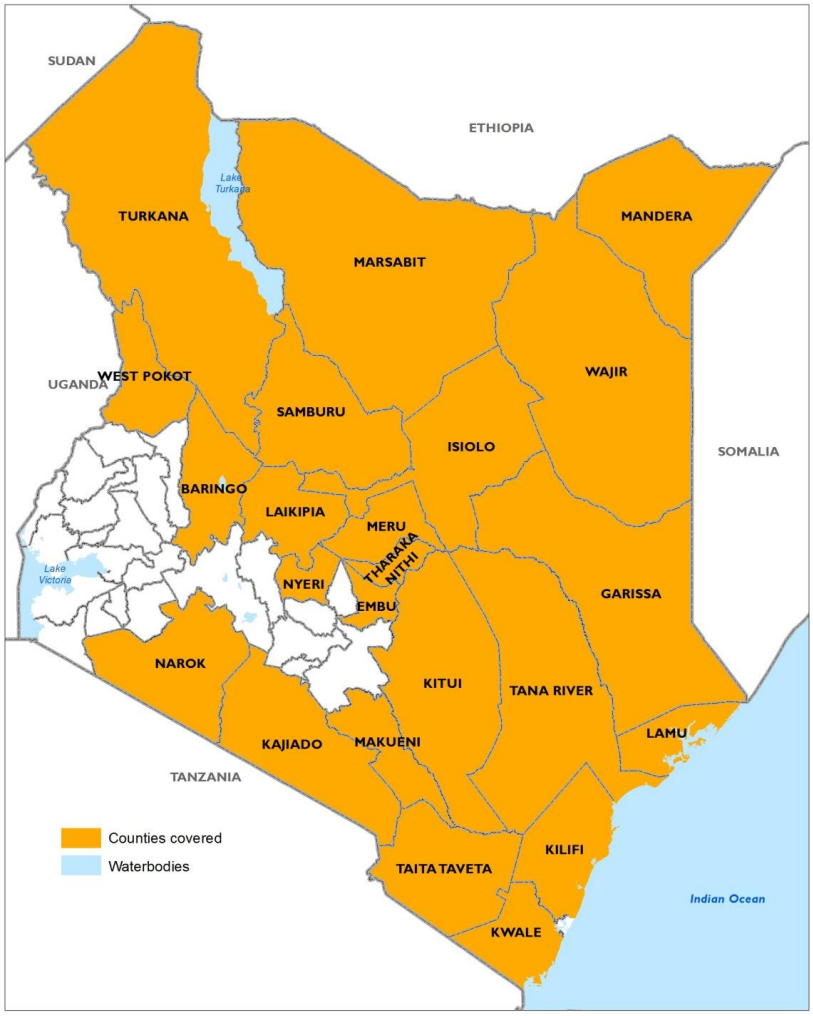
Government of Kenya

THE 2013 LONG RAINS SEASON ASSESSMENT REPORT

Kenya Food Security Steering Group (KFSSG)



Collaborative report of the Kenya Food Security Steering Group: Ministries of Devolution and Planning, Agriculture, Livestock and Fisheries, Environment, Water and Natural Resources, Health, and Education, Science and Technology, National Drought Management Authority, WFP/VAM, FEWS NET, FAO, CARE-Kenya, UNICEF, World Vision, ACF; with financial support from the Government of Kenya, FAO and WFP.

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Executive summary

Scope of the March-May, 2013 long rains assessment

Food security is largely rainfall dependent in Kenya. This makes the assessment of the performance of the bimodal nature of rainfall on crops and livestock of great importance. Basically, Kenya can be divided into two broad - the Arid and Semi-Arid (ASAL) zone and a Medium- to High- potential cropping and livestock zone. This report is a presentation of the 2013 long rains performance in the Arid and Semi-Arid zones covering all the pastoral livelihood zones, southeastern and coastal marginal mixed farming livelihood zones. While the long rain season is more reliable (primary) in the Medium- to High potential areas, it is less reliable (secondary) in the ASAL areas.

A total of 23 counties were covered during the assessment that was conducted between August and September 2013. The aim of the assessment was to evaluate the performance and impacts of the 2013 long rains on; water quality and access; crop and livestock production; nutrition and health; markets and trade; and education. In addition, considerations were given to the manner and extent to which hazards such as conflicts, floods, crop pests and high food prices, together with ongoing food and non-food interventions were affecting the level of food availability and household food access. The overall objective of the assessment was to provide an objective, evidence-based and transparent food security situation analysis following the long rains season of 2013, by taking into account the cumulative effect of previous seasons on key indicators. Moreover, the assessments targeted to give a timely food security prognosis as well as provide recommendations for possible response options. A summary of the findings is presented below.

Food insecure population

The population in need of emergency assistance declined from 1.1 million to 0.85 million, between February 2013 and August 2013, representing a 23 percent reduction. This is mainly attributed to the implementation of various resilient programs and average performance of the current and previous rainfall seasons. Of the total population in need of food assistance, 63 percent was located in the pastoral livelihoods in the northeast, northwest and agro-pastoral livelihood zones while 37 percent is located and equally distributed in the southeast and coastal marginal agriculture areas.

Food and Nutrition Security Status

Based on the effects of rainfall, availability of some food stocks at household level and replenished markets, and availability of milk, food security showed a general improvement or stability. However the situation is largely classified as Stressed (IPC Phase 2) in much of the southeastern and coastal marginal agriculture livelihoods, the pastoral northwest and northeast clusters and parts of the agro-pastoral cluster including West Pokot, Laikipia, Baringo, and Kajiado County. There were notable improvements to the Minimal (IPC Phase 1) in localized parts including the upper relatively high altitude areas of Makueni County and parts of Meru North County that received consistent and above average long rains and much of the agro-pastoral cluster.

Households in the Stressed Phase have reduced food consumption to minimally adequate consumption; however, they are unable to afford some essential non-food expenditure such as, medical care, education, purchase of seeds for the upcoming season, among others. Although the affected households are increasingly intensifying and applying more coping strategies, they are not engaging in irreversible coping strategies. Some of the coping strategies being applied include brick making, charcoal burning, and engagement in petty trade.

Nutrition status was assessed in terms of the proportion of children below five years `at risk' of malnutrition (with Middle Upper Arm Circumference (MUAC) <135 millimeters). Results indicated that the levels of nutrition had improved in much of the livelihood zones, remaining below the five-year average between February and August due to the effects of the long rains. In part, the decline in malnutrition was attributed to the ongoing supplementation programs and the generally good availability of milk across the livelihoods. Households could access at least one to two litres of milk per household per day between February 2013 and August 2013.

Effects of the 2013 long rain season

Although the long rains 2013 season was timely, it varied regionally with poor temporal distribution and ceased earlier than normal. The effects of the rainfall varied across sectors as well as livelihood zones.

National Maize supply and prices

By July 2013, slightly more that 13 million bags had already been harvested and through December, projections indicated that 18 million more bags would be harvested from the high- and medium- potential areas. If this harvest is realized, by February 2014, maize output will marginally be above the consumption level. In case the October-December short rains maize output turns to be average, that is 650,000 90 Kg bags, available maize by February is likely to be 6 percent above the consumption level even though the overall production will be marginally below average. In the event of a deficit, markets are expected to be well replenished with food commodities. Imports of maize through formal and informal cross border trade will increase to bridge the maize deficit. Already considerable amount of maize has been imported through the Kenya-Tanzania border in Taveta and supplying the southeastern and coastal markets.

However, the prices of maize among other cereals, fruits and vegetables are high above the five year averages driven by the below average production and the increasing expectation of below average to average harvest from the high- and medium-potential areas as from September. The wholesale maize prices in Kenya's key urban markets decreased marginally or remained relatively stable between July and August. The prices were lower than August 2013 by between 10 and 20 percent but remained above the five year average by between 9 and 15 percent except in Eldoret market where maize prices were marginally (2 percent) above the five year average. Retail maize prices increased marginally in the southeastern marginal mixed farming zone due to a slightly below five year average production. However, in the coastal marginal agriculture zones, maize prices declined as harvests from the long rains peaked in July and supply in the markets increased. Marginal declines in maize prices between July and August were also evident in parts of pastoral livelihood as supply from the maize growing zones hit the markets. Despite the increases or declines, the prices remained above five year average in all the markets

Livestock Production

The March-May long rains considerably enhanced the rangeland conditions across the pastoral livelihoods, and southeastern and coastal marginal mixed farming livelihood zones. As a result of the availability of and access to feed and water, livestock productivity marginally improved compared to the short rains season. Milk availability ranges from one litre in parts of the pastoral northwest cluster to as high as eight litres in high altitude parts of the coastal livelihood zone. There were notable improvement in milk production and availability by between 20-30 percent between February and June in the agro-pastoral cluster. Availability remained normal in the coastal and pastoral northwest clusters but below normal in the pastoral northeast and southeast clusters. Despite the availability of pasture and browse, the level of livestock ownership in terms of Tropical Livestock Units (TLUs) had not significantly improved. For instance in the coastal cluster, the livestock ownership in the cluster varied with livelihood zones, with the marginal livestock areas having 7 – 15 TLU and 1-3 TLU in the rest of the zones while in the pastoral northeast cluster, ownership varied significantly with 42 TLUs in Tana River County and 5 TLU in Isiolo County.

Water for human and livestock consumption

Water sources were by more than 50 percent recharged in much of the livelihood zones except in Taita Taveta County marginal mixed farming livelihood zone where recharge was as low as 20 percent of the normal. As a result, human water consumption was normal across all the livelihood zones, and ranged between 10 to 20 liters per person per day except in localized areas in northern Marsabit, eastern Isiolo and southern Samburu where water consumption is typically less than 10 liters per person per day. Water is also available for livestock and the trekking distances to water points and grazing were normal to below normal in much of the livelihood zones.

Pasture and browse conditions

Generally the rangeland conditions were good or fair in much of the livelihood zones. Pastures and browse regenerated significantly but were poor in marginal mixed farming livelihood zones in Kitui, Makueni, and Taita Taveta Counties. In these marginal mixed farming livelihood zones, pasture deterioration was accelerated by the early cessation of the long rains which prompted earlier than normal onset of the lean season. Notably, migration had started in parts of the pastoral northeast cluster in Wajir to dry grazing zones in Isiolo and parts of Mandera exerting pressure in the rangeland conditions in these concentration points. Besides, the pastures and browse regeneration in the southeast and coastal marginal mixed farming, there was substantial production of farm residues which could be used to feed livestock. Livestock body conditions are generally fair across all the livelihood zones.

Food Security Prognosis through February

The short rains are expected to be normal to below normal in much of the pastoral and marginal agriculture livelihood zones. Food prices, especially maize prices, are expected to marginally decline or remain constant through February driven by the likely below average maize output, making food access difficult. Rangeland conditions and livestock productivity is expected to follow seasonal trend deteriorating through November but recovering slowly than normal from December through February due to average pasture and water availability. As a result, food

security situation is expected to seasonally deteriorate from September through December. Already households food stocks are below five year average and majority of households will have depleted their stocks by end of October and will increasingly rely on market purchases. Market dependency will be high at a time when food prices are likely to be high making it difficult for households to access food from the markets. Availability of early green harvest from drought resistant crops is likely to be available from mid-December slightly improving food consumption. Slight improvement in maize supplies is not expected until after the short rains harvest in January/February 2014 based on the performance of the short rains from October to December. As a result, the Stressed (IPC Phase 2) may evolve into a Crisis (IPC Phase 2) with food gaps as from November through January especially in the rain fed lowlands mainly in the marginal mixed farming and parts of the pastoral northeast (Mandera) and northwest (Turkana and eastern parts of Marsabit) livelihood zones. A reprieve that will alleviate likely food gaps is expected from mid-December once households start consuming early green harvests from drought resistant legumes.

Options for response

The prevailing conditions and situation of food security provides several points for both short and long term intervention. Long term interventions that enhance the productivity target promotion of drought resistant crops besides provision of inputs in these arid and semi-arid areas, pasture reseeding, water harvesting, up-scaling nutrition intervention such as the High Impact Nutrition Interventions Package (HINI), health education and behavioural change awareness campaigns, up-scaling of integrated outreach programs, water treatment programs promotion of quality but relatively cheap and easy to use water treatment mechanisms including tablets, nutrition and disease surveillance, and community led total sanitation programme. In addition to these are immediate asset creation and cash transfer programs or equivalent in-kind food provision to sustain food access and demand while enhancing resilience in those localized areas where food insecurity is severe.

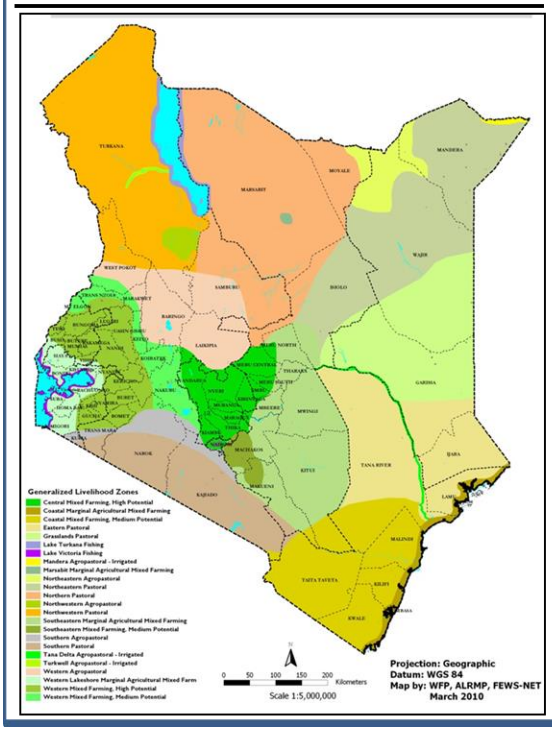
1.0 Introduction

1.1 Background and Objectives

The 2013 long rains assessment was coordinated and carried out by the Kenya Food Security Steering Group (KFSSG) including Government of Kenya (GoK) ministries, the UN, NGOs and key development partners. The coverage of the assessment extended to 23 persistently drought-prone pastoral, agro-pastoral and marginal agricultural Counties. The assessment covered almost 80 percent of the country's geographic area with diverse livelihood zones as shown in Figure 1.1. Specifically the following counties, grouped into five livelihood clusters, were covered during the assessment:

a) Pastoral Northwest Cluster (Turkana, Marsabit and Samburu Counties);
b) Pastoral Northeast Cluster (Mandera, Garissa, Isiolo, Wajir, and Tana River Counties);
c) Agro-pastoral Cluster (Baringo, West Pokot, Laikipia, Narok, Kajiado and Nyeri Counties);
d) South Eastern Marginal Agricultural Cluster (Tharaka-Nithi, Embu (Mbeere), Meru North, Makueni, and Kitui Counties); and
e) Coastal Marginal Agricultural Cluster (Taita Taveta, Kilifi, Lamu, and Kwale Counties).

Figure 1.1: Kenya Livelihood Zones



The overall objective of the assessment was to inform the government and food security and nutrition relevant organizations on the status of food security across the Arid and Semi-Arid areas. Moreover, the assessment aimed at identifying areas with high severity of food insecurity and the appropriate interventions, whether short or long term, required.

Specific objectives were to:

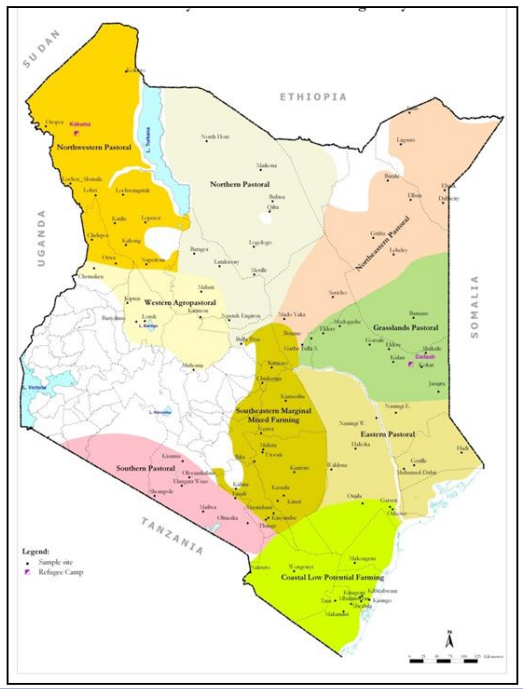
- Ascertain at the livelihood level, the quality and quantity of the 2013 long rains, and assess their impact on all key sectors including crop agriculture, livestock, water, and health and nutrition;
- Establish the impacts of other compounding factors such as conflict, crop pest and disease, relative high food prices and floods on household food security;
- Assess potential food needs, including options for, food for assets, cash for assets, hunger safety nets and general food distribution; and

- Establish required non-food interventions, with particular emphasis on programs that promote preparedness and build household resilience.

1.2 Assessment Approach

The overall assessment processes and methodologies were coordinated and developed by the KFSSG. First secondary data for all assessed Counties were collected and collated. Thereafter, the KFSSG organized a one week lessons learnt and training workshop for assessment teams. During the workshop, the teams refined sectoral indicators, and were taken through the entire assessment process, including, agro-climatic information analysis, sampling methods and field data collection techniques, integrated food security phase classification, estimation of population in need of emergency food assistance, and report writing. In addition, food security outcome monitoring indicators were also collected from 2,700 households situated in 90 sentinel sites. The outcome indicators that were collected included the coping strategy index, food consumption scores and household expenditure data. Figure 1.2 shows the sentinel sites from which the outcome indicators were collected. Each assessment team conducted a minimum of two community; two key informant; and two market interviews in each sample site. The teams also visited health and education institutions to gather relevant information. Visual inspection techniques were used during transect drives to obtain qualitative information. The field data was collated, reviewed, analyzed and triangulated to verify its validity. The NDMA drought monitoring bulletins, KFSSG monthly Food Security Update and 2013 nutrition survey reports provided important additional information.

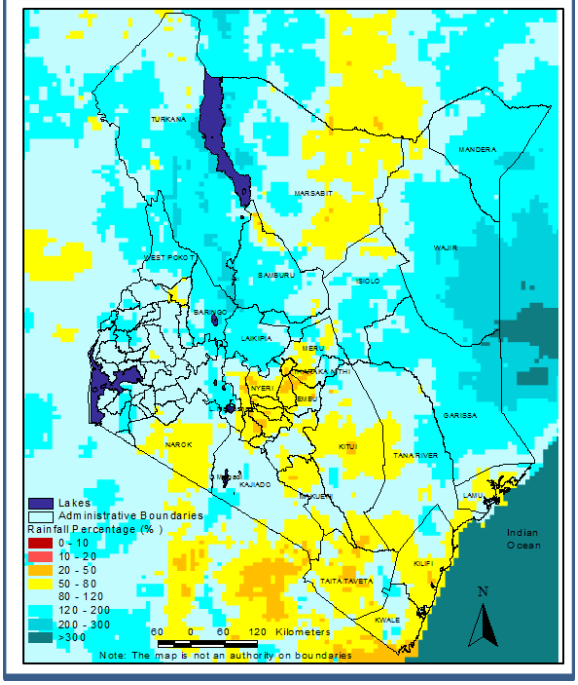
Figure 1.2: Sentinel sites for food security outcome monitoring



The KFSSG adopted a multi-sectoral and multi-agency approach covering the Agriculture, Livestock, Markets, Health and Nutrition, Water and Sanitation, Education and the Food Sectors. While the analytical framework is generally the sustainable livelihood framework with the livelihood zones being the focal areas, the required outcome is a detailed understanding of the changes in food security and identification of populations affected and in need of multi-sectoral assistance, particularly in the immediate and medium terms. Results from sampled areas were used, along with outcomes of discussions with the larger County Steering Groups (CSGs) and secondary data analysis to draw inferences for non-visited areas situated in similar livelihood zones. The findings and recommendations were provided at both the County and sub-County levels for planning purposes. The Food Security Integrated Phase Classification (IPC Version 2.0) was employed in categorizing severity levels of food insecurity.

1.3 Rainfall performance

Figure 1.3: Long Rains (March-June 2013) distribution.



The onset of the long rains 2013 season was timely, but varied regionally. The onset varied from 3rd week of February in parts of Agro-pastoral cluster to 3rd week of March in southeast marginal mixed cluster. Normally, onset is between 1st and 2nd week of March. A significant proportion of the pastoral northeast and northwest and parts of the southeast and coastal marginal agriculture received between 120 and 200 percent of normal (Figure 1.3). However, localized areas in the southeast and coastal livelihoods and pastoral northwest received below average (50-80) percent of the normal rainfall. The rains were generally well distributed but cessation in the first week of June across much of the Arid and Semi-Arid (ASAL) areas was relatively 2-3 weeks earlier than normal.

1.4 Maize supply and prospects

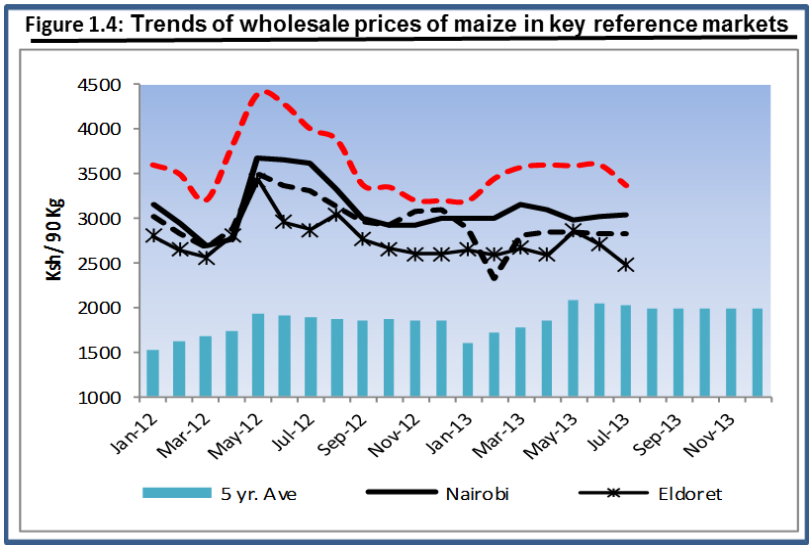
The national maize balance sheet is prepared from the Ministry of Agriculture food security reports and extrapolations for consumption undertaken. Consumption is estimated using a rate of 3.72 million bags per month for a population of 40 million. Considerations are given to pre- and post-harvest loses, animal feeds usage as well as loses emanating from shocks which may emanate from diseases, drought or floods. Due to the below average performance of the long rains, the total stocks held by households, traders, millers and NCPB range between 20 and 40 percent of the long term average except in pastoral northwest cluster which has between 20 and 30 percent above the long term average. By July 2013, slightly more that 13 million bags had already been harvested and through December, projections indicated that 18 million more bags would be harvested from the high- and medium-potential areas. In addition, factoring about 650,000 90-Kg bags from the short rains and including some 1.2 million bags of imports indicated that by February, maize supply could be 33 million bags (2.97 MT) inclusive of post-harvest losses and maize used for animal feeds. Seemingly, based on these parameters maize availability could be 6 percent above the domestic consumption by February 2014 (Table 1.1). However, it is notable that this analysis has not taken consideration the effects of Maize Lethal Necrotic Disease (MNLD) in the high-and medium-potential areas.

Table 1.1: Maize balance sheet from 31st July 2013 to February, 2014

Maize Balance Sheet through February 2014	90 Kg bags	MT
Stocks as at 31st July 2013 in 90kg bags	13,111,784	1,180,061
a) Total East Africa Imports* (cross border trade) expected between August 2013 to February 2014	850,000	76,500
b) Imports outside EAC between August 2013 to February 2014	400,000	36,000
Estimated harvest between August 2013 to December 2013		
a) Balance from long rains harvest up to December 2013	18,000,000	1,620,000
b) Short rains harvest projections in February 2014	650,000	58,500
Total available stocks by February 2013	**33,011,784**	**2,971,061**
Post –harvest storage losses estimated at 15%	4,764,268	428,784
Amount used as animal feeds (3% of household stocks)	559,500	50,355
Expected total exports to East Africa Community region		0
Expected exports outside the EAC region		0
Effects of MNLD (40% of 5-year average)	*	*
Projected national availability as at 31st December 2013 (90kg Bags)	27,688,016	2,491,921
CONSUMPTION @3.72 million bags/Month for 40 million people for 7 months (Through February 2014)	26,040,000	2,343,600
Balance as at February 2014 (surplus/deficit)	**1,648,016**	**148,321**
% of Surplus(deficit) above (below) consumption	6	6

1.5 Maize price trends

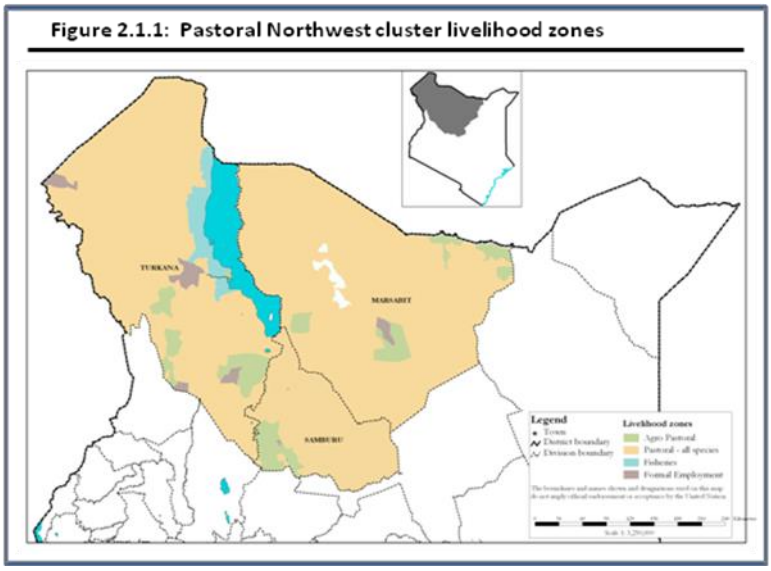
The Ministry of Agriculture (MoA) collects wholesale maize prices per 90 Kg bag across various markets. Wholesale maize prices declined marginally between June and July in major urban markets. Compared to February, wholesale maize prices in August have marginally declined (Figure 1.4). In Eldoret and Nairobi, the major grain producing area and consumption area respectively, wholesale maize prices declined marginally between February and July. However, in Kisumu, wholesale maize prices declined by seven percent over the same period. Despite these declines, July maize prices remained above the five year average except in Eldoret where prices were below average by almost 6 percent. The decline in maize prices in Eldoret could be attributed to the expected start of harvesting season in August, with average yields of maize being expected. Compared to July 2012, the July 2013 wholesale maize prices were lower by almost 15 percent.



2.0 Food Security Analysis by Livelihood Cluster

2.1 The Pastoral Northwest Livelihood Cluster

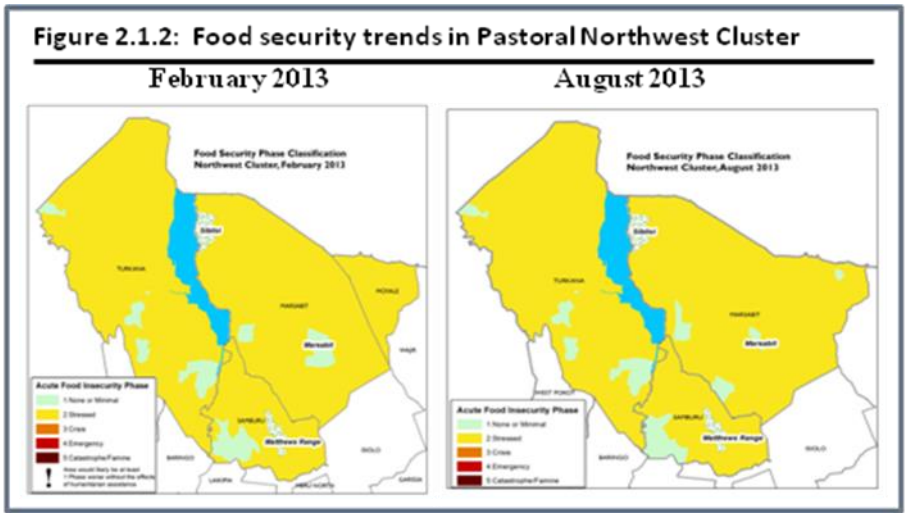
2.1.1 Cluster Background



The pastoral northwest livelihood cluster consists of Turkana, Marsabit and Samburu Counties. The cluster is approximately 173,876.5 square kilometres in size and has an estimated population of 1.37 million persons. The main livelihood zones in the cluster as shown in Figure 2.1.1 are pastoral, agro-pastoral and fisheries /formal employment /business/petty trade, which account for 69, 24 and 7 percent of the population respectively. Marsabit has the bigger percentage of the pastoral livelihood zone at 80 percent. Livestock production is the main source of income and contributes to 80 percent of household cash income.

2.1.2 Current Factors Affecting Food Security

The main factors affecting food security in the cluster were high food commodity prices in the market, escalation of conflicts over grazing resources predominantly in the pastoral and agro pastoral zone of Turkana and Samburu. Locust invasion occurred in northern Turkana between July and August. Other factors include poor road infrastructure in Samburu County, reduced livestock productivity in agro-pastoral area in Turkana and limited household food stocks in Marsabit County.



2.1.3 Food Security Trends

The cluster is generally classified in the stressed phase of food insecurity (IPC Phase 2). The trend is similar to the two previous seasons where the cluster has largely remained at the stressed Phase. However, there are exceptions in the Agro pastoral and irrigated areas in the

cluster which are classified in the None or Minimal Acute Food Insecurity Phase (IPC Phase 1). The situation has remained stable and has slightly improved as a result of the performance of the long rains season. Figure 2.1.2 shows the food security situation in August 2013 as compared to February 2013 after the short rains season.

2.1.4 Current Food Security Situation

The current food security has marginally improved after above average rains in much of the cluster with the exception of Eastern parts of Marsabit, which received 50 to 80 percent of normal rains. There was an increase of about five percent in maize production compared to the 5 year average in the agro pastoral livelihoods and stocks held at household level was 30 percent above the average mainly in Samburu County. Pasture conditions are good and above normal and is expected to last up to three months which has translated into improved livestock productivity. Milk availability is normal at 0.5 to 1.5 litres in pastoral livelihoods and 1 to 3 litres in agro pastoral zones. Water sources recharged by 80 to 90 percent of capacity and is expected to last between 1 to 3 months. Consumption of water is between 7.5 to 15 litres per person per day. Maize prices were four to six percent below the 5 year average with the exception of Turkana where prices were above average and terms of trade are favorable and remain above the 5 year average. The percentage of children under the age of five years at risk of malnutrition has improved and is below average.

2.1.5 Rainfall Performance

The onset of the long rains season was late by one week and started in the second week of March across the cluster with the exception of Samburu, which was timely. Rainfall was above normal and amounts received were 80 to 200 percent of normal. Spatial distribution was even except in Marsabit where the Eastern part of the county received rainfall amounts ranging between 50 to 80 percent of normal rains. Temporal distribution was fair with most of the rains received in the month of April. Cessation occurred earlier than normal in the first week of May instead of the third week of May. Of season showers continued to be received in the months of July and August.

2.1.6 Shocks and Hazards

The region experienced ethnic conflict as well as cattle raids resulting in human fatalities in Turkana as well as loss of livestock in Turkana and Samburu. The areas of conflict are in Turkana county borders with Samburu, West Pokot and international borders with South Sudan Ethopia and Uganda. Conflict areas in Samburu are those bordering Turkana, West Pokot and Isiolo.

2.1.7 Impact of Shocks and Hazards

2.1.7.1 Crop Production

Crop production is not a significant enterprise in the cluster and only contributes to about 10 - 15 percent of cash income. Area under maize increased marginally by four percent with a subsequent increase in production of five percent. About 77 percent of maize production was from Samburu County which received above normal and well distributed rainfall. The other parts of the cluster mainly depend on short rains for crop production.

Irrigated agriculture is still minimal with about 1,220 hectares under irrigation. Area under irrigation has however increased by 28 percent compared to the Long Term Average (LTA). Most of the irrigation is done in Turkana County with maize and sorghum being the main irrigated crops. Total production from irrigation has increased by about 54 percent compared to LTA.

Stocks held by households and traders are about 30 and 20 percent above LTA respectively mainly attributed to improved maize production in Samburu County. The current maize stocks are expected to last for about one to three months. Most households in the pastoral livelihood zones within the cluster however do not have any maize stocks and are dependent on markets purchases and relief food, which is normal.

2.1.7.2 Livestock Production

The Pasture and browse condition is good for both agro-pastoral areas and pastoral areas of the cluster with minor exceptions in some parts of Samburu East and North and North East Turkana where it is fair. Forage availability is projected to last three months in most parts. Areas around Kaeris, Lokitaung and Kibish divisions of Turkana have a locust invasion affecting pasture and browse availability. The major factor affecting access in the cluster is insecurity in areas such as Baragoi in Samburu North and Kibish and Lomelo in Turkana. Livestock body condition ranges from good to fair for all species. Trekking distances to water points are within the normal ranges of less than 10 kilometres, with the exception of eastern Marsabit where trekking distances was over 20 kilometres.

Milk availability to households range between 0.5 - 1.5 litres in pastoral areas and 1-3 litres in agro-pastoral and milk consumption is generally half the quantities available. Milk prices averaged between Ksh. 45 - 80 per litre and Ksh. 30 - 45, in pastoral and agro-pastoral zones respectively in the cluster with the exception of Marsabit with a range of Ksh. 100 - 120. Livestock migrations are minimal, mainly to dry season grazing areas. Some pastoral herds from Samburu East Sub County have migrated to parts of Laikipia. There was no outbreak of notifiable diseases in the cluster, though there is a report of East Coast Fever outbreak in Samburu.

2.1.7.3 Water and Sanitation

The main sources of water are rivers, boreholes, springs, pans/dams and shallow wells, and recharge of the surface water sources was up to 80 to 90 percent. Most sources have begun drying up and water is expected to last for the next three to six months months except in parts of Marsabit where the water may not last beyond September. Distances to water sources have remained within the normal range of a half to two kilometres in all the livelihood zones apart from Turkana where it is five to fifteen kilometres compared to one to three normally and Balesa, Dida and Galgallo in Marsabit where the distance is currently 12 kilometres.

Waiting time at the source is 10 minutes to one hour which is within the normal range with the exception of the pastoral zones of Turkana and Balesa, Korr and Dabel in Marsabit where the time is two, eight and four hours respectively. Water is sold at the normal price of two to five

shillings across all livelihood zones except Lokori in Turkana where prices have dropped from the normal Ksh. 10 - 15 to Ksh. five. Consumption of water ranges between 7.5 to 15 litres per person per day except in the agro pastoral livelihood in Samburu where consumption is currently 20 litres. In the pastoral zones in the northeast of Turkana and Huri Hills in Marsabit, consumption of water is two to five litres compared to 10-15 litres normally.

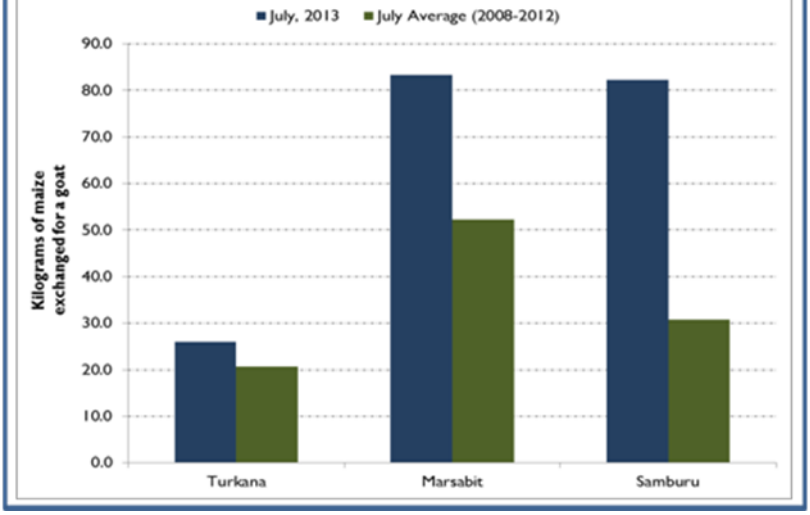
2.1.7.4 Market Performance

Market operations are normal in much of the cluster. However, disruptions were noted in the pastoral zones of Turkana County especially in Kainuk due to poor infrastructure, high transportation cost and insecurity. Perceived insecurity in the pastoral zones of Baragoi in Samburu County also affected the market functions. There was a decline in the traded volumes for both livestock and maize supplies in Marsabit and Turkana owing to unwillingness by pastoralist to dispose of their livestock while the decline in maize supply was occasioned by reduced production from Ethiopia, which is the main source of supply.

Maize price in the cluster ranges from Ksh. 42 per kilogram in Marsabit County to Ksh. 77 in Turkana. However, in the pastoral zone of Kibish in Turkana the maize retailed at Ksh. 120 per kilogram. Generally, the maize prices in the agro-pastoral livelihood zones were relatively lower compared to the prices in the pastoral zones. Maize prices were slightly below the long term average by four and six percent in Turkana and Marsabit respectively. However, prices remained above average in Turkana by 34 percent. This variation was due to good production realized in the agro-pastoral zones.

Goat prices in the cluster range between Ksh. 2,000 in Turkana and Ksh. 3,700 in Samburu. The prices have however, remained above the long term averages by 70 and 80 percent in Turkana and Samburu respectively and 38 percent in Marsabit. The prices have been declining since January with the exception of Samburu where the price trend since January has been increasing. The current terms of trade are favorable and above the long averages across the cluster and is highest in Marsabit where the sale of a goat would purchase 83 kilograms of maize compared to the long term average of 52 kilograms. Turkana had the lowest terms of trade where 29 kg of maize would be purchased from the sale of one goat as shown in Figure 2.1.3.

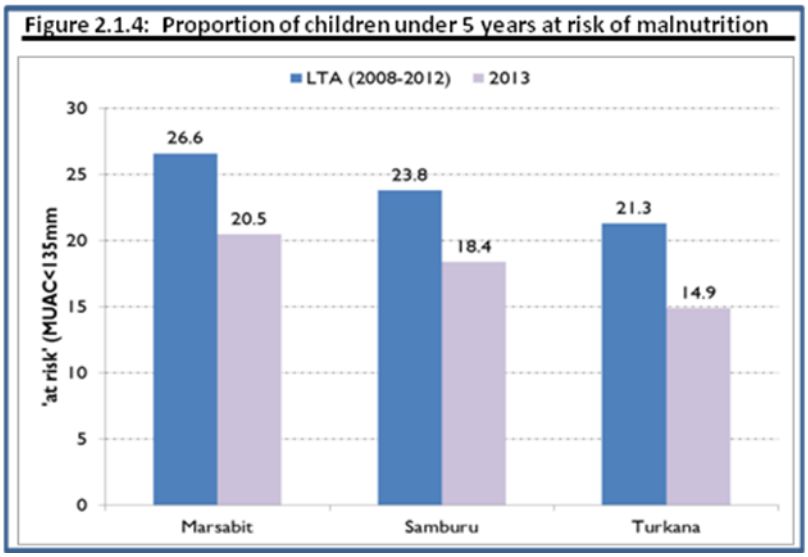
Figure 2.1.3: Comparative terms of trade in Pastoral Northwest cluster



2.1.7.5 Health and Nutrition

The leading causes of morbidity across the cluster were respiratory tract infections, malaria and diarrhea, their caseloads however reduced in 2013 as compared to 2012. In Samburu County, 77 cases of dysentery were reported while an upsurge in diarrheal diseases occurred in Turkana as a result of flooding especially along the lake region.

Immunization coverage across the cluster was below the national target of 80 percent and ranged between 49.3 and 74 percent. Vitamin A coverage across the cluster was also below the national target of 80 percent. Marsabit County had the lowest coverage for children above one year at 32 percent. Low immunization and vitamin A coverage predisposes children to diseases.



The nutrition status of children under five years remained stable and below the long term average across the cluster. However the pastoral areas of Samburu showed an upsurge of children at risk of malnutrition from 14.2 percent in June to 18.4 percent in July due to migration of livestock and insecurity. Currently, food consumption score improved in the cluster with 47, 24 and 29 percent of households having adequate, borderline and poor consumption as compared to 18, 29 and 53 respectively in December 2012.

2.1.7.6 Education

The cluster generally registered a decline in enrolment, with an exception of Samburu County which had the enrolment rise by 5.8 percent. The enrolment for boys was higher than that of girls. Preference is given to enrolment of boys as a way of investing in boys as opposed to girls. Dropout rates were generally high with Samburu registering the highest dropout rate for boys at 45 percent and girls at 50 percent. This is brought about by early marriages, pregnancies and provision of security against cattle rustling for boys. The rate of transition from ECD to primary and primary to secondary school was low. The low transition rates to secondary school for girls were mainly due to pregnancies, early marriages and household chores. Lack of school fees was affecting transition rates for both boys and girls. The ongoing regular school meals program, in all registered primary schools, is enhancing school attendance, retention, and increased syllabus coverage.

2.1.8 Coping Strategies

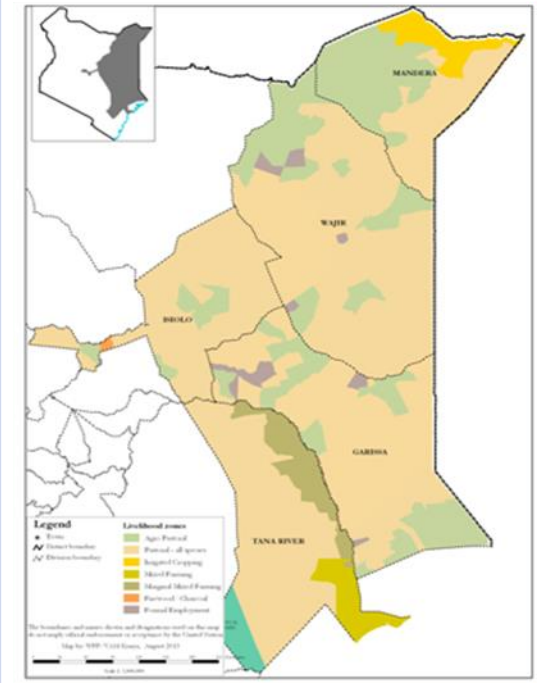
According to the food security outcome household monitoring data from the World Food Program (WFP), the May 2013 coping strategy index was about 20 for Marsabit, 23 for Turkana

and 23.4 percent for Samburu out of a maximum of 56. Households are applying the normal lean season strategies and no extreme coping is being applied in the cluster. Among the strategies households are employing include minimal reduction of the quantities and frequencies of meals, borrowing and sharing of food, charcoal burning, selling of firewood and breaking building stones.

2.1.9 Food Security Prognosis

The food security situation is expected to remain stable in most of the agro-pastoral livelihood zone in both Samburu and Turkana counties except in Marsabit, and no acute food insecurity is anticipated over the next five months in these areas owing to the off season precipitation which will further improve the forage situation and water availability. If the expected short rains are favorable, the pastoral and agro-pastoral areas are likely to improve further as the available pasture will be sufficient up to the next season. Crop production in the irrigation schemes would further improve availability of food. The pastoral livelihood zone is however likely to deteriorate in the next two to three months as the remaining grazing resources diminish. Distances to and waiting time at water sources are likely to continue increasing. Therefore, households are likely to continue experiencing shortfalls in food consumption. Malnutrition rates are likely to be on the increasing trend with the seasonal decline in the food security situation. However in Marsabit County the food security situation is expected to deteriorate further across all livelihood zones in the next three months. Livestock are likely to move further from their settlements in search of water and pastures aggravating the situation further. The food security situation is expected to begin improving across the cluster from the month of November when the impacts of the short rains are expected to rejuvenate pastures and replenish water sources across all livelihood zones.

Figure 2.2.1: Pastoral Northeast cluster livelihood zones



2.2 The Pastoral Northeast Livelihood Cluster

2.2.1 Cluster Background

The pastoral northeast livelihood cluster consists of Garissa, Isiolo, Mandera, Tana River, and Wajir Counties. The cluster covers an estimated area of 190,753 square kilometres and has an estimated population of 1.85 million persons. The main livelihood zones as shown in Figure 2.2.1 are pastoral accounting for 51.8 percent, Agro-pastoral at 19.2 percent, Marginal Mixed Farming at 9.6 percent, Mixed Farming at 7.6 percent, Irrigated Zone at 6.4 percent and Informal/formal employment/business/ petty trade at 5.4 percent. Livestock and crop production are the main sources of household income and account for 60 and 30 percent of total household income respectively.

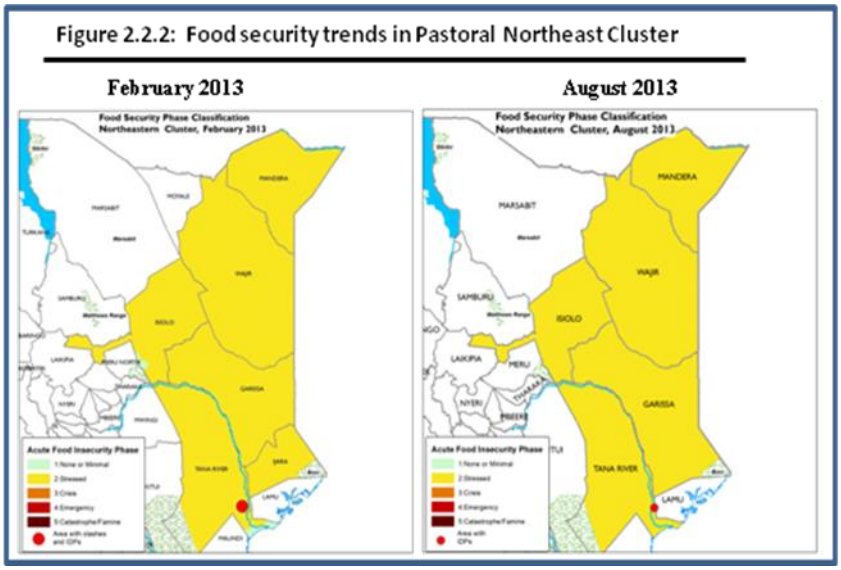
2.2.2 Current Factors Affecting Food Security

Factors affecting food security in pastoral northeast livelihood zone include; poor infrastructure, poor markets integration for agricultural produce and poor linkages within the value chain, high cost of essential food commodities, resource based conflicts, and human-wildlife conflicts.

2.2.3 Food Security Trends

In the last two successive rainy seasons (February 2013 and August 2013) the cluster was classified as stressed (IPC Phase 2). Although there are marginal improvements in indicators of food security, the thresholds were not enough to enable a shift from Stressed (IPC Phase 2) in February 2013, to Minimal (IPC Phase 2). The proportion of children below five years of age 'at risk' of malnutrition remained relatively stable between February 2013 and August 2013. Milk availability is relatively high compared to February 2013 and this has supported the marginal improvement in nutrition. There was a higher increase in those households with acceptable level of consumption than those who fell into poor consumption levels as indicated by the food consumption score between February and May. Figure 2.2.2 shows the overall food security situation compared to the situation in February 2013.

Figure 2.2.2: Food security trends in Pastoral Northeast Cluster



2.2.4 Current Food Security Situation

The food security situation in the pastoral northeast cluster is Stressed (IPC Phase 2). The amount of rainfall received during the 2013 long rains season was sufficient to generate pasture and browse and recharge water points. As a result rangeland conditions in August 2013 ranged from good to fair condition and livestock body conditions are good. Milk production is within the normal range of one to two litres in the agro pastoral and two to four litres in pastoral livelihood zones respectively. In the agro-pastoral livelihood zones which are rainfed and irrigated where some considerable crop and livestock production is undertaken, crop production performed dismally across the sectors in spite of sufficient rains because of inters clan conflicts and destruction by floods.

Household stocks are below long term average and there was considerable dependence on the market. However, income from livestock was enough to support food purchases and the terms of trade were favorable in much of the livelihood zones and thus households could afford minimum

food requirements. Water consumption is 10 – 15 litres in the Agro pastoral and seven to eight litres in the Pastoral livelihood zones.

2.2.5 Rainfall Performance

The onset of long rains was timely during the first week of March across the cluster with enhanced amounts being received across much of the cluster. The rainfall was evenly distributed across space except in parts of Isiolo. Similarly, temporal distribution was relatively good in much of the cluster. In parts of west of Mandera and northwestern parts of Wajir, parts of Isiolo, and much of Tana River Counties, rainfall ranged between 80- 120 of normal. Much of the cluster the rainfall was 120 to 200 percent of normal with eastern parts of Wajir and northeastern parts of Garissa Counties receiving between 200-300 percent of normal. Cessation was in mid-April being two weeks earlier than normal.

2.2.6 Shocks and Hazards

Several hazards occurred in the cluster. Mandera experienced floods washing away crops and rain water harvesting structure mainly water pans. The River Tana burst its banks and changed course hence displacing a segment of the population, destroying crops and flowing saline water into cultivated land. Protracted inter-clan conflict has led to displacement of a total of 10,000 households in Mandera and Wajir. The conflict has also hindered physical access to markets resulting in high prices of staple foods. Tana River and Isiolo Counties have also had communities in conflict due to ethnic differences, competition of pasture, browse and water.

2.2.7 Impact of Shocks and Hazards

2.2.7.1 Crop Production

Crop Production is not a major livelihood in the cluster, although both rainfed and irrigated agriculture are practiced. The key crops for food are maize, cowpeas and green grams. Despite the above normal rainfall amounts which could have improved crop development, the area put to crops especially maize, cowpeas, and green grams declined to 78 percent and 67 percent and 54 of the long term average respectively. This was due to inter-clan conflicts, lack of inputs, flooding, wildlife conflict, and pest threats. Similarly, the production of maize, cowpeas and green grams declined to 87 percent, 54 percent and 62 percent respectively below the long term average attributed to early cessation and poor temporal distribution of rains.

Irrigated crop production increased by 16 percent as a result of improved recharge of the shallow wells, availability of permanent water source and rehabilitation of irrigation schemes. However, production of the irrigated crops in Tana River decreased generally due to prolonged flooding. The stocks of maize held by households are below the long term average by 18 percent due to below average harvests in the previous seasons. The stocks with traders have increased by 42 percent of long term average to make up for the deficit.

2.2.7.2 Livestock Production

Livestock productivity performed fairly over the long rains season. Livestock body condition for all species was good and livestock birthrates were normal in all parts of the cluster. Household level of livestock ownership varied widely across the cluster and livelihood

zones with 42 TLUs in Tana River County and 5 TLU in Isiolo County. There was a positive trend to TLUs following successive relatively good rainfall performance.

Seasonal return trekking distances to water was generally between 5 to 10 km with a few exceptions of over 15 km as the case in Hareri Hosle and Kob Adadi in Mandera and some pastoral parts of Garissa. Water availability and access influences the watering frequency of livestock. In Isiolo, the improved water situation reduced watering frequency to daily for cattle, which is not the usual. As a result of the ensuing lean season, milk production was slightly below normal as many households in the cluster produce 2-4 litres per day as opposed to 5-6 litres. The price of milk ranges from Ksh. 45 in Isiolo to Ksh. 120 in some parts of Mandera. Due to the high prices, almost half of the milk is sold while half is consumed in the household.

In pastoral zones in the cluster, livestock have migrated to dry season grazing areas and this is the norm. Some of these areas include along rivers Tana and Daua, parts of Ethiopia, Merti and Garbatulla in Isiolo, and southern parts of Wajir. In much of the cluster, there is no threat of diseases except in few reported cases of PPR and FMD in Garbatulla and a suspected case of Anthrax in Mandera that led to vaccination of 2,000 camels. Contagious Bovine Pneumonia (CBPP) and Contagious Caprine pneumonia (CCPP) are endemic in the cluster.

2.2.7.3 Water and Sanitation

The seasonal water sources were expected to last up to mid-September 2013. Distance to water sources ranged between the normal of a half to five Kilometres across all the livelihood zones with exception of Bura Garissa in Garissa County and Hareri, Hosle and Kob Adadi in Mandera County where return distances are as high as 15 and 20 Km respectively due to drying up of water pans.

Waiting time at the source ranged between a minute to 10 minutes in the unrestricted open water sources and 10 minutes to an hour for boreholes across the livelihood zones while the cost of water was within the normal range of Kah.2-10 with exception of Bungale in Tana river County where there is no change from Ksh. 20- 25 per 20 litre jerican. Water consumption in litres per person per day falls within the normal range of 7 to 20 expect in the pastoral livelihood zones of Garissa where they are consuming 30 litres compared to the average 40 at this time of the year.

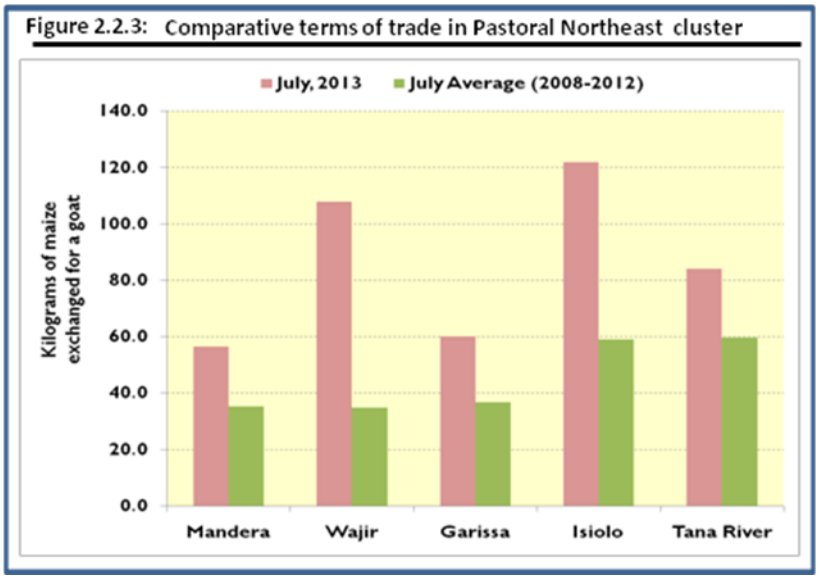
Hygiene practices are generally poor across all the livelihood zones with very minimal treatment of drinking water at the house hold level with the exception of Isiolo County where water treatment at house hold level was quite prevalent due to interventions by various stakeholders who offer assistance in both distributing water treatment chemicals and capacity building. Latrine coverage is relatively low ranging between 20 percent in Garissa to 35 percent in Mandera County.

2.2.7.4 Market Performance

Most markets in the cluster with t6he exception of Garissa experienced disruptions as result of inter-clan conflicts in parts of Wajir, Mandera, Isiolo and Tana River. Commodity supply to the markets declined due to insecurity emanating from the instability in Somalia, inter-clan conflicts,

poor road networks and floods which limited access to markets. Food demand is high across the cluster due to low market supplies and low production realized during the long rains season. However, the livestock demand in Garissa decreased as result low of purchasing power.

The prices of maize have remained stable but above the LTA across the cluster and range from Ksh.45 per kilogram in Garissa to Ksh. 79 in Mandera County. Goat prices have remained above the long term average across all the counties in the cluster and currently range between Kshs. 3,171 in Garissa and Kshs.5, 390 in Wajir County. The goat prices in Mandera and Garissa Counties have been declining as result of increased supplies in the market but low demand.



The terms of trade are above the long term averages and are favorable across the cluster. Isiolo has the most favorable terms of trade where the sale of one goat would purchase 122 kg of maize compared to the long term average of 59 kg of maize as illustrated in Figure 2.2.3. Mandera where maize recorded the highest price has the least favorable terms of trade in the cluster with the sale of one goat purchasing 56 kg of maize compared to the long term average of 35 kg of maize.

2.2.7.5 Health and Nutrition

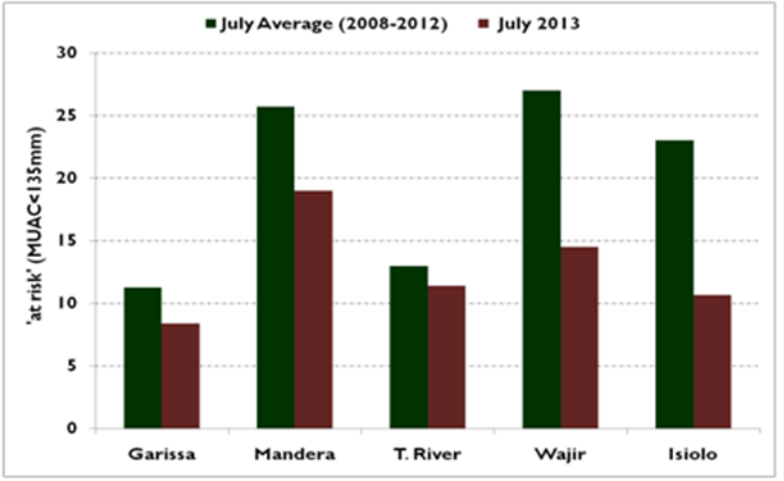
The top five most common diseases for both under-fives and the general population were Upper respiratory tract infections (URTI's), Malaria, Diarrhea, Skin diseases and pneumonia. There was no disease outbreak reported in the last six months across the cluster. However, 10 cases of polio was confirmed in Garissa County. Proportion of children fully immunized is below the national target of 80 percent with the exception of Isiolo County with 86 percent. Vitamin A supplementation for children aged between six and 11 months (41 to 85.8 percent) was better when compared to children aged between 12 and 59 months (6 percent to 75.5 percent) across the Cluster.

The Crude Mortality Rates (CMR) ranged from 0.14 to 1/10000 persons/day while the children less than five years the mortality rate (U5MR) was between 0.17 and 1.05/10000 persons/day with an exception of Garissa and Wajir Counties where mortality data was not available.

Despite the low levels of supplementation, nutrition status improved across the cluster with children at risk of malnutrition measured as proportion with mid upper arm circumference (MUAC) below 135 mm falling below the long term averages as shown in Figure 2.2.4. Results from integrated nutrition surveys have unveiled improved nutritional status as well.

More than 70 percent of households were consuming two meals a day which is normal for the cluster and the food consumption score is within the acceptable range. At least more than 50 percent of households were consuming more than four food groups which indicate that their dietary diversity is good. Although milk is available, access in the market is a challenge due to above normal prices and conflicts.

Figure 2.2.4: Proportion of children under 5 years at risk of malnutrition



2.2.7.6 Education

There was a general increase in enrolment across the cluster although marginal. There enrolment is in favour of boys. This disparity was attributed to retrogressive cultural practices. The marginal increase in enrolment was attributed to the implementation of School Meals Program (SMP) because children could access meals in schools. In Mandera, where all school were under the Program (SMP), the transition rate for boys was higher than that of girls transiting from primary school to secondary and stood at 80.2 percent and 19.8 percent respectively. The transition rate for ECD to primary school is 80 percent though he number of pupils admitted to primary school continue declining with time. However, in Tana River and Mandera Counties, security and migration were cited as a cause for reduced attendance as children migrated as herd boys. Transition rate across the Cluster was generally low. In Garissa County the Primary to Secondary a transition rates were 50 percent.

2.2.8 Coping Strategies

According to World Food Programme (WFP) data on food security outcome household monitoring, the coping strategy index increased across the cluster from 14 percent (SRA 2013) to 19 percent as of May 2013. The increase in the index signified deterioration in the food security situation, although households were not engaging in extreme coping strategies. Some of the strategies households were employing included minimal reduction of the quantities and frequencies of meals, borrowing and sharing of food, charcoal burning, selling of firewood and gum harvesting.

2.2.9 Food Security Prognosis

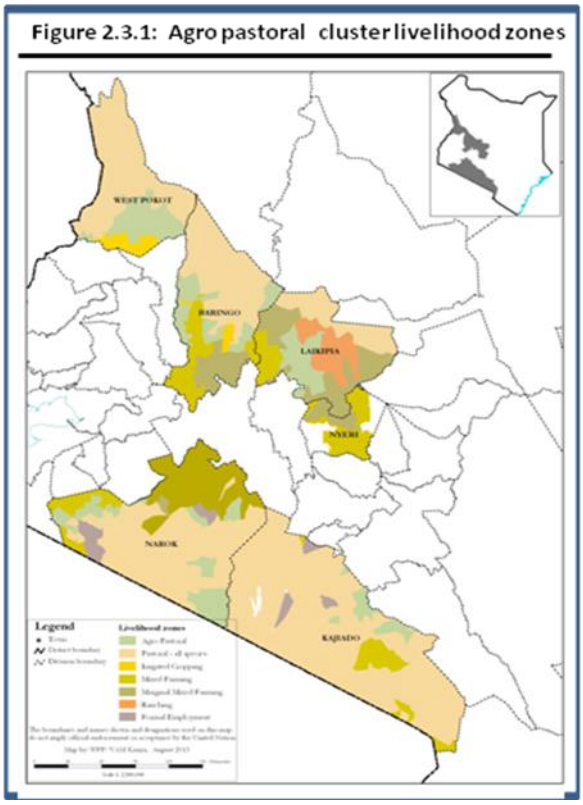
The food security situation in the northeast pastoral cluster is projected to deteriorate across all livelihood zones but still remain in the Stressed (IPC Phase 2) through December. Rangeland conditions are likely to deteriorate as available pasture and browse is expected to last one to two months and water for one month, that is, through October. Increase in trekking distances to water points will result in deterioration of livestock body conditions and decline in milk availability. For this livestock dependent region, decline in livestock body conditions is likely to translate into

lower household incomes. Livestock prices are likely to remain stable or marginally decline as livestock body deteriorates and more livestock is supplied into the market through the lean season. Meanwhile, maize prices are likely to stable or increase marginally as transportation cost increase due to likely increases in fuel prices reducing food access to the increasingly market dependent livelihood. Due to deterioration of food access and seasonal decline in milk availability, food security is likely to deteriorate but households will still be able to access the minimum dietary requirements. The poor road network and conflict/insecurity may contribute negatively to food security at household level in the cluster.

2.3 The Agro-Pastoral Livelihood Cluster

2.3.1 Cluster Background

Figure 2.3.1: Agro pastoral cluster livelihood zones



The Agro pastoral livelihood cluster is located in the south western side of Kenya. It consists of Kajiado, Narok, West Pokot, Baringo, Laikipia, and Nyeri (Kieni) Counties. The cluster covers approximately 71,757.7 square kilometers and has an estimated population of 2,945,217 persons. The main livelihood zones in the cluster are pastoral representing 26.8 percent, Mixed Farming at 31 percent, Marginal mixed farming at 19.5 percent, Agro-pastoral representing 11.3, Formal/tourism/trade/business representing 10.7 percent and irrigated at 0.7 percent.

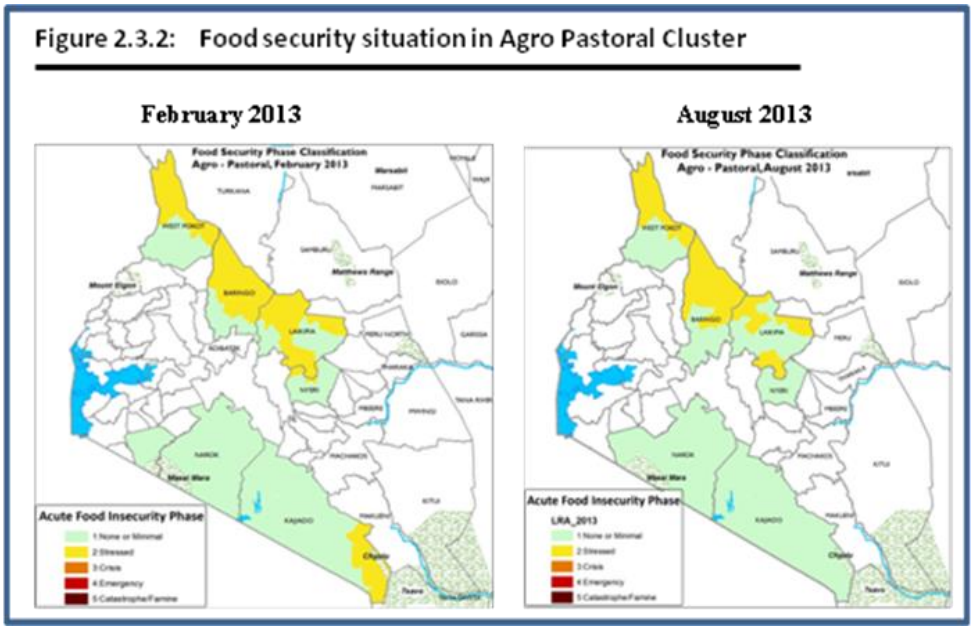
2.3.2 Current Factors Affecting Food Security

The main factors affecting food security in the cluster include erratic rainfall in the pastoral areas, crop and livestock diseases notably Contagious Caprine Plural Pneumonia (CCPP) and Maize Lethal Necrosis Disease (MLND) and human wildlife conflicts. Other factors include insecurity, poor road network, use of inappropriate farm inputs and poor post-harvest management.

2.3.3 Food Security trends

Generally food security situation in much of the cluster has remained in the None or Minimal food insecurity phase, as was in February 2013, after the short rain assessments, following two to three successive good seasons. However, the pastoral areas of West Pokot, Laikipia and Baringo are still in stressed phase classification (IPC Phase2). The southern tip of Kajiado which was under the stressed phase in February 2013 improved and the whole county is currently under the None or Minimal food insecurity phase. Figure 2.3.2 below illustrates.

Figure 2.3.2: Food security situation in Agro Pastoral Cluster



2.3.4 Current Food Security Situation

Food security situation in most of the cluster is at Minimal Acute food insecurity phase (IPC Phase 1) except in pastoral areas of West Pokot, Laikipia, and Baringo that are in stressed phase classification ((IPC Phase2). Livestock body condition and productivity was good due to accessibility and availability of water and pasture. Distance to water points were within the normal range in all the livelihoods zones, resulting in improved milk yields to five to 10 liters compared to the long term average (LTA) of one to five liters. Livestock prices are good and above average translating into improved pastoralist terms of trade at 90-108 percent of the LTA.

Crop performance improved across the cluster; area under maize and beans increased by 39 and 30 percent respectively, however, maize production is expected to increase marginally due to Maize Lethal Necrosis Disease (MLND), while beans will be reduced by eight percent. Food stocks held by households is expected to last for one to three months across the cluster except in Laikipia and mixed farming livelihood zones in West Pokot County where stocks are expected to last for 3-5 months. The number of children at risk of malnutrition was lower than the long term average in all counties, and ranged between 2% in Narok and Nyeri and 15% in Baringo.

2.3.5 Rainfall Performance

The onset of the rains was timely, between the last week of February and the first week of March, except in Nyeri, Kajiado where it was late by two weeks in the second week of March and Narok where it was early by two weeks. The amounts received were 80 to 120 of the normal, except in western Kajiado which received 50 to 80 percent of normal. Distribution was good in space but uneven in time with heavy rainfall received in April. Rainfall ceased in the second week of May, two weeks earlier than normal apart from Baringo and West Pokot where the rains continued into August.

2.3.6 Other shocks and Hazards

Other shocks in the cluster include outbreak of FMD in Mweiga, Nyeri; Maize Lethal Necrotic disease in parts of Nyeri and Baringo; displacement as a result of insecurity and floods in Baringo; as well as human wildlife conflict in Laikipia and Narok.

2.3.7 Impact of Shocks and Hazards

2.3.7.1 Crop Production

The area under maize and beans increased by 39 and 30 percent respectively and despite an increase in area under maize, production is only expected to increase marginally by two percent attributed to cases of Maize Lethal Necrosis Disease (MLND) in parts of Nyeri and Baringo Counties. However production of beans reduced by about eight percent. Projected maize production in the cluster is 3,764,969 bags out of which 54 percent is expected to come from Narok County. Irish potatoes production declined by about 40 percent attributed mainly to lack of certified seeds and attack by millipedes. About 62,250 hectares of wheat has been planted in Narok County and a harvest of 2,241,072 bags is expected. Irrigated crop production is mainly done in small irrigation schemes and by small scale farmers along river banks. The main crops grown under irrigation include tomatoes, cabbages and maize. Compared to the short term average, area under irrigation increased by about 30 percent as farmers continued putting more land under irrigation.

The maize stocks currently held by households is mainly from previous harvests and purchase from markets .The stocks are 68 percent of LTA attributed to low production in some parts of the cluster and sale of harvested stocks in areas where good yields were realized in the previous season. The stocks held by traders 92 percent of LTA. The stocks held by households is expected to last for one to three months across the cluster except in Laikipia and mixed farming livelihood zones in West Pokot county where stocks are expected to last for 3-5 months. In Narok County, the ongoing harvesting of maize is expected to increase households stocks as well as increase supply of maize into the market.

2.3.7.2 Livestock Production

Livestock body condition and productivity is good across the cluster due to accessibility and availability of water and pasture, with a corresponding improvement in milk availability by 20 to 50 percent, from the normal average of ½ -2 liters to 1-3 liters in most livelihoods. The cost of milk was within the normal range, at Ksh. 40 -60 per liter in the pastoral areas, and Ksh. 25 -35 in the other live hood zones. There was outbreak of Foot and mouth disease (FMD) in Mweiga in Nyeri. There were reported migrations, livestock moved from Samburu County to Rumuruti division in Laikipia and from Baringo North to areas bordering East Pokot attributed to poor pastures and insecurity.

2.3.7.3 Water and Sanitation

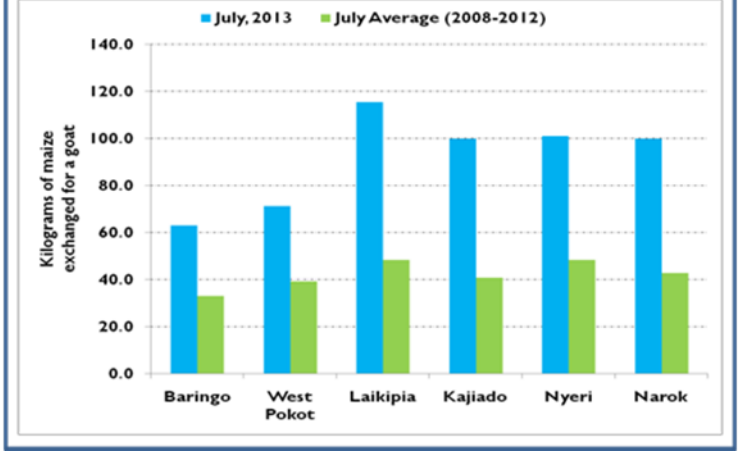
Most surface water sources were recharged at 50-90 percent of capacity, and water is expected to last for three months. The return distance remained within the normal ranges except in West Pokot and Baringo where the distances reduced to an average four to seven kilometres compared to five to ten normally, while the distances ranged between zero to three kilometers for the agro

pastoral, mixed farming and marginal mixed farming livelihood zones. Waiting time at the source was within the normal range of 1-10 minutes except in the marginal mixed farming zones of West Pokot and Nyeri where it was 40 minutes. Cost of water ranged between Ksh. 2-20 across all livelihood zones and was lowest in Laikipia at Ksh. 2-3 per 20 liter jerrican. Water consumption remained within the normal range of 10-25 liters per person per day. Latrine coverage is averaged 46 percent and 85 percent, lowest in Kajiado and highest in Nyeri.

2.3.7.4 Market performance

Market operations were normal across the cluster, except in Loruk market and Kambi ya Samaki fish landing in Baringo County which has been submerged by the upsurge of Lake Baringo. All the markets were well provisioned, and staple foods were sourced locally.

Figure 2.3.3: Comparative terms of trade in the Agro Pastoral cluster



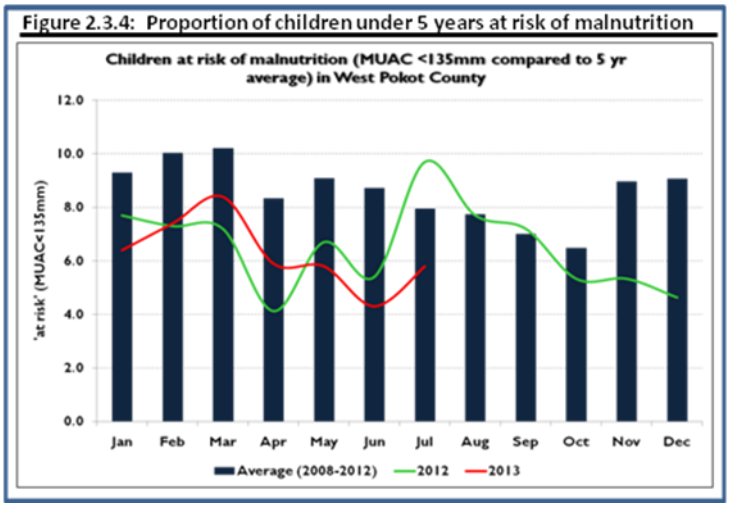
Maize prices are stable and below the LTA, and ranged between Ksh. 33 in Laikipia and Ksh 44 in Baringo, compared to the LTA of the Ksh 47-50. Goat prices were above LTA, and ranged between Ksh. 2,500 in West Pokot and Ksh. 4,250 in Nyeri compared to the LTA of Ksh 1,561-2,140. Consequently, the terms of trade improved between 77 percent in Baringo to 144 percent in Kajiado. Households were able to purchase 59 Kg of Maize from sale of a goat in Baringo and 100 Kg of Maize per goat in Kajiado.

2.3.7.5 Health and Nutrition

The most prevalent diseases for both the under fives and the general population across the cluster were upper respiratory tract infections (URTI), diarrhoea, skin infections, clinical malaria and pneumonia. In Nyeri County, rheumatism and hypertension were reported among the top five replacing skin and eye infections among the general population. Morbidity indicates a downward trend. No major disease outbreak was reported, however, 101 cases of dysentery were reported in Baringo.

The under five mortality (U5MR) ranged between 0.04 to 0.3 per 10,000 persons per day, while Crude mortality rate (CMR) was 0.1 to 0.6 people per day depicting below the cut off of one death per 10,000 persons per day. Immunization coverage was below the national target of 80 percent except for Laikipia and Nyeri counties which had coverage above the national target. West Pokot County had the lowest coverage of 43 percent. Vitamin A supplementation was below the national target and ranged between 52-66 percent. Households in the cluster were consuming two to three meals per day which is normal at this time of the year.

Figure 2.3.4: Proportion of children under 5 years at risk of malnutrition



There was a general improvement in the nutrition status across the cluster as compared to last year and the percentage of children at risk of malnutrition was stable. Narok and Nyeri had the lowest percentage of children at risk at 2 percent and highest in Baringo at 16 percent. Figure 2.3.4 shows the MUAC trend for West Pokot which illustrates the general trend across other Counties in the cluster. The proportion of children at risk remains significantly lower than a similar period last year and is also below the long term average. Exclusive breastfeeding rates were 45 and 67.8 percent in Kajiado and Laikipia Counties respectively.

2.3.7.6 Education

There was generally a slight increase in enrolment across the cluster except in Baringo County where there was 2.5 percent decline. Low gross enrolment was registered in Laikipia County where the enrolment stood at 71 percent. The dropout rate has remained low across the cluster as except in Kajiado which registered 3-8 percent dropout. The transition rate from ECD to primary ranges between 72 percent and 93 percent, with an exception of East Pokot with 50 percent. Transition rate from primary to secondary was at an average of 63 percent apart from Narok North and South registering 50 and 60 percent respectively. In Baringo County the average attendance declined from 90 to 86 percent. The school meals programme in the cluster are Expanded School Meals Programme (ESMP) with a caseload of s 90,568 pupils, Home Grown School Meals (HGSM) Programme with 224,993 pupils and Regular School Meals Programme (RSMP) with 5,3697 pupils. In schools where there are meals programmes limited dropout rates, minimal absenteeism and increased syllabus coverage was reported.

2.3.8 Coping Strategies

Households in the cluster are generally engaged in normal livelihood activities and coping strategies to meet food and non food needs across the livelihood zones. The mean coping strategy index ranged between 6 to 10 percent for Laikipia, Kajiado, Nyeri, while in Narok and West Pokot and Baringo CSI was 24 percent as at May 2013. Some of the coping mechanisms employed by households included reliance on less preferred and less expensive food, charcoal burning and sand harvesting especially in the pastoral livelihood zones.

2.3.9 Food Security Prognosis

Food security status in the cluster has generally remained at None or Minimal food insecurity phase for two to three consecutive seasons, except in the pastoral areas of West Pokot, Laikipia, and Baringo that are in stressed phase classification (IPC Phase2). The situation is likely to remain the same into the next season.

In the mixed farming zone and marginal mixed farming zone, crop and livestock productivity is expected to improve, as harvest is expected to commence in September/October, with a corresponding improvement in food prices and household stocks. Households will be relying more on their own production instead of the markets.

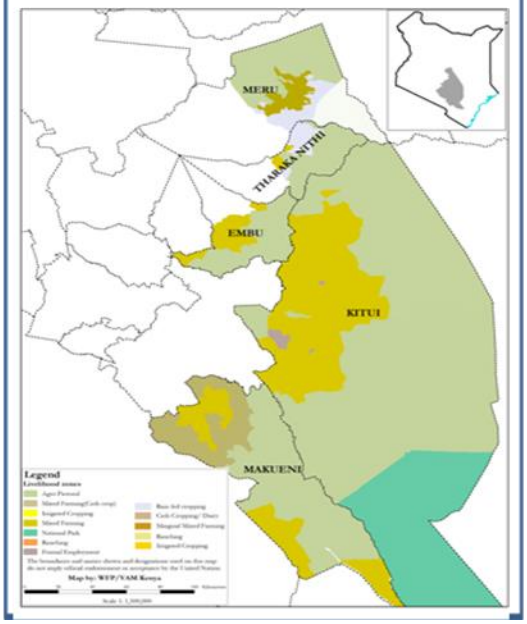
In the pastoral zone, the current good pasture and water condition, is expected to sustain the good livestock body condition and productivity with a resultant increase in livestock prices and terms of trade, milk availability and consumption into the next season. The situation will be further buoyed if the onset of the short rains is timely. From the aforementioned, the areas that are stressed, as result of insecurity and floods in West Pokot and Baringo are expected to improve as pasture and water situation improve. However, in Baringo incidences flooding are expected to soar in October/November. Nutrition status for the under fives is expected to improve across the cluster.

2.4 The Southeastern Marginal Agriculture Livelihood Cluster

2.4.1 Cluster Background

The South Eastern Marginal Agricultural cluster comprise of the greater Kitui, Makueni, Embu (Mbeere), Meru (Meru North), and Tharaka Nithi (Tharaka) Counties. The cluster covers approximately 47,347.7 square kilometers and has an estimated population of 3 million persons. The main livelihood zones in this cluster are mixed farming and marginal mixed farming which account for about 65 and 26 percent of the population, respectively. Crop production is the most important income source in the cluster and contributes up to 40 percent of household cash income. Other important income sources are livestock production and employment which contributes to up to 35 and 25 percent of household cash income, respectively. Figure 2.4.1 shows the location of the cluster and the livelihood zones within the cluster.

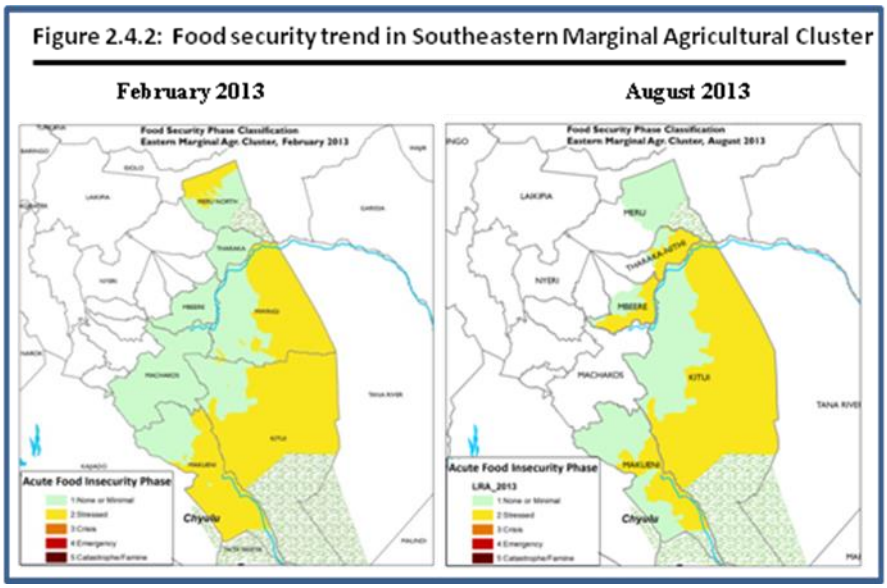
Figure 2.4.1: Southeastern marginal agricultural cluster livelihood zones



2.4.2 Factors affecting food security

The factors affecting food security in the Cluster include; poor temporal distribution of rainfall, conflicts across the border with Tana River in Kitui County, high food prices, poor infrastructure and communal land tenure system particularly in Tharaka Nithi County. Others are water logging in Mbeere North and Makueni, heightened cattle rustling and banditry especially in the northern grazing area in Meru North, low adoption of drought tolerant crops, low use of fertilizers and certified seeds in Kitui. All these factors impact negatively on overall food security within the cluster leading to poor household food consumption levels.

2.4.3 Food Security Trend



The food security trend varied across the cluster with Tharaka Nithi, Kitui and sections of Makueni in the stressed phase (IPC phase 2). Meru North, parts of Mbeere, the upper parts of Makueni, the mixed farming areas of Kitui and Mwingi are in the Non or Minimal food insecurity phase (IPC Phase 1). There have been marginal improvements as compared to February 2013 as shown in Figure 2.4.2. The market prices of food commodities are on an upward trend compared to the levels witnessed early in the year. This is due to generally lower yields especially in the marginal mixed farming zones which resulted into reduced stocks at household levels. Livestock prices have also increased making the food security situation unstable but not yet to an alarming rate. Crop production was lower than the previous short rains season. However, the Mid Upper Arm Circumference (MUAC) level are lower than they were during the previous assessment by about 15 percent mainly attributed to ongoing interventions. Terms of trade are favorable to livestock producers however, these terms have generally deteriorated by about 24 percent as compared to the situation around February 2013 particularly in the marginal mixed farming zones in Kitui.

2.4.4 Current Food Security Situation

The cluster falls in Minimal or No Acute Food Insecurity Phase Classification for; Meru North , parts of Mbeere and Tharaka, the Mixed Farming livelihood zones of Kitui and Makueni. The Marginal mixed farming livelihood zones of Tharaka, Kitui and Makueni are in Stressed Food Insecurity Phase. The long rains impacted fairly on all the sectors; with a general improvement in crop production except for the marginal mixed farming zones. As for livestock, regeneration of pasture and browse was fully realized and in general, livestock body condition is good. The pastures and browse are able to support the livestock until the start of the short rains. Water sources have fair amounts of water though in the marginal mixed farming livelihood zones the sources are beginning to be stressed. The trekking distances are still within the normal range, however, there is increase in waiting time; which is at two hours and thirty minutes for stressed and Minimal phases respectively. Milk production is fair though lower than the situation in February.

2.4.5 Rainfall

Onset of rainfall in the cluster was timely across the livelihood zones with exception of Makueni where it was delayed by three weeks. Amounts received were within normal range of 80 to 100

percent apart from Evurore and Siakago in Mbeere where 21-50 percent of normal rainfall was received. Rainfall was evenly distributed in space but very uneven in time, for example Meru North, Tharaka where largest amounts were received in the first week of May and then tapering off to cease in the third week of May. Cessation was early during the third week of May compared to normal of the first week of June.

2.4.6 Shocks and Hazards

The cluster experienced human wildlife conflicts in Tharaka and Makueni on borders to national parks. Insecurity specifically cattle rustling occurred in Meru North resulting in loss of livestock and abandoned farms.

2.4.7 Impacts of Shocks and Hazards

2.4.7.1 Crop Production

Crop production contributes about 30 percent of food and cash income in the cluster. The major crops grown for food are maize, green grams and beans while cash crops are mainly green gram, cowpeas and sorghum. Maize contributes to 50 percent of food and 10 percent of income in Mixed Farming while in the Marginal Mixed Farming maize contributes 38 percent of food and 25 percent of income.

Area under maize increased by nine percent while production decreased by 30 percent of Long Term Average (LTA). The area under sorghum increased by 75 percent but production declined by 27 percent. The increase in area of the three key crops was due to the high expectations of high rainfall and availability of seed due to the good performance of previous seasons. However the poor temporal rainfall distribution and early cessation lowered the production.

Area under Irrigated agriculture increased especially for tomatoes, kales and watermelon by 15 percent, 20 percent and 86 percent respectively above LTA, though production declined to 82 percent, 84 percent and 87 percent respectively of the LTA. The increase in area under irrigated agriculture is due to availability of ready market. Production of horticultural crops went up except for tomatoes which decreased by 18 percent of LTA.

Currently, maize stocks held by households and traders are lower than normal at 49 percent and 63 percent respectively. The low stock at household level is attributed to below average performance of the long rains season. The stocks at household level and with traders will last the population for one to two months.

2.4.7.2 Livestock Production

There was sufficient regeneration of pasture and browse and forage conditions were good in mixed farming livelihood zones. However, pasture and browse condition is poor in the Marginal mixed farming zones and are deteriorating fast due to the early cessation of rainfall. Pastures and browse are expected to last for between 1 and 2 months on average.

Trekking distances from grazing areas are ranging from 4km in rain fed livelihood zone to 20 km in the marginal mixed farming livelihood zone. The current distances in the marginal mixed

farming zones are above the LTA of Eight Kilometers. All livestock have maintained a fairly good body condition for the last three months, a situation attributed to the fair forage situation in the region. This trend may however change in the next two months in the event that the onset of the short rains season is not timely.

Milk production currently ranges between two litres in marginal areas to six litres per day in mixed Farming livelihood zones respectively. The average milk production for cattle has marginally declined from the normal five litres to three and one litre per household in mixed and marginal mixed farming LZ respectively. Milk availability in all livelihoods zones is relatively stable compared to the same period last year. The availability of milk ranges between one and six liters across all livelihoods per day per household. Milk prices are on average between Kshs. 40 to KShs. 50 per litre, compared to the long term average price of Kshs. 45.

There was no migration in or out of the counties in the cluster, but mass livestock movement was experienced within the Counties. The Cluster reported outbreaks of Lumpy Skin Disease and Foot and Mouth Disease with the later in all counties except Tharaka. There were no significant livestock mortalities attributed to the diseases reported.

2.4.7.3 Water and Sanitation

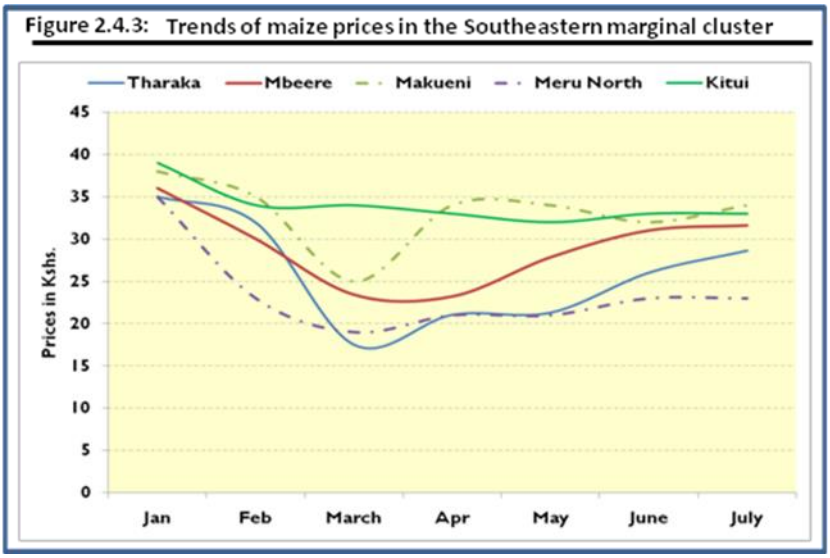
The current sources of water in the cluster are rivers, wells, pans/dams rock catchment, springs and boreholes. The open water sources recharged to 60-80 percent of normal and are expected to last until September. The distance to water sources have slightly reduced in Kitui and Makueni Counties from three to four kilometres to two to four kilometres and slightly increased in range for the marginal mixed farming zones of Tharaka to two to six from a normal of two to three kilometres. However, the distances remained in the normal range of a half to four kilometres for mixed farming zones with the longest distances of six to ten kilometres for the marginal mixed farming zones of Meru County.

Waiting time at the source was in the range of two minutes to one hour compared to zero to one hour across all livelihood zones depending on the source of water. The mixed marginal farming zones of Tharaka however had a waiting time of more than two hours. The cost of water was in the normal range of Ksh. two to 20 across all livelihood zones with the exception of Tharaka where it was Ksh. 25 compared to the normal of Ksh. 20. Water consumption per person per day is eight to 30 litres compared to the normal of 20 litres except in the mixed farming livelihood zones of Mbeere and Meru with consumption of 40 and 50 litres respectively. Latrine coverage is highest in Mbeere at 90 percent and lowest in Tharaka at 62 percent.

3.4.6.4 Market and Trade

The cluster is served by major markets in the region that are well integrated. The markets operations were normal with no disruptions reported in most of the areas. Traded volumes in the markets especially in Mbeere and Meru North are from local production, however Kitui and Makueni are mostly reliant on markets for provisions. The demand for food is high for the commodities sourced outside the Counties. In isolated cases, harvest will supplement this demand though it will be short lived.

Figure 2.4.3: Trends of maize prices in the Southeastern marginal cluster



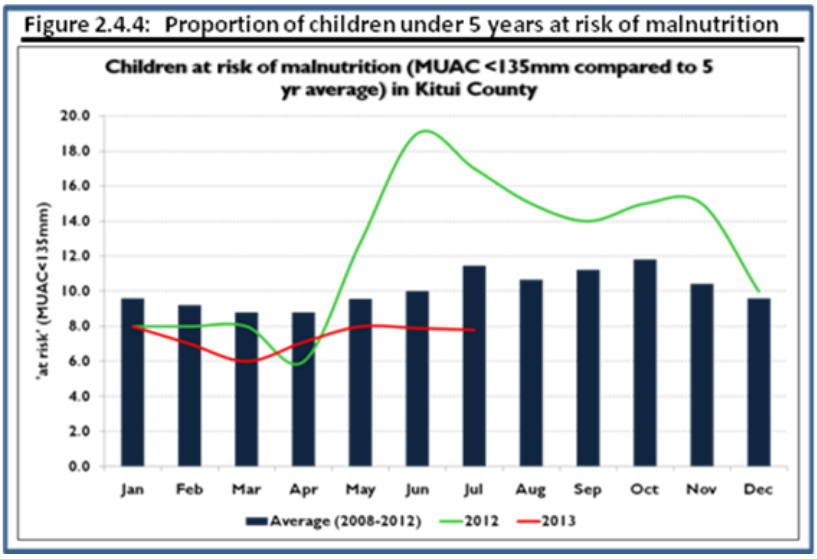
The price of maize ranges from Kshs. 23 per kilogram in Meru North to Kshs 34 per kilogram in Makueni County. However, maize price is expected to increase in Tharaka, Mbeere and Makueni Counties while in Kitui it is expected to stabilize as supplies are received from outside markets. In Meru North, the prices are expected to reduce across the livelihood due to good harvest in 2012. Figure 2.4.3 shows the trends in maize since the beginning of the year and prices have remained fairly stable since April.

Goat prices have remained above the long term average across all the counties in the cluster ranging between Kshs. 2,500 in Tharaka and Kshs.4,429 in Meru North. The goat prices in Tharaka, Mbeere and Kitui County have been declining as result of increased supplies in the market and low demand. The terms of trade are favorable across all the counties in the cluster. Meru North had the highest terms where 193 kilograms of maize would be purchased from a sale of one goat as compared to the long term averages of 85 kilograms. Tharaka has the least favorable terms of trade in the cluster where the sale of one goat would enable purchase of 83 kilograms of maize compared to the long term average of 61 kilograms as shown in figure 3.

2.4.7.5 Health and Nutrition

The most prevalent diseases in the general population and children under five years were upper respiratory tract infections (URTI), malaria, diarrhea, skin diseases, intestinal worms and pneumonia. There were no major epidemic disease outbreaks reported across the cluster except five cases of measles reported only in Tharaka Nithi County.

Figure 2.4.4: Proportion of children under 5 years at risk of malnutrition



The Crude Mortality rate ranged between 0.15 to 0.2/10,000 persons /day and under five mortality rate between 0.0 to 0.44/10,000 persons/day. Proportion of children fully immunized ranged from 16 to 82.6 percent with Kitui and

Tharaka Nithi falling below the 80 percent national target. Vitamin A supplementation was below the national target of 80 percent save for Makueni County with 81percent for children aged between 6 and 11 months.

Nutritional status across the cluster showed an improvement as illustrated in Figure 2.4.4 for Kitui County which indicates that the percentage of children at risk are lower than the long term average and also significantly lower as compared to the same period last year. Exceptions were observed for Tharaka Nithi and Meru North with proportion of children at risk in 2013 above the long term average. However, integrated nutrition survey indicates that malnutrition level in Meru North is normal (Global Acute Malnutrition at 5.5 %). Food consumption score across the cluster was good with majority (67%) at the acceptable range.

2.4.7.6 Education

The cluster sustained steady growth of enrolment for both boys and girls. All the Counties had attained gender parity in enrolment. In Makueni County there was remarkable increased enrolment in ECD attributed to Community Support Grant (CSG).The dropout rate varied across the cluster. Generally, in Makueni and Mbeere Counties there were minimal dropout rates save for Makueni area along the Mombasa highway where dropout rates were high especially for girls who opted to engage in prostitution. Meru North and Tharaka Nithi registered increased dropout rate. The rate of transition from ECD to primary ranged between 80 to 98 percent across the cluster, while transition from primary to secondary had an average of 70 percent across the cluster. However in isolated areas of Tharaka Nithi it was at 45 to 50 percent. The School Meal Programme was HGSM covering all the counties apart from Meru North.

2.4.8 Coping Strategies

Generally households in the cluster are employing normal livelihood strategies to meet food and non-food needs. Among the strategies being employed include minimal reduction of the quantities and frequencies of meals, borrowing and sharing of food, charcoal burning, ballast making, engaging in casual labour and petty trade.

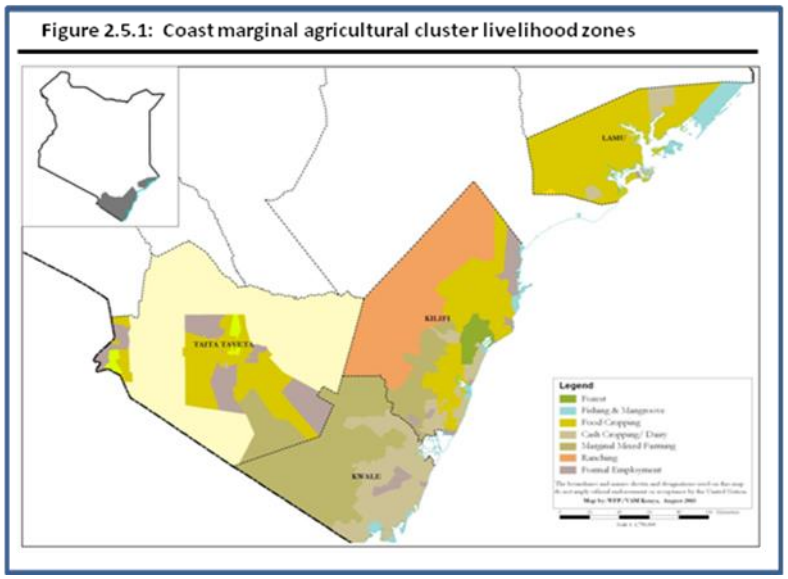
2.4.9 Food Security Prognosis

The food security situation in the cluster is likely to remain stable especially in the mixed farming livelihood zones for the next two to three months as household food stocks suffice. Livestock productivity is expected to remain stable for that period due to availability of forage and water. Coming from the previuos two good seasons, food security is expected to improve further from the stressed phase to the minimal food insecurity phase in the next three months. In the marginal mixed farming livelihood zones of Makueni and Tharaka, the situation is in deteriorating trend and likely to worsen in the next one to two months. Livestock will be moved to areas with pastures and water. Prices increase in major foodstuffs is a threat if the situation worsens, which may increase the expenditure on food at the household impacting negatively on the overall food security situation. Opportunities for casual labour are likely to decrease as supply increases, which will lead to diminished income from the source.

2.5 The Coastal Marginal Agricultural Livelihood Cluster

2.5.1 Cluster Background

Figure 2.5.1: Coast marginal agricultural cluster livelihood zones



The Coastal marginal agricultural cluster is located in southernmost tip of Kenya. It consists of Kwale, Kilifi, Taita Taveta and Lamu counties (Figure 2.5.1). The cluster covers an area of 47,861 square kilometers with an estimated population of 2.3 million people. The main livelihood zones in the cluster are Mixed Farming representing 60 percent, trade/business/formal employment/casual representing 21 percent, Marginal Mixed Farming representing 11 percent and others (forestry/tourism and ranching). The main source of household income is livestock production which accounts for up to 40 percent of household cash. Crop production and waged labor are also important as each contribute to 30 percent of household's income.

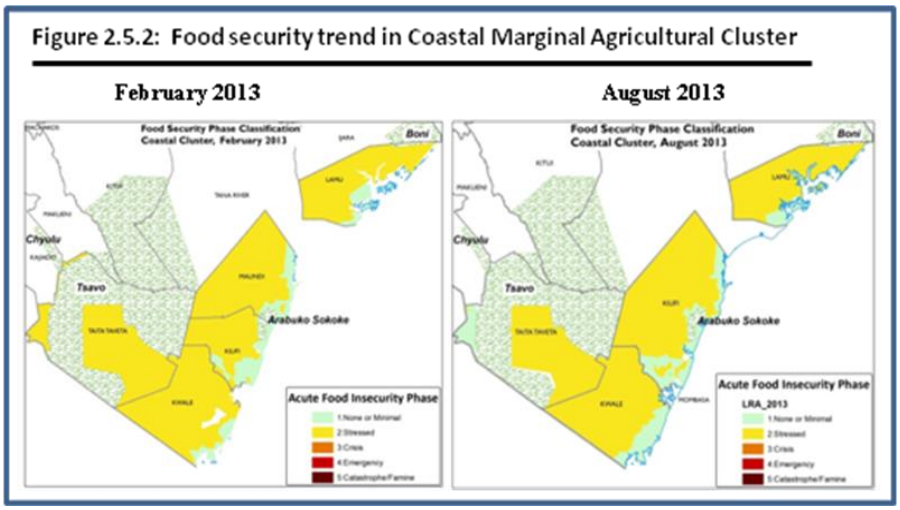
2.5.2 Factors Affecting Food Security

The main factors affecting food security in the cluster include; poor temporal distribution and early cessation of the Long rains, high food commodity prices in the market, increased human-wildlife conflicts in parts of Kwale Lamu and Taita Taveta, low adoption of modern agricultural practices and technology including poor use of uncertified seeds in Kilifi, disruption of fishing activities due to strong winds coupled with high cost of farm inputs in Lamu and low TLUs in Kwale. All the above factors are impacting negatively on the overall household food security situation.

2.5.3 Food Security Trends

Food security status for the cluster remained in stressed phase (IPC phase 2) in most areas, with affected areas including the Mixed farming Zone (Crops/Livestock) where due to poor performance of the long rains season, rain-fed production had been significantly poor

Figure 2.5.2: Food security trend in Coastal Marginal Agricultural Cluster



(Figure 2.5.2 illustrates). Water consumption per person per day also decreased from 15 litres in January to 10 litres in July for Kwale. Terms of trade were lower during the assessment period compared to 2013 short rains assessment period from 84.6 kg to 74.6 kg currently. However areas along the coastal strip were also still classified at the Non or Minimal (IPC Phase 1) food insecurity phase.

2.5.4 Current Food Security Situation

The cluster is in food security Integrated Phase Classification (IPC) Phase 2 (Stressed) classification, the below average rainfall improved performance of the drought tolerant crops but contributed to the dismal performance of maize. Yields for cowpeas and green grams were above average, impacting positively on nutritional status of households who are currently having above minimum food requirements. Regeneration of pasture and browse was good and currently in fair to good condition. Consequently, livestock body condition is good and stable, translating to availability of milk within the range of three to six litres per household.

Consumption of water is within acceptable limits although shortages are already being experienced earlier than normal in Kilifi. Market prices for food commodities are above the long term average. Nutritional status of children less than five years is improving with availability of food and interventions from stake holders.

2.5.5 Rainfall

Onset was timely in the cluster, commencing in the second week of March. Amounts received varied between 50 to 80 percent of normal in mixed farming livelihood zones with pockets of 120 to 120 percent of normal in marginal mixed farming livelihood zones in all the counties. Distribution in terms of space was poor across the cluster while the temporal distribution was poor as well. Most of the rainfall that was received across the cluster fell in the month of April and caused flooding in most parts. Cessation in the cluster was generally early. In Lamu it was early by a week in the first week of July and early by three weeks in Taita, Kwale and Kilifi, during the second week of May instead of June

2.5.6 Shocks and Hazards

Floods experienced in Lamu, Taita and Kilifi resulted to damage of crops cultivated in the season as well as link roads. The river Galana/Sabaki burst its banks resulting in displacement of households. Human wildlife conflicts remains a concern in Taita and Kilifi contributing to damage to crop under cultivation as well as transmission of pests with wildlife as the main carriers.

2.5.7 Impacts of Shocks and Hazards

2.5.7.1 Crop Production

Crop production is an important livelihood in the cluster contributing over 40 percent to cash income. The main crops grown in the cluster are maize, green grams and cow peas. The long rains are the main season for crop production in the cluster and are therefore very important for crop production. Overall area put under main food crops increased by about 30 percent compared to LTA as farmers put more land under food crops. Although the rains were below normal in

most parts of the cluster, projected crop production is about 10 percent above LTA attributed to increased area under crops. Crop production in Taita Taveta and Kwale counties were however below LTA due to erratic rainfall received during the season.

The main crops grown under irrigation are bananas, maize and beans. Though full potential has not been reached, area under irrigation has increased by about 20 percent compared to LTA with a consequent increase in production by about 25 percent. The total area under irrigation is currently 5790 hectares compared to a LTA of 4790 hectares. The current stocks held are 34 percent of LTA. The low maize stocks levels are attributed to replanting of maize in parts of Lamu and Kilifi County counties which were affected by floods. Stocks are expected to increase once harvesting is complete and last for about one to three months.

2.5.7.2 Livestock Production

Pasture and browse condition range from good to fair across livelihood zones in the cluster, with exception to parts of the lowlands in Taita where condition is poor. Pasture availability is projected to last 3 to 4 months in Lamu and Kilifi and 1 to 2 months in Taita - Taveta and Kwale counties. Livestock ownership in the cluster varies with livelihood zones, with the marginal livestock areas having 7 – 15 TLU and 1-3 TLU in the rest of the zones. In Kwale and Taita low TLU is a concern. Livestock trekking distances between pastures and water was normal between 1-5 kilometers , except parts of Taita where water pans/dams had 20-30 percent recharge and trekking distances now reach 8 km average.

Livestock body condition is rated as good across the cluster, while milk production is normal to below normal at 1-3 liters. although there zones with as much as 4-8 litres. in Taita and Kilifi. Households consumed 1-2 litres, as most households sold more than half of the milk produced. Milk prices ranged between Ksh. 25 -30 in mixed farming zones with higher rainfall regimes and 50 -70 in livelihood zones in marginal low lying coastal areas. No major livestock disease outbreak was reported except the normal endemic tick borne diseases, LSD and CCPP in Kilifi and Malindi. Livestock migration of concern in the cluster is the forceful eviction of livestock herders originally from North eastern cluster from Taita Taveta and Galana Ranches. Some of the herds have moved to Kuranze area of Kwale, and Lamu County.

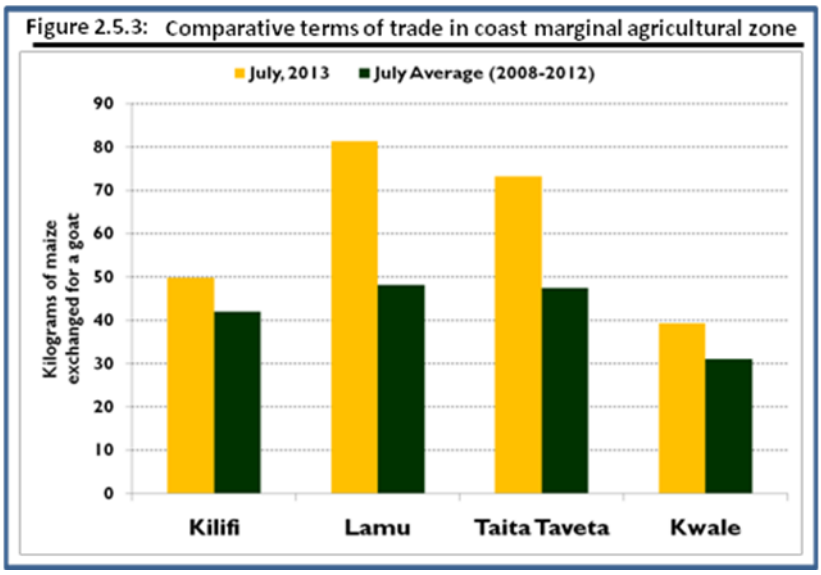
2.5.7.3 Water and Sanitation

The main water sources are rivers, piped water, pans/dams, shallow wells, boreholes, springs, and roof catchments. The 2013 long rains recharge to surface water sources was between 50 to 60 percent of capacity. Currently, distance to and from the water sources for domestic use ranges from a half to two kilometers as compared to two to four kilometers normally. On average, time taken to fetch water ranges between 15 to 30 minutes with an exception of Kilifi County where waiting time average is seven minutes.

The price of water per 20 litre jerican ranges between Kshs. 3 to 10 with an exception of Paranga, Kushushe, Mbulia, Kangemi, Mwachabo and Maktau in Taita-Taveta County where the cost is Ksh. 40. Water consumption ranges from 10 to 20 litres per person per day. The latrine coverage ranges between 50 to 70 percent with exception of Taita-Taveta County where the coverage is above 90 percent.

2.5.7.4 Market Performance

Market operations were normal in the cluster as no disruptions were noted. Demand is high for food commodities mainly cereals and vegetables across the cluster as these constitute the main dietary items for the poor households. The prices of maize in the cluster range from Ksh. 35 per kilogram in Lamu County to Ksh. 44 per kilogram in Kwale County. However, in the marginal mixed farming of Kilifi County especially in Chonyi and Kaloleni, the price of a kilogram of maize kshs.100. The maize prices were generally stable and above the long term average across the clusters.



Goat prices have remained above the long term average across all the counties in the cluster and currently range between Ksh. 1,297 in Kilifi and ksh. 3,100 in Lamu County. The goat price trend from January has been increasing which is attributed to the good body condition with exception of Kwale and Kilifi counties where the prices have been declining since January.

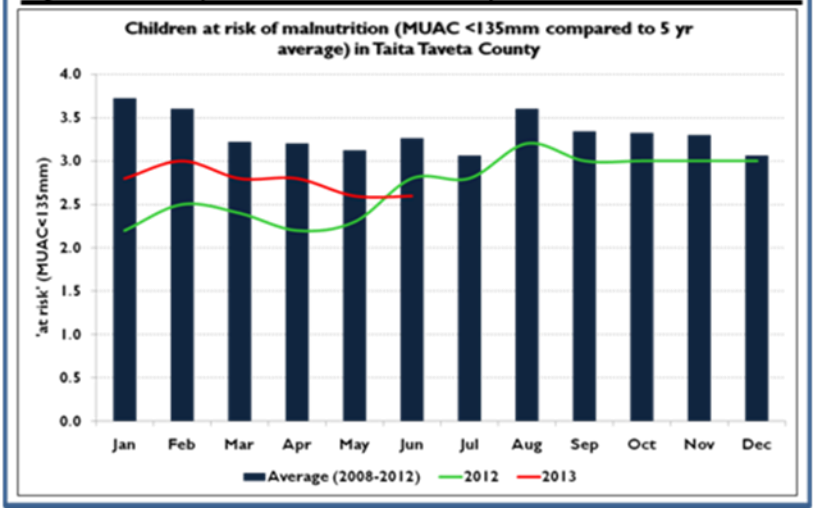
The terms of trade are above the long term averages across all the livelihood zones in the cluster with Lamu having the most favorable terms of trade where the sale of a goat would purchase 81kg of maize compared to the long term average of 48 kg of maize. Kwale has the least favorable terms of trade in the cluster where the sale of a goat would purchase 39 kg of maize compared to the long term average of 31 kg of maize as shown in Figure 2.5.3.

2.5.7.5 Health and Nutrition

Morbidity patterns for the both the under-fives and the general population were similar across the cluster with upper respiratory tract infections (URTI), diarrhea, skin infections, clinical malaria and eye infections being the most prevalent diseases. Dysentery was generally on a downward trend. Under-five mortality Rate (U5MR) and crude mortality rate (CMR) ranged between 0.1 to 0.2 per 10,000 persons per day except for Lamu where CMR was 2.0 per 10,000 per day and U5MR was one per 10,000 per day. Immunization coverage was above the national target of 80 percent except for Kilifi and Taita Taveta which had 67 and 71 percent respectively.

Vitamin A supplementation was below the national target and ranged between 50-65 percent. Both immunization and vitamin A coverage had reduced across the cluster due to the nurses' strike earlier in the year.

Figure 2.5.4: Proportion of children under 5 years at risk of malnutrition



Households in the cluster were consuming two to three meals per day which is normal at this time of the year. The percentage of children at risk of malnutrition was four and 6.6 percent in Kilifi and Kwale respectively. There was significant reduction in Kilifi from 7.1 to four percent which was attributed to the current ongoing interventions. Figure 2.5.4 shows the percentage of children at risk in Taita Taveta County which is a representation of the trends in much of the the cluster. However, though MUAC levels were low in Taita Taveta at 2.6 percent, the proportion in Lamu had increased from 4.6 to 8.1 percent but was still below the seasonal norm. Exclusive breastfeeding rates were very low in Kilifi at 20-30 percent and at 50 across the rest of the counties in the cluster.

2.5.7.6 Education

There was a general improvement in enrolment across the cluster. Girls' enrolment was higher than that of boys. The increase in enrollment is attributed to sensitization campaigns on importance of education, strict enforcement of various legislation on child right to education and provision of the school meals programme. The dropout rate is minimal and declining. There was a higher dropout rate for girls across the cluster with varying reasons which included early marriage, early pregnancies and child prostitution. Attendance was generally good save for some isolated areas like in the case of Kilifi County where poor attendance for boys was reported during floods. Transition rate from ECDE to primary was over 90 percent while for secondary it was over 70 percent with Taita Taveta County registering the highest percentage. A total of 203 schools are under the Home Grown School Meal Programme (HGSMP) in comparison to 223 in 2012. In Taita Taveta 29 schools are under the Community School Meals Programme (CSMP).

2.5.8 Coping strategies

The Coping Strategy Index (CSI) for the cluster ranged between 12 and 16 percent for both beneficiaries and non-beneficiaries as of May 2013 which was a slight increase from an average of 11 percent in December 2012. This signified a marginal deterioration in the food security situation, though households were not engaging in extreme coping strategies to meet their food and non-food needs. Some of the coping mechanisms being employed were skipping of meals, reduction of number of meals and quantities, burning of charcoal, petty trade and casual labour.

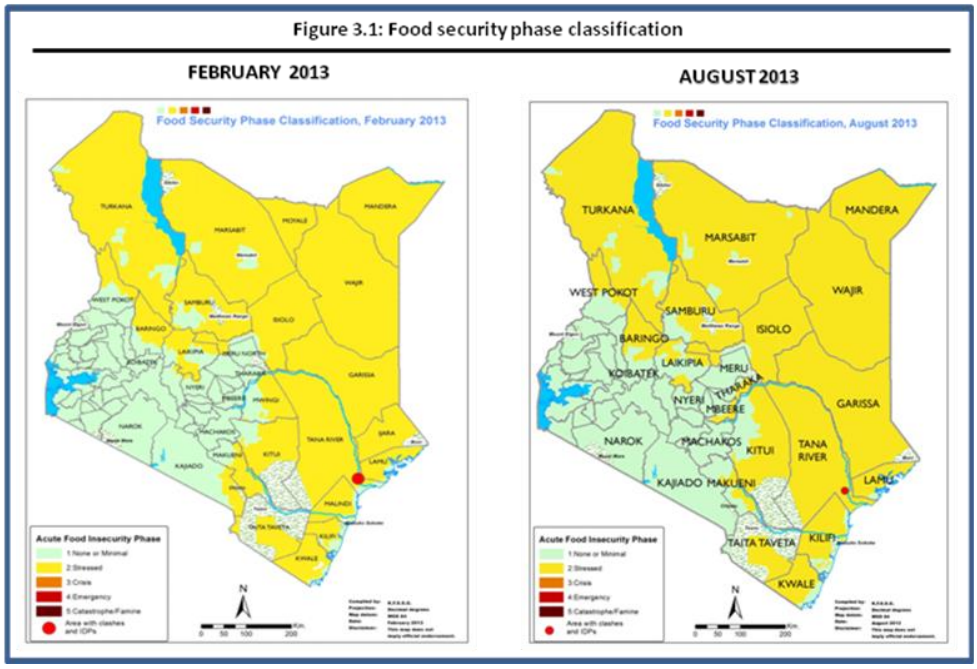
2.5.9 Food security prognosis

The food security situation is expected to remain stable in the cluster for the next three to four months across the livelihood zones, except Taita Taveta where the situation is likely to deteriorate from September through December. Current household food stocks are likely to last through October when the onset of the short rains is expected. Food prices are likely to decline, although marginally in MF livelihood zone making it easier for those market-dependent households to access food .There is a little harvest expected for those few households who planted late. Livestock productivity is likely to deteriorate owing to possible deterioration of pasture and browse which is projected to last for at most three months coupled with increasing water stress. The value of livestock is also likely to decline due to poor body conditions and increased supply from those pastoralists who have migrated into the area which coincides with increasing food prices significantly compromising household ability to afford food from the markets.

3.0 Overall Food Security Situation

3.1 Food Security Phase Classification

Figure 3.1: Food security phase classification



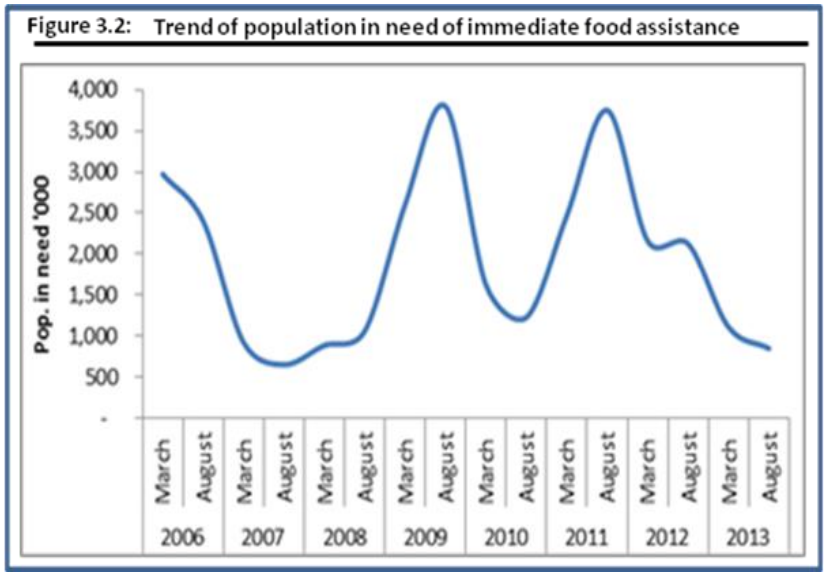
Food security improved or remained stable between February and August 2013. The Minimal Phase (IPC Phase 1) of food security implies that more than 80 percent of households in the area or livelihood are able to meet essential food and non-food needs without engaging in unsustainable strategies to access food and income, including any reliance on humanitarian assistance. In the Stressed (IPC Phase 2), 20 percent of households are able to minimally meet adequate food consumption but are unable to afford some essential non-food expenditures such as medical care and education without engaging in irreversible coping strategies.

Food security remained Stressed (IPC Phase 2) in much of the country. For instance, the pastoral northeast cluster including Mandera, Garissa, Isiolo, Wajir and Tana River Counties remained Stressed (IPC Phase 2) between February and August 2013. However, there were notable improvements from Stressed (IPC Phase 2) in February 2013 to the Minimal (IPC Phase 1) in

August 2013 in parts of Laikipia, Kajiado, Kwale and Makueni Counties due to the positive effects of consistent and above average long rains and sustained effects of the previous effects. Food security deteriorated from Minimal (IPC Phase 1) to Stressed (IPC Phase 2) in some areas including West Pokot, Baringo, Tharaka Nithi, and Mbeere Counties over the same period of time. The deterioration in food security was driven by poor temporal distribution of the long rains which could not adequately sustain crop development. Although households in the Stressed (IPC Phase 2) of food security were increasingly intensifying and applying coping strategies, they were not engaging in irreversible coping strategies. Some of the coping strategies included brick making, charcoal burning, and engagement in petty trade.

3.2 Trend and Distribution of Food Insecure Population

Figure 3.2: Trend of population in need of immediate food assistance



The population in need of emergency assistance declined from 1.1 million to 0.85 million, a 23 percent, between February 2013 and August 2013 attributed mainly to the implementation of various resilient programs and average performance of the rainfall seasons. Figure 3.2 shows the trend of the population in need of immediate food assistance from the year 2006 up to date. Since the height of the drought in 2011, significant improvements have occurred and the number in need has sharply declined from 3.8 million in August 2011 to the current 0.85 million in September 2013. This is attributed to consecutive good rainfall seasons and a multiplicity of cross sectoral food and non food interventions aimed at asset creation and building resilience.

Table 3.2 below shows the population in need of food assistance as a proportion of the entire County population. In addition it shows the distribution of the population across the five livelihood clusters. Of the total population in need of food assistance, 63 percent is located in the pastoral livelihoods in the northeast, northwest and agro-pastoral livelihood zones. Of those in the pastoral livelihood zones, 68 percent were located within the pastoral northeast livelihood zone. The rest of the 0.85 million population, that is 37 percent, are located and equally distributed in the southeast and coastal marginal agriculture. Despite having a relatively lower population in need of food security is considerably low and fragile in localized parts of the coastal and the southeast marginal mixed farming where crops performance especially maize was below average following the poor temporal distribution of the long rains. This implies that the severity of food insecurity could be higher in the southeast compared to the pastoral livelihoods despite the contrary in prevalence levels. In the southeast and coastal marginal livelihood zones, availability of other drought resistance crops including sorghum, millet, cowpeas and pigeon

peas were supporting consumption. Food security is also poor and fragile in parts of the pastoral livelihood zones of Mandera and Moyale Counties affected by insecurity which has prevented normal livestock and food markets operations hence curtailing households' income availability, food availability and access.

Table 3.2: Regional distribution of the population in need of immediate food assistance

County	Total Pop.	Pop. affected after the 2012/2013 short rains	September 2013 – February 2014		
			No. of people requiring food assistance	% of total pop. in need of food assistance	Distribution of pop. In need %
Pastoral Northwest					
Turkana	539,264	93,900	69,800	12.9	
Marsabit	291,166	65,550	42,300	14.5	
Samburu	223,947	32,800	32,800	14.6	
Sub Total	1,054,377	192,250	144,900	13.7	
Pastoral Northeast					
Wajir	619,220	148,200	111,900	18.1	
Mandera	337,800	115,550	108,500	32.1	
Garissa	504,391	84,500	78,500	15.6	
Isiolo	143,294	47,000	39,800	27.8	
Tana River	240,075	29,200	29,200	12.2	
Sub Total	1,844,780	424,450	367,900	19.9	
Agro-pastoral					
Laikipia	399,227	11,200	11,200	2.8	
West Pokot	512,690	15,600	0	0.0	
Kajiado	687,312	5,400	0	0.0	
Baringo	555,561	21,300	14,200	2.6	
Narok	576,388	0	0	0.0	
Sub Total	2,731,178	53,500	25,400	0.9	
Total Pastoral	**5,630,335**	**670,200**	**538,200**	**9.6**	**63**
Southeast Marginal Agriculture					
Kwale	649,931	92,500	82,600	12.7	
Kilifi	1,109,735	93,400	53,200	4.8	
Lamu	101,539	0	0	0.0	
Taita Taveta	284,657	19,700	19,700	6.9	
Sub Total	2,145,862	205,600	155,500	7.2	
Coastal Marginal Agriculture					
Makueni	884,527	61,400	55,300	6.3	
Kitui	1,012,709	173,100	100,600	9.9	
Mbeere	219,220	0	0	0.0	
Tharaka	130,098	0	0	0.0	
Meru North	775,982	0	0	0.0	
Kieni	324,659	0	0	0.0	
Sub Total	3,347,195	234,500	155,900	4.7	
Total Marginal Agricultural	**5,493,057**	**440,100**	**311,400**	**5.7**	**37**
Grand Total	**11,123,392**	**1,110,300**	**849,600**	**7.6**	**100**

Source: KFSSG, Long Rains Assessment, August 2013

3.3 Food Security Prognosis

Expected maize supply trends and short rains prospects

The overall national maize production by September was 24 percent above the consumption level which implied that there is likelihood of surplus. Maize harvesting is ongoing in the high-to medium- potential areas. The overall maize output by December could be marginally below average due to poor rainfall distribution, late distribution of inputs, and the effects of the maize lethal necrotic disease (MLND). Despite the below average output, the harvest will partly replenish the national as well as household maize stocks through December and available maize by December could be marginally above the national consumption. The current food stocks held by households, millers, traders, and the National Cereals Produce Board (NCPB) in the southeast and coastal marginal agriculture and the pastoral livelihoods can last through November. However, those held by households can only last through October. The October to December short rains are likely to be normal to near normal and delayed by more than two weeks in much of pastoral and marginal agriculture livelihoods below average. Although, land preparation and planting labour are expected to be seasonally normal, subsequent agricultural activities such as weeding through December and harvesting in February/March that provide poor households with casual labor income are likely to be below seasonal average.

Expected food price trends

Wholesale maize prices in major urban areas are expected to marginally decline through October due to the increasing supply as the harvest in the high- and medium- potential progress. Harvesting usually starts in September in some parts of the central and southern Rift Valley resulting in increase in supply in the market. Maize prices will however, remain above five year average driven by expectations of below average. Correspondingly, a gradual but marginal and prolonged decline in maize prices is expected through December. Similarly, in the southeastern and coastal marginal mixed farming, retail maize prices are likely decline marginally or remain constant but elevated above the five year average driven by the surge in demand as from October as household deplete stocks from the long rains season. Moreover, a general increase in commodity prices due to VAT policy and the likely increase in fuel prices may keep retail maize prices elevated.

Likely pasture and water availability

Pasture and water availability will most likely last through December in much of the pastoral and marginal agriculture livelihoods. However, the quality and quantity is likely to deteriorate due to the dry conditions which may be prolonged by delayed onset and likely below average amounts of the rainfall which will delay regeneration of the pasture and browse. Delayed regeneration of pasture will slow the recovery of livestock and calving, kidding and lambing will coincide with seasonally below average rangelands conditions, which could reduce milk availability.

Likely food security trends

Based on the short rains forecast, maize availability and trend of food prices as well as rangeland conditions, food security condition is expected to seasonally deteriorate from September through December. Already households food stocks are below five year average and majority of households will have depleted their stocks by end of October and will increasingly rely on

market purchases. Market dependency will be high at a time when food prices are likely to be high making it difficult for households to access food from the markets. Availability of green early green harvest from drought resistant is likely to be available from mid-December slightly improving food consumption. Slight improvement in maize supplies is not expected until after the short rains harvest in January/February 2014 based on the performance of the short rains from October to December. As a result, the Stressed (IPC Phase 2) may evolve into a Crisis (IPC Phase 2) with food gaps as from November through January especially in the rain fed lowlands mainly in the marginal mixed farming and parts of the pastoral northeast (Mandera) and northwest (Turkana and eastern parts of Marsabit) livelihood zones. A reprieve that will alleviate likely food gaps is expected from mid-December once households start consuming early green harvests from drought resistant legumes.

4.0 Proposed Cross Sectoral Livelihood Support Interventions

The cumulative effects of poor crop output and dwindling productivity of livestock manifest as declining nutrition levels. Although improvement in these two sectors is expected to filter through and improve nutrition, alternative measures will be important to ensure continued nutrition stability through the lean seasons. These nutrition measures include, but are not limited to High Impact Nutrition Interventions Package (HINI), health education and behavioural change awareness campaigns, up-scaling of integrated outreach programs, promotion of quality but relatively cheap and easy to use water treatment mechanisms including tablets, nutrition and disease surveillance, and community led total sanitation programme. Moreover, to sustain market demand and jumpstart productive activities in localized areas while building future resilience of the households, households who require immediate food assistance can be shielded from food insecurity through cash transfers, or equivalent in-kind food provision.

Sectoral interventions; short and long term were identified from the assessment. Important sectors include crop agriculture, livestock, water, health and nutrition, and education. Food assistance is included as part of interventions as there are households who require in part, emergency food assistance. Climatic change continues to be a major driver of changes in farming systems in agriculture. As a result, continued promotion of traditional high value crops including Nerica Rice which can do well in limited moisture. Timely input distribution and access besides water harvesting and storage structures will be important in ensuring that productivity of these drought resistant yet high value crops are productive. To improve productivity in the livestock sector, reseeding of pasture, farmer capacity building and improving livestock breeds in addition to maintaining proper livestock husbandry practices will be important. Table 4.1 below summarizes the proposed sectoral recommendations including the cost of the interventions.

Table 4.1: Summary of priority interventions by sector for September 2013 to February 2014

	SECTOR	PROPOSED RECOMMENDATIONS	COST IN Ksh.	COST IN U.S. DOLLAR
1.	AGRICULTURE	Promotion of traditional high value crops, promotion of NERICA rice, provision of certified seeds, fertilizer subsidy, water harvesting and irrigation support, capacity building, construction of cereal bank and driers, soil and water conservation, purchase of farm inputs, establishment of fruit nurseries, construction of dykes,	1,895M	21.6 M
2.	WATER	Rehabilitation, drilling and equipping boreholes, water pipeline and storage tanks construction, construction of reservoirs, shallow wells development, water trucking, capacity building and hygiene promotion	821 M	9.4 M
3.	LIVESTOCK	Pasture development and fodder conservation, farmers capacity building, breed improvement, water provision, disease surveillance, vaccinations, deworming, feed supplements, promotion of markets, promotion of bee keeping and branding.	398 M	4.5 M
4.	EDUCATION	Expansion of school meals programme, promotion of kitchen gardens, school fees support programme for bright students, provision of UNIMIX to ECD, provision of water storage facilities, support to pastoral field schools and adult education.	190 M	2.2 M
5.	HEALTH AND NUTRITION	High Impact Nutrition Interventions Package (HINI), Health education and Behaviour Change Campaigns, Up scaling of Integrated Outreaches, Provision of Water Treatment Tablets, Nutrition and Disease Surveillance, Community Led Total Sanitation programme,	187 M	2.1 M
6.	FOOD ASSISTANCE	Building resilience to future shocks through FFA and CFA. Immediate Food assistance and cash for 850,000 food insecure people for the next six months (September 2013 - March 2013). An estimated 51,521 MT of food or cash equivalent (CFA) will be required.	5,084 M	58 M
Total			**8,575 M**	**98 M**