CONSOLIDATED INTER-AGENCY REPORT

Kenya Food Security Steering Group
(KFSSG)

KENYA
SHORT RAINS ASSESSMENT REPORT 2008

11th MARCH 2008

A collaborative report of the Kenya Food Security Steering Group: Office of the President (Ministry of State for Special Programmes (Arid Lands Resource Management Project and); Ministries of Agriculture, Livestock and Fisheries Development, Health, Water, and Education; FEWS NET, FAO, WFP; and UNICEF, Oxfam, World Vision; with financial support from Arid Lands Resource Management Project, OP's Department of Relief and Rehabilitation, FAO, WFP, DANIDA and KMDP.

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LIST OF ABBREVIATIONS

ALRMP	Arid Lands Resource Management Programme
ASAL	Arid and Semi Arid Lands
CBTD	Community Based Targeting
CBTF	Community Based Therapeutic Feeding Programmes
CBO	Community based organizations
CERF	Central Emergency Response Fund
CFA	Cash for Assets
CFW	Cash for Work
CSB	Corn Soya Blend
ECDs	Early Childhood Development
ECF	East Coast Fever
EMOP	Emergency Operation Programme
FAO	Food and Agriculture Organization
FEWS NET	Famine Early Warning System Network
FFA	Food For Assets
FFW	Food For Work
FMD	Foot and Mouth Disease
GAM	Global Acute Malnutrition
GFD	General Food Distribution
GoK	Government of Kenya
Ha	Hectare
HIV/AIDS	Human Immunodeficiency Virus/Acquired Immune Deficiency Syndrome
Hrs	Hours
ICPAC	IGAD Climate Prediction and Application Centre
IDPs	Internally displaced persons
IDFFs	Internally displaced farming families
KES/Kshs/Ksh	Kenya Shillings
KFSM	Kenya Food Security Meeting
KFSSG	Kenya Food Security Steering Group
KMDP	Kenya Maize Market Development Program
KMS	Kilometres
LSD	Lumpy Skin Disease
LZ	Livelihood Zone
MoA	Ministry of Agriculture
MoE	Ministry of Education
MoH	Ministry of Health
MUAC	Mid-Upper Arm Circumference
NDVI	Normal Deviation Vegetative Index
NGO	Non Governmental Organization
NPEP	National Poverty Eradication Plan
OP	Office of the President
RVF	Rift Valley Fever
SFC	Supplementary Feeding Centres
TFC	Therapeutic Feeding Centre
UN	United Nations
UNDP	United Nations Development Programme
UNICEF	United Nations Children's Fund
USD	United States Dollars
USGS	United States Geological Survey
UTI	Urinary Tract Infection
WFP	World Food Programme

A. Food Security Situation in the Arid and Semi Arid Districts

1 EXECUTIVE SUMMARY

1.1 Background

The Short Rains Assessment 2008 was conducted in February 2008 to determine the impact of the short rains season on the food security situation of arid and semi arid districts. Assessments were also conducted in the conflict-affected areas to evaluate the impacts of the post election violence on food security in the most affected areas. Thirty one representative districts falling into seven broad livelihood clusters were assessed including:

1. Northern Pastoral (Turkana, Moyale, Marsabit and Samburu Districts);
2. Eastern Pastoral (Mandera, Wajir, Garissa, Isiolo and Tana River Districts);
3. Agro-Pastoral (Baringo, West Pokot, Narok, Kajiado and Laikipia Districts);
4. Coastal Marginal Agricultural (Taita Taveta, Malindi, Kilifi and Kwale Districts);
5. Eastern Marginal Agricultural (Tharaka, Mbeere, Machakos, Mwingi, and Kitui Districts);
6. North Rift and Western Mixed Farming (Nakuru, Uasin Gishu, Trans Nzoia, Kericho, Lugari, Kakamega, and Bungoma).
7. Central Mixed Farming (Nyandarua).

Clusters six and seven represented the conflict-affected areas that are generally food secure during normal times. The assessment teams were composed of government and non-government experts from both food and non-food sectors since the field of food security analysis is broad and multi-sectoral.

1.2 Key Findings

Rainfall Performance

The rains were inadequate and poorly distributed both spatially and temporally in several northern and eastern pastoral areas; agro-pastoral; coastal and eastern marginal agricultural regions. Figure 3.1.1 is an illustration of the varied rainfall performance across the country.

The intensity, spatial and temporal distribution of the long rains was varied across the country. The short rains were below normal in the coastal marginal agricultural livelihood; 50-80 percent in most areas along the coast and 20-50 percent in the hinterland. The rains were 20-50 percent below normal in the northern pastoral, agro-pastoral and eastern marginal areas with a few areas receiving 50-80 percent of the normal rainfall. The lake basin marginal agricultural and eastern pastoral livelihoods received 80-120 percent of normal rainfall. Rains were generally above average in the important unimodal 'grain basket' North Rift.

National Food Security Situation

Consecutive improvement in the food security status of most livelihoods in the past three seasons has been interrupted in marginal agricultural, pastoral and agro-pastoral areas after a poor 2007 short rains season. Post-election violence has compounded the situation through increased disruption of markets leading to increased food prices; impairing agricultural production through increased costs of inputs in the mixed farming regions in Rift Valley, Western and Central Provinces; and lack of access and loss of household income-generating business enterprises. However, the adverse effects of the poor rains were mitigated by unseasonable precipitation in early January in some areas in the marginal agricultural and eastern pastoral regions. Recommencement of the recovery path for most livelihoods in the country is heavily dependent on favourable long rains in all areas; resettlement of IDPs; supporting agricultural production in the country's surplus production areas especially North Rift before the critical planting period is over, running concurrently with emergency food and non-food interventions. The combination of displacement and high production costs threatens to reduce land under cultivation in these areas by up to 30% with drop in food production, with the potential to impact negatively on food availability and access country-wide.

Food Security Situation by Livelihoods

In the **northern pastoral region**, areas that were generally food secure in southwestern Samburu District have slipped down to borderline food insecure with low resilence, see figures 1.2.1 and 1.2.2, as a result of a poor short rains season. Most of the areas are now at high risk of deteriorating to acute food and livelihood crisis. The food security situation in Turkana District has already deteriorated from borderline food insecure to acute food and livelihood crisis because of a combination of poor short rains; increasing insecurity; inaccessibility of some dry season grazing areas as a result of insecurity and high cost of food due to post election disruption of the food supply chain.

The food security condition in the **agro-pastoral region** has deteriorated from generally food secure with low resilience to borderline food insecure in West Pokot, Baringo, Laikipia and Kajiado Districts. The deterioration is attributed to diminishing pasture and water availability, increased livestock disease infection leading to quarantine and closure of some markets. Narok District which was previously generally food secure with low resilience is now under alert as is Laikipia and Kajiado. Most areas in West Pokot and Baringo District are at high risk of further deteriorating to acute food and livelihood crisis.

There is a gradual deterioration in the food security in **eastern pastoral region** with the appearance localized areas reporting acute food and livelihood crisis in Mandera and Wajir District as access to forage and water declines. The area at high risk of depreciating to acute food and livelihood crisis expanded slightly in Wajir, Garissa and Tana River Districts. Unseasonable rains in January 2008 mitigated adverse impacts of the poor short rains in some areas.

Gradual worsening of the food security status is also notable in the **coastal marginal agricultural region** due to crop failure as a result of inadequate and poorly distributed short rains that ended early. Some areas benefited from unseasonable rains in early January 2008. Areas along the coastal strip that were previously generally food secure with low resilience have dropped to borderline food insecure. Although there have been some marginal improvement in the food security situation in Taita Taveta District, large areas are under high and moderate risk of worsening to acute food and livelihood crisis.

In the **eastern marginal agricultural region**, most of the previously generally food secure areas with low resilience have deteriorated to borderline food insecurity and other remaining areas may follow because of depletion of food stocks and minimal replenishment due to poor performance of the short season. There were some improvements in Mbeere and Tharaka Districts which are no longer at high risk of deteriorating to borderline food insecurity.

Areas adversely affected by the post-election violence include the **lake basin agricultural region** remains generally food secure with low resilience but under alert because of high prices of food. Most areas in **north rift mixed farming region** remain generally food secure with large areas under alert as result of increased cost of agricultural inputs and suppressed farm gate prices. However, the food security status of Nakuru District has declined to generally food secure, low resilience and is under watch. The deterioration is attributed to widespread displacement of farming families adversely affecting agricultural production in affected areas. Nyandarua District in **central mixed farming region** is generally food secure with high resilience but under alert because the meagre resources of host families are fully stretched. There is a significant number of IDPs hosted by friends and relatives from across the country in Nyandarua District, Nyanza (40-50,000) and to a lesser extent in Kiambu and Nyeri.

Post election violence has damaged the livelihoods of **Internally Displaced People (IDPs)**, most of whom were farming families, traders and generally food secure with high resilience. Those living in IDP camps are under humanitarian emergency. At the time of the assessment there were a 207,000 IDPs living in camps, and an estimated 100-130,000 living integrated with host families

Figure 1.2.1: Kenya Food Security Situation February-June 2008

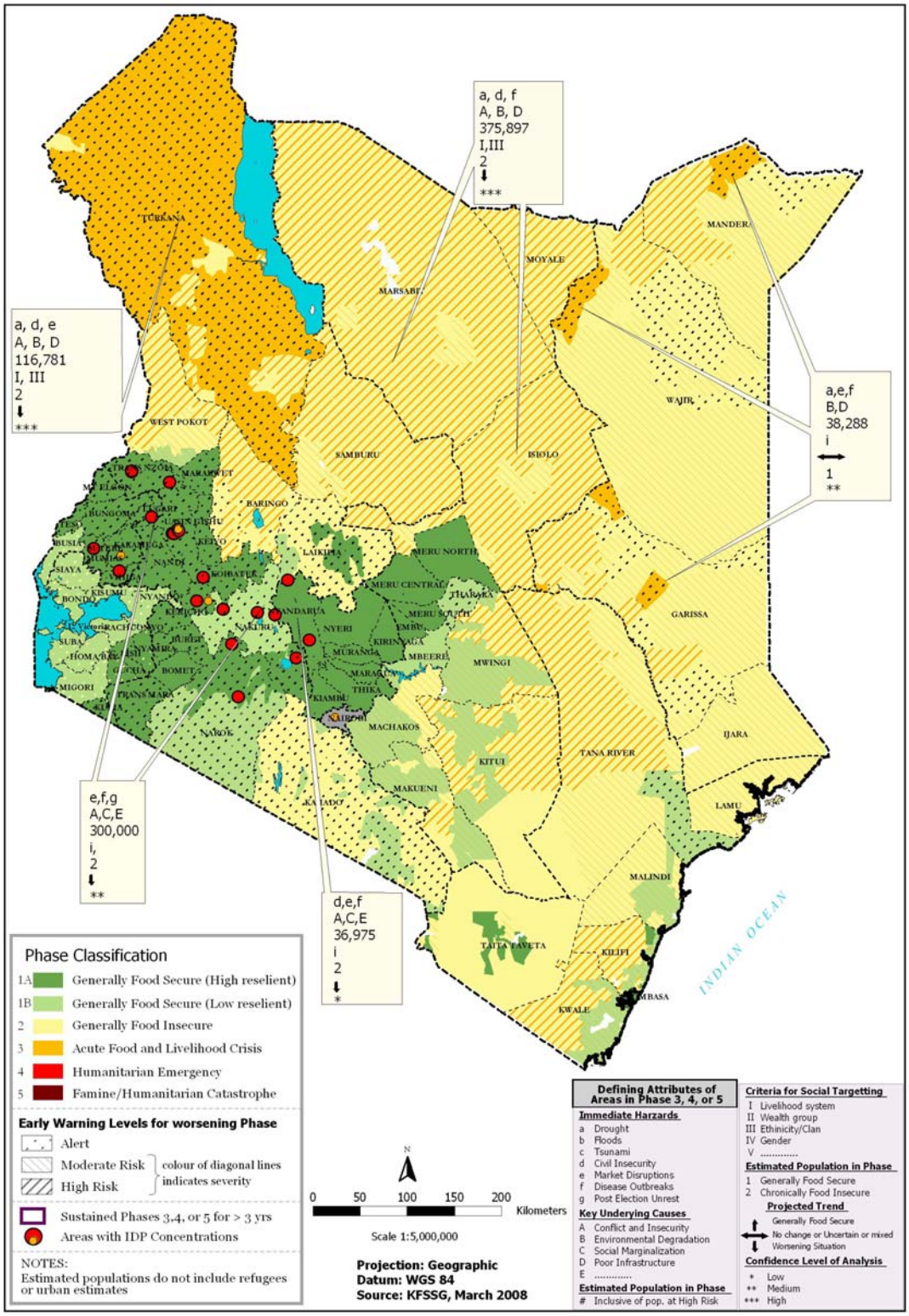
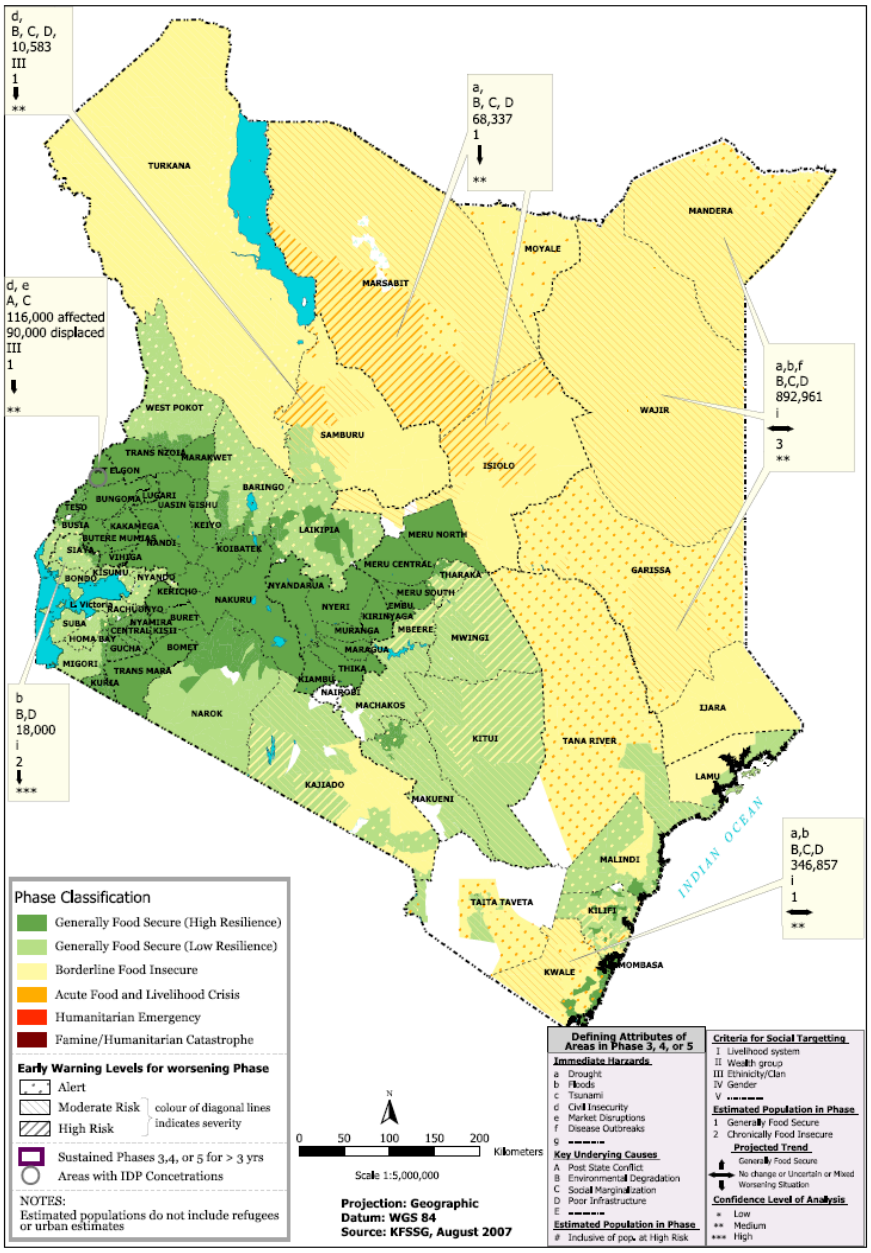


Figure 1.2.2: Kenya Food Security Situation July-December 2007



1.3 Implications for Response

To continue supporting the recovery of livelihoods vulnerable to food insecurity, the government and partners need to continue and expand transitional activities for medium term recovery to increase their resilience. Emergency intervention need to run alongside and support the long term interventions and strategies aimed at addressing the root causes of food insecurity in the most vulnerable livelihoods including IDPs and non-displaced farming families. Resettlement, reconstruction, asset building, preparedness and contingency planning, can limit the magnitude and break the vicious cycle of humanitarian and relief assistance whenever there is a crisis. Table 1.2.1 is a summary of the estimated costs for immediate (September 2007-February 2008) intervention by sectors. Further details are included in the cluster reports.

While the recommendation for addressing food insecurity through resilience building and asset creation remains relevant, it is recognized that consultations leading to an agreed framework will need to be supported by further in-depth and comprehensive assessments to guide modalities and targeting in a more coherent way, which will take place during the course of 2008. Therefore the food aid estimates subcommittee (FAS) of the Kenya Food Security Steering Group (KFSSG) proposes - in the interim - to provide food assistance to an additional caseload of 200,000 thousand people in 15

districts, which represents an increase of 30 percent and additional estimated budget of about USD 4.3 million to procure 5,800 MT of food, extending the current EMOP until June 2008.

Table 1.3.1: Estimated Cost for Immediate and Long Term Interventions - March to August 2008 (in Million Ksh.)

Food Security Phase	Livestock		Agriculture		Health		Water		Education	
	Immediate	Long Term	Immediate	Long Term	Immediate	Long Term	Immediate	Long Term	Immediate	Long Term
Generally Food Secure (High Resilience)	50	300	10	25	6	12	13	22	5	16
Generally Food Secure (Low Resilience)			22	45	175	297	85	300		
Borderline Food Insecure	25	75	14	53	5	25	40			
Acute Food and Livelihood Crisis			14	36			76		28	50
Humanitarian Crisis (IDPs)	5	10			11					
Total	**80**	**385**	**60**	**159**	**197**	**334**	**214**	**322**	**33**	**66**

2 METHODOLOGY

2.1 Background

The Kenya Food Security Steering Group (KFSSG) coordinates bi-annual food security assessments that correspond to the short and long rains seasons. The aim of the 2007 short rains assessment is to develop an objective, evidence-based and transparent food security situation analysis following the short rains season and post-election violence, taking into account the cumulative effect of previous seasons. In addition, provide recommendations for possible response options based on the situation analysis. Most livelihoods in the pastoral, agro-pastoral and marginal agricultural livelihoods have been on a recovery path since the March to May 2006 long rains after a succession of failed seasons. It follows that an important aspect of the 2007 short rains assessment is to continue monitoring the food security situation of households on a recovery path in the last three seasons.

2.2 Scope

The assessment teams were composed of officials from Office of the President (Ministry of State for Special Programmes (Arid Lands Resource Management Project and Department of Relief and Rehabilitation); Ministries of Agriculture, Livestock, Water, Health and Education), United Nations (WFP, FAO, UNICEF, UNDP, UNOCHA); NGOs (KMDP, Tegemeo Institute of Egerton University) and FEWSNET.

Assessment teams were provided with detailed sets of secondary information and data. The data included agriculture production, anthropometric, health, education, water and sanitation data; rain and moisture estimates from satellite imagery. Data checklists and templates were sent to the districts for collection of updated information on food security indicators before the fieldwork. Thirty one districts were assessed by the Rapid Appraisal teams from the KFSSG in Nairobi and the District Steering Groups (DSGs) or technical committees at the district level. The report recognizes that several new districts have since been formed. However, old district boundaries have been used for this assessment and implementation of recommended interventions,.

2.3 Analytical Framework and Methodology

The analytical framework was based on the evaluation of the food security status of disparate livelihoods employing detailed sectoral analytical tools. The improved six phase Integrated Food Security and Humanitarian Phase Classification System (IPC) tool was used to classify the food security situation by livelihood zones. The IPC is designed to add rigour to food security analysis in a transparent and evidence-based manner. Because it employs a uniform set of indicators, and internationally recognised thresholds for many of them, the IPC provides a *common currency* for food security and humanitarian analysis that allows direct comparisons concerning food security status within and between livelihoods and countries.

The IPC model has four original components: the phase classification which is a scale running from Generally Food Secure with High Resilience, Generally Food Secure with Low Resilience, Borderline Food Insecure, to Acute Livelihood Crisis, Humanitarian Emergency and finally Famine/Humanitarian Catastrophe (see Reference Table 5.1 in appendix). Each phase is assigned based on a convergence of evidence that is framed by the second component - the Key Reference Outcomes – together with other indirect evidence that is available. The Strategic Response Framework (third component) allows analysts to recommend the broad types of response that would meet the immediate and underlying needs of people in the different phases. Finally the early warning component provides information on the direction of change, and the relative risk.

Data and information analysed was written up in three stages: firstly the field teams wrote district reports while still in the field; secondly the field teams with technical support from the DISK conducted the IPC situational and response analysis and wrote the cluster reports. Responsibility for drafting the national report was taken by the technical working group of the KFSSG, i.e, the DISK.

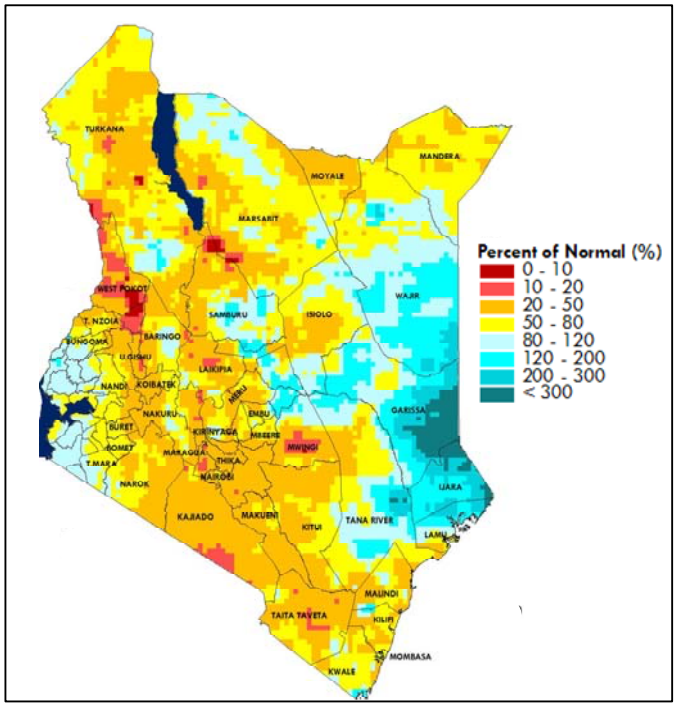
3 RAINFALL AND IMPACT ON FOOD SECURITY

3.1 The Performance of the 2007 Short Rains

The significance of the short rains in the country varies. In the northern pastoral (Turkana, Moyale, Marsabit and Samburu Districts), agro-pastoral (West Pokot, Baringo, Laikipia, Narok and Kajiado), coastal strip (Lamu, Malindi, Kilifi and Kwale) and west of the country, the short rains normally account for 20-40 percent of the total annual rainfall. The short rains are 40-50 percent significant in the eastern pastoral (Mandera, Wajir, Garissa, Ijara, Isiolo and Tana River Districts), 50-60 percent in the south eastern marginal agricultural areas (Tharaka, Mbeere, Mwingi, Kitui, Machakos and Makueni Districts) and coastal hinterland (including Taita Taveta District). The rains have greater reliability and the short rains is therefore the main cropping season accounting for approximately 70 percent of the annual crop production. It is therefore important to interpret the rainfall estimates in the context of the importance of the short rains on crop production in the eastern and coastal marginal agricultural livelihoods; and in pasture regeneration in other areas.

Figure 3.1.1 is a spatial representation of the 2008 short rains (1st October 2007 to 20th January 2008) performance across the country as a percentage of the long term average. The red, yellow and brown coloured areas received below normal rainfall. The other colours represent areas that reported normal to above normal rainfall.

Figure 3.1.1: Percentage Rainfall Performance from 1st October 1st 2007 to January 20th 2008



The intensity, spatial and temporal distribution of the long rains was varied across the country. The short rains were below normal in the coastal marginal agricultural livelihood; 50-80 percent in most areas along the coast and 20-50 percent in the hinterland. The rains were 20-50 percentbelow normal in the northern pastoral, agro-pastoral and eastern marginal areas with a few areas receiving 50-80 percent of the normal rainfall. The lake basin marginal agricultural and eastern pastoral livelihoods received 80-120 percent of normal rainfall. The long rains were very good in the unimodal grain basket region of the North Rift, where short rains are unimportant.

The rains were inadequate and poorly distributed both spatially and temporally in the northern and eastern pastoral areas; agro-pastoral; coastal and eastern marginal agricultural regions. Figure 3.1.2 shows the comparative rainfall performance in six divisions representing five main livelihood zones.

The short rains varied considerably across the **northern pastoral cluster.** In all areas, rainfall was below normal with poor spatial and temporal distribution. In January 2008, there was off season precipitation in the four districts of Turkana, Moyale, Marsabit and

Samburu for two to three days, but in Turkana District, the amount of rainfall was recorded was negligible. A large section of Turkana district received 20-50 percent below normal rainfall during the short rains.

The **agro-pastoral cluster** has a bimodal rainfall pattern, with the long rains season occurring between March and June and the short rains season from October to December. There were variances in the amount of in rainfall in the short season. Most areas in the cluster received 20-50 percent below normal rainfall but there are areas that received 10-20 percent of the normal rainfall notably in West Pokot, Kajiado and Laikipia Districts., The western part of Narok District received 50-80 percent below normal rainfall.

Most of **eastern pastoral cluster** received 80-120 percent of the normal rainfall that was poorly distributed. Large areas in Mandera, Isiolo and Tana River Districts received 20-80 percent below normal rainfall. The rains started in October until the last week of November in the region. Unusual rains were received in January 2008 in Tana River, Isiolo and Garissa Districts. In most areas such as Isiolo for example, the January rainfall lasted for 5 to 6 days and the total amount of precipitation was a significant 36mm and 31.2mm in Malkagalla of Cherab and Sericho Division's respectively.

Figure 3.1.2: Comparative Rainfall Performance in Selected Representative Divisions by Livelihood Zones. Source: FEWSNET/USGS

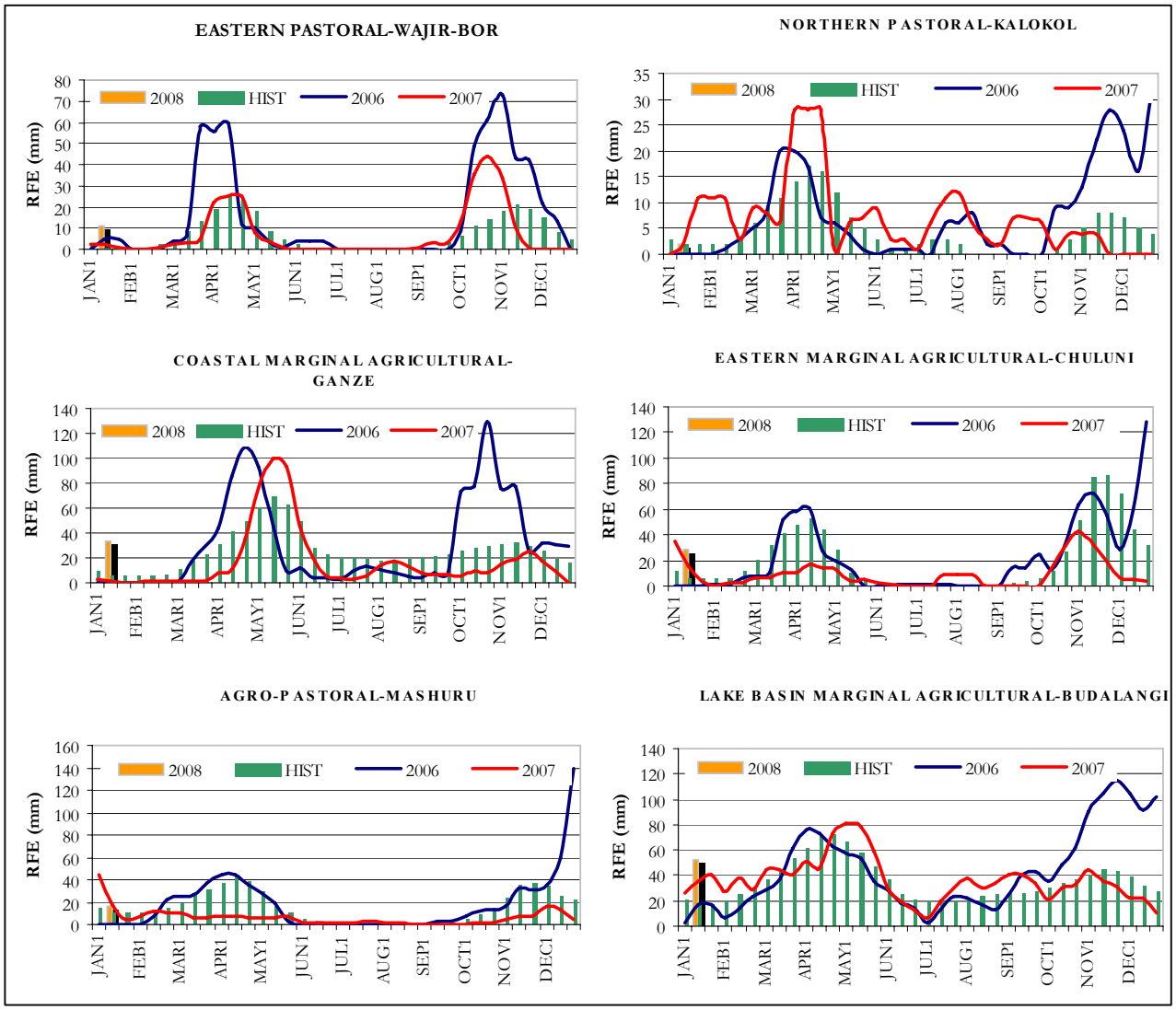


Figure 3.1.2 is a representation of comparative rainfall for the 2007 short rains and over the past two years relative to respective long term averages. In the **coastal marginal agricultural cluster**, the short rains started in mid October and continued to early November 2007. The rains were 20-80 percent below normal and poorly distributed. A one month dry spell was experienced in December 2008 up to mid January 2007 after which there was light showers. No rains were received in Mwaktau, Mwachabo and Mahandakini areas of Taita and Taveta Districts. The coastal belt had better rainfall compared to the hinterland.

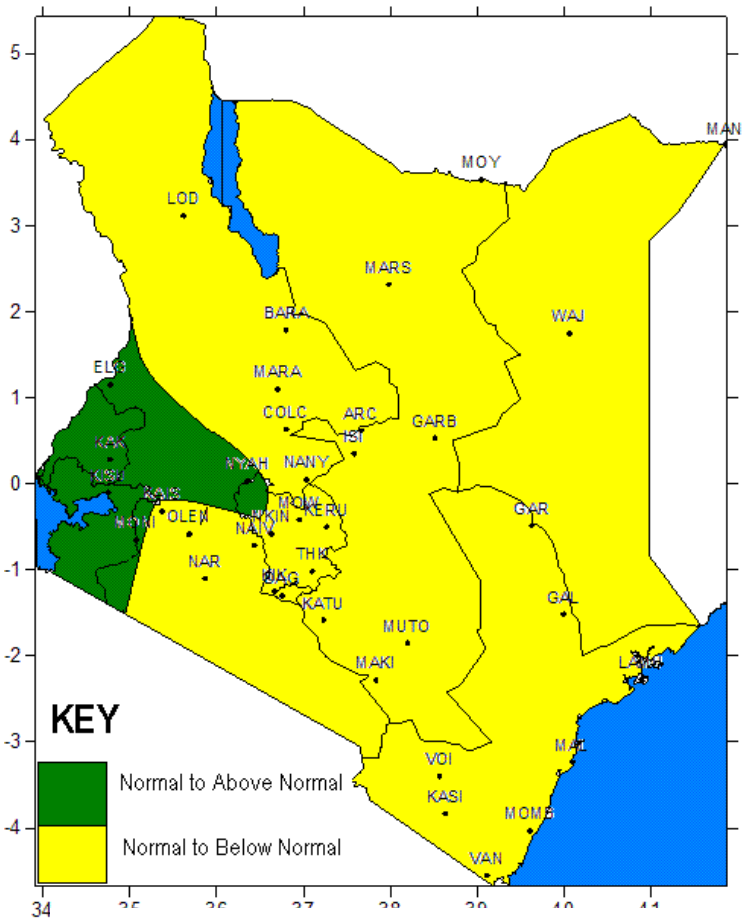
The short rains performance was generally below normal in most of the **eastern marginal agricultural cluster** except for parts of Tharaka, and Mbeere Districts which had near normal but unevenly distributed rains. The onset of the rains varied within livelihoods. In Makueni, Mbeere and Tharaka the rains started on time as predicted, from late October and early November but were poorly distributed across the district. In Machakos, Kitui and Mwingi the rains started late in many parts with a few places starting on time. The rains were however scattered and below normal. There was early cessation of the rains across the region in for 3-4 weeks in December 2007. However, the districts received off season rains in mid January and February 2008.

Rains were much better in the clusters affected by the post-election violence. The short rains were 80-120 percent of the normal in **Lake basin marginal agricultural area**, fairly well distributed. In the unimodal **North Rift mixed farming** cluster, the performance of the long rains was good.

3.2 Long Rains Outlook

The consensus climate outlook is that there is an increased likelihood the long rains may be normal to below normal over much of Kenya. Figure 3.2.1 shows the probability of March to May precipitation in the country from the IGAD Climate Prediction and Application Center (ICPAC). Areas in green in the figure, shows an increased likelihood of near-normal to above-normal rainfall over southwestern Kenya are likely to receive near normal tending to above-normal. Areas shown in yellow in the figure are likely to receive near-normal tending to below normal (depressed) rainfall: Parts of Rift Valley and Central provinces, Eastern Province; North Eastern Province and Coast Province.

Figure 3.2.1: Consensus Climate Outlook for The March to May Rainfall



Source of Map: Kenya Meteorological Department

The onset of the 2008 long rains in the Western and lake basin areas (Kisumu, Kakamega, Nyamira etc) and South Eastern parts of the country (Voi, Makindu, Machakos) is expected in the 2nd to 3rd week of March, while cessation of the rains is expected in June and 2nd to 3rd week of May respectively. In the Northern parts of the country (Turkana, Moyale Mandera etc), the Central highlands and Nairobi (Meru, Embu), and the coastal strip (Mombasa, Kilifi, Malindi), the rains are expected to begin in the 3rd to 4th week of March and end during the 2nd and 3rd week of May and in June respectively.

Recommencement of the recovery path for pastoral, eastern and coastal marginal agricultural livelihoods in the country is heavily dependent on favourable long rains in all areas. To enable appropriate and prompt intervention, close monitoring is necessary for incidences of drought and/or floods and associated hazards during and after the long rains season.

3.3 Impact of the Long Rains on Food Security Indicators by Broad Livelihoods

The short rains were inadequate, poorly distributed and ended early in the marginal agricultural, pastoral and agro-pastoral areas. However, the adverse effects of the poor rains were mitigated by unseasonable precipitation in early January in some areas in the marginal agricultural and eastern pastoral regions. Consequently, consecutive improvement in the country's food security situation in the past three seasons has been interrupted.

3.3.1 Livestock Production

Livestock production in the **northern pastoral cluster (Turkana, Marsabit, Moyale and Samburu district)** was affected by inadequate browse and pasture, insecurity and the post election crisis. Livestock diseases, especially *Peste des Petit Ruminants* (PPR) also pose a threat to livestock production.

Pasture and browse regeneration was poor during the short rains season due inadequate and poorly distributed rainfall in most parts of the cluster. In a few pockets of the cluster there is adequate pasture but access is limited or not possible due to insecurity and cattle rustling, especially in Turkana, Marsabit and Samburu. In Central Marsabit wildlife are also competing for pasture. In Turkana the pasture and browse situation was exacerbated by to burning of pasture fields in Oropoi by arsonists. Options for dry grazing migration are therefore limited livestock currently clustered around accessible dry grazing areas causing a strain on pasture and water resources. In Turkana, sheep and goat deaths were reported in Central Turkana (Kalokol and Kerio) due starvation.

The endemic diseases reported in the cluster include Helminthosis, CCPP in shoats and CBPP in cattle. Camels were reported to have trypanasomosis, mange and sudden death characterized by haemorrhage. In Turkana donkeys exhibited signs of trypanasomosis and feacal impaction. *Peste des Petit Ruminants* (PPR) is a threat to livestock production in the cluster. PPR was reported in Baragoi, Nyiro, and Wamba divisions. If PPR spreads it may warrant quarantine.

Livestock body conditions in the cluster range from fair to poor and are on a declining trend (especially cattle) due low pasture availability and long trekking distances in search of water and pasture. Livestock body conditions are poorest in Turkana district.

The hazards mentioned above have all affected livestock productivity negatively. Livestock prices have declined in the perspective of increasing food prices leading to unfavourable terms of trade for pastoralists. Livestock prices were generally above normal in the cluster during the last quarter of 2007, but reduced abruptly to below normal levels following the post election violence which disrupted markets. Poor body conditions also contributed to declining livestock prices in January. In northern Turkana (Lokitaung division) some pastoralists were selling kids and lambs for as low as Ksh. 20. In Samburu cattle, sheep and goat prices reduced by 44, 40 and 29 percent respectively in January due to the post election violence effects. Household milk availability also declined. In Turkana, only 5 percent of the pastoralist households had access to milk in January compared to a normal level of 23 percent.

In conclusion, effects of the poor short rains in combination with insecurity and livestock diseases in parts of the cluster have had a negative performance on livestock productivity, the mainstay of pastoral households. The resultant poor terms of trade and reduced milk availability for pastoralist households imply reduced incomes and reduced or lack of access to an important dietary item (milk) respectively, for vulnerable pastoralist households especially in Turkana district.

In the **agro-pastoral (Kajiado, Narok, Laikipia, Baringo, West Pokot) and parts of northern pastoral** area, insufficient rains did not support the growth and proper regeneration of the annual and perennial grasses respectively, resulting in quick depletion of pastures, exacerbated by poor grazing management and wildfires. Consequently, the quantity and quality of browse and pasture is fair in ranches and poor in most areas with exception of hills and forests. Water availability and accessibility is fair but on downward trend. The average return distances to water sources for livestock is 15 km, compared to long term average of 3 kilometres. Water is expected to last upto April.

Calving, lambing and kidding are declining. The survival of lambs and calves is threatened by low milk production attributed to declining livestock productivity attributed to scarcity of pasture and long trekking distances in search of water and pastures. This has also lead to scarcity of milk at the household level.

There is outbreak of notifiable diseases in Kajiado, Narok and West Pokot Districts including FMD and CBPP. Other diseases in this zone are: ECF, LSD, Trypanosomiasis in cattle; CCPP and goat pox in shoats. There is an imminent threat of Peste des Petit Ruminants (PPR) spreading from northern pastoral areas (West Pokot and Turkana Districts) to North Rift, agro-pastoral and eastern pastoral areas due to widespread unregulated livestock movement occasioned by post-election unrest and cattle rustling. Quarantine has been imposed leading to the closure of livestock markets in the greater Kajiado and Narok Districts and resulting in reduced

household incomes, eroding purchasing power. Effective management and control of these diseases will positively influence livestock marketing and purchasing power of the communities.

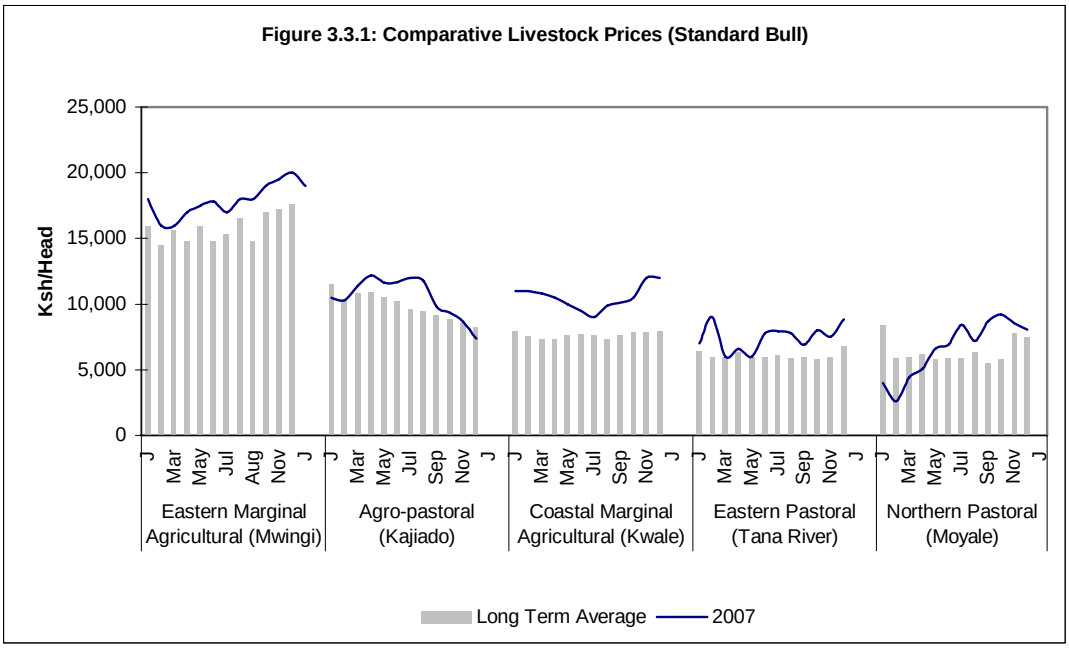
In the **eastern pastoral cluster** of Mandera, Wajir, Garissa, Isiolo and Tana River, forage and browse are in good condition and are expected to last up to the start of the long rains except in Modogashe and Shant Abak areas in the Western part of Garissa. Water pans have dried up and boreholes remain the main source of water. Return distance to water for livestock has increased to 15-20km compared to an average normal distance of 5km. The frequency of watering has also reduced to three and fifteen days for cattle and shoats; and camels respectively. Concentration of livestock around few watering points has resulted in rapid reduction of water and land degradation. Imminent migration to other areas in search of water may result in conflicts over water resources. The livestock body condition is good for all the species but is bound to worsen with increasing trekking distances in search of water.

Milk production is high in most parts of the districts due to increased calving but milk availability and access is limited to households living around livestock migration routes. Subsequently, there is general improvement in the nutritional status of the children under five years in Mandera,Garrisa, Tana River and Isiolo Districts. The improved nutritional status can also be attributed to the on-going supplementary and therapeutic feeding programmes

There is an outbreak of PPR in Wajir District and quarantine has been imposed. Other livestock diseases in this area include, CBPP, LSD, Anthrax and Black Quarter disease. The diseases led to the death of 76 camels in Tana River, 165 deaths of cattle, and 460 goats in Mandera between December 2007 and January 2008. A total of 2,625 camels in Tana River have been vaccinated against anthrax and the disease is now under control. Sporadic cases of camel deaths attributed to a 'new/mysterious' disease were reported in Wajir, Mandera and Isiolo districts. So far the Department of veterinary services is currently carrying out tests to diagnose the disease. The disease affected 8 – 10 % of the adult camel herd. The incidences of camel deaths attributed to this disease are on the decline.

Generally, livestock prices have been above the long term average for the past twelve months but the volume of livestock sales declined at the beginning of 2008 because of market disruption due to post-election unrest, see figure 3.2.1. Livestock demand in the coastal markets in Mariakani, Bamba and Kaloleni have declined due to the abrupt decline of the tourism industry.

The forage and water situation is declining with the continued dry spell and may worsen if the expected long rains delay or fail. Outward migration is ongoing in most parts of the district in the cluster. This is already having negative impacts on household nutritional status especially for children below five years who cannot access milk. Timely long rains will come as a reprieve and majority of the districts will get back to the recovery path without extreme strain. The worst hit areas of the cluster may require further monitoring even in the event of good rains.



Source: Ministry of Agriculture; compiled by KFSSG

The effect of rainfall on growth and regeneration of pasture and browse was mixed in the **coastal marginal agricultural** area. Consequently the quantity and quality of pasture and browse is good to fair but deteriorating rapidly. The main water sources are pans and dams which are quickly drying up, increasing the average distances to water sources for both livestock use to 7-12 kilometers from 1-3 kilometers. Livestock body conditions range from good to fair but are expected to deteriorate due to increasing trekking distances in search of forage and water.

Kidding and calving mean rates have remained 21 percent and 18 percent respectively resulting in an insignificant change in milk yield. On average, local milk production under the traditional system is low with a mean of 1-2 litres of milk per day per animal in the hinterlands. Subsequently there is low milk consumption at household level except along the coastal strip. The negative impact of this is already portrayed by the deteriorating nutritional status of children under five years in the livestock farming zone.

Mid-January showers in the **eastern marginal agricultural** cluster improved the availability of browse but the quantity and quality of pasture is poor. Stalks from the failed and harvested crops compliment available forage and may sustain livestock for the next 3-4 months until the onset of long rains. Water availability for livestock remained stable in November, December and January reducing from 5–10 to 2–5 kilometers principally from river beds. There is no unusual livestock migration and the body condition for cattle and shoats are good which is normal by this time of the year.

Kidding and calving is expected to exhibit an upward trend, increasing stock size and milk production. However, increased milk production will still not avert the milk shortage in the eastern marginal agricultural zone where milk prices remain high at an average price of Ksh 30 per litre. This is attributed to the predominatly low milk producing indeginous breeds kept by the community.

Endemic livestock diseases include Contagious Caprine Pleuropneumonia (CCPP), Anaplasmosis, Trypanosomiasis, Pneumonia, and Lumpy Skin Disease, all of which constrain livestock productivity. Capacity of the veterinary departments to effectively keep them under control has been constrained by the limited funds allocated to the department.

Household income has been enhanced by better livestock prices which have been higher than the long term average and on upward trend. This may be attributed to improved livestock body condition and productivity because of improved browse and pasture availability in the last three seasons. However, this trend may be reversed if the long rains perform poorly.

Consecutive good seasons since long rains 2006 have improved livestock body condition and productivity resulting in higher than average livestock prices in marginal, pastoral and agro-pastoral areas of the country. However, in most areas in the northern pastoral and agro-pastoral areas, limited pasture, browse and water availability; and outbreak of diseases have resulted in poor and deteriorating livestock body conditions. Subsequently livestock productivity and value have started declining resulting in reduced household incomes and access to adequate and diversified foods.

Extended precipitation in January alleviated depletion of browse in the marginal agricultural area; and both browse and pasture in eastern pastoral area. Livestock body conditions are good and productivity is fair to good. However, sustained recovery of the livestock sector, a source of food and income, is heavily dependent on the performance of the long rains.

3.3.2 Crop Production

There was negligible crop production in the **northern pastoral area (Turkana, Moyale, Marsabit, Samburu)** as a result of failed short rains. The main sources of food are the neighboring surplus areas of North Rift, Eastern Province and Ethiopia. One of the underlying causes for higher food commodity prices in the northern pastoral area is poor road infrastructure. Post election unrest disrupted the supply chains to most of this area, further increasing the prices of food commodities to levels that severely constrained purchasing capacities of most households.

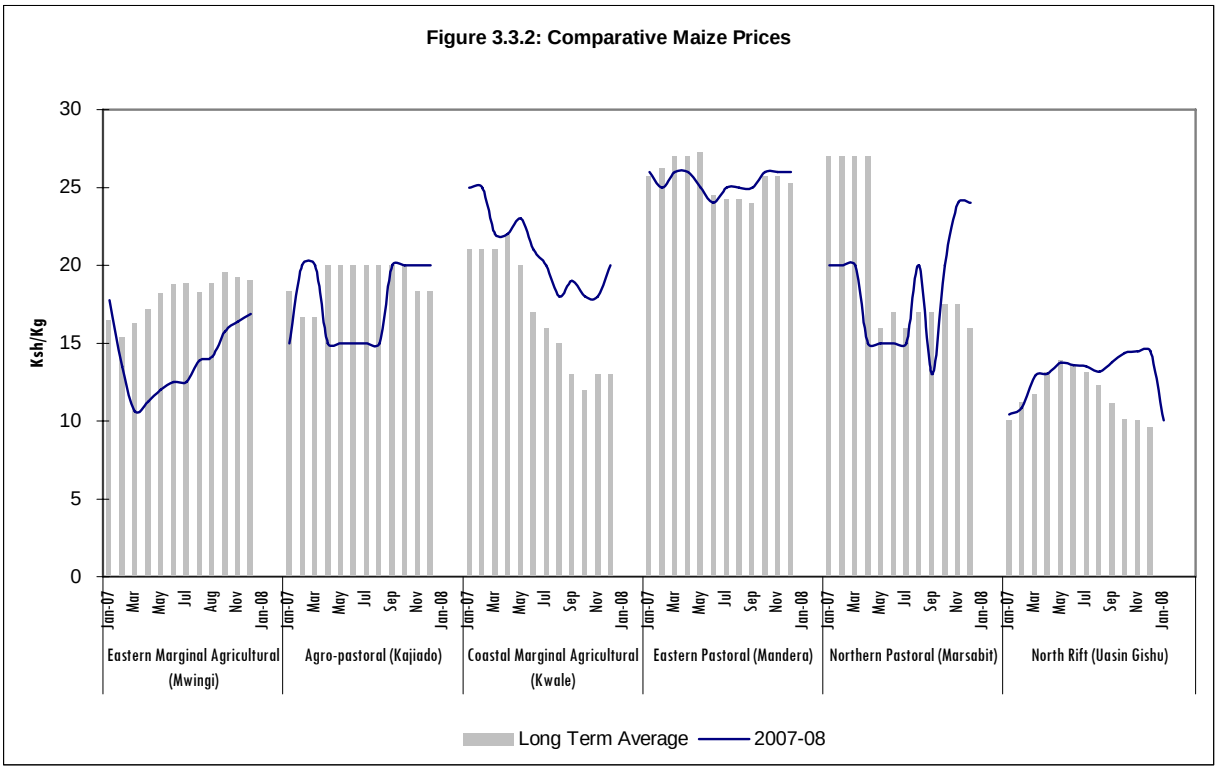
Crops succumbed to moisture stress before maturity when the rains ceased early in the **agro-pastoral area** with exception of crops grown in upper areas and irrigation schemes. The zone is a net importer of food commodities and post-lection violence disrupted the marketing chain resulting in increased commodity prices.

In the **eastern pastoral area (Mandera, Wajir, Garissa, Isiolo, Tana River)**, the short rains season is the most reliable for crop production but the 2007 short rains were poorly distributed and ended early causing rain-fed crops (maize, sorghum and beans) to wilt due to water stress. Crop failure in this zone was 50-90 percent. Irrigated production was also adversely affected by low water levels in rivers. Despite the two poor seasons of 2007, maize prices remain stable due to low demand in the market amidst adequate supply through food aid. The prices of other commodities including rice, sugar and wheat flour have increased by about 10-30 percent due to high transport costs attributed to post-election unrest.

The short rains season was not favourable for most crops in the **coastal marginal agricultural area (Malindi, Kilifi, Kwale, Taita Taveta)** and resulted in 70-90 percent crop failures except for cassava during 2007 short rains. In a normal year, the area produces only 30-40 percent of its maize requirements and depends on imports from Taita Taveta, North Rift and Tanzania to meet the deficit particularly of cereals and legumes. Food flows from outside the region were constrained by market disruptions brought about by the post election violence in other parts of the country. This resulted in over 60 percent increase in the price of maize grain to an average of about Ksh. 25 up from a normal of Ksh. 13-15 per kg especially in the relatively poor hinterland.

In the **eastern marginal agricultural area (Kitui, Mwingi, Makueni, Machakos, Mbeere, Tharaka)**, the performance of maize, cowpeas, bulrush, sorghum and green grams was mixed, ranging from 40-90 percent because of below normal and poorly distributed rains in some areas; and extended unseasonable rains in others. The 90 percent crop failure is in the mixed farming livelihood zones in Mwingi and Kitui districts. The increasing prices of maize is as result of limited local supply due to below normal production, pre- and post harvest loses; and disrupted supply from surplus areas due to post-lection crisis. See figure 3.2.2, illustrating price trends across clusters.

Figure 3.3.2: Comparative Maize Prices



Source: Ministry of Agriculture; compiled by KFSSG

3.3.3 Household Food Access

The nutrition status has began to decline in the eastern and northern pastoral livelihoods following a poor short rains season, reversing the improving trend recorded in the first half of 2007. With increasing number of households becoming food insecure, the number of meals and food groups consumed per day has declined. In the acute livelihood and food insecure areas, most household are consuming one meal a day of 1-2 food groups. For example, in Turkana District in northwestern Kenya, the diet of pure pastoralist and fisherfolk livelihoods comprise of starch (maize or maize meal) and fish respectively. In the borderline food insecure areas, most households are consuming 1-2 meals with 2-3 food groups. Households in the generally food secure areas take at least three meals a day of 4-5 food groups. See table 3.2.3.

Table 3.3.3: Household Food Access

	Food Security Classification			
	Generally Food Secure (High Resilience)	Generally Food Secure (Low Resilience)	Borderline Food Insecure	Acute Livelihood and Food Security Crisis
Meals a day	>3	2-3	1-2	1
Number of Food Groups	4-5	2-3	1-2	1-2
Composition of Food Groups				
Cereals and Starch	√	√		√
Fruits				
Vegetables	√	√	√	
Milk and Allied Products	√		√	√
Meat and alternatives	√	√	√	√
Oils and Sugars	√	√		

Source: KFSSG Rapid Assessment Teams

3.3.4 Health and Nutrition

Across the livelihood zones, infectious diseases are the leading cause of morbidity with malaria, diarrhoea, upper respiratory and skin infections being the most common. Cholera outbreaks have been reported in West Pokot district in the pastoral cluster and Mandera district in the eastern pastoral cluster. These outbreaks have been pegged to limited access to safe water for household use, and poor environmental hygiene. Sanitation is also a challenge in the eastern pastoral districts with majority of them having less than twenty percent latrine

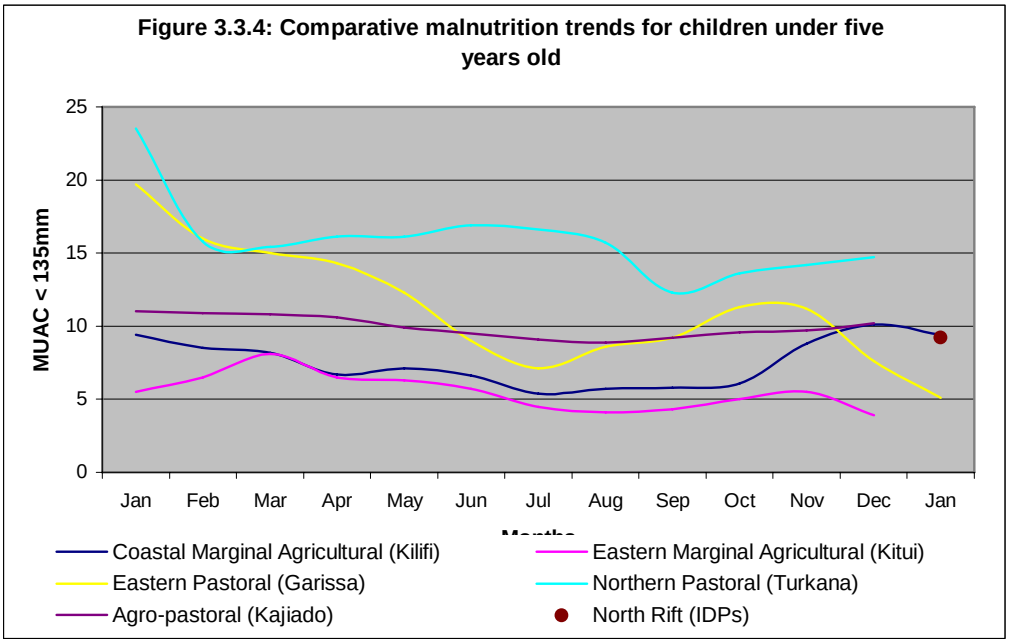
coverage. Measles outbreaks are also reported in the agropastoral districts of Narok, Kajiado and West Pokot, and Kwale district, in the coastal marginal cluster. However, the high morbidity prevalence has not translated into high mortality rates with recent nutrition surveys in the eastern pastoral districts of Garissa, Isiolo and Tana River finding that crude mortality rates were within the acceptable levels.

In majority of districts, the HIV prevalence was below the national prevalence of 5.6 percent, with the exception of the newly created district of Kinango in the Coastal marginal cluster that had a prevalence of 7 percent. Agropastoral cluster had very few Comprehensive Care Clinics (CCC), with Laikipia and West Pokot districts having only one CCC sites each, and of the total clients eligible for ARV treatment in Narok, only 11 percent are on the treatment.

Immunisation coverage was below the national target of 80 percent in most clusters, with the exception of districts in the coastal cluster (apart from Kwale) that had immunisation coverage above 85 percent. Exceptional districts in other clusters that had immunisation coverage above 80 percent included Kajiado in the agropastoral, Isiolo in eastern pastoral and Moyale in the northern pastoral. However, the high coverage in Moyale district was reported to be as a result of an influx of foreigners from Ethiopia. Vitamin A supplementation on the other hand showed much progress with majority of districts reporting improvements in coverage, and districts in the coastal marginal cluster and Isiolo in the eastern pastoral cluster surpassing the national target of 85 percent.

Figure 3.3.4 shows the comparative malnutrition trends over the year 2007. The trends show that in the reported districts, malnutrition gradually declined from the period January to mid-August 2007. However, malnutrition trends begun to rise in the latter half of 2007, and have remained so upto January 2008 apart from the eastern pastoral district of Garissa and the eastern marginal district of Kitui that have since shown slight reduction in malnutrition rates. Food security indicators improved markedly in the first half of 2007, resulting in favorable crop harvests and stable livestock health that also ensured milk and dairy product availability.

Figure 3.3.4: Comparative malnutrition trends for children under five years old

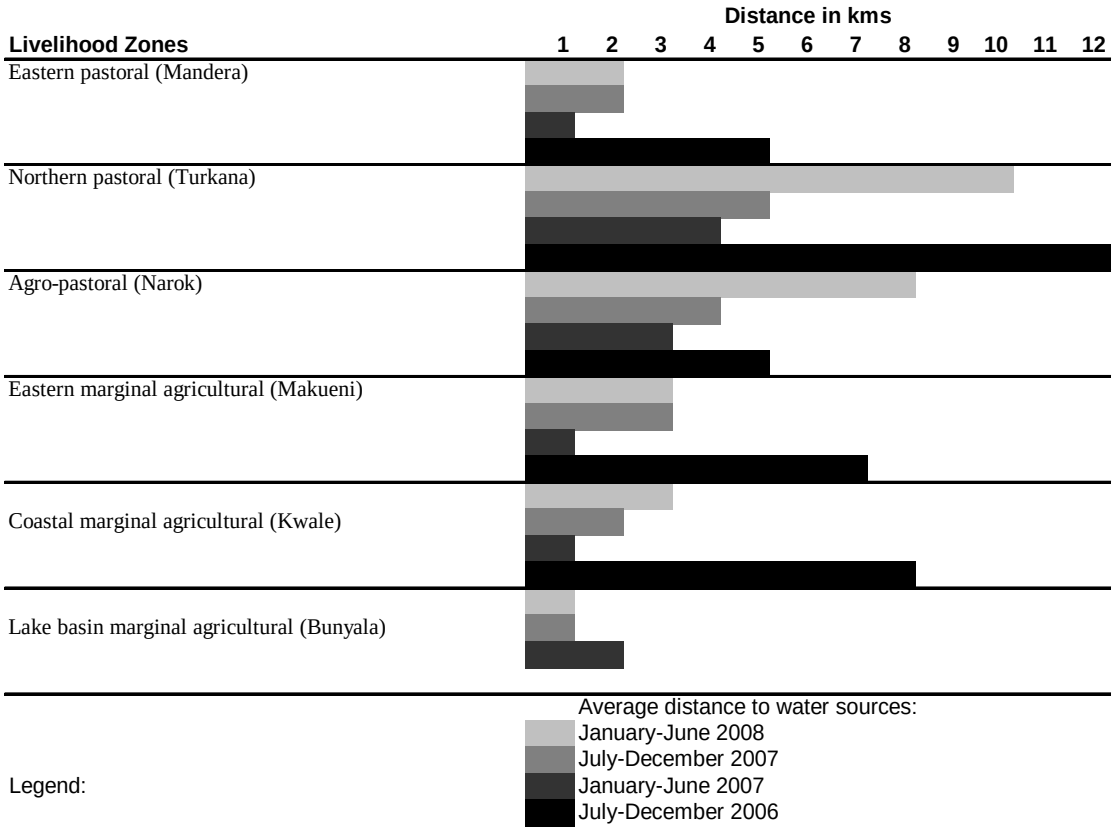


Source: Ministry of Health, UNICEF and ALRMP

3.3.5 Water and Sanitation

Water availability is critical to good in marginal agricultural, pastoral and agro-pastoral areas depending on the extent of recharge from the unseasonable rains in January 2008. Distances to water sources have generally increased by about 1km in marginal agricultural areas; and by an average of 2-5 kilometres in pastoral and agro-pastoral areas. Distances to water sources is expected to increase as they dry season intensifies and with delayed onset of the long rains, decreasing time devoted to productive activities by some household members. See figure 3.3.5. The general quality of water from surface sources is poor while that from boreholes and springs is fairly good.

Figure 3.3.5: Average Distance to Water Sources



Source: RAT and DSGs, Feb 2008

The total coverage of latrines ranges from a low 5 to 30 percent in the coastal marginal agricultural, pastoral and agro-pastoral areas. Consequently, there is high water contamination with human waste resulting in water-borne diseases (typhoid, cholera and amoeba) and inability of individuals to utilize limited food efficiently. Environmental degradation is prevalent near water sources due to over grazing.

Utilization of limited food available to households in the marginal agricultural, pastoral and agro-pastoral livelihoods is increasingly being limited by consumption of inadequate and poor quality water. Long term food insecurity for these communities may be compounded by the ongoing contamination and environmental degradation.

3.3.6 Education

School enrolment and attendance has been erratic in the **coastal marginal agricultural cluster**, partly attributed to the withdrawal of the expanded school feeding programme. Other factors include, wildlife menace, early marriages, and pregnancies lead to relatively high drop out rates. There is likely to be a further drop as the food security situation deteriorates. The cluster has a total of 867 primary schools. Feeder (satellite) schools are usually attached to the primary schools, and cater for children in the lower classes. The regular school feeding programme (RSFP) has been ongoing in some drought affected districts excluding Malindi. However, there were no noted drop outs across the **eastern marginal agricultural areas**.

Physical facilities such as classrooms are inadequate, especially in the dry areas of the districts which constrain learning. The teacher to pupil ratio has also increased tremendously as a result of free primary education. Lack of water compromises the preparation of food in some areas. In rural parts of Malindi District, at least 10 hours were lost per week by pupils searching for water and an estimated 30 percent of pupils did not attend school after lunch break to fetch water. This affects the overall pupils' performance and literacy levels in the cluster.

The Northern pastoral cluster has experienced an increase in both primary and secondary school enrolment and retention because of the school feeding programme and free primary education. A negligible number of school drop out cases were reported across the cluster with possible causes as; disruption and closure due to insecurity, early marriages, moranism, migration in search of pasture, lack of sanitary towels for girls among other reasons. However, Turkana district recorded high drop out rates (estimated at 77 percent), due to

insecurity and migration. Some schools have absorbed large numbers of students and pupils from internally displaced families, adversely affecting the school feeding program. Enrolment in ECD centres is increasing as these centres become the main source of food for young children.

In the **eastern pastoral cluster** schools are under the regular feeding programme but the ration is inadequate for all pupils. Post-election disturbances temporarily affected attendance and there were slight increments of between 1 and 3 percent due to transfers from affected areas. There has been a general increase in enrolment in both primary and secondary schools since 2002 attributed to the school feeding programme and free primary education. Enrolment of boys has been increasing steadily while that for girls has been gradual. Attendance has started going down in Buna and Takaba divisions in mandera as pupils migrate with their parents and livestock in search of water. Some schools may be closed due to lack of water.

Free primary education and regular school feeding program have both enhanced primary school enrolment and retention rates in pastoral, marginal agricultural and agro-pastoral zones. School feeding program is a major source of food for most children in communities vulnerable to food insecurity.

Free primary education and regular school feeding program have both enhanced primary school enrolment and retention rates in pastoral, marginal agricultural and agro-pastoral zones. Schooling has been disrupted in areas affected by post-election conflict through closures as some schools were burnt down, while pupils in many of these areas failed to return due to continuing insecurity. As a result, schools outside the conflict areas have had to cope with addition enrolments, further constraining their own facilities. The school feeding program is a major source of food for most children in communities vulnerable to food insecurity.

3.3.7 Coping Strategies

The most common coping strategies in the **pastoral and marginal agricultural areas** include, reduction in size and frequency of meals, charcoal burning and selling of firewood; the last two of which compromises future food security due to environmental degradation. In Turkana district, gathering and consumption of wild fruits was reported in Lokichar, Oropoi Divisions, and in parts of Central and Kakuma Divisions, while borrowing from neighbors and search for casual labour has increased.

There is increased search for limited casual labor opportunities in the **coastal marginal agricultural areas**; consumption of undesired, low value foods including wild berries, and hunting game animals. In the eastern marginal agricultural areas, there is increasing purchase of food from the markets.

Generally, there are no severe coping mechanisms being applied in the **agro-pastoral cluster** across all livelihoods. However, community members in some districts are rationing feed and water, skipping meals; controlling breeding so that animals give birth when there are adequate pastures; and offering labour services to private ranches.

The coping strategies being employed by communities in the pastoral and marginal agricultural areas include reduction in size and frequency of meals, charcoal burning, selling of firewood, and hunting wild game. The last three strategies compromise future food security due to environmental degradation.

3.3.8 Conflict and Insecurity

In the agro-pastoral and northern pastoral areas, there has been a dramatic increase in cattle rustling under the guise of post-election violence. There is imminent sporadic and localized conflict over water in eastern pastoral areas of Wajir and Mandera Districts; and coastal marginal agricultural areas of Tana River and Malindi districts due to influx of pastoralists from eastern pastoral region in search of pasture. In Turkana, Moyale and Samburu Districts insecurity has resulted into farmers abandoning their farms, further reducing cultivation in these areas

4 FOOD SECURITY SITUATION BY LIVELIHOODS

Consecutive improvement in the food security status of most livelihoods in the past three seasons has been interrupted in marginal agricultural, pastoral and agro-pastoral areas after a poor 2007 short rains season. There has been a gradual deterioration of food security indicators in the northern and eastern pastoral livelihoods, Agro pastoral, coastal and eastern marginal agricultural livelihoods. However, the adverse effects of the poor rains were mitigated by unseasonable precipitation in early January in some areas in the marginal agricultural

and eastern pastoral regions. Recommencement of the recovery paths for most livelihoods in the country is heavily dependent on the performance of the long rains in all areas, running concurrently with emergency food and non-food interventions.

4.1 Humanitarian Emergency

Communities in this phase face severe lack of food access, high mortality, very high and increasing malnutrition, and irreversible livelihood asset stripping. Most of the **IDPs** are in this phase.

4.2 Acute Food and Livelihood Crisis

In this phase of food insecurity, communities are highly stressed, with critical lack of food access, high and above usual malnutrition, accelerated depletion of livelihood assets that if continued, will slide the population into humanitarian emergency and/or result in chronic poverty.

The food security situation in **northern pastoral region** has deteriorated from borderline food insecure to acute food and livelihood crisis in Turkana District. There are spots of acute food and livelihood crisis in eastern pastoral region and in some IDP camps.

4.3 Borderline Food Insecure

This food security phase denotes communities that have not achieved food security but are not considered to be in crisis. This phase includes communities that are experiencing a recovery from a crisis phase, but who have not recovered their livelihoods to the level to support full food security. In many cases, chronic and structural factors may prevent drought-prone communities and IDPs from achieving food security even after a sustained recovery period, especially those living in extreme poverty.

In the **northern pastoral region**, areas that were generally food insecure in southwestern Samburu District have slipped down to borderline food insecure. Most of the areas are now at high risk of deteriorating to acute food and livelihood crisis.

The food security condition in the **agro-pastoral region** has deteriorated from generally food insecure with low resilience to borderline food insecure in West Pokot, Baringo, Laikipia and Kajiado Districts. Narok District which was previously generally food insecure with low resilience is now under alert as is Laikipia and Kajiado. Most areas in West Pokot and Baringo District are at high risk of further deteriorating to acute food and livelihood crisis.

There is a gradual deterioration in the food security in **eastern pastoral region** with the appearance of localized areas of acute food and livelihood crisis in Mandera and Wajir districts. The area at high risk of depreciating to acute food and livelihood crisis expanded slightly in Wajir, Garissa and Tana River Districts.

Gradual worsening of the food security status is also notable in the **coastal marginal agricultural region**. Some areas along the coastal strip that were previously generally food secure with low resilience have dropped to borderline food insecure. Most livelihoods in this region are under high and moderate risk of worsening to acute food and livelihood crisis.

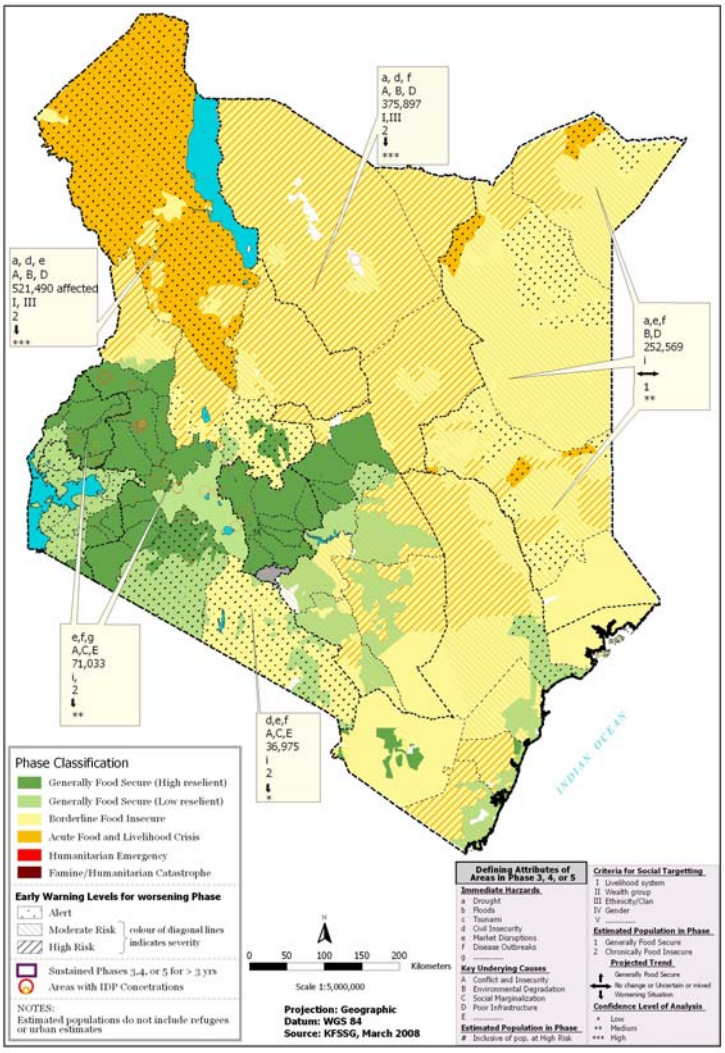
In the **eastern marginal agricultural region**, most of the generally food secure areas with low resilience that were under high risk of deteriorating to borderline food insecurity have done so and the other remaining areas may follow. There were some improvements in Mbeere and Tharaka districts which are no longer at high risk of deteriorating to borderline food insecurity.

4.4 Generally Food Insecure with High and Low Resilience

This phase denotes communities who are currently food secure and are projected to remain so for the next few months. The phase is divided into two in order to differentiate those communities who are currently food secure but have low resilience to future shocks and those who have a high resilience.

The **lake basin agricultural region** remains generally food secure with low resilience but under alert. Most areas in **North Rift** and parts of **central Kenya** regions remain generally food secure with large areas under alert. However, the food security status of Nakuru District has declined to generally food secure, low resilience and is under watch.

Figure 4.4.1: Kenya Food Security Situation February to June 2008



5 IMPLICATIONS FOR RESPONSE

Most of the non-food interventions proposed after the short rains assessment in April that were aimed at supporting the recovery of the vulnerable livelihoods, were not implemented. The poor performance of the short rains has disrupted the remarkable gains in food security for most households in the country over the past three seasons. To continue supporting the recovery of livelihoods vulnerable to food insecurity, the government and partners must still implement transitional activities for medium term recovery to increase their resilience, while pursuing and supporting the long term policies and strategies aimed at addressing the root causes of food insecurity in the most vulnerable livelihoods including IDPs and non-displaced farm families. Resettlement, reconstruction, asset building, preparedness and contingency planning, can limit the magnitude and break the vicious cycle of humanitarian and relief assistance whenever there is a crisis.

5.1 Recommended Responses by Clusters

The Response analysis findings including costings are presented in detail in the district and cluster reports. The following represent a consolidation of these findings and can be considered as the recommended broad interventions.

5.1.1 Acute Food and Livelihood Crisis

Northern Pastoral: Turkana, Moyale, Marsabit, Samburu

Cause/Sector	Immediate	Longer Term

Security	• Enhance peace building initiatives and security operations	• Enhance peace building initiatives and security operations
Agriculture	• Provision of drought resistant certified seeds	
Livestock	• Undertake vaccination(ppr)	• Hay conservation
	• Livestock restocking for displaced communities	• Establish livestock markets
Water and sanitation	• Rehabilitation of water sources	• Preservation of water sources
	• Water tankering	
	• Conservation and protection of water sources	
Health	• Nutrition survey	Integrated sectoral approach to addressing malnutrition
	• Continuation of Selective Feeding Programmes	
Education	• Construction of roof catchment in all educational institutions	
	• Community mobilization sensitization	
	• Food for schools to cater for increased enrolment	
Food Aid	• Food assistance (GFD/FFA) in recommended areas	

5.1.2 Borderline Food Secure

Agro-Pastoral Cluster-Kajiado, Narok, Laikipia, Baringo and West Pokot Districts

Cause/Sector	Immediate	Longer Term
Water	• Provision of water tanks in schools	• Drilling and equipping of new boreholes
	• Desilting and provision of water tanks	• Strengthening of water resources/users association
	• Quality surveillance and provision of water treatment	• Construction of new earth dams
Health	• Supplementary feeding for vulnerable groups	• Sanitation and hygiene education
	• Nutrition survey	• Strengthen Nutrition surveillance systems
	• Provision of a full package for supplementary Feeding Programmes	• Integrated sectoral approach to addressing malnutrition
	• Upscaling of comprehensive Care Clinic facilities	• Integrated mobile outreach health services
Livestock	• Training on pasture conservation	• Establish growing groups
	• Immediate vaccination	• Establish vaccination regimes
	• Establish marketing groups	• Establish disease free Zones
Agriculture	• Agricultural extensions	• Training and exposure tour for groups of • Farmers
	• Buy seed for drought recovery	• Excavation of water pans.
		• Need to strengthen growth monitoring and • promotion.
Education	• Infrastructure development	• Community/guardians increase their contributions to school feeding programmes
	• Water tankering for schools	•

Eastern Pastoral cluster: Mandera, Wajir, Garissa, Isiolo, Tana River Districts

Cause/Sector	Immediate	Longer Term
Livestock	• Rapid response/mass treatment and vaccination	• Regular active disease surveillance
	• Networking to allow for information flow	• Reduce environmental destruction
	• Rehabilitation of denuded land	

Water	• Purchase of standby submersible pumps	• Construction of new pans
	• Water trucking	• Sustainable management of water resources
	• Institution of rapid response team	
Health	• Education on hygiene and sanitation	• Integrated sectoral approach to addressing malnutrition
	• Provision of a full package for supplementary feeding programmes	•
	• Revive community outreach programmes	• Increase staff in health facilities
Agriculture	• Provision of drought tolerant seeds	• Opening up large scale irrigation
	• Promotion of small scale irrigation	
Food Aid	• Food assistance (GFD/FFA) in recommended areas	Promotion of production and utilization of traditional foods

5.1.3 Borderline Food Secure/Generally Food Secure Low Resilience

Eastern Marginal Agricultural cluster: Makueni, Machakos, Kitui, Mbeere, Tharaka Districts

Cause/Sector	Immediate	Longer Term
livestock	• De-worming across region	• Promotion of honey production
	• Fodder conservation	
Agriculture	• Provision of farm inputs	• Increased adoption of drought tolerant crops
		• Training on crop protection
Water		• Rehabilitation of existing and development of new water sources(kitui and mwingi)
Health	• Upscale supplementary feeding	
Food Aid	• Upscale FFA projects in recommended locations of Kitui and Mwingi	

Coastal Marginal Agricultural cluster: Malindi Kilifi, Taita Taveta, Kwale Districts

Cause/Sector	Immediate	Longer Term
Water and sanitation	• Increase number of pit latrines	• Excavation of water pans/dams
	• Water tankering in critical areas	• Rehabilitation of existing water resources
Fisheries		• Ice plant construction
		• Advocacy for increased funds allocation to the fishing industry
Agriculture	• Provision of drought recovery seeds	
	• Intensify greater grain borer control	
	• Promotion of water harvesting technologies	
Livestock	• Reseeding of denuded areas	
	• Training of youth on animal traction and purchase of implements	
	• Purchase of disc ploughs	
Education	• Regular school feeding to cover schools faced out after Expanded School Feeding	
Health	• Supplementary feeding programmes in areas with increasing malnutrition	
	• Provision of water treatment kits	
	• Conduct nutrition and health survey	
Forestry	• Establishment of tree nurseries	• Control environmental degradation
Food Aid	• Upscaling of FFA activities in recommended areas	•

5.2 Summary of Recommended Strategic Food Response Framework

5.2.1 Background

The outcome of the current season in Kenya represents a reversal of the most recent trend of recovery following three good rainfall seasons which led to recent decision by food security partners to "seize the opportunity to implement programmes that address the underlying causes of vulnerability, as a means to assist communities recover and increase their resilience before the next shock, in order to break the vicious cycle of relief assistance being required in the absence of development investments". The emergency response was subsequently downsized from 3.1 million beneficiaries (at the peak of emergency in 2006) to the current 650,000 representing a reduction of about 80% of the relief caseload. from end of 2007, being 76% general food distribution, 16% food for assets and 8% supplementary feeding, Extensive consultations assisted in defining the new role of food aid and the way to address the residual food needs identified through the multi-sectoral assessment. Both assessment findings and the consultation process recommended that a multidisciplinary recovery supporting intervention approach is the main instrument through which food interventions would support improved and sustainable livelihoods in compliance with long term policies.

5.2.2 Current Food Security Phases and Implications for Food Intervention

While the PRRO process is underway, Pastoral Livelihoods have slipped into acute livelihood crisis in Turkana and borderline food insecure phases at high risk in 13 districts (Marsabit, Samburu, Moyale, Mandera, Wajir, Garissa, Isiolo, Taita Taveta, Kilifi, Kwale, West Pokot and Baringo).

Mandera, Moyale, Marsabit and Samburu have returned to rising trends of acute malnutrition surpassing the internationally acceptable thresholds. The remaining districts are facing severe market disruptions, causing food unavailability and price hikes beyond the local income levels for the majority of the food insecure population who are market dependent and net buyers of food, leading to low levels of food consumption and prevalence of poor diets. Incidences of diseases including cholera, diarrhea, malaria and measles continue to compromise the nutrition status of the under fives, especially in the eastern and northern pastoral districts.

While the recommendation for addressing food insecurity through resilience building and asset creation remains relevant, it is recognized that consultations leading to an agreed framework will need to be supported by further in-depth and comprehensive assessments to guide modalities and targeting in a more coherent way, which will take place during the course of 2008. Therefore the food allocation subcommittee (FAS) of the Kenya Food Security Steering Group (KFSSG) proposes - in the interim - to provide food assistance to an additional caseload of 200,000 thousand people in 15 districts, which represents an increase of 30 percent and additional estimated budget of about USD 4.3 million to procure 5,800 MT of food, extending the current EMOP until June 2008.

B. Food Security Situation in Areas Affected by Post Election Violence (PEV)

Post Election Violence (PEV) – Affected Areas

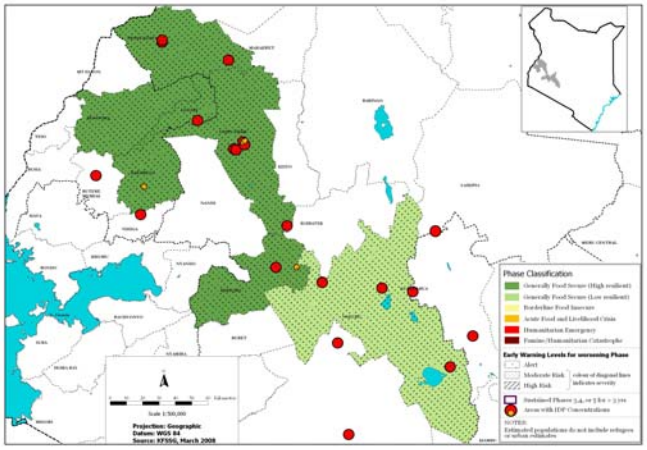
1.1 Background

Following the disputed Presidential Elections of December 2007, widespread violence erupted initially in the northern Rift Valley Province near Eldoret and the Burnt Forest areas of Uasin Gishu District, and spread rapidly to include Trans Nzoia, Nakuru, Kericho, Lugari, and Bungoma and parts of Nyanza and Western Provinces. The conflict displaced approximately 300,000 people and over 1,000 were killed. Underlying causes include long-held grievances over land ownership that originates in the immediate post-independence transfer of land from white settlers. Violence has since stopped except for a few pockets in Mt Elgon and greater Trans Nzoia and Nakuru Districts. Tension remains high despite the agreement between the two principals in Nairobi. In the rural areas misgivings towards 'outsiders' is still prevalent.

The assessment focused on the food security situation of two groups: Internally Displaced People (IDPs), mostly farmers; and non-displaced farmers who remain on their land. In addition the assessment considered the situation facing some IDPs who had returned to their 'ancestral lands' in Nyandarua in Central Province. While not exhaustive, the latter provided some indication of the impact of the violence on the food security and livelihoods of both IDPs and host families.

As the PEV affected area is the 'grain basket' of Kenya, contributing 70% of the national annual maize production, the assessment considered both local food security and wider national food production issues, together with any knock-on effects with neighbouring districts.

1.2 Overview of Food Security Classification



The current situation with IDP farmers is grave, and is classified as being in Humanitarian Emergency on the IPC scale. They were displaced from their farms and lost a high proportion of their harvested food stocks, and most of their livestock. Some IDPs were able to move with some assets, but have had to dispose of them for cash through distress sales, often at disadvantageous rates. Most IDPs are currently living in camps, having lost access to their normal farm-based livelihoods and are entirely dependant upon relief predominantly being supplied through the Kenya Red Cross Society. Opportunities for income through labouring are very limited, though IDPs living with host families (estimated at between 100-130,000 people) may have more openings. Nutritional status, as measured through screening exercises suggest that basic needs are being met, although this may deteriorate with the rains expected in March as a consequence of living in tents pitched close together and less than optimal water and sanitary conditions in some camps.

Table 1.2: Number of IDPs registered in Camps

District	No. Camps	No. IDPs
Uasin Gishu	3	24,473
Trans Nzoia	19	39,868
Bungoma	Host Families	1,692
Lugari	7	4,000
Kakamega	1	1,000
Nakuru	95	137,601
Total	**125**	**207,634**

Source: Red Cross

Non-displaced farmers have fared better, being classified as Generally Food Secure on the IDP scale. These farmers have good access to their own farm produce which is considered more than adequate until the next harvest. However, access to markets and urban-based services are often limited (such as in Molo District) making it difficult for farmers to sell surpluses to meet other needs. This in turn has affected market prices, with increases of food and other basic commodities having risen sharply since the end of December.

2 Food Availability

2.1 Crop Production

The unimodal rains performed well in the PEV-Affected areas, and crop production was excellent, and represented a 20-30% increase on 2006 as demonstrated in tables 2.1.1, 2.1.2 and 2.1.3 below.

Table 2.1.1: Key Food Commodity Production in 2007

District	Maize		Beans		Potatoes	
	Achieved ha 2007	Expected production 2007 (bags)	Achieved ha (2007)	Expected production 2007 (bags)	Achieved ha (2007)	Expected production 2007 (MT)
Greater Nakuru	69,881	1,886,307	38,480	441556	11,050	108,650
Bomet	26,672	730,980	10702	114640	1190	11907
Kericho	9,967	399,880	4480	56760	405	45500

Table 2.1.2: Maize Production by District (2007)

District	Hectares	2007 Maize Production (bags of 90kgs)	% contribution to national production
Uasin Gishu	85,803	4.3 million	7.0
Trans Nzoia	106,557	9.07 million	15.0
Bungoma	55,549	2.12 million	4.0
Lugari	30,000	1.5 million	3.0
Kakamega	19,800	0.39 million	0.6
Nakuru	69,881	1.89 million	3.2
Bomet	26,672	0.73 million	1.5
Kericho	9,967	0.4 million	0.8
Total	**404,229**	**20.4**	**35.1**

Source: Ministry of Agriculture

Table 2.1.3: Maize Stocks as of 15 January 2008

District	NCBP	Farmers	Traders	Millers	Others	Total
Trans Nzoia	452,700	1,625,000	284,500	205,800	-	2,568,000
Uasin Gishu	1,867,399	850,600	237,700	198,800	-	3,154,499
Nakuru	358,500	1,379,700	77,900	170,500	1,500	1,988,100
Kericho	17,034	793,800	55,500	55,600	-	921,934
Total RV Province	**3,424,327**	**9,947,300**	**1,151,400**	**859,450**	**42,630**	**15,425,107**

Source: MoA

Non-displaced small-holder farmers report having on average 30 bags of maize stored from the harvest, which represents approximately three times the food requirement of a family. Most farmers are holding onto stocks in anticipation of price rises and the need for cash to purchase other requirements as the next season progresses.

IDPs, however, lost all or most of their harvest when they were displaced, and have no access to their stores. With the exception of some wheat and potatoes, most of the harvest had been brought in by the time the violence escalated. Unharvested crops from displaced farmers are in danger of being spoilt in the fields or taken by others. Total maize losses from the violence is estimated to be 3.5 million bags (MoA).

2.2 Livestock Production:

Most **IDP**s lost livestock with the rapid onset of post election violence. It is not known whether the livestock remains in the areas of displacement, have been moved to other areas or have been slaughtered. Some managed to move with their livestock to IDP camps and there is an estimated 600-800 displaced cows in Rift Valley camps. In the IDP camps, water is also available for livestock. However, livestock that is generally used to semi-zero grazing within homesteads; and on different types of animal feeds (Napier grass and potato peelings) are finding it difficult to feed on diminishing pasture within the camps and town centres. Livestock body condition within the camps is fair and productivity is declining. Livestock diseases for livestock in the camps include ECF, LSD and FMD. Many IDP farmers sold livestock they moved with, often at disadvantageous rates (approximately KSh 5,000 for hybrid cattle worth at least KSh 20,000). Partly as a consequence of distress sales, livestock prices have generally plummeted (see section 2.3 on markets).

The livestock body condition is good in farms of **non-displaced farmers**. Most livestock are feeding on natural pastures, maize stalks, wheat straw and ground maize; some on silage and hay especially in large farms. Water supply is good and sourced from shallow wells within homesteads or nearby streams or rivers.

High transport costs; uncertain security of stores and the transport network as resulted in inadequate purchases by stockists. This coupled with opportunistic business behaviour by most stockists has resulted in increased prices for livestock inputs and decreasing returns:

Table 2.2.1: Prices of Key Animal Feeds

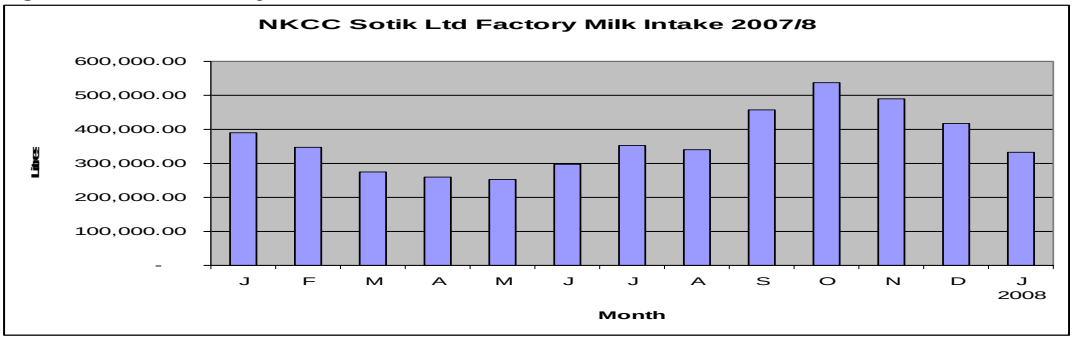
Livestock feeds Prices	Average2007	Current	% Difference
- dairy meal	850	1050	23.5
- Layers mash	1200	1400	16.7
- hay (bale)	80	120	50.0
- sow and weaner meal	840	1150	36.9

Source: MoA, private sector inputs suppliers, farmer interviews

Post election violence disrupted the spaying and dipping of animals against tick-borne diseases. Also, there is a high frequency of unregulated livestock movement in the North Rift region. Moreover, there is a high chance that animals that hitherto never interacted may do so in 'communal' grazing areas in farms abandoned by IDPs. Consequently, there is increased probability that LSD, FMD and PPR may spread rapidly in the region resulting in significant deaths, reduced productivity and market closures; adversely affecting livestock production and allied products.

Milk production is seasonally low ranging from 2-5 litres per day down from 6-8 litres per day during the rain season between June and October. Milk production in 2008 is expected to decrease by about 3% because of displacement of some farm families who accounted for about 7% of the dairy farmers in the North Rift which may be less than the expected increase in milk production by non-displaced farmers. Data from milk factories such as Sotik (see figure 2.2.1) Ltd suggest a drop of about 14% in milk intake in comparison with January 2006, but this decrease may have been reversed during February as transport and access to farmers improved:

Figure 2.2.1: Monthly Milk Intake

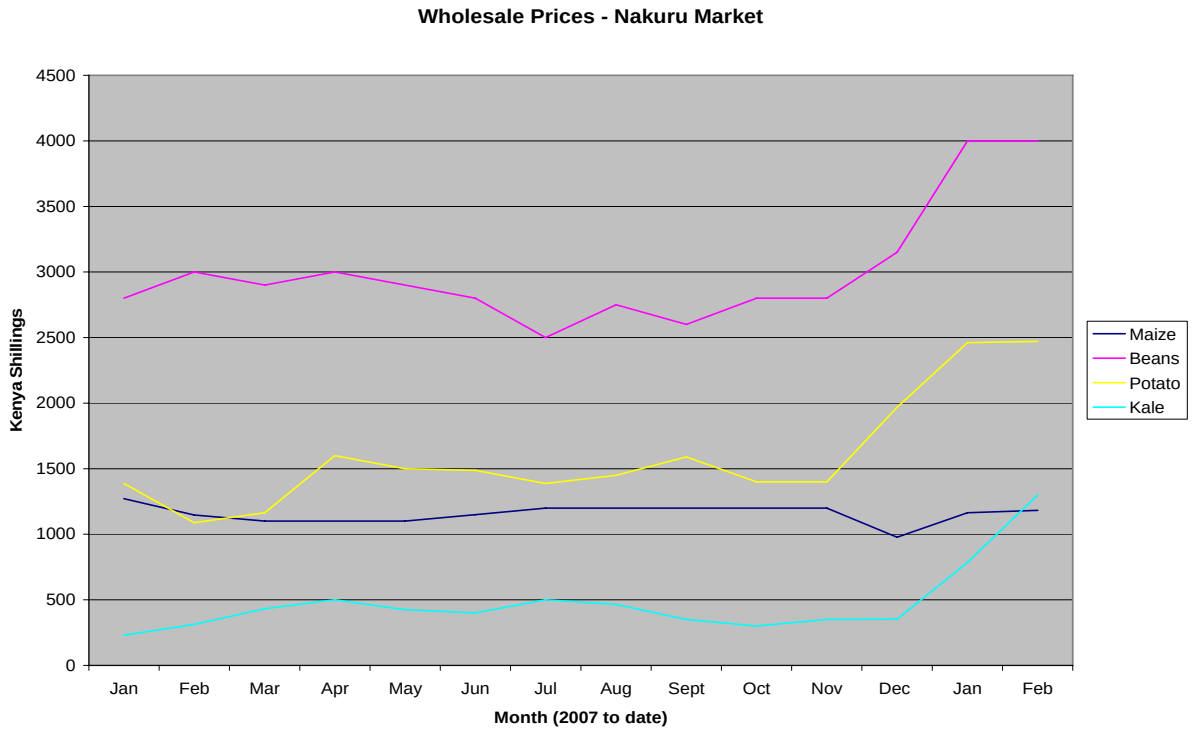


In spite of increased availability of natural pasture with the onset of the long rains in March in the North Rift, limited grazing area is expected to constrain livestock productivity in the IDP camps. As for the non-displaced farmers, despite increased costs of livestock inputs, there is a high likelihood that they may switch to commercial milk from maize production due to increased costs of maize inputs and expanded accessibility to natural pasture on farms abandoned by IDFFs. Therefore, there may be increased milk output in 2008 in North Rift.

2.3 Market prices and purchasing power

Market prices of key food commodities have increased sharply since the violence erupted, reflecting the disruption in market function and transport due to insecurity on the roads. Figure 2.3.1 shows comparative market prices for selected commodities in Nakuru district.

Figure 2.3.1: Commodity Prices in Nakuru Market



At the same time, farm gate prices are relatively low, as illustrated in table 2.3.1 below, in comparison due to the difficulties that non-displaced farmers are facing in accessing urban markets: in general the marketing chain was controlled by Kikuyus who are currently unable to travel to farming areas controlled by Kalenjin.

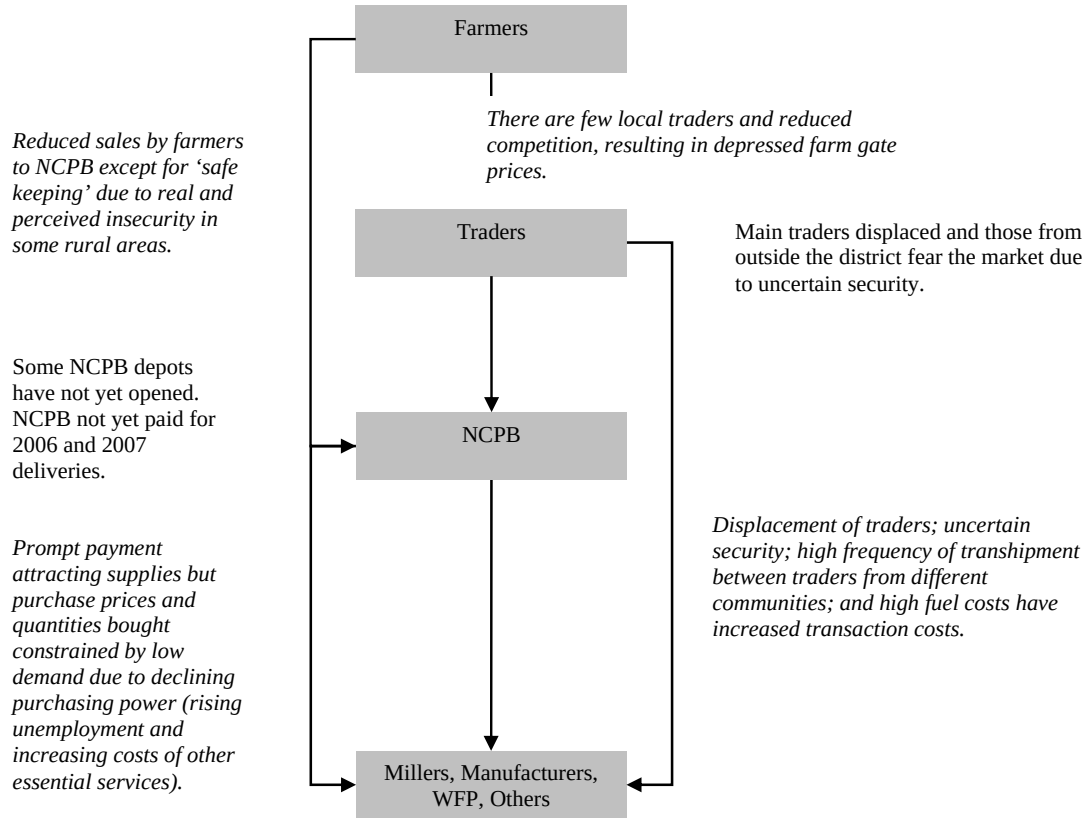
Table 2.3.1: Market and Farm Gate Prices for Key Food Commodities

Commodity	Feb wholesale price	Average wholesale price 2007	Farm gate Feb 2008	% Difference
Maize	1183	1154	1000	-15.5
Beans	4000	2833	2500	-37.5
Potato	2471	1452	1600	-35.2

Source: MoA and Interviews with farmers

Post-election violence and subsequent tension has adversely affected the input and output markets (see figure 2.3.2) leading to increase in the prices of inputs and retail prices of commodities; and a decrease in the farm gate price of commodities in the country(see 3.1). Most households do have higher than normal stocks of maize due to market disruption.

Figure 2.3.2: Disruption of the Maize Output Market Due to Post Election Violence in Kenya



Source: Ministries of Agriculture and Livestock, Uasin Gishu District; and KFSSG assessment team

There is still widespread fear among livestock traders due to uncertainty of security resulting in limited legal livestock movements. However, livestock auctions are gradually picking up and there are increased attempts to sell stolen animals at these auctions. Livestock prices have declined precipitously (see table 2.3.2) due to uncertain security and mistrust between main stakeholders from different communities that has prevented many buyers from as far away as Nairobi from participating in the livestock auctions.

Table 2.3.2: Market Prices of Key Livestock and products

Species	Dec	Jan	%difference
Dairy cattle	30000	7500	75
Indigenous cattle	15000	8000	47
Dairy goats	6000	6000	0
Meat goats	2500	1500	40
sheep	3000	750	75
pigs	7000	7000	0
poultry	200	100	50
Livestock Products			
raw milk			
- KCC (Kg)	18	21	16.7
- Milk vendor (Kg)	22	26	18.2

Source: MoLFD and interviews with farmers

Expenditure

For non-displaced farmers, the prices of basic consumer items such as soap, sugar and oil have increased in price by 25% (sugar) to 75% (soap) mainly as a result of inflation nationally as opposed to being a consequence of the violence. Table 2.3.3 illustrates. IDPs living in camps are generally receiving basic commodities such as soap free as part of relief efforts.

Table 2.3.3: Price of common consumables

Item	Average 2007	Current	% Difference
Sugar (Kg)	80	100	25.0
petrol (Lit)	75	100	33.3
Kerosine	56	85	51.8
Diesel	65	95	46.2
Soap (bar)	40	70	75.0

Food access and availability summary statement:
IDPs have generally been completely separated from their means of livelihood and for the most part are entirely dependant upon relief. IDPs who are staying with host families are thought to have better access to food and income sources, but this is putting strain on the host's resources (See section 3.4.8 Nyandarua). Non-displaced farmers have access to their harvested crops and are considered to be generally food secure. Access to markets and other urban-based services are a serious constraint however. Terms of trade are generally poor for non-displaced farmers as a result of high prices of consumables and food commodities, low livestock prices and relatively low farm-gate prices.

2.4 Health and Nutrition

Nutritional Status

Acute malnutrition as measured using MUAC as a screening exercise in the IDP camps suggests that rates are as expected in a normal population in Kenya. IDPs staying with host families are not included. There is no data available for non-displaced farmers, but no evidence of malnutrition among children was noted during field interviews.

Table 2.4.1: MUAC Screening of IDPs

District	Number Screened	Moderate (%)	Severe (%)	At Risk (%)
Nakuru	755	5.2	1.1	5.2
Molo	81	4.9	1.2	0

Naivasha	35	2.9	0	8.6
Uasin Gishu	96	3.1	0	6.3
Trans Nzoia	1887	4.0	0.5	7.2
Kakamega	57	7.0	1.8	0
	87	8.0	2.3	11.5
	216	1.4	0	11.2
	189	2.7	1.1	0
Lugari	123	12.1	0.8	6.5
Total	3526	4.5	0.7	6.3

Source: UNICEF

Dietary Diversity[1]

In terms of dietary diversity, non displaced farmers are consuming over 4 food groups, which is considered to be more than adequate diversity. IPDs in camps, however are eating from 3-4 food groups, which is considered borderline adequate. IDPs who have returned to their farms (small proportion of the total population) are consuming from 5-6 food groups, indicating a better diet and access to food.

2.5 Water

Water availability to IDPs and non-displaced farming families in the Rift Valley and Nyandarua is fairly good and the main sources are shallow wells within homesteads, boreholes, rivers roof-catchments and piped systems. In the IDP camps hygiene standards by users compromises the quality of water consumed. Water access and availability in the camps varies according to existing facilities. For example, Bahati Police Station, there is piped water close to the IDPs; in Molo, water is carried from a river 1Km distant (not of drinking quality); in Nakuru Showground the water is piped, but is not always running, and water is brought by bowser. Water quality and other hygiene factors are likely to deteriorate in the camps with the onset of the long rains in March.

2.6 Education

Schooling has been disrupted in areas affected by post-election conflict through closures as some schools were burnt down, while pupils in many of these areas failed to return due to continuing insecurity. As a result, schools outside the conflict areas have had to cope with addition enrolments, further constraining their learning facilities. Most schools were damaged in areas where people were evicted in the North Rift. All other schools have opened after the some delay due to post-election violence save for a few which still host IDPs. The main IDP camps are providing education services and facilities. However, the same services lack in expanding camps in Trans Nzoia District. All schools have reopened in the lake basin marginal agricultural cluster.

2.7 Coping Strategies

There is probable stocking of current food stocks in anticipation of reduced production by non-displaced farming families. In the Lake basin marginal agricultural areas and parts of central mixed farming areas, more family members are seeking casual labor; remittances and help from relatives, neigbhors and friends to help support returning IDPs.

With passage of time, most IDPs are increasingly becoming dejected and quite a few have burnt their voter's cards which they view as the main cause of the predicament they find themselves in. There is a need for continued counseling services even as early recovery measures are being planned.

[1] Due to time constraints, the sample size for dietary diversity was very low, and hence this data should be considered indicative. Confidence for IDPs in camps is higher as they are highly dependant upon relief supplies, and tend to eat more-or-less the same in terms of diversity.

Some IDPs are seeking alternative livelihoods to escape from the camps. Those around towns are gradually going back to their businesses; those whose farms are nearby are going to their land during the day but spending the night in the camps. Petty trade is increasing in some camps as households try to get resources to augment limited relief supplies.

2.8 Insecurity

The post election violence has largely reduced in most of the areas affected with the good progress in the power-sharing arrangement at the national level. Tensions and distrust between communities remain however. Isolated violence has continued in Mt Elgon and some parts of Nakuru (especially in Molo District), and some fresh conflicts have emerged in Laikipia recently. While the resolution of the crisis at the national political level is important to bring peace to the rural areas, it is abundantly clear that underlying issues, especially over land ownership, will need to be addressed before communities will be able to live together in sustained peace. This is particularly the case in areas where similar violent episodes have taken place repeatedly such as Molo District (1992, 1997, 2003 and the current crisis).

2.9 Effect on the Markets, private and public sector and jobs

In general terms the Post Election Violence has had an adverse affect on the market, trade, jobs and government-run services. In addition to the more formal sector, most farmers sell their produce through brokers, who have not been able to access rural areas since the violence erupted. Thus both farmers and the brokers themselves are adversely affected, with the latter losing their livelihoods for the time being.

Formal Sector: Most towns in the Rift valley have examples of businesses that have been burned during the violence, and this was extended to Kisumu. CNFA (Citizens Network Farmers Association) estimate that the Agro-Vet outlets were particularly hard hit with a total of 18 burned, 16 relocated and unable to return; and a further 500 that have closed due to insecurity and disruptions in trade. It is unclear how many of these businesses will reopen or close permanently.

Public Sector: The Ministries of Agriculture and Livestock and Fisheries Development have been particularly affected by the violence. At the time of the assessment, many Divisional officers had been displaced from their stations and were unable to return in safety; those that were able to stay in their stations were unable to move to the district headquarters (eg Molo). In addition, most of the larger projects being implemented by the two ministries are based on farmer groups: as farmers are not prepared to get together in groups due to mistrust, most of this work has ceased for the time being. These projects include NALEP, KAPP, Njaa Marufuku Kenya and IFAD's Small Holder Dairy Intensification project among others.

2.10 Area of IDP return to 'Ancestral Lands' – Nyandarua

Nyandarua was included in the assessment as an example of an area that IDPs have moved to as 'ancestral homeland' The main findings area as follows:

- 36, 965 IDPs hosted in district: 6% of the total population of Nyandarua
- Nearly all IDPs (>90%) are being hosted by an estimated 5,000 farming families
- Host families food security under stress as IDPs brought no food with them; harvests in 2007 were low due to excessive rain
- Movement of livestock with IDPs threatens to spread disease (FMD, LSD)
- Land pressure high: prices risen by 30-80%
- Strain on basic services (schools, health etc)

Clearly IDPs staying with host families can only be a temporary arrangement, and more permanent solutions are required. It is also suggested that more fact-finding missions are sent to other similar areas, particularly in Nyanza where an estimated 50-60,000 IDPs have resettled and other areas of Central Province such as Nyeri and Kiambu.

3 Conclusions and Outlook for 2008

The violence triggered by the disputed presidential elections has both immediate and long-lasting implications. In addition to the obvious displacement of farmers, disruptions to markets and trade have impacted on the livelihoods of displaced, non-displaced farmers and traders alike: everybody has lost in one way or another.

The current situation with IDP farmers is grave, and are classified as being in Humanitarian Emergency on the IPC scale. They were displaced from their farms mostly having lost a high proportion of their harvests and food

stocks, and most of their livestock. Some IDPs were able to move with some assets, but have had to dispose of them for cash through distress sales, often at disadvantageous rates. Most IDPs are currently living in camps and are entirely dependant upon relief predominantly being supplied through the Kenya Red Cross Society, having lost access to their normal farm-based livelihoods. Opportunities for income through labouring are very limited, though IDPs living with host families may have more openings. Nutritional status, as measured through screening exercises suggest that basic needs are being met, although this may deteriorate with the rains expected in March as a consequence of living in tents pitched close together and less than optimal water and sanitary conditions in some camps.

Non-displaced farmers have fared better, being classified as Generally Food Secure, with low resilience on the IDP scale. These farmers have good access to their own produced food which is considered more than adequate until the next harvest. However, access to markets and urban-based services are often limited (such as in Molo District) making it difficult for farmers to sell surpluses for their other needs. This in turn has affected market prices, with increases of food and other basic commodities having risen sharply since the end of December.

The cost of maize production for the 2008 production season has increased by approximately 27% (see table 3.1) and reducing expected returns for non-displaced farmers. In addition, most of the 2006 and all of the 2007 deliveries of maize by farmers to NCPB have not been paid yet, reducing resources available for 2008 maize production in the district. Land preparation by February 2008 ranges is 5-20% compared to 50-80% by the same time in 2007. There is also heightened possibility that agronomic practises in the long rains season may be below the recommended standards due to constrained farm resources. Consequently, crop yields may decrease significantly.

Table 3.1 : Estimated Average Cost of Maize Production in Uasin Gishu Districts by February 2008

Activity	Unit	Average Cost Per Acre			Comments
		2007	2008	% Difference	
First Plough	Per acre	1,500	2,500	67%	Already late; area under cultivation may decrease
Second Plough	Per acre	1,400	2,000	43%	May not be done
Planting Fertilizer (DAP)	150 kgs/acre	2,700	5,100	89%	Only 50kgs may be used or acreage reduced
Seed	10kgs/acre	1,150	1,150	0%	
Planting		600	600	0%	
Top Dressing Fertilizer (CAN)	100 kgs/acre	2,025	3,300	63%	Only 50kgs may be used or acreage reduced
Dusting and labor	Per acre	500	500	0%	May increase
Weeding Labor	Per acre	600	600	0%	May increase
Harvesting Labor	Kshs 55/bag	840	840	0%	May increase
Farm to Store Transport	2 trips/acre	3,000	3,000	0%	May increase
Shelling	Per acre	1,500	1,820	21%	
Land rent	Per acre	5,000	5,000	0%	May decrease in to Ksh 3000-4000 in June-July- reduced demand due to declining profits per acre
Total Cost	**Per acre**	**20,815**	**26,410**	27%	
Average Output	90kg bags/acre	25	25	0%	Yields may decrease due to delayed and inadequate agronomic practices
Cost Per bag	**Per bag**	**833**	**1,056**	27%	

As a result of both continued displacement and high cost of production, it is estimated that upto 30% of cultivatable land may be taken out of production in the 2008 season. The implication has both local and national significance. For example in Nakuru, total projected population of greater Nakuru is 1.5 million: requiring between 1.7 and 2.1 million bags of maize consumption per year. The expected drop in production of maize for the District implies that the shortfall will total approximately 600,000-1,000,000 bags (54,000-90,000 MT) in contrast to the usual self sufficient or surplus production.

Table 3.1: Land likely to be taken out of production in 2008 in greater Nakuru

	Maize	Wheat	Beans	Potatoes
Cultivated land 2007 (ha)	69,881	16,182	38,480	11,050
Cultivatable land likely to be out of production, 2008 (ha)	24,101	1,430	13,972	2,303
% cultivatable land likely to be out of production, 2008	34.5	8.8	36.3	20.8

Table 3.2: Maize Production Targets for 2008

District	2007 Hectares	Target ha 2008	% reduction
Uasin Gishu	85803	65255	24
Trans Nzoia	106557	72459	32
Bungoma	55549	44439	20
Lugari	30000	21000	30
Kakamega	19800	15840	20

In national terms, the estimated shortfall of Shortfall of 5.3 million bags (30% of targeted maize production in RVP) could result: this is 15% reduction in national targets for maize in 2008. Due to delayed payment by NCPB for maize deliveries, increased cost of maize production, increased purchase price of wheat and prompt payment for wheat deliveries, there is a high likelihood that maize farmers may shift to wheat and milk production.

In the context of a possible drought situation in some areas in 2008, the increased price (due to cost of production passed on to consumers) of staple food commodities combined with shortages in supply as a consequence of reduced national production, poses an acute risk of a food security crisis evolving in Kenya in 2008 and the first half of 2009.

In terms of response options, clearly the first priority areas are as follows:

- Maintain current levels of relief assistance for the IDPs, at least until they are able to rebuild their livelihoods through returning to their farms or being resettled elsewhere.
- Psycho-social support to people were directly exposed to violence would help to heal mental scars.
- Additional support to returning farmers should include farm inputs (through direct purchase or voucher systems) to enable them to prepare the land and plant without delays that would result in reduced yields.
- Assistance with shelter would be important for those people who lost their houses during the conflict.
- Subsidies for non-displaced farmers on key farm inputs would also be of value in terms of maintaining levels of production for both local and national interests.
- The control of key livestock diseases is also a priority to protect key assets and incomes through the dairy industry.
- Redistribution of livestock and rebuilding genetic material of dairy cattle would be a medium term initiative.

It should be noted, however, that peace building efforts are essential to accelerate the process of reconciliation and rebuilding trust between communities. This is a prerequisite for returning farmers in some areas that continue to be very tense. Return though providing armed security may work in the short term, but is unlikely to be sustainable, and will most likely increase hostility between communities in the medium term.

Finally, to prevent similar events from occurring in the future, it is essential to address important underlying causes of the conflict. Most important of these are land ownership issues many of which have historic roots as well as contemporary manifestations. In this regard, it is important to learn from previous inter-ethnic conflicts in the district (such as in Molo in 1992, 1997 and 2002), and to develop a strategy for addressing legitimate land disputes based on existing studies such as the Ndung'u and Njonjo Land reports. Other underlying issues include perceived 'ethnic monopolies' of the marketing chain, effectively excluding certain communities to benefit from profits derived from different levels of commodity trading. Efforts to integrate communities in the

longer term will reduce the tendency for people to identify with ethnicity in a negative way, and to align their political representation along ethnic lines.

4 Response Analysis

4.1 Immediate

a) Continue to meet the basic needs of IDPs in camps and with host families through relief interventions: food; health services; adequate water and sanitation; shelter; education. Provide focused antenatal care to pregnant women and improve water quality during long rains season.

b) Registration and profiling of farm families

c) Psycho-social support for those directly affected by violence and trauma

d) Support to peace-building and reconciliation efforts to rebuild trust between the conflicting communities. This is a prerequisite to allow IDPs to return in security and peace.

e) Provide farm inputs to returning farmers (or to those being resettled on farmland elsewhere). Priorities would be subsidies on tractor hire, seeds and fertilizers. Farm implements on a case by case basis.
Based on an estimated return rate of 25% of IDPs this would cost approximately US 2 million for return kits consisting of seeds, tools, fertilizer and tractor hire costs sufficient for one acre of land.

f) Subsidize farm inputs to poorest non-displaced farmers. Priorities would be subsidies on tractor hire and fertilizers
Based on targeting farmers who own 5 acres or less (15% or 110,000 farm families) this would amount to approximately US$ 20 million for fertilizer and tractor hire for one acre per family

g) Emergency district-wide vaccination to prevent FMD,LSD and Rabies
Based on vaccination rate of 60% of the total cattle herd, this would cost approximately US$ 1 million.

h) Assistance in terms of shelter/ housing for IDPs who had their houses destroyed during the violence.

i) Redistribution of livestock to IDPs who lost their livestock. Dairy cattle would be a priority.

4.2 Longer term

j) Support to the resolution of underlying issues, particularly associated with land ownership.

k) Longer term peace building and reconciliation between all ethnic and/or politically aligned groups.

l) Restructure socio-political institutions

m) Reinstate Guaranteed Minimum Returns(GMR)

Appendix: Integrated Food Security Phase Classification Reference Table--Technical Addendum and map of the current classification

Phase Classification		Key Reference Outcomes *Current or imminent outcomes on lives and livelihoods. Based on convergence of direct and indirect evidence rather than absolute thresholds. Not all indicators must be present.*		Strategic Response Framework *Objectives:* *(1) mitigate immediate outcomes, (2) support livelihoods, and (3) address underlying causes*
1A Generally Food Secure--*High Resilience??*		*Crude Mortality Rate*	< 0.5 / 10,000 / day; U5MR <1/10,000/day	Strategic assistance to pockets of food insecure groups Investment in food and economic production systems Enable development of livelihood systems based on principles of sustainability, justice, and equity Prevent emergence of structural hindrances to food security Advocacy
1B Generally Food Secure--*Low Resilience??*		*Acute Malnutrition*	<3 % (w/h <-2 z-scores)	
		Stunting	<20% (h/age <-2 z-scores)	
		Food Access/ Availability	usually adequate (> 2,100 kcal ppp day), stable	
		Dietary Diversity	consistent quality and quantity of diversity	
		Water Access/Avail.	usually adequate (> 15 litres ppp day), stable	
		Hazards	moderate to low probability and vulnerability	
		Civil Security	prevailing and structural peace	
		Livelihood Assets	generally sustainable utilization (of 6 capitals)	
2	*Generally* Food Insecure	*Crude Mortality Rate*	0.5-1/10,000/day; U5MR 1-2/10,000/day	Design & implement strategies to increase stability, resistance and resilience of livelihood systems, thus reducing risk Provision of 'safety nets' to high risk groups Interventions for optimal and sustainable use of livelihood assets Create contingency plan Redress structural hindrances to food security Close monitoring of relevant outcome and process indicators Advocacy
		Acute Malnutrition	>3% but <10 % (w/h <-2 z-score), usual range, stable	
		Stunting	>20% (h/age <-2 z-scores)	
		Food Access/ Availability	borderline adequate (2,100 kcal ppp day); unstable	
		Dietary Diversity	chronic dietary diversity deficit	
		Water Access/Avail.	borderline adequate (15 litres ppp day); unstable	
		Hazards	recurrent, with high livelihood vulnerability	
		Civil Security	Unstable; disruptive tension	
		Coping	'insurance strategies'	
		Livelihood Assets	stressed and unsustainable utilization (of 6 capitals)	
		Structural	Pronounced underlying hindrances to food security	
3	Acute Food and Livelihood Crisis	*Crude Mortality Rate*	1-2/10,000/day, U5MR 2-4/10,000/dy	Support livelihoods and protect vulnerable groups Strategic and complimentary interventions to immediately ↑ food access/availability AND support livelihoods Selected provision of complimentary sectoral support (e.g., water, shelter, sanitation, health, etc.) Strategic interventions at community to national levels to create, stabilize, rehabilitate, or protect priority livelihood assets Create or implement contingency plan Close monitoring of relevant outcome and process indicators Use 'crisis as opportunity' to redress underlying structural causes Advocacy
		Acute Malnutrition	10-15 % (w/h <-2 z-score), > than usual, increasing	
		Disease	epidemic; increasing	
		Food Access/ Availability	lack of entitlement; 2,100 kcal ppp day via asset stripping	
		Dietary Diversity	acute dietary diversity deficit	
		Water Access/Avail.	7.5-15 litres ppp day, accessed via asset stripping	
		Destitution/Displacement	emerging; diffuse	
		Civil Security	limited spread, low intensity conflict	
		Coping	'crisis strategies'; CSI > than reference; increasing	
		Livelihood Assets	accelerated and critical depletion or loss of access	
4	Humanitarian Emergency	*Crude Mortality Rate*	2-5/ 10,000 / day, >2x reference rate, increasing; U5MR >4/10,000/day	Urgent protection of vulnerable groups Urgently ↑ food access through complimentary interventions Selected provision of complimentary sectoral support (e.g., water, shelter, sanitation, health, etc.) Protection against complete livelihood asset loss and/or advocacy for access Close monitoring of relevant outcome and process indicators Use 'crisis as opportunity' to redress underlying structural causes Advocacy
		Acute Malnutrition	>15 % (w/h <-2 z-score), > than usual, increasing	
		Disease	Pandemic	
		Food Access/ Availability	severe entitlement gap; unable to meet 2,100 kcal ppp day	
		Dietary Diversity	Regularly 3 or fewer main food groups consumed	
		Water Access/Avail.	< 7.5 litres ppp day (human usage only)	
		Destitution/Displacement	concentrated; increasing	
		Civil Security	widespread, high intensity conflict	
		Coping	'distress strategies'; CSI significantly > than reference	
		Livelihood Assets	near complete & irreversible depletion or loss of access	
5	Famine / Humanitarian Catastrophe	*Crude Mortality Rate*	> 5/10,000 /day; U5MR >10/10,000/day	Critically urgent protection of human lives and vulnerable groups Comprehensive assistance with basic needs (e.g. food, water, shelter, sanitation, health, etc.) Immediate policy/legal revisions where necessary Negotiations with varied political-economic interests Use 'crisis as opportunity' to redress underlying structural causes Advocacy
		Acute Malnutrition	> 30 % (w/h <-2 z-score)	
		Disease	Pandemic	
		Food Access/ Availability	extreme entitlement gap; much below 2,100 kcal ppp day	
		Water Access/Avail.	< 4 litres ppp day (human usage only)	
		Destitution/Displacement	large scale, concentrated	
		Civil Security	widespread, high intensity conflict	
		Livelihood Assets	effectively complete loss; collapse	

Early Warning Levels	Probability / Likelihood (of Worsening Phase)	Severity (of potential Phase decline)	General Description and Changes in Process Indicators	Implications for Action
Watch	As yet unclear	Not applicable	Occurrence of, or predicted *Hazard* event stressing livelihoods; with low or uncertain *Vulnerability* and *Capacity* *Process Indicators:* small negative changes	Close monitoring and analysis Review current Phase interventions
Moderate Risk	Elevated probability / likelihood	Specified by predicted Phase Class, and indicated by color of diagonal lines on map.	Occurrence of, or predicted *Hazard* event stressing livelihoods; with moderate *Vulnerability* and *Capacity* *Process Indicators:* large negative changes	Close monitoring and analysis Contingency planning Step-up current Phase interventions
High Risk	High probability; 'more likely than not'		Occurrence of, or strongly predicted major *Hazard* event stressing livelihoods; with high *Vulnerability* and low *Capacity* *Process Indicators:* large and compounding negative changes	Preventative interventions--with increased urgency for High Risk populations Advocacy

Figure 1.2.1: Kenya Food Security Situation February-June 2008