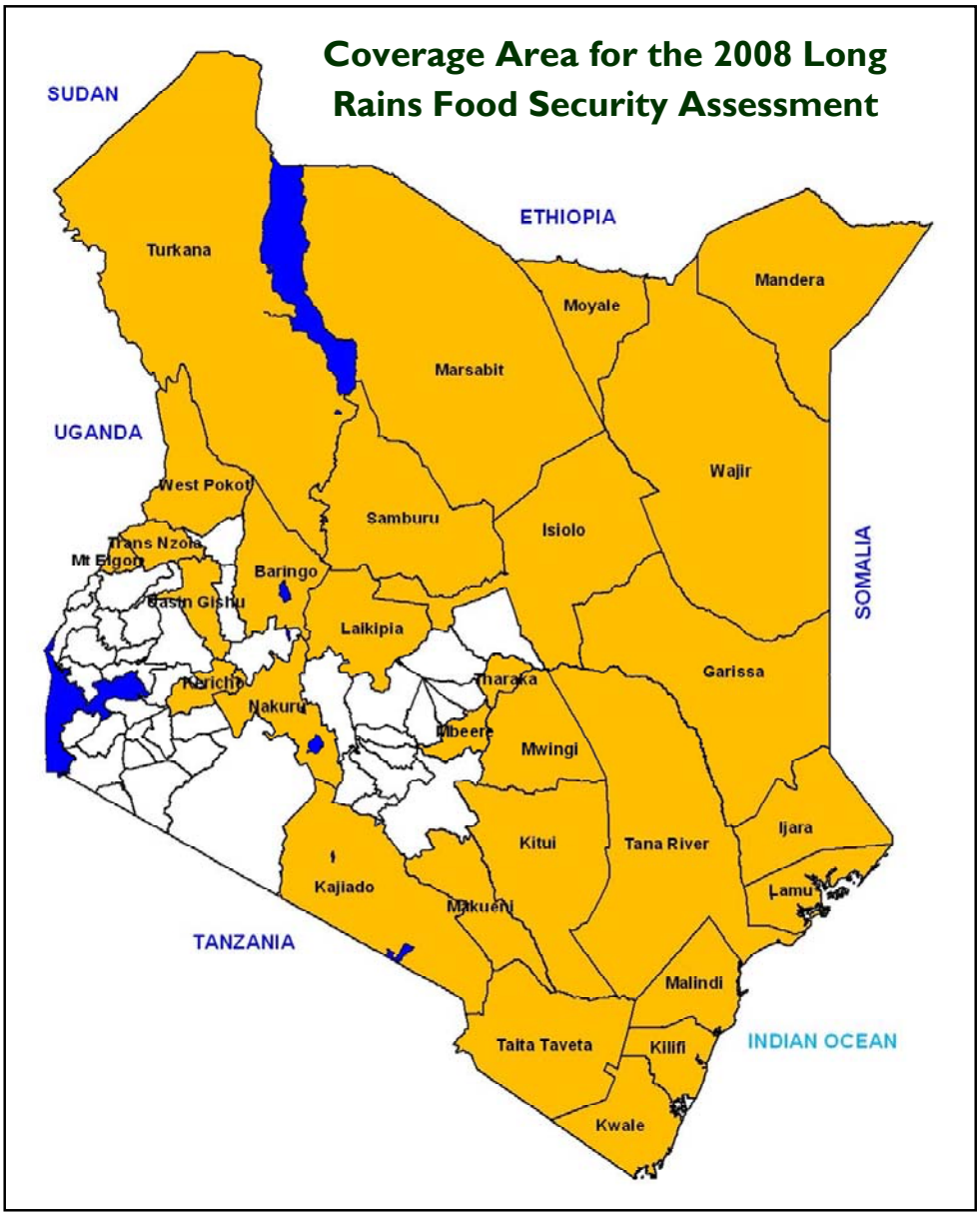
KFSSG's LONG RAINS ASSESSMENT REPORT, 2008



A collaborative report of the Kenya Food Security Steering Group: Office of the President; Ministries of Agriculture, Livestock Development, Fisheries Development, Water and Irrigation, Public Health and Sanitation, Medical Services, and Education; WFP/VAM; FEWS NET; UNICEF; FAO, Oxfam GB; UNDP; with financial support from the Government of Kenya, UNICEF, WFP; World Vision, OXFAM, FAO and UNDP.

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1.0 Executive Summary and Key Recommendations

1.1 Introduction

While Kenya has witnessed significant economic recovery over the last five years, resulting from implementation of farmer-oriented and other wide-ranging policies, a significant and growing proportion of the population suffers chronic and acute food insecurity. In this regard, the Government of Kenya, humanitarian partners and donors have in recent years engaged, to address chronic food insecurity by employing developmental multi-sectoral approaches that support re-building of livelihoods and their resilience. However, it is recognized that although a number of interventions have been instituted, based on recommendations from previous assessments, implementation of non-food interventions have been slow, scattered and inadequate to achieve the desired impact. On the contrary, while the food sector has been quick and reliable in providing relief, ample evidence has demonstrated that this option alone is an inappropriate alternative to development-oriented interventions as illustrated by findings from the 2008 long rains assessments, among six livelihood clusters.

1.2 Summary of Key Findings

The food security outcomes resulting from the 2008 long rains contrasted sharply, across and within livelihoods. It is estimated that about 1.38 million people in rural areas are highly food insecure and will not be able to meet their minimum food requirements in the coming six months, if external support is not granted. The worst affected areas are situated in identified locations in the pastoral livelihoods of Turkana, Mandera, Samburu, Baringo, Marsabit, Wajir, Moyale and Garissa; significant areas in the agro pastoral and the marginal agricultural livelihoods in Kitui, Mwingi, Makueni, Mbeere, Malindi, Kilifi, Kwale; and Tana River. The number includes an estimated 300,000 former and current internally displaced persons (IDPs) whose food security remains precarious and will likely remain so until they can return to their pre-election status or re-adjust to sustainable livelihoods.

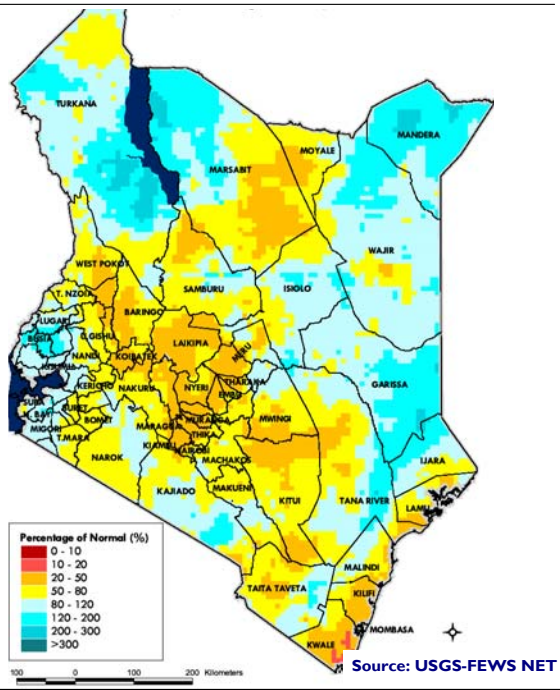
The poor performance of the long-rains season is compounded by a complex combination of other food security factors within the livelihoods, including the spread of *peste de petits ruminants* (PPR) livestock disease; heightened food and non-food prices; rising conflict; below normal short rains season**;** and reduced resilience caused by cumulative effect of consecutive years of eroded coping strategies caused by drought, floods and conflict. However, improvements in household food security have been reported in some parts of the eastern pastoral areas, localized areas along the coastal belt and most of the food secure Rift Valley, Western and Nyanza highlands.

In addition, the report highlights the precarious food security conditions of the urban populations who depend almost entirely on food purchases in the context of increasingly rising food and non food prices amidst declining incomes. Preliminary indications have revealed that the number of people that are highly food insecure in urban slums as a result of rising food prices, as of July 2008, may be in the range of 3.5 million to 4.1 million up from about 3 million persons in 2007.

1.3 Rainfall Performance during the 2008 Long Rains

The rainfall performance varied widely across the country during 2008, both in its spatial and temporal distribution. The rains started earlier-than-usual, in mid-March instead of early April, in the drought-prone areas of the country which include the northern, eastern and southern pastoral areas; and the southeastern and coastal lowlands. However, the early start was not sustained as rains ended within a month in several pastoral and marginal agricultural areas. In addition, areas of substantial deficits were interspersed with areas of exceptional heavy rains, though poor distributed in time and space. All the expansive yellow and orange shades in figure 1.1 represent areas of serious rainfall deficits. While the graphic covers the entire long rains period in assessment areas, rains continued along the coastal areas and localized showers were also reported in parts of the pastoral areas. However, the timing of the onset of the rains was normal in non-assessment areas which are the key cropping zones of the country, except in the south Rift and western areas around Lake Victoria, where rains started one month late.

Fig. 1.1 – Rainfall Anomalies during the 2008 long rains

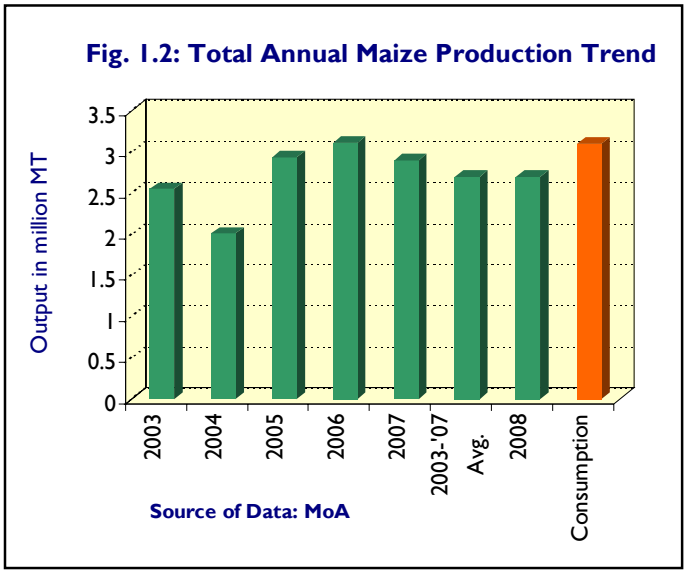


The impacts of generally poor rains in the yellow and orange areas shown on figure 1.1 have resulted in the deterioration in household food security through a number of ways, including: accelerating early livestock migrations and leaving sedentary household members without milk and animal products; compromising the condition of the livestock by weakening the livestock and predisposing them to disease; promoting conflict as competition for resources intensifies; causing crop failure in the marginal and agropastoral livelihoods, thus increasing the pressure on food prices; triggering severe depletion of water sources leading to extended trekking distances and increased price of water; causing an upsurge in disease as hygiene conditions deteriorate; and increasing school dropout rates especially in pastoral areas, as children migrate earlier-than-usual with their parents in search of water, pasture and browse.

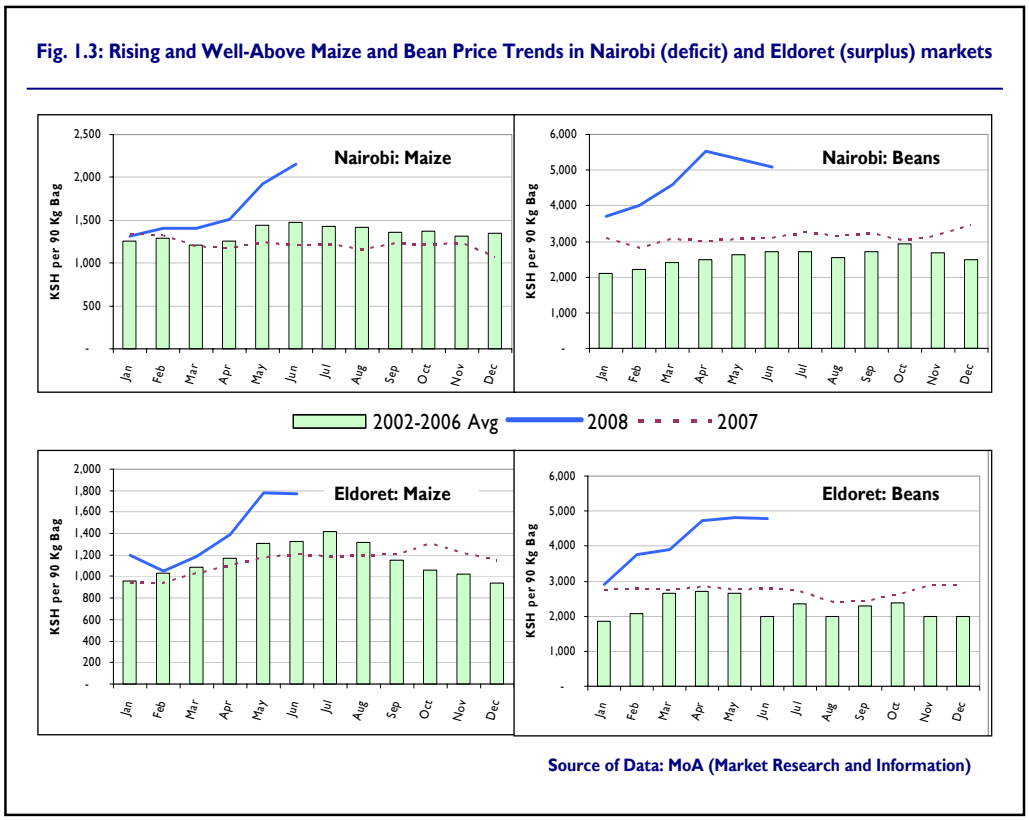
1.4 Overall National Maize Supply Situation

Maize is the overwhelming staple across all livelihoods in the country and its shortfall is synonymous with food insecurity. Long rains production accounts for close to 85 percent of total annual national maize output. The Ministry of Agriculture (MoA) has reported increasing maize yields in Kenya's grain basket, over the past three years. The rise has been attributed to a combination of factors including: the adoption of high-yielding seed varieties, favorable agro-climatic conditions, a gradual increase in hectarage; sustained high prices; adoption of optimal seed rates; improved soil testing, resulting in application of appropriate fertilizers; and intensification of extension services.

However, the MoA anticipates that in total, 2.3 million MT of maize will be harvested during the current long-rains season. The expected level of production is below both the 2007 long-rains harvest of 2.52 million MT. and the three-year average long rains production of 2.58 million MT. (see figure 2.2).



National maize production in the 2008 long rains season is expected to be about 12 percent less than last year due to crop losses of 60 percent in the central highlands and marginal agricultural areas as result of poor rains; erratic rains in southern parts of the Rift Valley highlands; sub-optimal application of fertilizers; low use of appropriate seed varieties, after nearly 30 percent increase in the cost of production**;** and a 10 percent reduction in area put to maize. See figure 1.2.



In addition to the expected below normal production during long rains 2008, the coutry has low carryover stocks including Strategic Grain Reserve. It is also estimated that inflows through cross border trade will be below normal. About 200,000 MT is normally imported from Tanzania and Uganda through cross-border trade, but this year, these imports are likely to decline substantially as Tanzania seeks to replenish its own stocks following a poor 2007

season. The decline in exported surpluses from cross border trade will accentuate further maize prices which are already way beyond normal levels as shown on figure 1.3.

Under this scenario, even if the upcoming short rains are normal and current crop projections hold, the country will most likely not have sufficient supply to meet annual demand of about 3.2 million MT. Early estimates indicate that a deficit of up to 200,000 MT is anticipated during this marketing year ending July 2009. The figure may vary depending on several factors including final long and short rains output and level of cross border imports.

The tightening maize supply situation is already being felt as maize prices have remained over 40 percent higher than normal levels in most markets, even at the onset of the harvest. The implications of the high staple prices are dire and are likely to deepen even further, severe food insecurity especially among urban, pastoral and marginal agricultural households.

In order to address the likely shortfall in national supply, the Government of Kenya (GoK) plans to import about 80,000 MT of maize from South Africa by October 2008, to cover for the immediate gap and probably import additional maize next year, before the end of the marketing year in July 2009.

1.5 Summary of the Status of Food Security Situation in Livelihood Clusters

1.5.1 Assessment area reporting the most severe deterioration in food security

The single most worrisome deterioration in food security was witnessed in substantial parts of the **northern; eastern pastoral** and **coastal** clusters, namely, the areas shaded orange, including most of Turkana; northwestern Marsabit**;** and southern; western, and eastern Mandera District; most of Malindi and Baringo districts as shown on Figure 1.4. An estimated 500,000 persons fall in this category. The deterioration in food security in these worst-affected areas has resulted from poor rainfall during the short rains – most of these areas received less than 30 percent of normal rains during the season which lasted for less than one month. In addition, exceptionally high food prices, ranging between 70-120 percent of normal, characterize the worst-affected areas. Food insecurity is compounded by the spread of the highly virulent *peste de petite ruminant* (PPR) disease which has a mortality rate of 50-80 percent

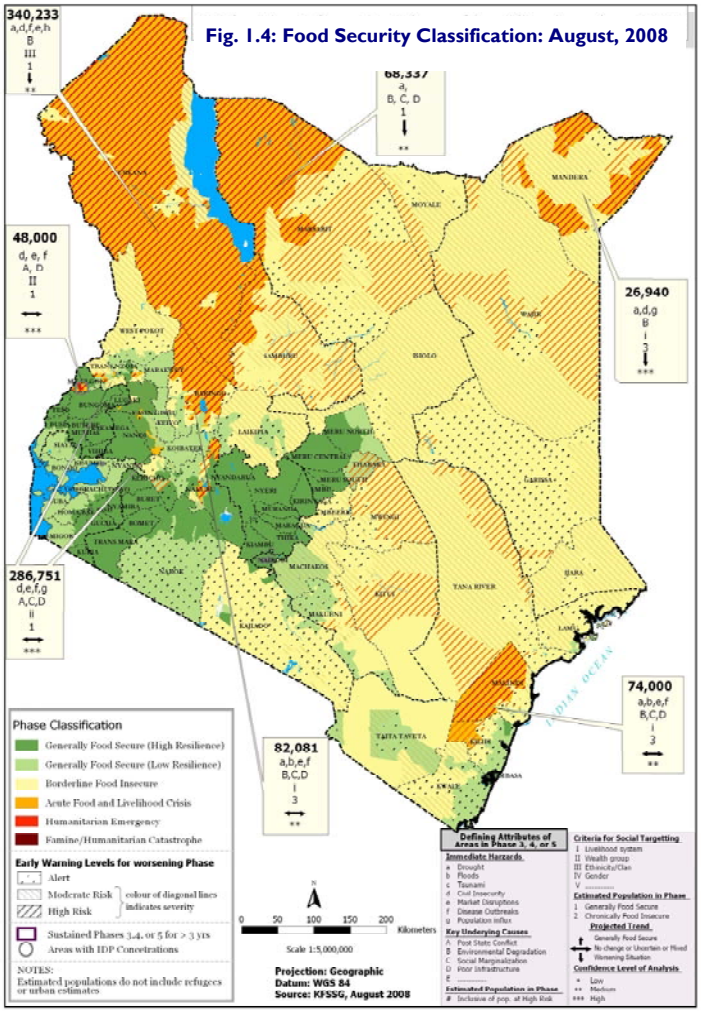


Fig. 1.4: Food Security Classification: August, 2008

and has caused substantial livestock deaths in Turkana and Samburu, in particular and is spreading rapidly to other pastoral areas. Serious water shortages have pushed the price of water from Ksh. 20 to 60 per 20 litre can, in the affected areas of Marsabit, for example, further eroding purchasing capacities.

The deteriorating conditions are manifested by heightened rates of child malnutrition where GAM rates in parts of Turkana and Mandera are 28 and 24 percent respectively, eroding last year's gains. Extensive trekking distances of between 15-20 kilometers instead of the seasonal norm of 7-10, have caused a marked deterioration in livestock body conditions. Unrelenting conflict has also compromised livestock production; rendered extensive areas inaccessible, thus resulting in poor utilization of pastures; caused the closure of markets; and resulted in the loss of human life and livestock. The worst conflict-hit areas include extensive areas of southern, central and northern Turkana; Nyiro and Baragoi in Samburu and Loiyangalani and North Horr in Marsabit.

Prospects for the next six months depend on the quality of the short rains season and the implementation of recommended interventions enumerated in section 5.0. An expanded food and non-food intervention is imperative in the worst affected areas of the northern and eastern pastoral clusters. If the October-December short rains are poor, the food security status of pastoralists could decline to emergency levels.

1.5.2 Assessment areas reporting moderate deterioration in food security

The food security situation has also deteriorated somewhat significantly in the remaining areas of the **northern** and **eastern pastoral** clusters**,** and in significant areas of the **agropastoral** and **marginal agricultural** clusters. The areas shaded yellow, with the orange hatches in figure 1.4, indicative of the likelihood of sliding into the Acute Food and Livelihood Crisis category. An estimated 500,000 persons fall within this category. The long rains were characterized by an early cessation and most areas reported less than 50 percent of normal rainfall. The poor rains resulted in livestock and pastoralists having to trek distances of up to 10 kilometers as drought conditions set in earlier-than-usual. In addition, livestock diseases particularly the PPR in Samburu, Pokot, and Marsabit; the Foot and Mouth Disease in Laikipia; as well as the Contagious Caprine Pleuro Pneumonia in Samburu and Baringo districts, resulted in movement quarantines and closure of markets, thus limiting trade. Besides, food prices are 50-80 percent higher than normal, while crop yields declined by up to 80 percent in the agropastoral areas of Baringo, Laikipia and Isiolo. Conflict between pastoralists in Wajir and Garissa has spilled into Sericho in Isiolo District, while conflict between herders and crop growers in the Tana Delta is causing displacements and negating livestock production prospects.

Similar deterioration in food security was reported in the **marginal agricultural** cluster in the lowlands of Mwingi, Kitui, Makueni, Machakos, Mbeere, Tharaka, Malindi, Kwale, Kilifi, Laikipia and Tana River districts. An estimated 80 percent to a near total crop failure occurred, in significant areas. Only some of the drought tolerant pigeon peas, sorghums and millets survived. The poor season followed closely the failed short rains harvest, the most critical season in the marginal areas. Purchasing capacities were pressurized by a 60 percent increase in the price of food and non-food commodities, resulting in accelerated sales of the small stock (instead of restocking) so as to meet the food shortfall following the dramatic rise in food prices. Marginal agricultural households have limited resilience and their coping capacities have been eroded because of repeated droughts; and flood episodes in the Coastal

areas of Tana River and Malindi Districts. Worryingly, high stunting rates of over 30 percent especially in the **coastal** Malindi, Kilifi and Kwale districts are also indicative of an extended period of under nutrition.

The prognosis for large parts of the **marginal agricultural** clusters is highly precarious as a result of two consecutive failed seasons. The food security of the marginal agricultural households in identified areas is likely to deteriorate to a livelihood crisis in the event that the short rains fail. Of concern is the high population in the marginal areas as compared to the pastoral areas. Should the short rains fail, an expanded humanitarian need could arise.

1.5.3 Assessment areas reporting improved or stable household food security

Although food insecurity has accentuated in many areas of the assessment districts, localized areas of the **Agro pastoral**, **pastoral and marginal agricultural** clusters shaded in the light green or yellow dotted areas have reported significant improvements in their food security. An estimated 230,000 persons fall under this category. Improvements are attributed to above normal long rains, ranging between 120-150 percent of normal, in parts of the identified zones. The good rains set in early and uncharacteristically continued into July in several areas, promoting regeneration of pastures and recharging of water points. As a result, higher-than-normal livestock prices ranging 30-80 higher than respective averages were reported in the pastoral and agropastoral livelihood. Increased milk yields have kept rates of child malnutrition low, yet high stunting rates remain characteristic of coastal districts. There is also limited migration of livestock from wet season grazing areas, thus upholding livestock body conditions. However, crop harvests in **marginal agricultural** and **agropastoral** clusters were only 70-80 percent of normal due to the erratic rainfall during the season.

While prospects for the marginal agricultural farmers, agro pastoralists and pastoralists in this category are favorable and will be strengthened even further if the short rains are favorable, concerns remain - floods have compromised fish breeding in coastal districts, leading to a decline in output; poor agronomic practices have limited the extent to which good rains can translate into increased production; food prices remain over 50 percent higher than normal levels and crop output will not compensate for the increase. Most households are net buyers of maize and high prices will have little impact in increasing household incomes. In addition, good grazing conditions are likely to result in an influx of livestock from neighboring deficit areas leading to deterioration of vegetation and increased susceptibility to conflict and disease spread.

1.5.3 Post-election violence affected areas remain in the Emergency status

Food insecurity in the post-election violence affected areas as well as in many parts of Mt. Elgon is consistent with perhaps the worst food security levels in the country. Nationally, fewer than 20,000 **IDPs** remain in camps and would be classified in the Emergency category, in the absence of on-going food and non-food interventions by the GoK, Red Cross, the UN, NGOs and partners. The households have lost virtually all their capital and household assets and their food security is dependent upon successful return to pre-election status which is unlikely to occur in the short or medium time, if at all.

An estimated 250,000 **former IDPs** have returned to their former homes or to settlements close to their homes. Their food security remains precarious and is likely to remain as such, through the medium term because the extent of their livelihood loss far exceeds current

interventions. The returning IDPs need to be monitored closely to ensure that households that were formerly food secure does not fall into the food insecure category. Already rates of child malnutrition among the IDPs including children in the Mt. Elgon area are approaching precarious levels due to the impacts of protracted conflict and displacements. A further 200,000 persons integrated with family members following the post-election conflict. The households remain highly vulnerable as they also lost most of their livelihood. In addition, households that accommodated the displaced are largely small scale farmers in the Central, Western and Nyanza highlands and have also experienced deterioration in their food security as they have had to compromise their own production to maintain additional household members, amidst rising food and non food prices.

1.6 Options for Response

The assessment reiterates the need for decisive action to implement integrated cross-sectoral interventions that address the cause, rather than the symptoms of food insecurity. However, food security has accentuated since the last assessment and needs have expanded. Table 1.1 is a summary of required emergency interventions by sector.

Table 1.1: Summary of Priority Interventions by Sector – Sep. 2008-Mar. 2009

	SECTOR	INTERVENTION	COST
1.	AGRICULTURE SECTOR	Provision of drought-tolerant seeds; post-harvest management; provision of farm inputs, tools and equipment.	Ksh. 480M ($7.2M)
2.	LIVESTOCK SECTOR	Mass livestock vaccination and pest control, control of PPR; livestock off-take; re-stocking; pasture management and hay supplementation.	Ksh.493M ($7.4M)
3.	FISHERIES SECTOR	Fish stocking, cold storage and provision of fishing equipment.	Ksh.24M ($0.3M)
4.	HEALTH AND NUTRITION	Management of acute malnutrition; nutrition surveillance; mobile outreach; expanded immunization; provision of effective insecticide-treated nets; micronutrient supplementation and nutrition education.	Ksh.200M ($2.0M)
5.	WATER SECTOR	Water trucking; borehole rehabilitation, desilting water sources; rain water harvesting; provision of PVC tanks; rehabilitation of shallow wells.	Ksh.282M ($4.3M)
6	FOOD SECTOR	Purchase of about 65,000 MT of cereals, pulses, oil, CSB and salt; plus transport and other associated costs.	Ksh.3.9B ($58M)
	Grand Total		**Ksh.5.37B ($77million)**

Critically and in order to facilitate both the immediate and medium to long-term responses, specific recommendations are made to key policy makers in the national government and international community in section 5.0.

2.0 Food Security Assessment Methodology and Scope

2.1 Background and Objectives

The 2008 long rains assessment was a co-ordinated inter-agency effort, carried out under the aegis of the Kenya Food Security Steering Group (KFSSG). The coverage comprised 27 traditionally drought-prone pastoral, agropastoral, marginal agricultural districts, including five high potential districts, affected by post-election conflict. The map on page 1 is an illustration of the assessment coverage. While the newly sub-divided districts were assessed, reference is made to the pre-November 2007 district boundaries for the purposes of this exercise. Nine field teams covered the following six livelihood clusters:

a) Northern Pastoral Cluster (Turkana, Moyale, Marsabit and Samburu Districts).
b) Eastern Pastoral Cluster (Mandera, Wajir, Garissa, Isiolo and Tana River Districts).
c) Agro-Pastoral Cluster (Baringo, West Pokot, Laikipia and Kajiado Districts).
d) Eastern Marginal Agricultural Cluster (Tharaka, Mbeere, Makueni, Mwingi, and Kitui Districts).
e) Coastal Marginal Agricultural (Taita Taveta, Malindi, Kilifi and Kwale Districts).
f) North Rift and Western Mixed Farming (Nakuru, Uasin Gishu, Trans Nzoia, Kericho and Mt. Elgon Districts).

The overall objective of the assessment was to inform humanitarian, recovery and long-term interventions across the food; water and sanitation; health and nutrition; agriculture and livestock and the Education sectors.

Specific objectives were to:

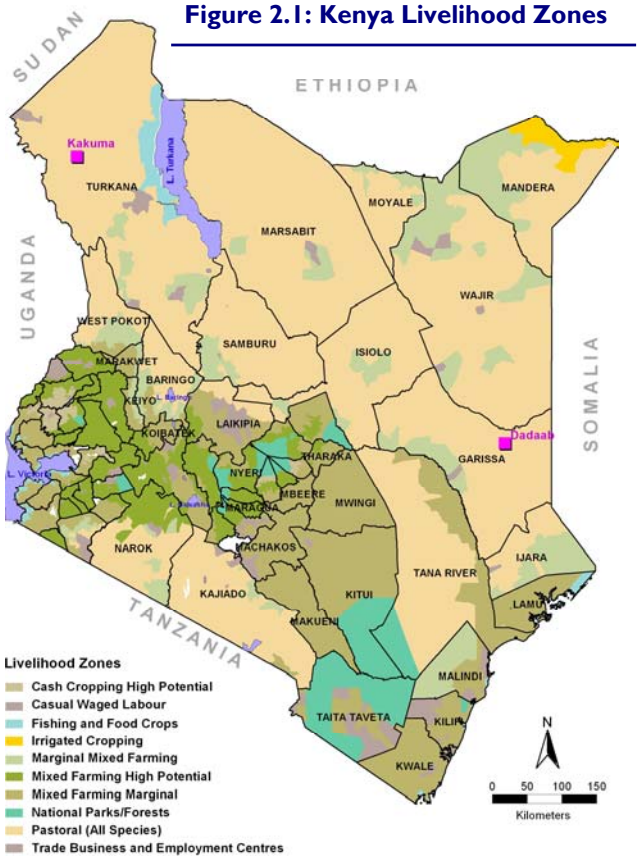
- Ascertain at the livelihood level, the quality and quantity of the long rains, and assess their impact on all key sectors.
- Establish required non-food interventions, with particular emphasis on programs that promote recovery and build household resilience.
- Assess the need for food interventions in food insecure areas, including options for food for work, food for assets and general food distribution.
- Evaluate the impacts of the rise in prices of food and non-food commodities on the food security of disparate livelihoods.
- Establish the impacts of other compounding factors such as conflict, livestock disease and floods on the food security of households in assessment districts.
- Assess the impacts of the post-election crisis on the food security of affected households, predominantly in the Rift Valley Province.
- Identify geographic areas, or population groups, where nutrition surveys are required to provide further information on causal factors and propose remedial action.

2.2 The Approach

The overall assessment process and methodology was coordinated and backstopped by the KFSSG. Assessment methods followed methodology developed by the technical working group of the KFSSG. The teams conducted detailed interviews at the district, community and market and focus group levels, applying skills and techniques imparted during one-week training sessions. Secondary data were collected for all assessed districts. The data was

collated, reviewed, analyzed and triangulated to verify its validity. Particular use was made of the Arid Lands Resource Management Programme (ALRMP) drought monitoring bulletins and KFSSG's monthly Food Security Updates. Extensive use of partners' knowledge and experience, to meet a broad range of critical information needs at both the spatial and social levels was employed**.** The District Steering Groups (DSGs) where a case in point, providing vital food security information. Visual inspection techniques through transect drives were also applied, to obtain qualitative information.

Figure 2.1: Kenya Livelihood Zones



The KFSSG has endeavored to provide the appropriate analytical framework by adopting a multi-sectoral livelihood based approach for food security analysis. The analytical framework is based on livelihoods with the final focus on populations in need of multi-sectoral external support in the immediate, medium and long term. Sub-district locations were assessed according to livelihood zones (LZ). See figure 2.1. Efforts were made to ensure that all major LZs were sampled to gain a representative understanding of food security prospects for 2008 and beyond. Results from the sampled areas were used, in conjunction with discussions with the DSGs and secondary data analysis, to draw inferences for non-visited areas situated in similar LZs. While the analysis was conducted at the LZ level, findings and recommendations were provided at the district and divisional level for planning purposes.

The Integrated six Phase Classification (IPC) was used to categorize the food security status of each of the livelihoods including their early warning status, as per figure 1.4 on page 5.

3.0 Food Security Analysis by Livelihood Cluster

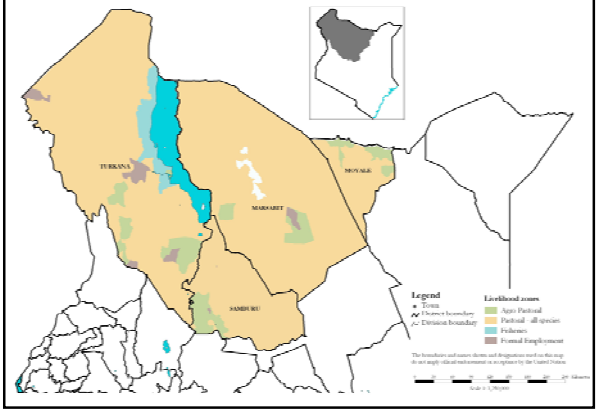
3.1 Introduction

The KFSSG has adopted the livelihood approach in all its food security analysis in Kenya. A livelihood zone is defined as a geographic entity that is roughly homogeneous in key agricultural, geo-physical, socio-economic, and cultural characteristics. The core assumption is that in any one livelihood, the majority of people will share roughly the same way of life and are subject to similar shocks and hazards. In addition, most of people in a given livelihood zone will more likely employ similar coping strategies when hazards strike, because response opportunities and coping strategies open to them are closely comparable. The understanding of key features of the various livelihood zones in Kenya is a '*sine qua non'* condition for interpreting the degrees of vulnerability to food insecurity and the relative importance of various determinants of food (in)security. The following is an analysis of current food security for each livelihood by cluster and sector.

3.2 The Northern Pastoral Livelihood Cluster

The cluster covers Turkana, Marsabit, Moyale and Samburu districts as shown on the livelihood zone map. See figure 3.1. The pastoral livelihood zone is characterized by disproportionate dependence on livestock as the overwhelming source of food and income in a drought-prone environment. Pastoralists also source most of their cereals and other food commodities from the markets, thus predisposing them to instabilities in their terms of trade in the event that food and non-food prices fluctuate outside normal margins, as is the case currently.

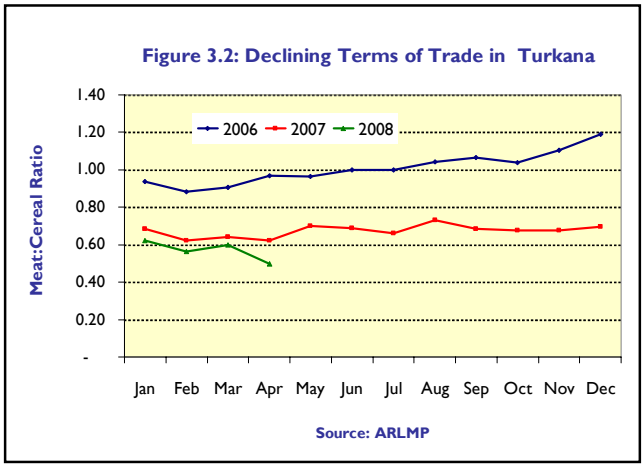
Figure 3.1 – Northern Pastoral LZ



The performance of the long rains season in the Northern Pastoral Cluster was poor, with rainfall amounts of less than 30 percent of normal in significant areas. However, rainfall distribution was uneven and localized areas within the cluster reported near-normal rainfall amounts. Up to 50 percent of sub-surface water sources dried up in most areas due to the poor rains, resulting in limited access to water. In addition, scarcity of pasture and browse caused early and extended migrations which impacted negatively on livestock body conditions. Migrations to dry season grazing areas resulted in competition for the diminishing pasture and water, leading to conflict incidences in Turkana, Samburu and Marsabit districts where up to 2,000 head of livestock was lost, pastoralists displaced and over 30 lives were lost. Earlier-than-normal migrations also resulted in school drop out rates of up to 70 percent, further underlining the poor prospects for the Northern Pastoral Cluster.

Food prices, especially for maize, were up to 120 percent of their long term average, in areas such as Turkana District, according to ALRMP data. The trend in livestock prices was mixed, rising by up to 45 percent in Moyale while declining in Turkana and Samburu, two districts adversely affected by the PPR disease. The PPR disease has affected close to 75

percent of the geographic area in the worst affected districts of Turkana and Samburu, causing the closure of key livestock markets, thus eroding severely purchasing capacities among pastoralists in the Northern Cluster. Figure 3.2 is an illustration of highly unfavorable terms of trade for pastoralists in Turkana.



Malnutrition rates vary within the Northern Pastoral Cluster. Figure 3.3 depicts results of recent nutrition surveys conducted in four cluster districts. There was improvement in the nutritional status in 2008 compared to the last survey results in 2006, in Moyale and Samburu. In Marsabit, the survey results indicates that the situation remains similar to 2007 but with further deterioration in Loiyangalani and North Horr. Turkana District recorded the highest malnutrition rates with some divisions having Global Acute Malnutrition (GAM) rates of 28.9 percent and Severe Acute Malnutrition (SAM) rates of 5.5 percent. Factors contributing to the high rates of malnutrition include: reduced food access and availability due to increase in commodity prices, livestock diseases, crop failure, poor dietary diversification, poor child care practices, inadequate clean water and poor hygiene and sanitation. For example, the sanitation coverage in the cluster is less than a worrying 30 percent. The nutrition situation in

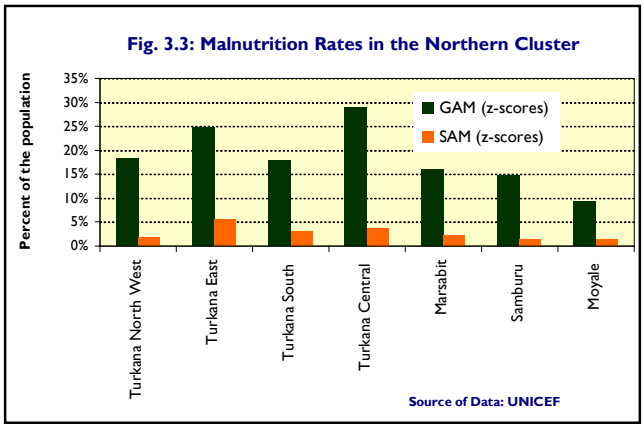
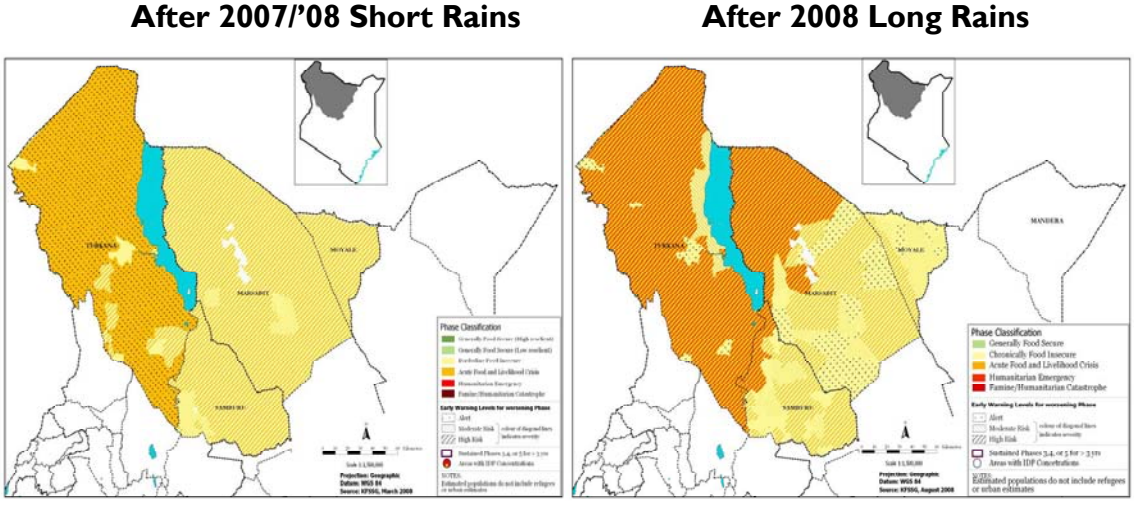


Figure 3.4: Food Security in the Northern Pastoral Cluster



this cluster is expected to deteriorate further beyond what is shown on figure 3.3 in the coming months if relevent measures are not instituted.

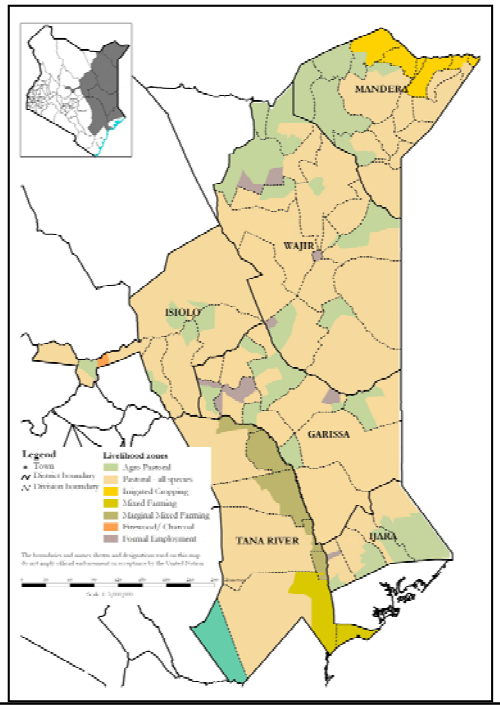
The prognosis for most of the cluster is highly unfavorable and could decline even further if remedial measures are not implemented immediately to forestall the rapid decline in food security. However, of critical importance is the implementation of medium to long term interventions that uphold the resilience of pastoral livelihood in general. Figure 3.4 is an illustration of the decline in food security over the past six months.

While interventions are on-going, significant gaps remain. For example, there is an 85 percent gap in the coverage of PPR vaccination; Health and sanitation interventions fall short by up to 70 percent; water trucking and rehabilitation of water sources cover only 50 percent of the need; relief food as well as supplementary feeding gaps exist in the light of declining food security. Peace and reconciliation efforts are on-going even as conflict heightens; all pointing to the need for an expanded intervention in all sectors. Section 5.0 details required interventions in all sectors and clusters.

3.3 The Eastern Pastoral Livelihood Cluster

This livelihood cluster includes Garissa, Isiolo, Tana River, Ijara, Wajir and Mandera districts as shown on the livelihood map - figure 3.5. The food security prospects have generally improved in several areas of the eastern pastoral districts after good but erratic rains, in spite of some intra-cluster variations. The performance of the long rains varied across the region with Garissa, Ijara and Wajir receiving near normal rains.

Figure 3.5 – Eastern Pastoral LZs

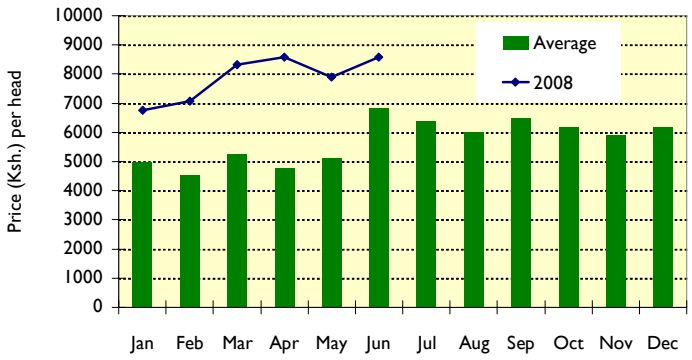


The improved availability of water and pasture has resulted in improved livestock body conditions, which has sustained livestock prices above their respective long term averages. Figure 3.6 is an illustration of livestock prices in Mandera District, largely representative of the price trends in the cluster. The key determinant of food access, in areas such as the western pastoral cluster, is price of livestock and products, relative to the price of other food and non-food commodities. Unfortunately food commodity prices are over 50 percent above long-term averages across the region and on an upward trend. The upward trend coupled with the outbreak of livestock diseases will mitigate somewhat, the improvement in livestock prices especially in Wajir because a PPR quarantine has been imposed in some markets.

Areas where food security has worsened considerably are depicted by the orange shade on figure 3.7 in Mandera and yellow with orange hatches, in Wajir and Tana River districts. The

long rains were very poor and most of these areas received rainfall ranging between 20–50 percent of normal, after an equally poor short-rains season. The poor rains resulted in widespread crop failure in agropastoral areas in northern Mandera and southeastern Tana River, where crop output is expected to be only 10-40 percent of normal output. However, the rest of the cluster has sufficient pasture to last through the beginning of the short rains in early November. In addition, while water availability in Garissa, Ijara and Wajir is expected to last for at least two months**,** the situation is less optimistic in significant areas of Mandera and Tana River as water pans are drying up and remaining sources are expected to last only for a month. Subsequently, widespread livestock migration

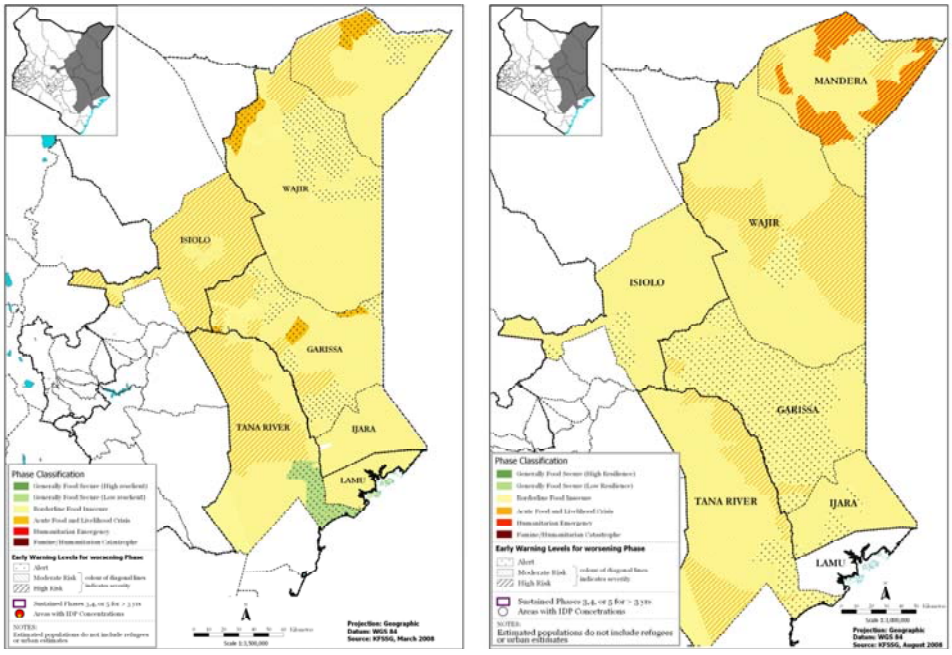
Fig. 3.6: Favorable Livestock Prices in Mandera



Source of Data: ALRMP

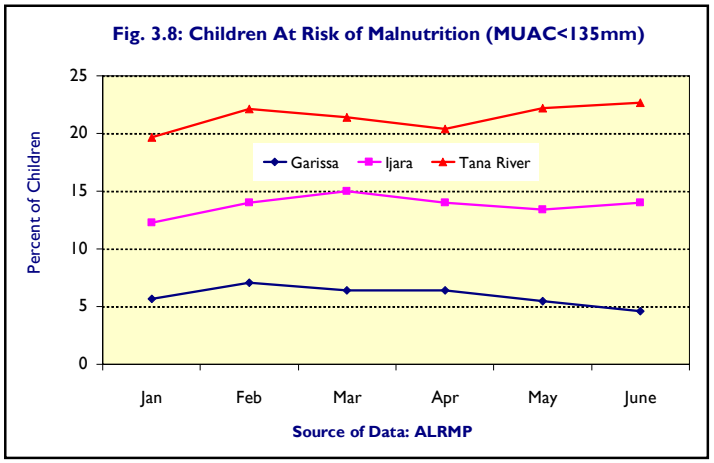
Figure 3.7: Food Security in the Eastern Pastoral Cluster

After 2007/'08 Short Rains **After 2008 Long Rains**



out of Mandera, Isiolo and Tana River to adjacent districts was reported. The migrations have contributed, in part, to a 30 percent school drop out. Although the security situation remains fairly stable unlike in the northern pastoral cluster, increased competition of grazing resources could lead to an upsurge in conflict. Close monitoring is recommended to mitigate a probable conflict episode.

There is a slight improvement in the nutrition trend in the region with an exception of Ijara and Mandera districts. The 2008 survey results indicate that the nutrition situation is worsening compared to 2007 in Mandera District.



Surveys conducted in 2007 indicate that the GAM ranged from 15.6 percent to 18.3 percent. However, survey results for 2008 for Mandera reported GAM rates greater than 20 percent, indicative of a severe situation. GAM rates reduced from 23 percent in 2007 to 17 percent in 2008, in Wajir District. According to the nutrition surveys, children ranging between six months and five years were found to consume an average of 2-3 food groups. Consumption of less than four food groups points to serious food insecurity. The surveys also indicated that a large proportion of caretakers are undernourished, reporting MUAC of less than 21centimeters. Figure 3.8 depicts trends in the nutrition status of child in the cluster. There were no major disease outbreaks in the cluster, except in Wajir District, where an upsurge of Kalazaar disease was reported.

While interventions are on going, needs far supersede the scale of current interventions. On-going interventions include vaccination against the PPR, water trucking, construction of water pans, distribution of drought tolerant seeds in agropastoral areas and relief and supplementary feeding. The food security status of pastoralists in the cluster should be strengthened by a favorable short-rains season. However, an expanded intervention is required in the areas where food security has worsened as shown on figure 3.7. Detailed interventions by sector and livelihood are shown in section 5.0.

3.4 The Agro Pastoral Livelihood Cluster

The agro pastoral livelihood zone includes Kajiado, Narok, West Pokot, Laikipia and Baringo districts as shown on the livelihood map, figure 3.9. Livestock production remains the main source of income in the agro-pastoral livelihood, accounting for over 50 percent of total household income while crop production contributes about 30 percent. On-farm crop production accounts for just over 30 percent of food needs, unlike pastoralists where own farm crop production is marginal at best.

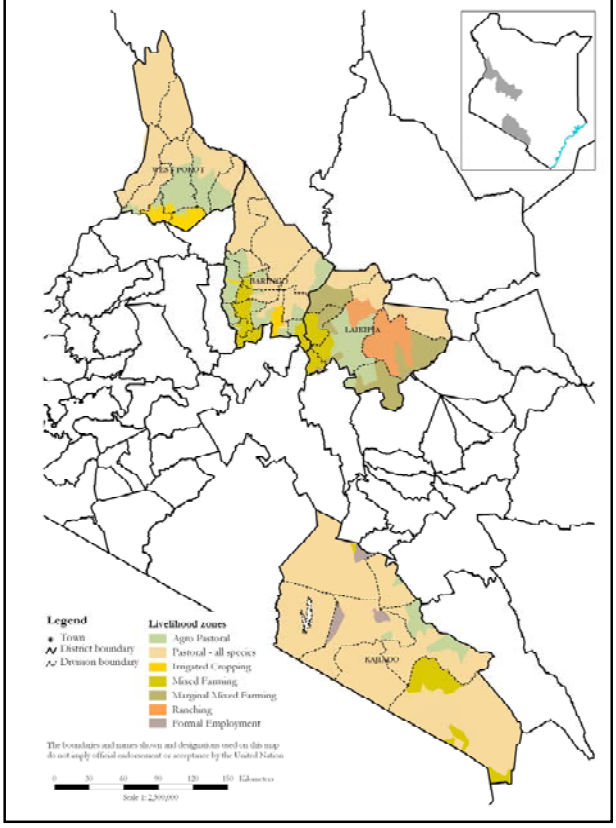
The long rains have generally been good in the agropastoral areas of the cluster, despite unusual breaks in April, in Laikipia, Kajiado and West Pokot. Recent resumption of rains in West Pokot and Baringo may improve the quality and quantity of pastures, browse and recharge sub-surface water sources. Since the cluster enjoyed normal rainfall, food security has remained stable in most agro pastoral areas while localized areas are considered moderately food insecure, as shown on figure 3.9.

In contrast, poor rains in the pastoral areas of the cluster, such as in Kajiado and Baringo could result in a rapid deterioration in the food security situation in next two to three months

if the onset of short rains is not timely. One key factor that might trigger widespread food insecurity includes the continued upward trend of staple food prices. The staple food prices are 60 to 120 percent higher than normal, in key markets of the livelihood zone.

Figure 3.11 depicts the price trends of beans in 2007 and 2008 compared to long term trend. It is evident that bean prices in 2008 are well-above the previous year's and respective long term averages. In addition, terms of trade and food access for households dependent on livestock production will continue to deteriorate as the quarantine due to the PPR threat remains in place. Trekking distances have already extended beyond 15 kilometres and will likely accelerate the decline in livestock body conditions. Figure 3.12 is an illustration of contrasting livestock prices between agropastoral and pastoral areas of the cluster, depicting unfavourable livestock prices in pastoral areas.

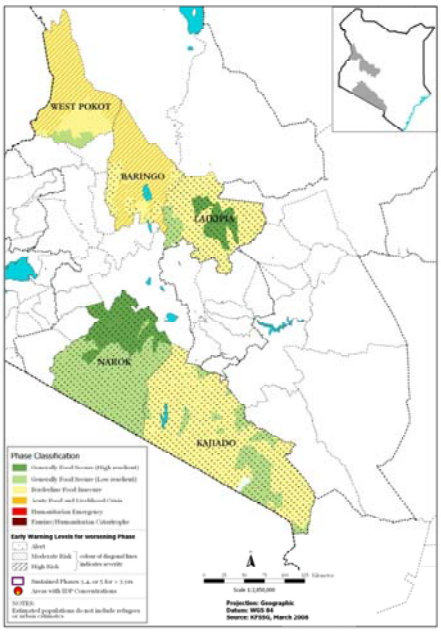
Figure 3.9 – Agropastoral LZs



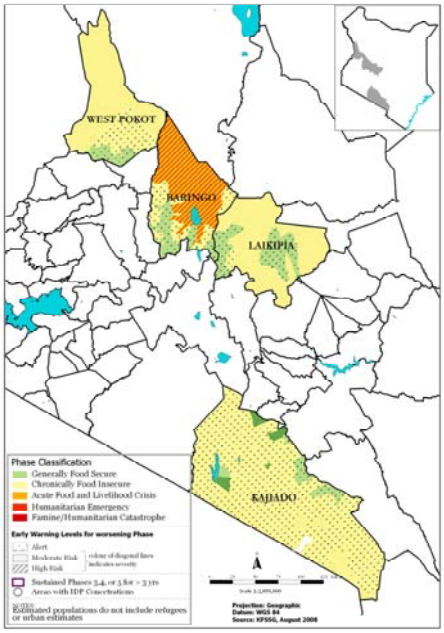
While improvements have occurred in many parts of the agropastoral cluster, good rains alone are insufficient to improve food security meaningfully. Rising and well above normal food and non-food prices

Figure 3.10 – Food Security in the Agropastoral Cluster

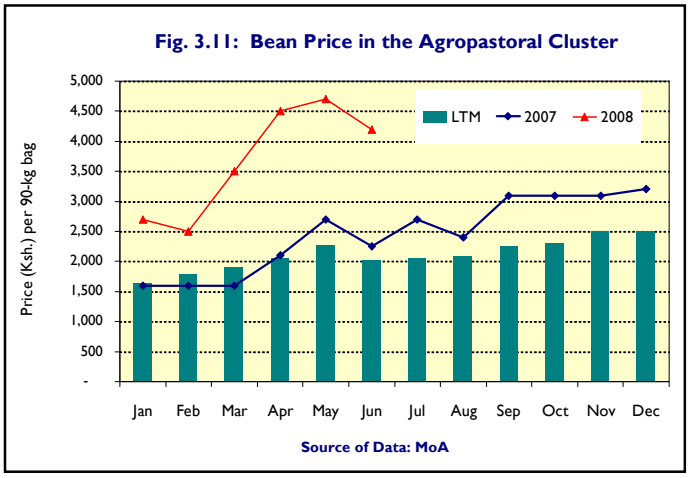
After 2007/'08 Short Rains

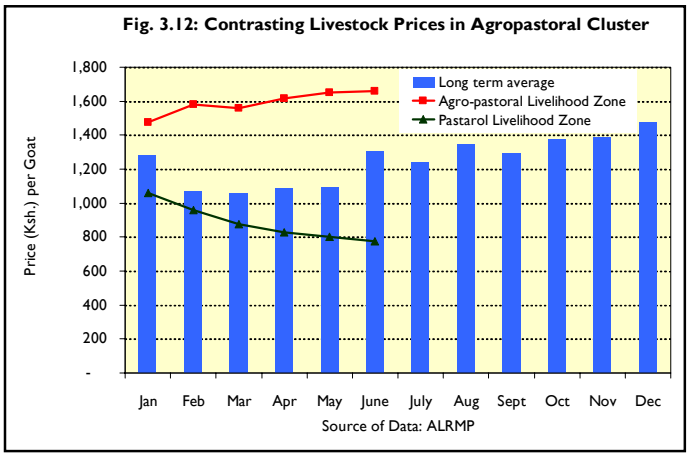


After 2008 Long Rains



are eroding purchasing capacities among agropastoralists. The area of most critical concern is the food security situation of pastoralists in Baringo District, which has worsened considerably unlike most areas of the cluster. The poor food security situation, attributed to a combination of the PPR; poor rains; a near-total crop failure; high food prices and heightened conflict, suggesting close monitoring and an immediate expanded intervention.

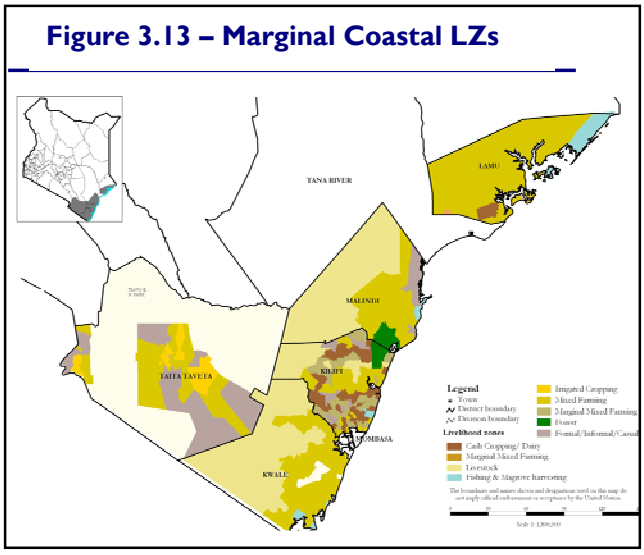




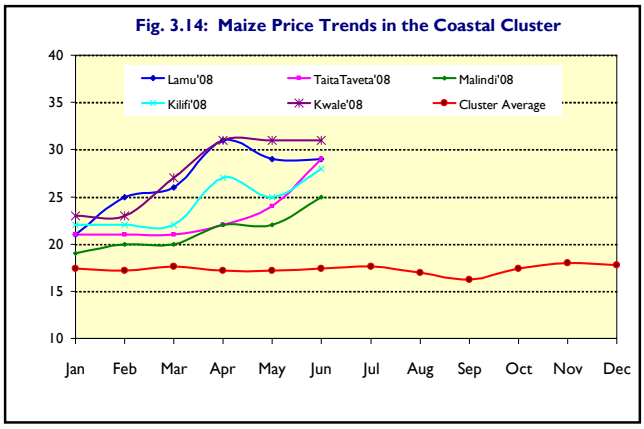
On-going interventions include value addition of agricultural produce to facilitate adequate storage at household level through field days and provision of drought tolerant seed varieties; A PPR, FMD and CCPP vaccination for an estimated 30-35 percent of the livestock; imposition of a quarantine against FMD and PPR; Comprehensive Care Clinics in Kajiado, West Pokot and Baringo; and desilting water pans and construction of boreholes. However, on-going interventions are fairly localized in scope, promoting the need for an expanded, intergrated intervention outlined in section 5.0.

3.5 Coastal Marginal Agricultural Livelihood Cluster

The Coastal Marginal Agricultural Cluster comprises Malindi, Kilifi, Kwale and Taita Taveta districts. The short-rains season is normally the most reliable accounting for close to 70 percent of crop output, particularly in the south-eastern lowlands. Crop production accounts for close to 40 percent of the typical household income, while livestock for about 30 percent and off farm activities, including remittances, account for about 30 percent of typical household income. One outstanding characteristic of the labor pattern in the both the coastal and eastern marginal agricultural livelihoods is that close to 20 percent of household members that are out-migrant



laborers engaged in agricultural activities in neighboring high potential livelihood zones, the tourism industry or as waged laborers in adjacent urban towns. The Coastal Marginal Agricultural Livelihood (see figure 3.13) is characterized by extremely high chronic food insecurity underlying current acute food insecurity in several areas. Chronic factors compromising food production and access include poor crop husbandry; increasing and unresolved wildlife-human conflict; a decline in the tourism sector; outbreak of livestock diseases and extended periods of under-nutrition due to the high poverty levels.

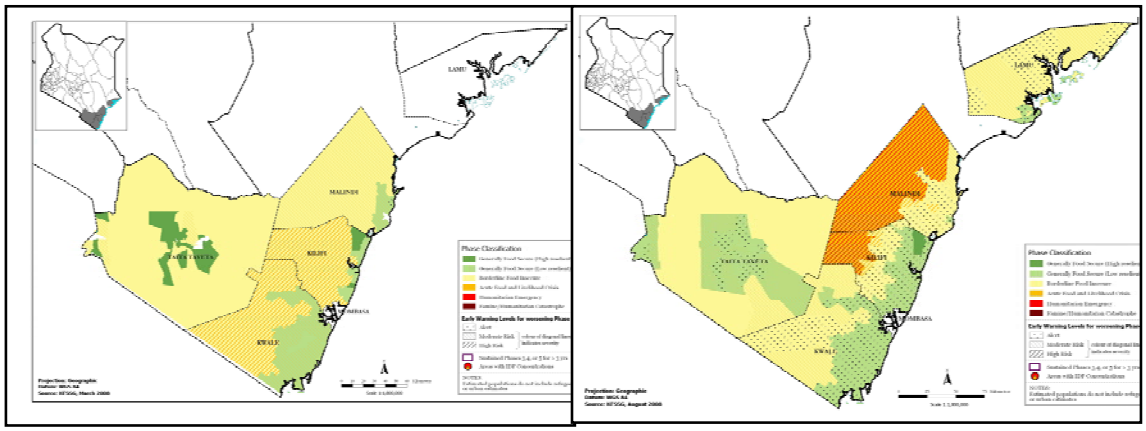


The onset of the long rains was timely, though the distribution was generally poor interspersed with long dry spells, particularly in areas outside the coastal belt. However, intense rains extending into July occurred in the mixed farming zones and the coastal belt. The early cessation of rains, outside the coastal belt, resulted in significant crop failure exacerbated by crop destruction by wildlife, non-adoption of recommended agronomic practices and dependence on the less drought-tolerant maize.

The rise in food prices has accentuated food insecurity since most households in the livelihood are overwhelmingly net buyers of food commodities. Figure 3.14 shows the trend in maize prices in all cluster districts, indicative of prices well above the cluster's long term average. Unfortunately, livestock production is characterized by low tropical livestock units (TLUs) ranging 1-2 animals whose productivity is unlikely to compensate for the crop losses or the rise in food prices. In addition, milk availability is low since local indigenous breeds are reared through sub-optimal husbandry. In some areas of the cluster, pastures are under-utilized due to the low numbers of livestock that are reared. Nearly 70 percent of sub-surface water sources had dried up, increasing trekking distances in search of water for livestock and domestic use, thus limiting time for productive activities.

Figure 3.15 – Food Security in the Coastal Cluster

After 2007/'08 Short Rains **After 2008 Long Rains**



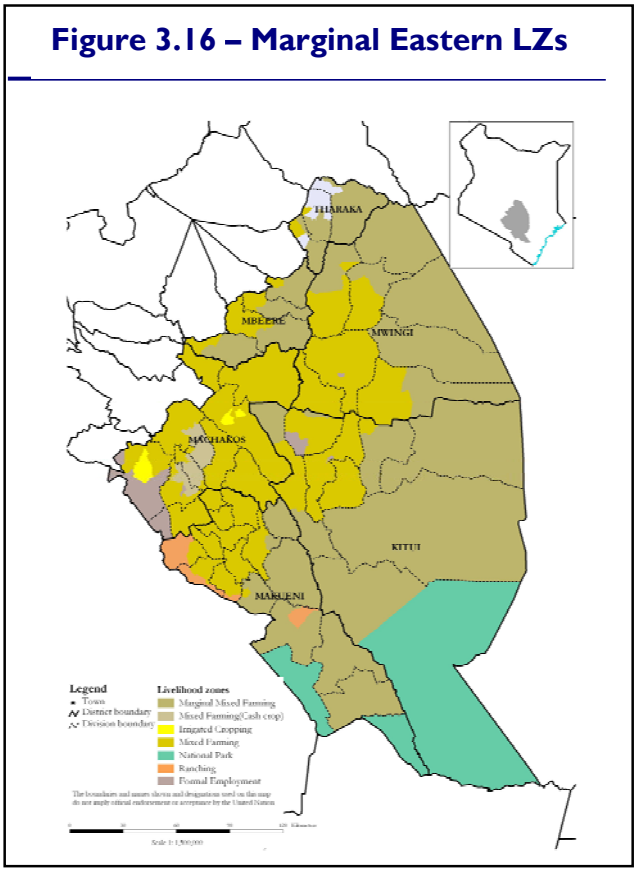
The food security prognosis for the mixed farming areas along the coastal belt that received good rains is expected to improve. However, the improvement will be moderated by the rise in food prices. In contrast, farmers in the marginal and livestock areas of Malindi, Kilifi, and Kwale are in acute livelihood crisis with potential to deteriorate further particularly if the short rains fail. See figure 3.15 for an illustration of food security situation in the cluster.

On-going interventions include provision of seeds for drought-tolerant crops; promotion of improved crop and livestock husbandry; increased access to water to households and schools; relief food distribution; regular school feeding program; and the pilot school meals program in eight schools. However, chronic food insecurity is rampant and requires decisive redress. Current interventions are unlikely to meaningfully reverse growing food insecurity. See section 5.0 for recommended response options.

3.6 Eastern Marginal Agricultural Cluster

The Eastern Marginal livelihood zone comprises of Tharaka, Mbeere, Mwingi, Machakos, Kitui and Makueni – see figure 3.16. The traditionally highly unreliable long rains were below normal in most areas of the livelihood. The quantity and distribution was poor and could not sustain crop development to maturity but facilitated regeneration of pasture, forage, and limited recharge of water sources. Most of these districts have experienced two to three successive poor seasons.

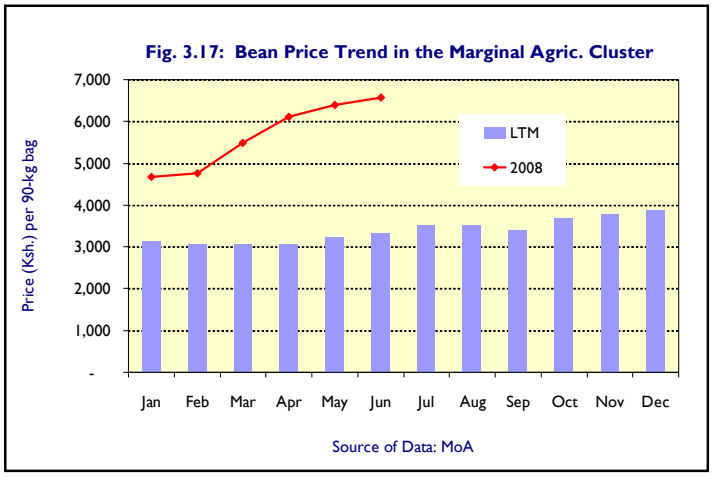
Figure 3.16 – Marginal Eastern LZs



Consequently, crop failure was widespread and is estimated to be about 80-90 percent for maize and beans and about 70-80 percent for green grams, cow peas and pigeon peas. Pasture and browse remain adequate leading to good livestock body conditions. However, households are resorting to increased sales of livestock as a means of coping with high prices of food and non food commodities. Chicken are normally traded to finance immediate food purchases while cattle and goats are sold for household development projects and school fees. Sales of livestock will likely continue to increase through the next six months because no significant crop harvest is expected until February 2009.

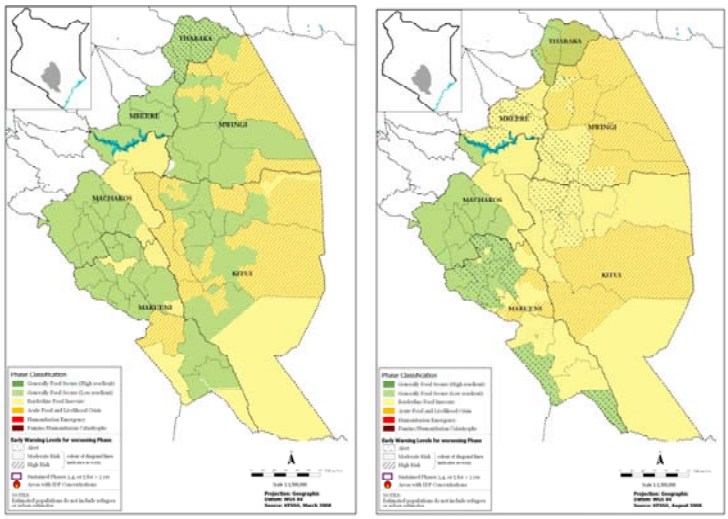
Livestock prices increased by 10 percent between January through July 2008, while cereal prices rose by 65 percent during the same period. Figure 3.17 depicts the well-above average bean prices within the cluster suggesting that household food access is under

sustained pressure. Increased sales of livestock will invariably reduce their market price thus minimizing their purchasing capacities with respect to food and non-food commodities.



Food insecurity is deepening as shown on figure 3.18. The major threats to food insecurity in the marginal livelihood cluster include the adverse impacts of cumulative failed seasons, including heightening conflict over grazing resources, particularly in northern Mwingi; use of low yielding uncertified seeds; degraded soils that have lost their water holding capacities, leading to severe water shortages and the continued rise in fuel prices that drive most productive activities, including the running of posho mills. Subsequently, the food security prognosis is unfavorable as trekking distances to water points for livestock and domestic use are expanding precariously, while household food stocks deplete. Rates of child malnutrition may begin to rise since milk yields are exceptionally low, averaging between 0.5-1 litres per cow, well below normal and household requirements. High food and non-food prices suggest that farm households may not meet their dietary needs and food security is likely to deteriorate rapidly as the dry season intensifies.

Figure 3.18: Food Security in the Marginal Agricultural Cluster



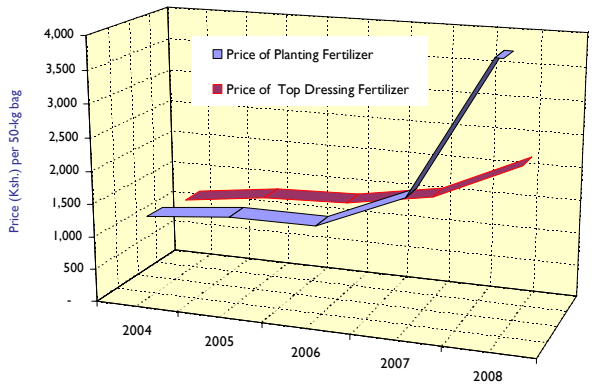
On-going interventions include health and nutrition surveillance; water trucking; expansion and rehabilitation of water sources; promotion of drought-tolerant crop varieties; upgrading of goat breeds and the regular school feeding program. While long term development interventions are the most desirable, it is recommended that the current short term food and non-food interventions be re-directed and delivered in a way that supports recovery, livelihood resilience and mitigates new food security threats such as the high food prices.

3.7 North Rift and Western Regions Mixed Farming Cluster

The assessment in the North Rift and Western Regions Mixed Farming Cluster which comprises Greater Trans Nzoia, Uasin Gishu, Kericho and Nakuru districts in the Rift Valley Province and Mount Elgon District in Western Province, was intended to clarify the food security status in an areas severely impacted by post-election conflict and civil conflict in Mt. Elgon. The cluster has a population of about 2.8 million persons and just over 70 percent are engaged in mixed farming in a livelihood that is normally highly productive.

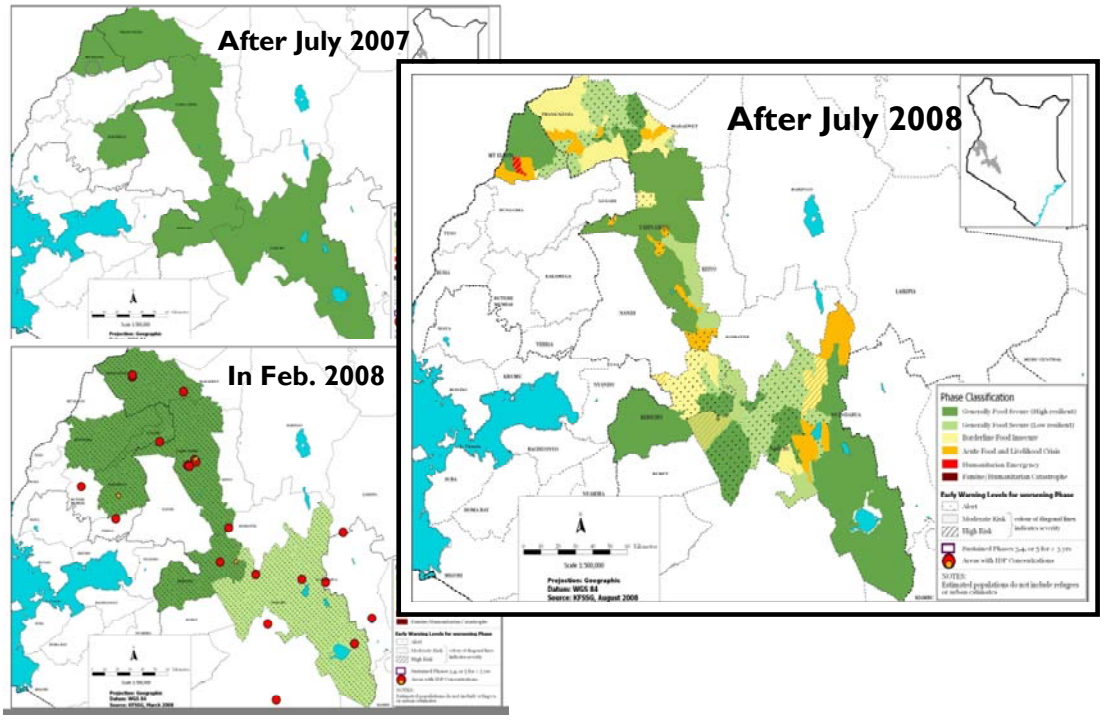
The Rift Valley Districts in the Cluster have been under emergency humanitarian operations since January, 2008 while Mount Elgon District since November, 2006. The main factors that have affected the food security status of farmers include: adverse impacts of post - election violence; delayed and erratic rainfall; high costs of farm inputs including fuel prices (see figure 3.19); flight of skilled workers from the area and continued insecurity in Mt. Elgon District.

Fig. 3.19: Dramatic Rise in Fertilizer Prices in Conflict Epicenters



The current food security status for about 20,000 IDPs still living in camps remains unchanged since the rains began in March, 2008. The loss of livelihood assets including high

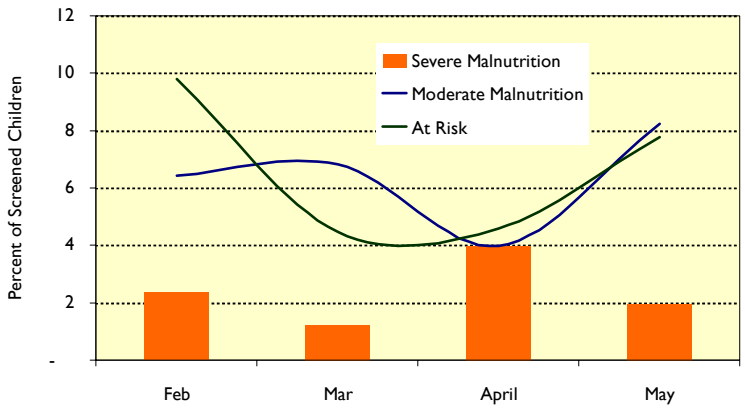
Figure 3.20: Food Security in the Marginal Agricultural Cluster



yielding improved livestock breeds; tools and machinery; homes; household items; business premises and in some instances the loss of household members has pushed their food security from food secure to the emergency status, in most instances. In addition, vulnerability to natural hazards such as flooding and poor sanitation for a proportion of 250,000 IDP returnees who moved from planned camps to unplanned transitional camps has worsened. Conditions for these farmers especially in Molo, Nakuru and Uasin Gishu were further aggravated by destruction of crops by unattended livestock.

The food security status for the non-displaced farmers, however, has improved as security has been restored. The medium and large scale farmers were able to absorb the high cost farm inputs, the delayed and erratic long rains even after the post-election crisis.

Fig. 3.21: Malnutrition trends in IDP Camps



Source of Data: KFSSG Assessment Team

However, small scale farmers were unable to sow crops in a timely fashion due to inability to finance the purchase of farm inputs, as a result of a 27 percent increase in production costs. The farmers are likely to supplement their food requirements by seeking other income-generating opportunities, in a generally labor-deficit cluster. In addition, resources normally used to purchase farm inputs had been eroded because the IDPs that have integrated in the households consumed household strategic stock that is normally sold to purchase farm inputs. The overall area put to maize declined by about 20 and 15 percent for beans. In addition, low application of farm inputs, especially fertilizers, is expected to reduce the expected yields per unit area by just over 20 percent.

Rural markets have reported a 150-200 percent increase in prices of maize and beans since the beginning of the year. The prices of basic food and non-food commodities such as soap, sugar and oil have also increased by margins ranging between 25-75 percent, underlining the erosion in purchasing capacities that will invariably occur among the small scale farmers and IDPs, in particular.

Livestock production was generally within expected norms across all districts in the cluster except in Nakuru and Molo where farmers suffered losses through theft of animals. Loss of high-yielding superior breeds poses a major setback for some of the farmers, considering that production of a pedigree breed takes about 10 years. While water levels are normal, returnees are currently unable to safely utilize their water sources that were affected severely by the post election violence.

Cluster nutrition rates are good for the non-displaced household, while rates of child malnutrition within IDP camps that were declining between February and April are now on the increase. Apart from under nutrition, poor hygiene and disease prevalence in crowded environments have promoted the rise in malnutrition. Figure 3.21 shows the malnutrition status of IDPs. Malaria is the most prevalent disease in the cluster followed by respiratory

infections, skin infections and diarrhoea. The coping strategies in this cluster have been the reduction in number and size of meals prepared from aid rations, seeking kinship support, casual labor as well as selling non-food items to get money to buy other necessities. Communities that would generally not engage in petty trade and/or charcoal production are engaging in these activities.

In general terms, the food security status for the IDPs and returnees is likely to remain precarious until pre-election production levels are re-established. The food security status of the IDPs who lost their high-yielding livestock breeds; businesses; homes and household members will require several years to recover, if at all. Returnee households still staying in transition camps ha**ve** a heightened vulnerability to the four key diseases, namely, malaria, diarrhoea, respiratory and skin diseases. Small-scale farmers not directly affected by the post-election conflict will need to complement food needs by supplementing their income with other income-generating activities. However, the food security status for the medium and large scale farmers is expected to remain normal.

The magnitude and depth of the food security shock as shown on figure 3.20, suggests that interventions need to be expanded significantly to avoid entrenching food insecurity in previously food secure livelihoods. On-going interventions include food and non-food commodities to IDPs and returnees; establishment of peace committees; rehabilitation of schools and provision of farm inputs. Proposed interventions are outline in section 5.0.

4.0 Impacts of heightened food prices on livelihood food security

4.1 Introduction

Admittedly, the unprecedented rise in food and non-food commodities prices has been one of the most significant shocks during 2008. The most affected households reside in the already highly food insecure livelihoods most notably the urban, pastoral, agropastoral and marginal agricultural livelihoods. The dramatic increase in food prices has deepened food insecurity across the country, where up to 70 percent of the Kenyan population consists of net food buyers. In addition, the country is a net importer of all key food commodities including livestock. Subsequently, the majority of the Kenyan population is not insulated from external price fluctuations, hence accentuating their vulnerability to food insecurity. The KFSSG sought to clarify in depth, the impacts on the food security due to price changes, of the most food insecure households, over the past eight months in the following section.

4.2 Summary of Analysis Framework

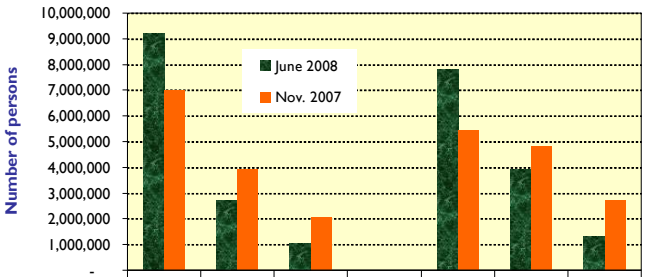
The framework of analysis was the livelihood, while household data used for the analysis was collected from October 2007 through June 2008. Other data included assessment data, geo-referenced livelihood zone data, household expenditure, production and price data. Food inflation was factored in at current levels of 45 percent and was used to revise food security cut-offs and re-classify impacts at revised levels. The change in the proportion of people falling in each of the three wealth groups, the poor, medium and well-off, as a result of the price shock was then determined for each livelihood group. A further scenario where households borrowed 25 percent of expenditure on non-food items to finance the food gap was also evaluated. Characteristics of livelihood groups were key in determining the impacts of the price shock on household food security among the urban and pastoral livelihoods.

4.3 Impacts on the Urban Livelihood

The Kenyan urban livelihood is home to about 13 million persons out of a national population of an estimated 35.7 million persons. About 7.6 million of these reside in slums and overall nearly 40 percent of the urban population fall into the highly to extremely food insecure category. The livelihood is highly diversified in income sources and structure, demographics and ethnic composition. However, most income is derived from waged labor and petty business for the most food insecure, while nearly all food and non food needs are purchased. As a result, the livelihood is highly vulnerable to shocks including price, production and labor shocks.

Analysis of the impacts of rising prices, over the past six months or so, produced worrisome results. The population of the poor category

Figure 4.1. Urban Livelihood – price impacts



	Poor	Medium	Well off		Poor	Medium	Well off
June 2008	9,230,000	2,730,000	1,040,000		7,800,000	3,900,000	1,300,000
Nov. 2007	7,020,000	3,900,000	2,080,000		5,460,000	4,810,000	2,730,000

+ borrow 25% from non-food expend.

Source: KFSSG

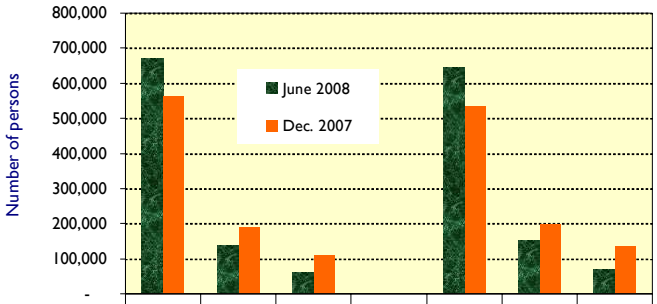
has risen by 31 percent. However, it would rise by a smaller margin of about nine percent if 25 percent of household food expenditure is borrowed from non-food purchases. Borrowings from non-food expenditures would result in compromising health care, education and transportation needs. Figure 4.1 is an illustration of the decline in food security through increasing numbers of the food insecure, arising from the price increases. The study underlines the precarious rise in food insecurity since income sources and wage rates remained static during that period while food and non food prices have risen by up to 50 percent in six months. Diet changes are evident with reduction in frequency and composition of meals, which could lead to a precipitous rise in malnutrition and susceptibility to disease, since many of the most vulnerable households normally purchase water. It is anticipated that a rise in school drop outs could also increase as well as the incidents of food riots and heightened crime.

4.4 Impacts on the Pastoral Livelihood

The pastoral livelihood, home to nearly 3.5 million pastoralists or 10 percent of the Kenyan population and is characterized by a highly variable agro-climate, recurrent droughts and floods, and low total annual rainfall ranging between 250-400 mm. The livelihood is overwhelmingly dependent on livestock where at least 80 percent of income is derived from trade in livestock and products. However, markets are poorly integrated coupled with high transaction costs due to a poor trade infrastructure and increasing incidences of conflict, especially in the northwest. Market purchases account for about 65 percent of household food needs, underlining the importance of not only well functioning markets but non-prohibitive cereal and non-food prices.

Results from the analysis indicate that the population of the poor category has risen by 23 percent due to the rise in prices among northwestern pastoralists. However, the population would rise by a smaller margin of about 18 percent, if 25 percent of household food expenditure is borrowed from non-food purchases. Figures 4.2 and 4.3 show the impacts of food prices on north western and northeastern pastoralists, respectively. The population of the poor category among the northeastern pastoralists rose by 19 percent, following the rise in prices and by 14 percent in the event that 25 percent of household food expenditure is borrowed from non-food purchases.

Figure 4.2. Northwestern Pastoral - price impacts



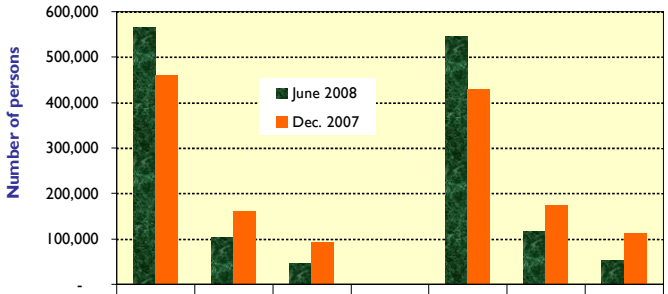
	Poor	Medium	Well off		Poor	Medium	Well off
June 2008	669,527	135,753	60,626		645,622	152,090	68,194
Dec. 2007	564,826	190,105	109,976		533,037	199,146	133,741

+borrow 25% from non-food expenditure

Source: KFSSG

The results indicate a precarious food security situation since close to 75 percent of the pastoral population falls under the food poor category, following the rise in food prices. Northwestern pastoralists are most affected because of the impacts of the PPR coupled with rising incidents of conflict that that have constrained access to grazing resources and markets. While livestock prices are rising especially in the northeast, the rise in cereal price has superseded the rise and terms-of-trade are becoming increasingly unfavorable to pastoralists. It is likely that pastoralists will resort to distress livestock sales in order to boost their purchasing capacities to cover the food gap, resulting in a reduction in their tropical livestock units (TLUs). Heightened sale of livestock will interrupt the recovery process, leaving the pastoral livelihood at risk, particularly if large numbers of livestock are sold to compensate for the rise in food prices.

Figure 4.3.Northeastern Pastoral – price impacts



	Poor	Medium	Well off		Poor	Medium	Well off
June 2008	565,512	102,247	47,517		546,398	115,248	53,560
Dec. 2007	460,232	162,021	93,022		428,075	175,147	112,064

+ borrow 25% of non-food expenditure

Source: KFSSG

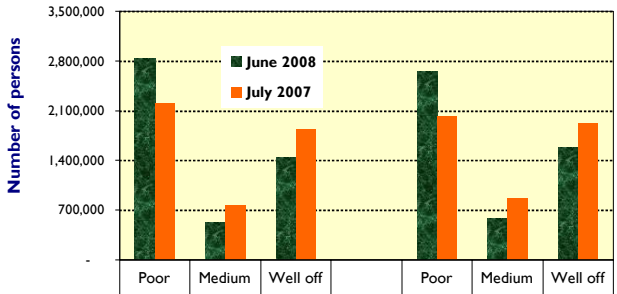
As indicated in previous sections, rates of child malnutrition are above critical thresholds in parts of Mandera and Turkana. A further increase in food and non-food prices, coupled with the reduction in the frequency and composition of meals could further worsen these rates. The proportion of the medium and well-off categories is fairly small and dependency on these two groups may not be sustained. A livelihood crisis is likely to occur should the rise in prices continue unabated and if compounding factors such as the spread of the PPR and conflict are not addressed.

4.5 Impacts on the Marginal Agricultural Livelihood

Results from the analysis indicate that the population of the poor category has risen by 28 percent, as a result of the rise in food prices. However, the population would rise by a smaller margin of about 20 percent if 25 percent of household food expenditure is borrowed from non-food purchases. About 55 percent of marginal agricultural farmers fall in the poor category.

The impact of the rise in food prices is most significant among the urban, pastoral and marginal agricultural livelihoods, the most market-dependent livelihoods. However,

Figure 4.4: Marginal Agricultural Livelihood



	Poor	Medium	Well off		Poor	Medium	Well off
June 2008	2,835,704	528,691	1,441,883		2,643,453	576,753	1,586,072
July 2007	2,210,888	769,004	1,826,386		2,018,637	865,130	1,922,511

+borrow 25% of non-food expend.

Source: KFSSG

the impacts are ominous for the three lowest quartiles among the *food poor* category, estimated to consist of about 5.6 million persons out of a national population of about 35.6 million.

Urban areas were not under the remit of the 2008 long rains assessments. Yet of immediate priority is an urban assessment that determines the character of food insecurity among urban dwellers and recommends a mix of immediate and medium to long term interventions, intended to forestall the downward spiral in food security. KFSSG Markets' Report, July 2008 provides a comprehensive analysis of required intervention. For the complete report, please see the http://www.kenyafoodsecurity.org, site.

5.0 Recommendations

KFSSG's 2008 long rains assessments highlight the fact that current food insecurity in Kenya has linkages to both the current drought and longer-term poverty and chronic food security. Within this context, the response to food insecurity requires both an immediate and long-term response. It is important therefore, to develop and advocate for responses that effectively deal with the short-term acute food insecurity that, as much as possible, also have positive longer-term impacts on chronic vulnerability. Sectoral working groups are emphatic that chronic food insecurity will deepen and become entrenched unless medium to long term interventions are implemented, concurrently with short term priority interventions. The following are recommended sectoral interventions:

5.1: Water Sector - Priority Interventions, Sep. 2008 – March 2009

	Intervention	District	Cost (Ksh.)
1.	Water trucking/ fuel subsidy	Mandera, Moyale, Samburu, Wajir Garissa	**55,200,000**
2.	Borehole rehabilitation	Kajiado, Makueni, Malindi, Mbeere, Moyale, Samburu, Kitui, Laikipia, Isiolo	**55,000,000**
3.	Fast moving borehole spares Support for rapid response teams (RRT)	Garissa	**2,500,000**
4.	De-silting pans and dams	Ijara, Kajiado, Lamu, Makueni, Malindi, Mandera, Moyale, Tana River, West Pokot, Lamu, Taita Taveta, Laikipia	**92,200,000**
	PVC water tanks	Lamu, Marsabit, Mbeere	**26,700,000**
6.	Rain water harvesting	Marsabit, Moyale, Tharaka, Kitui	**17,600,000**
7.	Shallow wells rehabilitation	Uasin Gishu, Kilifi	**33,060,000**
	Grand Total		**282,260,000**

Medium to long term interventions

The water sector also recommends additional interventions including drilling and equipping of new boreholes where appropriate; improvement of sanitation and hygiene; construction of sand and sub-surface dams; rehabilitation of water supplies and pipes and expansion of irrigation schemes. The long term interventions are predominantly in the most vulnerable pastoral, agropastoral and marginal agricultural livelihoods requiring Ksh. 300 million or $ 4.5 million to accomplish.

5.2: Health and Nutrition Sector - Priority Interventions

	Intervention	District	Cost (Ksh.)
1.	Scale-up integrated management of acute malnutrition through provision of Therapeutic and supplementary feeds for rehabilitation of the severe and moderately malnourished children	Mandera, Turkana, Marsabit, Tana River, Garissa, Isiolo, Kwale, West Pokot, Trans Nzoia, Malindi, Mt. Elgon, PEV – returnees, Samburu & Wajir	87,000,000
2.	Provision of Accelerated Integrated mobile outreach services in hard to reach areas to increase access to health and nutrition services.	Baringo, East Pokot, Lamu, Mandera, Turkana, Tana River, Garissa, Isiolo, Marsabit, Samburu, Mt. Elgon & PEV – returnees	17,000,000
3.	Conduct Health and Nutrition surveys	Baringo, East Pokot, Malindi, Kwale	5,000,000
4.	Purchase 9 refrigerators to increase immunization coverage	West Pokot, Baringo	3,000,000
5.	Procurement and distribution of Long Lasting Insecticide Treated Nets (LLITNS).	Baringo, West Pokot, Ijara and Malindi	7,500,000
6.	Scale up Micronutrient supplementation of vitamin A	Mandera, Turkana, Marsabit, Tana River, Garissa, Isiolo, Kwale, West Pokot, Trans Nzoia, Malindi, Mt. Elgon, Samburu, Wajir and PEV – returnees	10,000,000
7.	Nutrition Education on infant and young child nutrition for the communities	Mandera, Turkana, Marsabit, Tana River, Garissa, Isiolo, Samburu & Wajir, Kwale, West Pokot, Trans Nzoia, Malindi, Mt. Elgon, PEV – returnees	6,000,000
8.	Improvement of sanitation coverage	All ASAL districts	28,000,000
9.	Psycho social support to those still traumatized	PEV areas	2,500,000
10.	De-worming of school age children	All ASAL districts	30,000,000
11.	Strengthen disease survelliance	All ASAL districts	2,000,000
	Grand Total		**Ksh. 200,000,000**

Medium to long term interventions

In addition to the short term interventions, there is need for continuous nutrition education of communities on infant and young child nutrition and promotion of growth monitoring. Strengthening disease and nutrition surveillance and up scaling of vitamin A and immunization coverage will be required. Poor hygiene and sanitation that also promotes disease and poor absorption of nutrients, remains a great threat to food security hence requires special attention. The MoH needs to provide basic drugs to all rural health facilities, with special emphasis on anti-malarial drugs. The medium to longer term interventions are estimated to cost Ksh. 310 million or $ 4.7 million.

5.3: Livestock Sector - Priority Interventions, Sep. 2008 – March 2009

	Intervention	District	Cost (Ksh.)
1	Mass vaccination and pest control, especially against PPR.	Baringo, Garissa, Turkana, Wajir, Marsabit, Ijara, Laikipia ,Lamu, Isiolo, Samburu, Tana river, Mandera, Kilifi, Kwale, Makueni, Uasin-Gishu, Tharaka, Kajiado, Mwingi, Kitui, Moyale, West Pokot,	140,000,000
2	Control of Pestes *petit des ruminants* (PPR)	Taita Taveta, Baringo, Garissa, Turkana, Wajir, Marsabit, Ijara Laikipia, Lamu ,Isiolo, Samburu, Tana River, Mandera	150,000,000
3	Enhanced livestock off-take	Isiolo, Mandera, Samburu, Marsabit, Wajir, Lamu	105,000,000
4	Restocking	Kilifi, Kwale, Mt. Elgon, Nakuru, Trans Nzoia, Malindi	96,000,000
5	Pasture management (Ipomoea eradication)	Laikipia, Tharaka, Baringo, Taita-Taveta, Mbeere, Kwale, Kilifi., Kajiado	25,000,000
6	Provision of hay and supplements	Isiolo, Mandera, Nakuru	17,000,000
	Grand Total		**493,000,000**

Medium to long term interventions

The assessment teams have also recommended long term interventions that address chronic food insecurity. These include, Livestock redistribution, improved livestock husbandry, development of strategic feed reserves, and promotion of market linkages including infrastructure. Existing gaps in the capacity of government and development partners need to be addressed alongside the short term interventions. Livestock production is traditionally the most viable enterprise in the most food insecure areas of the country. The medium to longer term interventions are estimated to cost Ksh. 1.2 billion.

5.4: Fisheries Sector - Priority Interventions, Sep. 2008 – March 2009

	Intervention	District	Cost (Ksh.)
1	Stocking of fish ponds/dams	Kilifi	1,200,000
2	Cold storage and fishing equipment	Lamu, Turkana, Kilifi,	22,000,000
	Grand Total		**23,200,000**

5.5: Agriculture Sector - Priority Interventions, Sep. 2008 – March 2009

	Intervention	Livelihood and District	Cost (Ksh.)
1	Provision of assorted drought tolerant crops seeds (Cow peas, Pigeon peas, Green grams and millet)	**Eastern Pastoral** (Mandera, Wajir, Garissa, Tana River, Isiolo, Ijara) **Agro Pastoral** (West Pokot, Baringo, Laikipia, Kajiado, Narok) **Eastern Marginal Agriculture** (Mwingi, Machakos, Kitui, Tharaka and Mbeere) **Coast Marginal Agriculture** (Malindi, Lamu, Taita Taveta, Kwale, Kilifi)	120,000,000
2	Promote and capacity build on Post harvest management	**Agro Pastoral** (West Pokot, Baringo, Laikipia, Kajiado, Narok)	16,900,000
3	Provision of farm inputs (tractors, seed and fertilizer)	**North Rift and Western Mixed Farming** (Mt. Elgon, Trans Nzoia, Uasin Gishu, Kericho and Nakuru)	314,000,000
4	Provision of tools and animal traction equipments	**Agro Pastoral** (West Pokot, Baringo, Laikipia, Kajiado, Narok	27,000,000
	Grand Total		**477,900,000**

Medium to long term interventions

The agriculture sector recommends the need to establish seed banks, particularly in the marginal agricultural areas; promotion of irrigated agriculture in the marginal agricultural, agropastoral and pastoral areas; implementation of animal traction for land preparation and other farming routines; provision of starter seed for planting and capacity strengthening on pre-and post harvest management. The estimated cost of the interventions is about Ksh. 100 million or $1.5 million.

5.6: Food Sector - Priority Interventions, Sep. 2008 – March 2009

The Food Aid Estimates Subcommittee (FAS) of the Kenya Food Security Steering Group (KFSSG) proposes to provide continued food assistance to an additional 144,000 beneficiaries in seventeen arid and semi arid districts from the current 887,000 people to 1,027,000 people. The new figure represents an increase of 16 percent that will also include 55,000 and 300,000 beneficiaries under the supplementary feeding programme and the post election crisis areas respectively, bringing the total number of people requiring food assistance to 1,382,000. The modalities of interventions will be through General Food Distribution (GFD) and Food for Assets (FFA) depending on the severity of the situation. The total food requirement for the next phase of the EMOP is 125,646 MT with a total shortfall of 65,327 MT amounting $ 58 million, through March 2009.

Projected Pipeline Shortfalls and Requirements Conclusion

	Beneficiaries	Cereals	Pulses	Veg. Oil	Salt	CSB	
September 08	1,382,000	0	896	601	199	1,141	2,837
October 2008	1,382,000	0	0	0	199	383	582
November 2008	1,382,000	2,263	1,513	0	199	2,383	6,359
December 2008	1,382,000	13,084	2,252	439	199	2,383	18,357
January 2009	1,307,000	6,341	0	0	188	-	6,529
February 2009	1,307,000	12,159	0	0	188	1,816	14,163
March 2009	1,307,000	12,159	1,995	0	188	2,158	16,500
Sept '08 - Mar'09		46,007	6,656	1,040	1,360	10,265	65,327

The 2008 long rains assessments have revealed measured improvements in food security fundamentals in the eastern pastoral districts and in localized areas of other pastoral, marginal agricultural and agropastoral areas. However, food security has deteriorated in most other parts of the livelihoods, the most culpable being the northwestern pastoral livelihood. Poor rains, the PPR and other livestock diseases, unprecedented rise in food and non-food prices, crop failure, crop destruction by wildlife and substantial gaps in livelihood-building interventions have all combined to accentuate acute and chronic food insecurity across the most vulnerable arid and semi-arid areas of the country. Proposed interventions in section 5.0 offer the only realistic hope of averting an acute food and livelihood crisis or an emergency in some instances, in the event that the short rains are poor. The GoK, donors and NGOs need to implement collaboratively recommended actions expeditiously, so as to mitigate the need for a larger and more costly humanitarian need in a few months time.