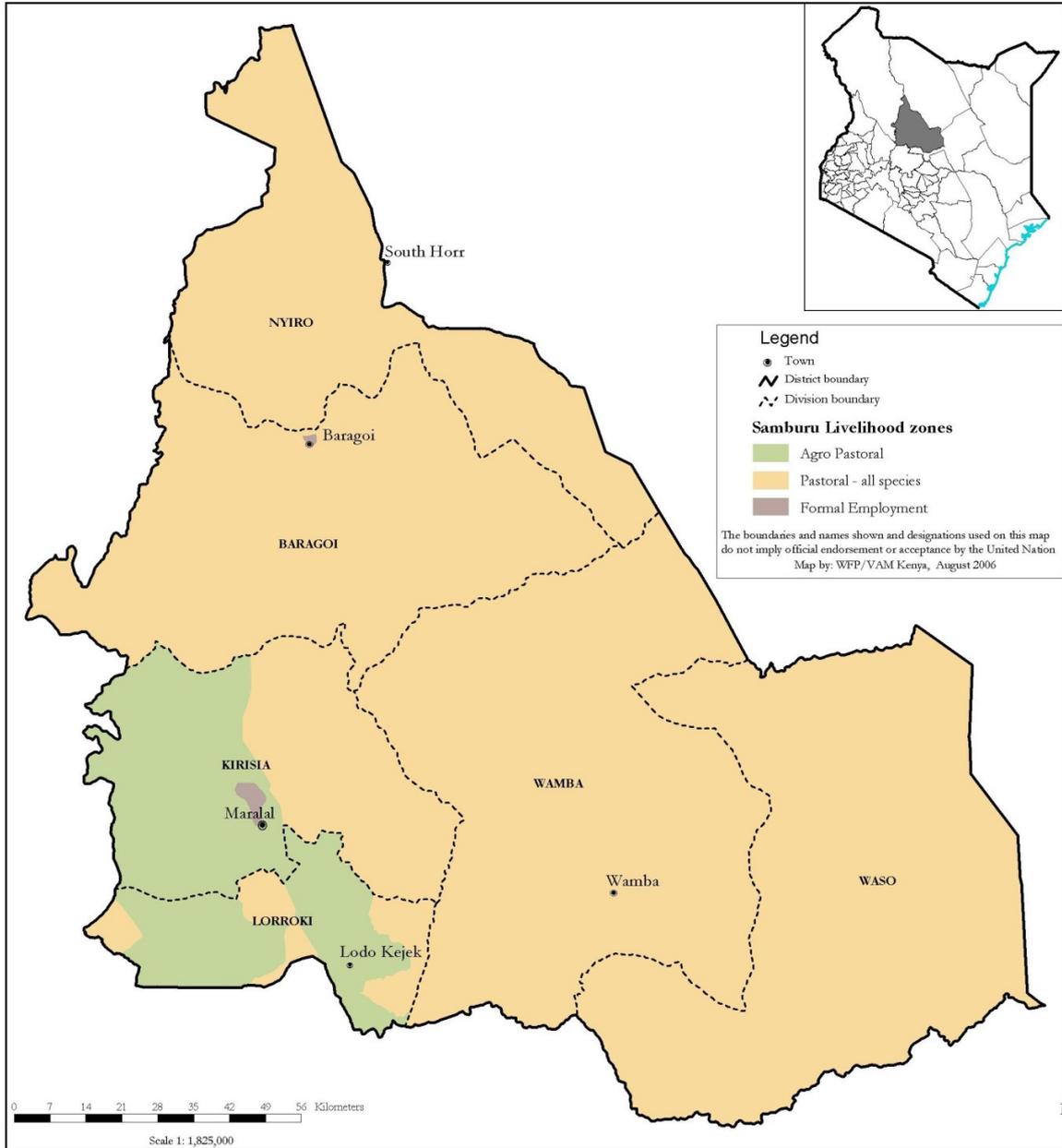


SAMBURU COUNTY
2013 LONG RAINS FOOD SECURITY ASSESSMENT REPORT
5TH - 9TH AUGUST 2013



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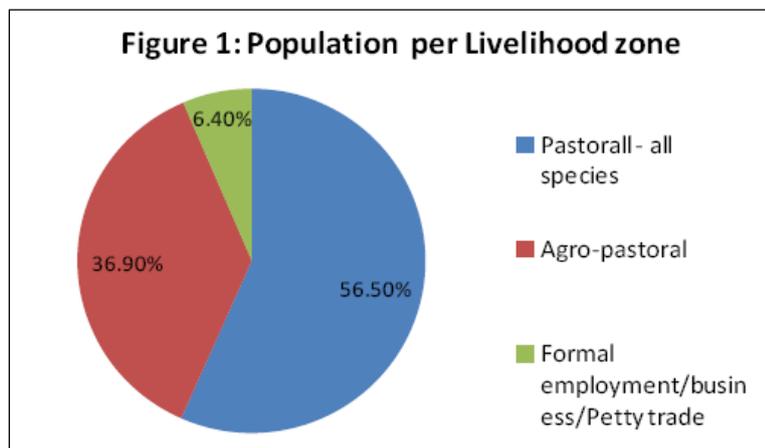
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1.0 INTRODUCTION

1.1 County Background

Samburu County borders Marsabit County to the North East, Isiolo County to the East, Laikipia County to the South, Baringo County to the South West and Turkana County to the North West. The county covers an area of approximately 21,126 square kilometres with an estimated population of 223,947 according to the Kenya National Bureau of Statistics (KNBS 2009 Census). Samburu County is among the poorest in the country with 73 percent of its population living below poverty line according to Kenya Integrated Household Budget Survey (KIHBS 2009).

Three quarters of the County comprises of arid and semi-arid range land which receives between 250-600 mm of rainfall annually. Only about seven percent (140,900 hectares) is medium to high potential land which receives 600-900 mm of rainfall annually. Insecurity related to cattle



rustling and high banditry continues to disrupt livelihoods strategies within the County. Disruption/closure of livestock markets, loss of livestock assets and lives are among the most devastating consequences to households in Samburu County. Poor road and telecommunication infrastructure remains the greatest challenge to the residents of Samburu County.

Figure 1: Population distribution by livelihood in Samburu

The county consists of three livelihood zones; pastoral-all species with 56.5 percent, agro-pastoral with 36.9 percent and a formal employment/business/petty trade at 6.4 percent of the county population respectively.

1.2 Current Relief Operations

The county has been under food support program since 2004. Currently a total of 32,900 persons are supported under the general food distribution down from 46,151 before the short rains assessment of 2013. Other food aid interventions include; supplementary feeding program targeting 2,906 beneficiaries across all health facilities, implemented by the Ministry of Health (MoH) in partnership with Unicef, world vision and International Medical Corps (IMC). Protective food rations program also by MoH and World food program targets 1,872 recipients across the county. Regular school meals programme which targets 148 public primary schools and early child hood centers is also on going in the county. Non food relief operations include relief seeds for farmers and pasture production in some parts of the county.

1.3 Food Security Trends

The county was classified in the minimal phase in the agro pastoral zones and stressed in the pastoral livelihood zone after the 2012 short rains assessment. The county is still classified in the minimal and stressed phases in both agro pastoral and pastoral livelihood zones respectively. Even though the classification has remained the same the current food security situation has slightly improved in the agro pastoral areas as they are long rains dependent and received good rains resulting to good crop production. The situation in the pastoral zones, which are short rains dependent, is however deteriorating as the rains ceased earlier than normal and the available pasture is fast getting depleted due to influx of animals. Insecurity and cattle rustling is also disrupting the pastoral livelihoods.

1.4 Current Factors Affecting Food Security

The main factors affecting food security in the County include:

- Conflict and insecurity in the county (cattle rustling and banditry).
- Poor road infrastructure.
- High food commodity prices in the county.
- Rainfall Performance

1.5 Recommendations- Food and Non-food

- Sitting and drilling and equipping of boreholes.
- Vaccination of livestock against notifiable diseases and deworming
- Fodder conservation
- Rangeland rehabilitation
- Rehabilitation of livestock water sources
- Livestock marketing interventions
- Timely provision of certified seeds and tractors for hire
- Implement high impact nutrition interventions (HINI)
- Food aid intervention

2.0 COUNTY FOOD SECURITY SITUATION

2.1 Current Food Security Situation

The current food security situation in Samburu County is stable with minimal food insecurity in the agro pastoral livelihood zones of Kirisia and Lorroki. The food security situation in the pastoral areas is stressed and deteriorating. There was an increase in both acreage and the productivity in the agro pastoral areas. This was attributed to intensive extension messages and good rainfall received. Irrigated area planted in the current season increased leading to double the produce realized as compared to the short term production. Households maize stocks increased due to improved production and stocking awaiting improved market prices. Overall more maize stocks were available in the agro pastoral livelihood zone.

The current pasture and browse situation in the agro-pastoral zone is good, normal and is projected to last for 2 to 3 months while in the pastoral zone it is fair, below normal and expected to last for 1 month. The areas in pastoral zone that are adversely affected include Waso and Wamba in Samburu East Sub-County and Nyiro in Samburu North Sub-County. The pastures in Baragoi are inaccessible due to insecurity, cattle rustling and the current disarmament exercise.

The livestock body condition for all species is good and fair in the agro-pastoral and pastoral zones respectively. Average milk availability was below normal (0.5 to 1 litre per day per household) in pastoral zones and normal (1 to 2 litres) in agro-pastoral zones. Foot and Mouth disease (FMD), East Coast fever (ECF) and Nagana in cattle, Contagious Caprine Pleuro Pneumonia (CCPP) in goats, Enterotoxaemia and Pox in sheep and Newcastle in poultry have been reported in agro-pastoral and pastoral areas. High mortality in goats (15 percent) due to CCPP has been reported complicated by a diarrhoea syndrome suspected to be a mild case of *Pestes des petites* (PPR).

There has not been any notable changes in return trekking distance to water sources. However, small pans and dams water levels are decreasing in most parts of Samburu East and North. Consumption of water in the agro-pastoral livelihood zones averages at 20 liters per person per day while the consumption levels range from 7.5 to 15 liters per person per day in the pastoral livelihood zones. The nutrition status of children under five years remained stable and within seasonal norms although it slightly worsened with the percentage of those at risk of malnutrition as measured by Mid Upper Arm Circumference (MUAC) <135 mm increasing to 18.4 from 14.2 percent.

The enrolment for public Early Childhood Development (ECD) centers and primary school rose steadily by 5.8 percent this year (86,462) in comparison to 2012 which was 81,687. Drop out cases now stands at 25 percent in preschools. While in primary schools drop out cases are at 45 percent for boys and 50 percent for girls. Households in this county were employing normal coping mechanisms. Overall CSI in July was 0.23 compared to 0.24 in the month of June.

2.2 Current Shocks and Hazards

2.2.1 Rainfall performance

The performance of the long rains was generally good across the county. The onset was timely in mid March in all livelihood zones. Most areas received normal (80 to 120 percent of normal rains) to above normal (120 to 160 percent of normal rains). However, eastern parts of Nyiro and some pockets in Waso received below normal rains (50 to 80 percent of normal). Distribution was good in time and space. The Pastoral zones had an early cessation of rain in late April, normally rains would cease in mid May. The agro pastoral zones also experienced early cessation in early May but later continued to receive some showers until the second week of June. The rainfall was adequate for both crop production and forage regeneration in the agro pastoral and pastoral livelihood zones a part from areas that received below normal rains.

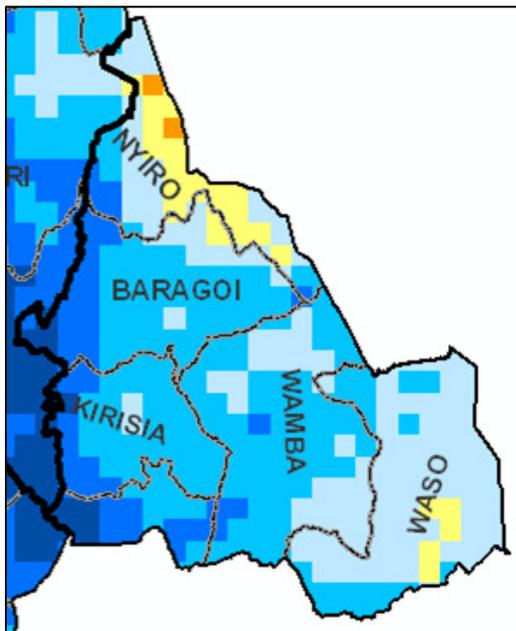


Figure 2: Rainfall distribution for Samburu County

2.2.2 Other shocks and hazards

Insecurity due to cattle rustling and ethnic conflicts over pasture and water resources. This was reported between Samburu and Pokot to the West of the county, Turkana to the North and Isiolo to the East of the county. Disarmament in Northern Samburu has to tension, displacement and disruption of markets.

3.0 IMPACT OF SHOCKS AND HAZARDS

3.1 Crop production

In Agro-pastoral areas of the county, food crop production is largely dependent on the long rains and account for 20 percent of cash income to households. Other sources of income include livestock production (60 percent, casual waged labor (3 percent), small businesses (3 percent), cash crop, honey production and poultry keeping (2 percent each). The main food crops grown in the long rains season were Maize and Beans for the majority of small scale farmers. The contribution of maize, beans, wheat and barley to income in agro pastoral areas is 40, 5, 30 and 21 percent respectively. In terms of food, maize contributes 80 percent and beans 10 percent while other food commodities contribute the remaining.

3.1.2 Crop performance

Table1. Crop production and coverage

Crop	Area Planted (Ha)		Production (90 kg bags)	
	2013 Long rains	Long Term Average	2013 Long rains season Projected/Actual	Long Term Average
Maize	1,200	1,100	42,000	38,500
Beans	300	250	6,000	5,000
Wheat	800	700	24,000	2,100

Data Source: Ministry of Agriculture- Samburu

There was an increase in both acreage and the productivity (Production per unit area). This was attributed to intensive extension messages passed to the farmers on the need to be food secure. The Ministry of Agriculture staffs together with other stakeholders intensified “grow more food campaigns”, an initiative which is bearing fruits. The rainfall has also been reliable for the last three consecutive years in the agro-pastoral areas of Kirisia and Lorroki. Withdrawal from relief food beneficiaries’ bracket has prompted many agro-pastoralists especially those at peri - urban areas to intensify farming activities. Farming in the pastoral areas of Wamba and Baragoi is very minimal owing to depressed long rains and insecurity problems.

Table 2: Irrigated Crop

Crop	Area Planted (Ha)		Production in Kg		
	2013 rains season	Long Term Average (3 years)	2013 Long rains season Projected/actual	Short Term Average (3 years)	Term
1. Tomatoes	0.5	0.25	1,2500 kg	6,750 kg	
2. Kales	1	0.5	25,000 kg	12,500 kg	
3 Cabbage	1	0.5	7,500 kg	3,750 kg	

Irrigated farming is mostly practiced in the Agro pastoral areas of Lorroki and Kirisia. Vegetables (Tomatoes, Kales and Cabbage) are the main crops grown under irrigation. Area planted in the current season increased leading to double the produce realized as compared to the short term production. Development of irrigation schemes in Tuum by NIB and Kurungu by Kenya Red Cross has also contributed to increase in vegetable production. Population influx especially from the Samburu North has also contributed to increased demand for the vegetables and water for irrigation is available owing to ongoing rains.

Table 3: Maize commodity stocks in the county

Maize stocks held by	Quantities in (90 kg bags)	
	Current	Long Term Average
House Holds	9,435	7,564
Traders	2,500	2,100
Millers	1,765	1,624
NCPB	10,000	6,700
Total	23,700	17,988

Households maize stocks increased due to improved production and stocking awaiting improved market prices. However, stocks held by traders marginally increased owing to low market prices and the availability of the maize in the households. Overall more maize stocks were available in the agro pastoral livelihood zone while the pastoral areas relied on the markets for food. Stocks held by the households are expected to last for the next 3 months when the current crop is expected to be harvested. Normally stocks would last for six months.

3.2 Livestock Production

Livestock production is the main livelihood activity in the county. The main livestock species include cattle, goats, sheep and camels. Livestock production contributes 85 percent and 60 percent of cash incomes in the pastoral all species and agro pastoral livelihood zones respectively. Goats followed by sheep are ranked the most important in terms of contribution to cash income in the pastoral all species livelihood zone, while sheep followed by goats play a similar role in agro pastoral livelihood zone.

3.2.1 Pasture and Browse

The current pasture and browse situation in the agro-pastoral zone is good, normal and is projected to last for 2 to 3 months while in the pastoral zone it is fair, below normal and expected

to last for 1 month. The areas in pastoral zone that are adversely affected include Waso and Wamba in Samburu East Sub-County and Nyiro in Samburu North Sub-County. The pastures in Baragoi are inaccessible due to insecurity, cattle rustling and the disarmament exercise. The deterioration in pasture in those areas is likely to negatively impact on the livestock body conditions and consequently milk availability at household level will decline. Migrations of cattle from Samburu East to Laikipia North and Samburu central Sub-Counties in search of pasture and water have been reported and concerns on possible resource conflicts have also been reported by the White Ranchers in Laikipia. Conflicts were also reported between Pokot and Samburu at the Amayani area (hot spot).

However, it is expected that the current rainfalls being experienced in some parts of the county like in Kirisia, Baragoi, Marti, Kisima and Suguta marmar will cause pasture regeneration in those areas leading into a longer projection period of good pasture situation in those areas. The agro-pastoralist who grows cereals like maize and wheat use the crop residues to feed their dairy goats and cattle.

3.2.2 Livestock Productivity

3.2.1 Livestock body condition

The current livestock body condition for all species is good and fair in the agro-pastoral and pastoral zones respectively. The projected trend of body conditions is expected to continue improving in areas which are currently experiencing light showers of rainfall but deteriorate in areas experiencing drought conditions particularly in the pastoral zones. The projected improvement in livestock conditions will provide access to livestock products as well as income. The projected deterioration in livestock conditions in the pastoral zones will result to food insecurity.

3.2.2 Birth Rates

Increased birth rates of about 40 percent for all livestock species were reported during the period under review and quite normal. This is attributed to good grazing resources, water availability and good body conditions for all the livestock species in both pastoral and agro-pastoral zones in the county. However the deterioration of pasture in the pastoral zone is going to impact negatively on the survival rates of young calves, kids and lambs and could be in danger if the next short rains fail.

3.2.3 Tropical livestock units (TLUs)

The average TLUs per household has not changed much and ranges from 10 to 14 in pastoral zone and 15 to 20 in the agro-pastoral zone depending on the income level of the households. The middle and poor households with less than 10 TLUs in pastoral are not food secure and especially when the grazing resource gets depleted.

3.2.4 Milk availability

Milk was available for most of the households this can be attributed to sufficient grazing resources and water availability for the livestock. Average milk availability ranged from 0.5 to 1 litre per day per household in pastoral zones and 1 to 2 litres in agro-pastoral zones. The availability of milk is normal in agro-pastoral zone but below normal in pastoral zone. However,

daily milk production is expected to decrease if the projected negative trend in grazing resources and water availability sets in.

3.2.5 Milk consumption

The current milk consumption at household level ranges from one litre/day to 750ml/day and normal in agro-pastoral zone but below normal in pastoral zone. The consumption is high in the urban areas of Maralal, Baragoi and Wamba where there is high demand by the growing population in such centres. The consumption level is still too low in the two zones for healthy household members especially the children and elderly in the community. The current average price of milk is Ksh 60 per litre and above normal price of Ksh 50.

3.2.6 Water for Livestock

The current water sources for livestock include the natural river wells, ponds, water- pans; bore holes, springs and seasonal rivers/streams. These are the same sources that provide water at the normal time of reporting. The average return trekking distance for livestock from pasture to watering point is 12 km in pastoral zones and less than 3 km in agro-pastoral zones. The distances are above normal in the pastoral zones by 2km because of the drought conditions being experienced in most of the areas in the pastoral zone in Samburu East and North sub-counties. The drinking frequency is 1-2 days per week in pastoral zones and almost on daily basis in agro-pastoral zones because water is readily available in the main sources. The trends in trekking distances and frequency are expected to increase gradually as the drought conditions sets in.

3.2.7 Migration

The current trend from fair to poor pasture conditions in the pastoral zone have seen cattle migrating within the county and outside the county. For instance migration patterns noted within the county include; from Samburu East to Samburu Central (i.e. Lodogokwe → Kiriimun → Kanampiu); Baragoi to Marti; Masikita → Suyani → Marti; Nachola → Lomeroko → Turkana border; Tuum to Mt. Nyiro/Wasorongai hills; Wamba to Laresoro; and Lorroki lowland towards Kirisia hills.

Migration routes outside the county reported include cattle moving from Samburu East Sub-County to; Laikipia North Sub-County; Merille area in Marsabit County; and Merti area in Isilolo County. The migrations are mainly in search of pastures and water. The disarmament tension in Samburu North Sub-County is also a reason for the people to move their livestock from Lomeroko towards the Turkana Border.

The migration patterns described above are likely going to impact negatively to the food security status of the county. The movement of cattle outside the county will mean lack of access to milk and meat by Samburu county people rendering them food insecure.

3.2.8 Livestock Diseases and Mortalities

Foot and Mouth disease (FMD), East Coast fever (ECF) and Nagana in cattle have been reported in agro-pastoral and pastoral areas as a result of the livestock moving from Samburu East. ECF has been specifically reported in Kisima, Lolmog and Krimoni. CCPP in goats, Enterotoxaemia and Pox in sheep and Newcastle in poultry were the major livestock diseases reported in the two livelihood zones. Current mortality rates reported were 5, 15, 9 and 1.3 percent in cattle, goat, sheep and camel respectively. All the reported rates are normal except for goats. The high

mortality in goats is due to CCPP complicated by a diarrhoea syndrome suspected to be a mild case of PPR. Goat is the most important trading commodity in the county and the immediate impact would be decline in household food supply due to the chronic and debilitating nature of the disease.

3.3 Water and Sanitation

3.3.1 Major Water Sources

The main water sources in the County are boreholes, water pans, springs and small dams. Currently, there are few streams with flowing water due to the current intermittent rains in some areas. Small pans and dams water levels are decreasing in most parts of Samburu East and North. The central part of the county is blessed with fair rainfall distribution that had increased both the surface and ground water levels. The available water in the dams and pans is expected to last for 3 months in Samburu East and North and 6 months in Samburu central.

3.3.2 Distances to Water Sources

There has not been any notable changes in return trekking distance to water sources. The distances have remained between 0.5 - 10 kilometers as most water sources remain the same. In areas that the major sources are pans and dams the walking distance has slightly decreased since the onset of rains.

3.3.3 Waiting Time at the Source

Waiting time in the agro-pastoral zones is less than 10 minutes while in the pastoral areas, the waiting time ranges between 20 minutes to 30 minutes. However, in the pastoral areas of Lerata, waiting time goes beyond 5 hours due to a fault with the generator that is used to pump water. Immediate intervention is required in Lerata water supply to address the acute water problem and safeguard community from eminent water borne diseases.

3.3.4 Water Consumption and Cost

Consumption of water in the agro-pastoral livelihood zones averages at 20 liters per person per day while the consumption levels range from 7.5 to 15 liters per person per day in the pastoral livelihood zones. The cost of water remains the same at Ksh. 2-5 per 20 liter jerry can at some water sources.

3.3.5 Hygiene and Sanitation

Water treatment at house hold level is not practiced in most areas. There are reported cases of contamination of water sources especially the open sources. Some of the possible sources of water contamination include; wild animals, livestock and human waste and surface run-offs.

There is also complaining of high salinity of water from the main well source at Ngutuk Ongiron. It is assumed the water is causing swelling of legs and retention of urine in children and adults. Therefore there is need for the water to be sampled for both bacteriological and chemical analysis

3.4 Markets and Trade

3.4.1 Market Operations

Main markets in the pastoral zones are; Baragoi, latakweny, lolkuniani while in the agro pastoral areas are; Maralal, Suguta Mar Mar and Lekuru. Market functions were normal within most town centers across the county. However the perceived insecurity in the pastoral livelihood zone of Baragoi has negatively affected the market functions. Few traders are willing to travel to Baragoi for fear of being attacked. As a result, most households in Baragoi are forced to travel long distances in search of alternative markets.

3.4.2 Market Supply and Traded Volumes

Most food commodities are available in the local markets spread across the county. The main food commodity market is Maralal while those for livestock are Archer`s Post, Lengusaka, Baragoi, Opiroi, Malaso, Ndonyo Nasipa, Latakweny, Ngurunit, Lokul and Lpus. Although most of the livestock markets are located in remote areas, they determine livestock supply volumes into Maralal and Lolkunian which are the distribution centers for outside markets.

The normal supply sources for maize and beans are Laikipia and Nyahururu and the agro pastoral areas. Some traders are sourcing them from Meru and as far as Nairobi. This has a significant bearing on the prices at different levels of demand in all the livelihood zones.

3.4.3 Commodity Demand

The demand for cereals in the pastoral all species is normal as they are net buyers of the commodities. However in the agro pastoral area, the demand is comparatively lower owing to the stock held from the 2012 short rains and from current season production.

3.4.4 Market prices

3.4.4.1 Maize Prices

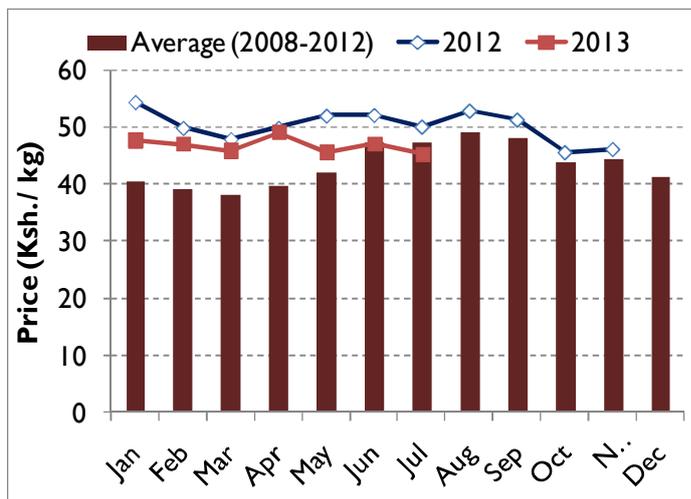


Figure 2: Average Maize prices

The price of maize was slightly below the 2008-2012 long term average and on a declining trend since April 2013 when it was at the peak of Ksh 49 as shown in figure 2. The prices were however lower than in 2012. The downward trend in the price of maize is attributable to good harvests realized in the agro pastoral livelihood zone. Maize prices were highest in the pastoral areas ranging Ksh 50 to 80 per kg mainly due to high transport costs. The agro pastoral zone recorded the lowest prices at Ksh 30 per kg.

3.4.4.2 Goat prices

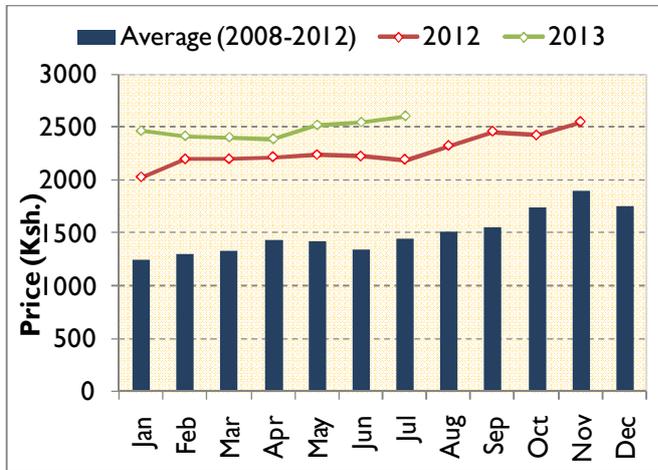


Figure 3: Average Goat prices

Generally, goat prices were above the 2008-2012 average and on an upward trend as shown in figure 3. The increase in price was partly attributed to good body condition and reduced market supply. Currently goat prices range between Ksh. 2,500 to Ksh. 5,000.

This situation is expected to be stable as there is availability of browse in most parts of the county. This is however a normal situation at this time of the year.

3.4.5 Terms of trade

The terms of trade for Turkana are currently favorable and above the long term average to the pastoralists. The sale of one goat is able to purchase 57.4 kg maize compared to the long term average of 30 kg of maize. The terms of trade were also above the 2012, where the sale of one goat would purchase 44 kg of maize.

This situation is uniform across the whole county. However it is expected to change as the household maize stocks reduce affecting prices.

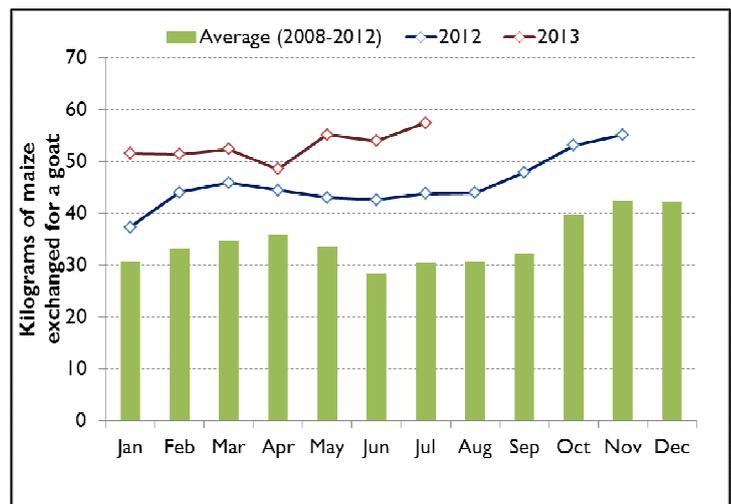


Figure 3 Terms of Trade for Samburu County

3.5 Health and Nutrition

3.5.1 Morbidity and Mortality Patterns

Main diseases reported for the under fives and the adults were malaria, diarrhea, eye infections, upper respiratory tract infection and skin diseases. The diseases kept on fluctuating throughout the year going up and down for the adults as well as the under fives without any clear patterns though high number of children were treated for upper respiratory diseases in Jan 2013 but lower than the previous year. Between the month of Jan and June there were 77 cases of dysentery reported with no deaths. This was a reduction compared to 108 cases in the same period in 2012. There was no outbreak of cholera or measles in the years 2011 to 2013.

Crude Mortality Rates (CMR) stood at 0.19/10,000/day while the under-fives mortality rates (U5MR) stood at 0.36/10,000/day (World Vision and Ministry of public health survey results Jan 2013). These rates are below the emergency threshold indicating a stable situation. Improvements were attributed to sustained interventions.

3.5.2 Immunization and Vitamin A Supplementation

Immunization coverage stood at 49.3 percent which falls below the national target of 80 percent. This implies children are less protected from immunizable diseases. The coverage in 2012 was 78 percent. This drop in immunization could be attributed to lack of outreach this year due to low funding in addition to nomadic lifestyle. Vitamin A supplementation stood at 47.1 percent for the children under 1 while for children aged 1 to 5 years, it stood at 46.8 percent. Coverage was below the national target of 80 percent. Coverage in 2012 for both children under and above one year was 41 and 40 percent respectively.

3.5.3 Nutritional Status and Dietary Diversity

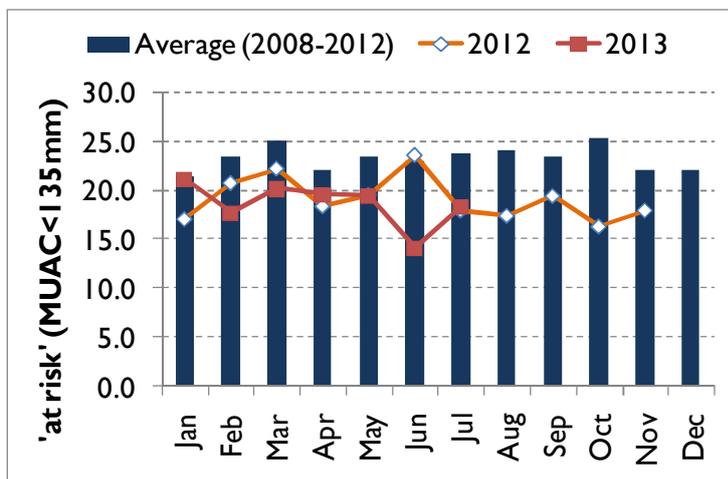


Figure 4: Percent of children at risk of malnutrition

The nutrition status of children under five years remained stable and within seasonal norms. The percentage of those at risk of malnutrition as measured by MUAC <135 mm slightly went up in July (18.4 percent) from 14.2 percent in June. The current trend of children at risk of malnutrition remained below the long term average as shown in figure 4. The percentage at risk was 8.7 and 21.6 percent in the agro pastoral and pastoral livelihood zones respectively. Food handling, child care practices and migration of animals contributed majorly to the

high percentage of children with MUAC<135mm especially in the Pastoral zones.

Global Acute Malnutrition (GAM) rate for Samburu Central was at 10.9 percent and Severe Acute Malnutrition (SAM) rate was at 1.4 percent, GAM and SAM rate for Samburu East and North was 14.3 and 2.4 percent respectively. Dietary diversity is good in agro pastoral livelihood zone with households consuming 3 meals and an average of 4-5 food groups while it was fair to poor in pastoral areas who are currently taking 1-2 meals comprising of 2- 3 food groups. According to WFP Food Security Outcome Monitoring (FSOM), 33, 29 and 38 percent of the households had poor, borderline and adequate food consumption scores respectively. This was an improvement from the situation in December 2012 which was 53, 29 and 18 percent respectively.

3.6 Education

3.6.1 Enrolment

The enrolment for public Early Childhood Development (ECD) and primary school rose steadily by 5.8 percent this year (86,462) in comparison to 2012 which was 81,687. Overall enrollment in primary schools for girls is lower than that of boys by 17 percent. The disparity in enrolment is attributed to ignorance of the community in the girl child education and the retrogressive cultural practices associated with the girl like early marriages. The average attendance in public schools was about 90 percent. This good attendance is attributed to the school meals programme

3.6.2 Dropout rate

Drop out cases now stands at 25 percent in preschools. While in primary schools drop out cases are at 45 percent for boys and 50 percent for girls. This is brought about by early pregnancies and early marriages for girls while moranism and insecurity in the society forces the boys to drop out of school and defend the community from cattle rustling. Another reason for drop out cases across sex in preschool and primary schools is the danger of wild animals especially in Mugur and parts of Wamba.

3.6.3 Transition

On average, the transition rate from ECD to primary schools is 80percent while from primary to secondary school is 65 percent. Low transition rates to secondary school for girls were mainly due to pregnancies, early marriages and household chores while boys go to become morans. Lack of school fees and the sparsely distributed secondary schools was affecting transition rates for both boys and girls.

3.6.4 School meals programme

The presence of School Meals Programme (SMP) has generally led to an increase in enrollment and retention. Currently 148 primary schools and ECD centers are benefiting from the regular school meals program. Challenges facing the programme include delayed deliveries, inadequate water and firewood for food preparation.

3.7 Coping Mechanisms

Households in this county were employing normal coping mechanisms which included: Borrowing from friends, sharing food, reduction in number of meals and buying food on credit.

The coping strategy index was 23.4 in May 2013 up from 18 in December 2012, implying more households were now increasingly employing insurance coping mechanisms. (WFP FSOM May, 2013).The coping strategy index was 0.24 in the pastoral livelihood zone and 0.18 in agro pastoral livelihood zone. Overall CSI in July was 0.23 compared to 0.24 in the month of June implying a stable food security situation in the agro pastoral zone and a slightly declining situation in the pastoral areas. (National Drought Management Authority - NDMA, July Bulletin).

3.8 Food Security Prognosis

The food security situation is likely to continue improving in the agro pastoral livelihood zone in the next 2 to 3 months, after a good season and owing to the ongoing precipitation which will further improve the forage situation and water availability. The water consumption in the agro

pastoral areas is also expected to remain above the 15 liters per person per day threshold in the next six months.

The food security situation in the pastoral livelihood zone is however likely to deteriorate in the next one to two months as the remaining pastures get depleted. In most pastoral areas pasture is expected to last for one month. Some of the pastoral areas that are likely to deteriorate to crisis phase in the next two to three months include Waso and Wamba in Samburu East Sub-County and Nyiro in Samburu North Sub-County and Baragoi due to insecurity, cattle rustling and the current disarmament exercise. Livestock diseases currently experienced in the pastoral areas are likely to worsen the situation unless urgent measures are put in place.

3.9 Ongoing (Sectoral) Interventions

3.9.1 Food interventions

- School meals program in 148 primary schools and ECD centers by World Food Program (WFP) and the Ministry of Education
- General food distribution targeting 32,900 beneficiaries being implemented by WFP and the government
- Protection ration program also by Ministry of Health (MOH) and WFP targets 1,872 recipients
- Supplementary feeding program targeting 2,906 beneficiaries across all health facilities, being implemented by the Ministry of Health (MoH) in partnership with United Nations Children Fund (UNICEF), world vision and International Medical Corps (IMC).

3.9.2 Non- food interventions (food security related)

Table 4: Ongoing non food intervention

Intervention	Location	No. of beneficiaries	Implementers	Impacts in terms of food security	Cost	Time Frame
Agriculture						
Integrated food security programme	County ASAL wide	15,000	MOA & LF	Increased production & enterprise diversification	34M	Completed
Promotion of traditional and high value crops	County wide	18,000	MOA	Increased food production	3M	On going
Promotion of drip irrigation	Tuum and Kurungu	13,000	MoA/Red cross / NIB	Increased vegetable production	3 M	On going
Livestock						
Livestock Breeds Improvement	Kirisia & Lorroki	1,200 farmers (40 borans, 300 galla goats and 600 cockerels)	World Vision/Livestock department	Increased livestock productivity & incomes	10 M	2013-2016 (3 years)
Dairy goat project	Lorroki	5,000	FARM-AFRICA/Livestock	Increased livestock productivity and income	2.5 M	2013-2014 (1 ½)

Intervention	Location	No. of beneficiaries	Implementers	Impacts in terms of food security	Cost	Time Frame
			department			years)
Pasture improvement and conservation	Wamba	12,000	SNV through SIDEP/GoK	Increased livestock productivity	3 M	1 year
Rehabilitation of Legusaka market	Wamba	30,000	ACTED	Increased household incomes	5 M	1 year
Water						
Construction rehabilitation of and maintenance of water supply systems	All divisions	130,000	GOK	Increased supply of water for livestock and domestic use	40 M	3 Months
Health and Nutrition						
Management of Acute Malnutrition	County wide	30,000	MOH,WVI,IMC			
Micro nutrient supplementation	County wide	30,000	MOH,WVI,IMC			
Infant and young child nutrition	County wide	30,000	MOH,WVI,IMC			

3.10 Divisional food security ranking (worst to best)

Table 5: Divisional ranking (worst to best)

Division	Food Insecurity Rank (1= Worst)	Factors affecting food security
Baragoi	1	<ul style="list-style-type: none"> Insecurity, poor road network, poorly integrated markets, High food prices, poverty ,migration, disarmament
Nyiro	2	<ul style="list-style-type: none"> Poor rains, influx of animals from Tuam, Insecurity, poverty, High food prices, poor road network
Wamba	3	<ul style="list-style-type: none"> Poor rains, pasture depletion, Market disruption /Banditry, poverty, poorly integrated markets
Waso	4	<ul style="list-style-type: none"> Influx of animal from Isiolo, High food prices, poverty, pasture depletion
Kirisia	5	<ul style="list-style-type: none"> Poor road network, Insecurity, High food prices
Lorroki	6	<ul style="list-style-type: none"> Poor road network

4.0 RECOMMENDED INTERVENTIONS

4.1 Monitoring required

The current food security situation requires monitoring across all the divisions to mitigate the adverse effects on household food availability and accessibility. Other indicators requiring close surveillance include:

- Insecurity and cattle rustling
- Livestock diseases and migration
- Food commodity prices

4.1 Food Intervention Required

Table 6: Food Aid Recommendations

Division	Population in need (% range min-max)	Proposed mode of intervention	Remarks
Baragoi	35-40	GFD	
Nyiro	30-35	GFD	
Wamba	30-35	GFD	
Waso	25-30	GFD	
Kirisia	-	-	No food aid intervention required
Lorroki	-	-	No food aid intervention required

4.2 Non-food interventions recommended

Table 7: Non food interventions recommended

Intervention	Sub-County Division	No. Of Beneficiaries	Proposed Implementers	Required Resources	Available Resources	Time Frame
Agriculture						
Provision of ploughing implements (tractors)	Poru, Loosuk, Longewan, Logorate, Lolmolog, kirimun Sirata, Lpartuk, Angata Nanyukie and Baawa	40,000	MOA-AMS	5 M	Planting Seasons	October 2013
Provision of certified seeds and fertilizers	All Agro-pastoral Areas	8,000 households	MOA	7.5 M	Planting Seasons	October 2013
Livestock						
Livestock disease control and surveillance	County wide	150,000	GoK/local NGOs	6 M	Cold Chain Vaccination Gear	Immediately
Pasture improvement and conservation	County wide	48,000	GoK/county government	4 M	Technical Staff	October 2013-June 2014

Intervention	Sub-County Division	No. Of Beneficiaries	Proposed Implementers	Required Resources	Available Resources	Time Frame
Support livestock marketing systems and information	Lorroki and Kirisia	30,000	GoK/county government	20 M	Technical staff	July 2013- June 2014
Water						
Drilling and rehabilitation of boreholes	County wide	40,000	MoWI	15M		July 2013
Purchase of water browsers	County wide	35,000	MoWI	20 M		July 2013
Health and nutrition						
High impact nutrition interventions	County wide	30,000	MoH/WVI/ MC	5 M		July 2013- June 2014