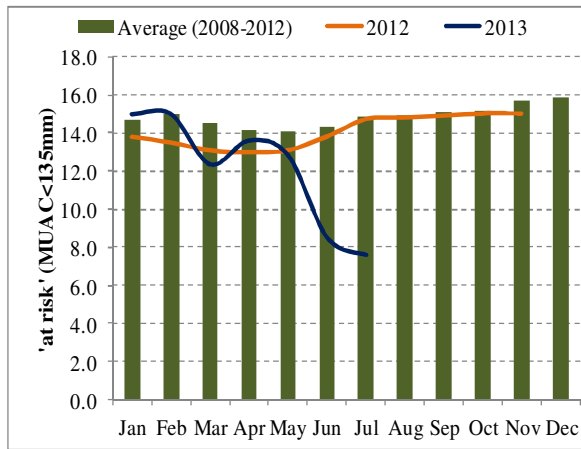


Figure 6: MUAC Trends

The under-five that are at risk of, according to NDMA Makueni County data is currently at 7.58 percent. This has indicated high improvement in nutrition status as from May 2013. The malnutrition levels for under-five years improved by 7.42 percent.

Approximately 16 percent of households in Makueni County consume more than three meals per day more so in the Mixed Farming livelihood zones. The situation differs in the other livelihood zones of Marginal Mixed Farming and transition area where 59 percent of households consume two meals per day. The meals consumed mainly comprise of four food groups namely cereals, pulses, and vegetable in form of cow pea leaves, oil and fruit (oranges currently in season).

The under-five that are at risk of, according to NDMA Makueni County data is currently at

3.6 Education

3.6.1 Enrolment

There are 914 public primary schools in the County, with about 269,723 pupils enrolled, of which 49 percent are girls, while in Early Childhood Development and Education (ECDE) centers, there are 41,820 children enrolled of which 48 percent are girls. There was marked effort in achieving gender equity for enrollments in ECDE and primary schools. There has been a marginal increase in access to education by 3.0 percent and 2.4 percent for boys and girls respectively compared to the year 2012 at both ECDE and primary school level. The increase may be attributed government support in ECDE, community support grants and on-going compulsory free primary education programme.

3.6.2 Drop Out Rates

The dropout rate for boys is at six percent compared to that of girls at five percent. The dropout rates are minimal owing to the reduced burden of school fees and the ban on tuition programmes that were uncontrollably sky-rocketing to meet demands of the school administrators, though the community is emphatic in the placing premium value to investiture in education. However, it is noted that dropout rates are higher along Mombasa road as it traverses in the County especially among girls engaging in petty trade and prostitution. Similarly, orphans and vulnerable children who head families drop out of school to fend for their siblings.

3.6.3 Transition Rates

An average of 80 percent transit to primary schools from EDCE and 86 percent transit from primary to secondary school, an improvement by six percent due to the establishment of more day secondary schools which are readily accessible on account of proximity and affordability. In the mixed farming zones, the transition rate is as high as 90 percent while in the marginal mixed farming it is lower at 60 percent specifically in Makindu and Kibwezi, however, this is an improvement from the previous 40 percent last year.

3.6.4 School Meals Programme (SMP)

A total of 140 schools are under HGSMMP with 92,638 pupils benefiting, and the programme contributes a lot in terms of attracting access, retention concentration in class and completion. There is a marked difference in academic performance between schools under the programme and those not covered. It was noted that partners in some sub counties have initiated support for schools through allocation of food to them for purpose of sustaining the learners. Schools needing the programme most are in Kibwezi, Makindu, Nzau, Mbooni East, Makueni, Kathonzwani, some parts of Mukaa and Kilungu districts.

3.7 Coping Mechanisms

Households in the marginal mixed farming zone are skipping meals as reported in Mwanja, where households are consuming only one meal per day. Other coping mechanisms in the livelihood zone are charcoal burning and increased credit purchases.

3.8 Food Security Prognosis

The food security in Mixed Farming zone I and II will remain stable in the next two to three months, as livestock productivity is expected to remain stable for the same period due to availability of pastures. Distance and waiting time at water sources is expected to increase, and the situation may worsen in the next one month in the Marginal Mixed Farming zone. Livestock migration is expected in this zone, and productivity will decrease, conflicts between livestock farmers and either foresters or game reservists likely to escalate. In addition water sources in Marginal Mixed Farming would be dry and the distance for water for both human and livestock will drastically increase.

The malnutrition levels in mixed farming zones are unlikely to change, but they may increase in the marginal mixed farming zones. Stunting rates may increase as the food security deteriorates especially in the Marginal Mixed Farming livelihood zones. Prices increase of major foodstuffs may go higher in the Marginal Mixed Farming zone, thereby impacting negatively on the overall food security situation.

3.9 Ongoing Interventions

3.9.1 Food Interventions

Table 4: Food Interventions

Education	Intervention	Division	Beneficiaries	Implementers	Impact	Cost Ksh.	Time Frame
Makueni	School Meals Programme	Wote and Kaiti	2,854	MOE, County Government	Improved enrolment.	10,417,100	2013-2014
Kathonzwani	Home Grown School Meals	Kithuki	4327	MOE, County Government	Improved access.	15,793,550	2013-2014
	Home Grown School Meals	Kitise	5526	MOE, County Government	Improved access.	20,169,900	2013-2014
	Home Grown School Meals	Mavindini	5235	MOE, County Government	Improved access	19,107,750	2013-2014
	District Steering Group	Kathonzwani	5493	DSG	Improved access	20,049,450	2013-2014
Nzau	Home Grown School Meals	Mbitini	2689	MOE, County Government	Enhanced access	9,814,850	2013-2014
	Home Grown School Meals	Matiliku	2146	MOE, County Government	Improved Enrolment	7,832,900	2013-2014

Education	Intervention	Division	Beneficiaries	Implementers	Impact	Cost Ksh.	Time Frame
	Home Grown School Meals	Nguu	8295	MOE, County Government	Improved access	30,276,750	2013-2014
Kibwezi	Home Grown School Meals	Kibwezi	4,912	MOE, County Government	Improved Enrolment	17,928,800	2013-2014
	Home Grown School Meals	Machinery	6,371	MOE, County Government	Improved access	23,254,150	2013-2014
	Home Grown School Meals	Kibwezi	15,403	MOE, County Government	Enrolment	56,220,950	2013-2014
Makindu	Home Grown School Meals	Makindu	17,618	MOE, County Government	Enhanced enrolment	64,305,700	2013-2014
Kilungu	District Steering Group	Ilima, Kilungu	25,420	DSG	Enhanced enrolment	126,550	2013-2014
Mbooni East	Home Grown School Meals	Mbooni East	18345	MOE, County Government	Improved enrolment	66,959,250	2013-2014

3.9.2 Non-Food Intervention

Table 5: Non-Food Intervention

Agriculture	Intervention	Division	Beneficiaries	Implementers	Impact	Cost Ksh
Makueni	Pasture seed bulking	All 17 divisions	1,700	Dept. of Livestock Production	Rebuilding Livestock feed resource base	Ksh. 4.25
	Livestock diseases surveillance	All 17 divisions	-	Dept. of Veterinary services	Enhanced livestock survival for food supply	Ksh. 4.25

3.10 Divisional Food Security Ranking

Table 6: Divisional Food Security Ranking

Division Name	Rank	Main Food Security Threat (if any)	Remarks
Makindu	1	Water shortages, Poor pasture, High food prices, No Household stocks, low milk availability, wildlife menace, poor rains	Makindu
Mtito Andei	2	Water shortages, low milk availability, Poor pasture, High food prices, No Household stocks, Wildlife menace, poor rains	Mtito Andei
Kibwezi	3	Water shortages, Poor pasture, High food prices, No Household stocks, poor rains	Kibwezi
Nguu	4	High food prices, minimal Household stocks, poor rains	Nguu
Kathonzweni	5	High food prices, minimal household stocks, affected regions	Kathonzweni, Kitise,
Kalawa	6	High food prices, Minimal or no Household stocks, high distances to water sources, poor road network	Kalawa
Kee	7	High food prices, Minimal or no Household stocks, poor rains	Kee
Tulimani	8	High food commodity prices, poor rains	Tulimani
Kasikeu	9	Low Household stocks,	Kasikeu
Mbitini	10	Low Household stocks,	Mbitini

Division Name	Rank	Main Food Security Threat (if any)	Remarks
Matiliku	11	Low Household stocks,	Matiliku
Wote	12	Low Household stocks,	Wote
Kilome	13	Poor road network	Kilome
Kisau	14		Kisau
Kilungu	15	Small land size	Kilungu
Mbooni	16	Small land sizes	Mbooni
Kaiti	17		Kaiti

4.0 RECOMMENDATIONS

4.1 Monitoring Required

As the County is experiencing minimal food security in the mixed farming zones, several indicators need to be closely monitored. They include food stocks, prices of food and livestock, supplies in the market and cost of water at kiosks. In the Marginal Mixed Farming key indicators are livestock body conditions, pasture and browse condition, cases of conflicts, migration routes, and distances to water sources for both human and livestock. Other indicators include disease outbreaks and nutritional status.

4.2 Food Intervention Required

Table 7: Proposed Population in Need of Food Assistance

Division	Population in the Division	Pop. in need (% range min-max)	Proposed mode of intervention	Remarks
Makindu	70,302	30-35	FFA	Parts of Kiboko, Twaandu, Syumile
Mtito Andei	78,207	30-35	FFA	Target Ngwata, Nthongoni, Nzambani and Kathekani
Kibwezi	99,339	30-35	FFA	Target current FFA locations only Masongaleni and Kikumbulyu
Nguu	23,764	25-30	FFA	Wolwa, Matutu and Mweini
Kathonzweni	76,605	25-30	FFA	All
Kalawa	27,174	20-25	FFA	Athi, Kathulumbi
Kaiti (Kee)	59,515	10-15	-	Watema
Tulimani	35,350	10-15	-	

4.3 Non-Food Interventions

Table 8: Non-Food Interventions

Intervention	Divisions	No. of beneficiaries	Implementers	Impacts in terms of food security	Cost (Ksh.)	Time Frame
WATER						
Servicing of 50 No. borehole pump sets	County wide	25,000	GoK, County governments	Improve availability to reliable and save water	4 M	Three months
Replacement of alternators for Itumbule and Yimbuva boreholes	Kathonzweni, Mutito Andei	2,000		Improve availability to reliable and save water	0.64M	one month
Supply of chlorine tablets	County wide	300,000		Prevention of water borne diseases	2.5M	three months
Construction of full treatment works for 6	Mbooni Kathonzweni,	18,000	National and County	Prevention of water borne diseases	48M	one year

Intervention	Divisions	No. of beneficiaries	Implementers	Impacts in terms of food security	Cost (Ksh.)	Time Frame
No. water schemes	Matiliku		governments			
18 No. Borehole survey, drilling and equipping	County wide	20,000	GoK and County governments	Improve accessibility to save water	54 M	one year
18 No. Sand Dams construction	County wide	15,000	governments	Improve water accessibility	36 M	One year
Agriculture						
Water harvesting	Whole County	500	MOAL&F	Increased food security	3M	6 months
Promotion of agro forestry		800		0.6M	One year	
Promotion of irrigation		900		1.0M	One year	
Promotion of THVC		5,000		1.3M	One year	
Support to subsidized fertilizer		2,000		6.4M	One year	
Training on technology dissemination		3,000		1.2M	One year	
LIVESTOCK						
Fodder and pasture Preservation	All Divisions	4,250	State Dept of Livestock,	Improved and sustained livestock productivity	1.7M	August 2013
Breed improvement for cattle, small stock and poultry (Upgrading stock and AI services)	All Divisions	13,600HH	NDMA, County Govt of Makueni	Improve livestock productivity	20M	August-October 2013
Improve water availability for livestock	All Divisions	13,400HH	State Dept. of Livestock State Dept of Water & Irrigation, County Govt of Makueni	Enhanced livestock productivity in dry seasons	104M	August-October 2013
Vaccination on FMD	5 Divisions	400	Dept. of Veterinary services, County Govt of Makueni	Protected livelihood assets	2.5m	August 2013
Extension service Provision on Livestock husbandry	All Divisions	34,000 HH	State Dept of Livestock, NDMA, County Govt of Makueni	Capacity building for enhanced production, food security and income generation.	5.0 M	August-October 2013
Vaccinations on NCD	All Divisions in Makueni	13,000HH	State Dept of Livestock, NDMA, County Govt of Makueni	Prevention of NCD in poultry	5.0 M	August-October 2013

Intervention	Divisions	No. of beneficiaries	Implementers	Impacts in terms of food security	Cost (Ksh.)	Time Frame
Rangeland reseeded, pasture establishment and reseeded	All Divisions in Makueni	4,250	State Dept of Livestock, NDMA, County Govt of Makueni	Improved and sustained livestock productivity	1.7M	August 2013
Fodder and pasture Preservation	All Divisions in Makueni	4,250		Improved and sustained livestock productivity	1.7M	August 2013
EDUCATION						
Broaden SMP Coverage	Makindu	26,628	GOK County Government of Makueni	Enhance access, quality Equity.	98M	One year
Stratify OVC/MVC program	Makindu	9,010		Increase support.	0.1M	One year
Initiate HGSM	Ilima Kilungu	25,310		Increase access, equity, quality.	5M	One year
Improve water harvesting & storage systems	Ilima Kilungu	25,310	GOK	Initiate IGA activity.	17M	One year
Broaden SMP coverage	Kathonzweni Kithuki Kitise, Mavindini, Kathonzweni	29,645	GOK, County Government of Makueni	Enhance access equity Quality	109M	One year
Broaden SMP coverage, Initiate OVC/MVC programs. Improve water harvesting and storage	Kibwezi Machinery Mtito Andei Kibwezi	26,686	GOK, NGOs, County Government of Makueni	Enhance access, quality, equity and initiate IGAs	98M	One year
Broaden SMP coverage, improve on water harvesting	Mbooni East	18,345		Enhance access, equity, and initiate IGAs.	67M	One year
Improve on water harvesting and storage	Mbooni West	19,621	GOK, NGOs County Government of Makueni	Enhance access, equity, and initiate IGAs.	2M	One year
HEALTH AND NUTRITION						
Upscale food by prescription programme, ECD teachers training on growth monitoring, Conduct a nutrition survey, sensitization of health workers and community health workers on MIYCN, upscale school health program to all schools, upscale implementation of IMAM, sensitization of LMIS tool for monitoring nutrition program	Whole Makueni County	Whole County	GOK, NGOs, County government	Improved food security	300 M	One year