



## Technical Series

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# 2005/06 Post *Deyr* Analysis

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#### Technical and Managerial Support



#### Funding Agencies



#### Technical Partners







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ARI	Acute Respiratory Infection
CCPP	Caprine Pleura Pneumonia
CMR	Crude Mortality Rate
FAO	Food and Agriculture Organization
FEWS/NET	Famine Early Warning Systems Network
FSAU	Food Security Analysis Unit
GAM	Global Acute Malnutrition
HA	Hectare
HRG	Humanitarian Response Group
IDP	Internally Displaced Persons
IDS	Institute for Development Studies
Lt	Litre
LZ	Livelihood Zone
MCH	Maternal and Child Health Center
Mt	Metric Tonne
MUAC	Mid Upper Arm Circumference
NDVI	Normalized Difference Vegetation Index
PWA	Post War Average
SAM	Severe Acute Malnutrition
SISh	Somaliland Shilling
SoSh	Somali Shilling
TFC	Thearupetic Feeding Center
U5	Under Five
WFH	Weight for Height
HE	Humanitarian Emergency
AFLC	Acute Food and Livelihood Crisis

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## 1. EXECUTIVE SUMMARY

Following early indications of a seriously deteriorating food security situation in Southern Somalia, FSAU and FEWSNET began to issue early warnings in November '05, advanced the timeline of its *Deyr* assessment fieldwork, and expanded both the duration and coverage of fieldwork in the South in order to generate a more in-depth understanding of the rapidly evolving crisis. Fieldwork by FSAU with FEWSNET Somalia and another forty two different partners was undertaken throughout December '05. Fieldwork was followed by a series of regional analysis workshops and an overall consolidation analysis workshop held the first week of January '06. Results were presented to TFG, UN, INGO/NGO agencies, donor agencies and other partners at the SACB/FSRD meeting on January 18, 2006. Key findings of this assessment and analysis were published in the FSAU January 2006 Food Security and Nutrition Monthly Brief (January 26, 2006). To inform programming and facilitate a timely response FSAU released (through FSAU website and by E-mail) finalised estimated population numbers in **Humanitarian Emergency (HE)** and **Acute Food and Livelihood Crisis (AFLC)**, inclusive of **High Risk** groups disaggregated by region, district and livelihood zone (February 1, 2006). This FSAU Technical Series Report presents a comprehensive analysis and results of the Post *Deyr* '05/06 Analysis.

### 1.1 KEY FINDINGS

An estimated **1.7 million** people in the North, Central and Southern Regions of Somalia are facing conditions of **Acute Food and Livelihood Crisis** or **Humanitarian Emergency** at least until June '06 (Table 1 and Map 1). If IDPs (Internally Displaced Populations) are included, estimated at 400,000, the total number of people in need of assistance throughout the country is **2.1 million** people. The crisis is especially severe in the Southern regions of Somalia, where an estimated 1.4 million people are in urgent need of humanitarian assistance. Results confirm previous early warnings of crop failure, considerable livestock deaths, rapidly increasing cereal prices, falling live-stock prices, abnormal population movements, and extreme shortages of, and limited access to, **water and food** (see FSAU Monthly Briefs for November and December '05).

Depending on humanitarian access and response, the potential risks for outbreaks of resource based conflict, and food and water supply shortages; FSAU further warns that there is a **Moderate Risk of Famine** in the coming months for Gedo and surrounding areas (Map 1). Threats against the humanitarian community in January led to the suspension of flights, and therefore access to, Garbaharey and Luq districts in Gedo. This incident underscores the potential for conflict, the complexity of the situation, and implications for humanitarian response.

Further stressing the plight of the people in the South is that the drought is regional in nature, extending into Ethiopia and Kenya and covering large areas of the greater Somali livelihood system. The regional scope of this drought translates directly into fewer coping options within the greater Somali livelihood system (e.g. reduced migration and stretched social support) and greater stress on already limited resources. FSAU initiated a series of cross border meetings with technical food security partners in Kenya and Ethiopia to develop an analytical and consistent understanding of the food security crisis in the bordering regions. This initial cross-border technical collaboration between regional partners (FEWSNET, WFP, SC [UK], CARE, UNDP, USAID, OXFAM, ALRMP, OCHA, Ministry of Agriculture, Kenya) and the application of the Integrated Food Security and Humanitarian Phase Classification to the regional drought clearly delineates the extent and severity of the humanitarian crisis (Map 2).

The Southern region is faced with a crisis that will continue to deepen over the coming months. The effects of the drought will only be compounded and worsen over the long *Jilaal* dry season (Jan-April) and depending on the extent of the loss of livelihoods and lives during this period, the region will require continued humanitarian and development support for several months to come. If the *Gu* '06 rains (April-June) fail or are again below normal in the southern region, the entire region will likely face a **humanitarian catastrophe** on a scale that could be comparable to the 1993 famine in Southern Somalia.

It must be emphasized that the humanitarian response needed for the current crisis is a multi-sector, 'twin-track' approach - addressing both the immediate life saving needs (food, water, health, nutrition), but also simultaneously addressing the medium-term livelihood needs in terms of the protection and rehabilitation of productive assets (livestock, seeds and tools, boreholes, water catchments, irrigation canals, rangelands). If the focus is only on addressing immediate needs - whole livelihood systems could degenerate into relief-reliant communities, deepening poverty and prolonging the humanitarian crisis.

### IMPLICATIONS FOR RESPONSE

- **Response:** A full range of response options is necessary, including: food aid, cash assistance, water relief and rehabilitation, livestock herd survival programmes (including destocking, breeding stock protection, provision of fodder), health and nutrition assistance, and protection of vulnerable groups.
- **Timeframe of Response: Jan. - May:** Humanitarian response focused on immediate needs and medium-term

protection and rehabilitation of assets. **June – December:** If *Gu* '06 rains are good, continuation of immediate needs assistance for most vulnerable populations and full continuation of activities focused on protection and rehabilitation of assets. If *Gu* '06 rains fail, increased and continued immediate needs response with expanded coverage and intensity.

- **Implementation of Response:** Somali authorities, civil society, and humanitarian actors urgently need to step up interventions to prevent a large scale disaster. Somali leaders will be critical in ensuring security and access to affected areas.
- **Financial Response:** Donors must urgently ensure implementing agencies and organisations have the full financial backing to implement the necessary responses. As demonstrated in previous crises, the Somali Diaspora can play a key role through remittances to help mitigate the crisis.
- **Consistent Regional Response:** A balanced, needs-based humanitarian response for the entire drought affected region (Somalia, Ethiopia & Kenya) is necessary in order to prevent a further escalation of the crisis through cross border population movements and outbreaks of conflict over resources.
- **Crisis as Opportunity:** The severity of the crisis will provoke critical awareness of Somalia's situation from both the international community and Somali people's perspective. Harnessed constructively, this energy can be used to address key underlying issues that will continue to undermine Somali livelihoods indefinitely if left unchecked. Key opportunities include, demonstrating the benefits of a functioning civil society through Transitional Federal Government leadership, and reversing the trend of massive and nearly irreversible degradation of rangelands through deforestation for charcoal production.
- **Contingency Planning:** Early climate forecasts indicate the possibility of below normal *Gu* '06 rains. Thus, all humanitarian actors should prepare for what will be a further deterioration in the situation, which could include widespread famine.

**Table 1A: Estimated Population by Region in Humanitarian Emergency (HE) and Acute Food and Livelihood Crisis (AFLC), inclusive of the High Risk Groups.**

Affected Regions	Estimated Population of Affected Regions <sup>1</sup>	Assessed and Contingency Population in AFLC and HE		
		Acute Food and Livelihood Crisis (AFLC) <sup>2</sup>	Humanitarian Emergency (HE) <sup>2</sup>	Total in AFLC or HE as % of Region Population
<b>North</b>				
Bari	235,975	45,000	0	19
Nugal	99,635	20,000	0	20
Sanag	190,455	55,000	0	29
Sool	194,660	50,000	0	26
Togdheer	302,155	40,000	0	13
Coastal (fishing)		20,000		
<b>SUB-TOTAL</b>	<b>1,022,880</b>	<b>230,000</b>	<b>0</b>	<b>22</b>
<b>Central</b>				
Galgadud	319,735	40,000	0	13
Mudug	199,895	20,000	0	10
<b>SUB-TOTAL</b>	<b>519,630</b>	<b>60,000</b>	<b>0</b>	<b>12</b>
<b>South</b>				
Bakol	225,450	45,000	105,000	67
Bay	655,686	135,000	395,000	81
Gedo	375,280	80,000	180,000	69
Hiran	280,880	55,000	0	20
Lower Juba	329,240	60,000	115,000	53
Middle Juba	244,275	50,000	120,000	70
<b>SUB-TOTAL</b>	<b>2,110,811</b>	<b>425,000</b>	<b>915,000</b>	<b>63</b>
<b>TOTAL</b>	<b>3,653,321</b>	<b>715,000</b>	<b>915,000</b>	<b>45</b>

**Table 1B: SUMMARY TABLE <sup>2</sup>**

Assessed and Contingency Population Numbers in AFLC or HE	1,630,000	22 <sup>6</sup>
Urban Populations in Crisis Areas in the South <sup>3</sup>	30,000	1 <sup>6</sup>
Combined Assessed, Urban & Contingency Populations in AFLC and HE	1,700,000 <sup>4</sup>	23 <sup>6</sup>
Estimated Number of IDPs <sup>5</sup>	400,000	6 <sup>6</sup>
<b>Estimated Total Population in Crisis</b>	<b>2,100,000</b>	<b>29 <sup>6</sup></b>

<sup>1</sup>Source: WHO 2004. Note this only includes population figures in affected regions. UNDP recently released region level population figures for 2005. However, these estimates have not been finalised and therefore are not used in this analysis.

<sup>2</sup>Estimated numbers are rounded to the nearest five thousand, based on resident population not considering current or anticipated migration, and are inclusive of population in High Risk of AFLC or HE (estimated at 210,000) for purposes of planning.

<sup>3</sup>Roughly estimated as 30% and 20% of urban population in HE and AFLC areas respectively.

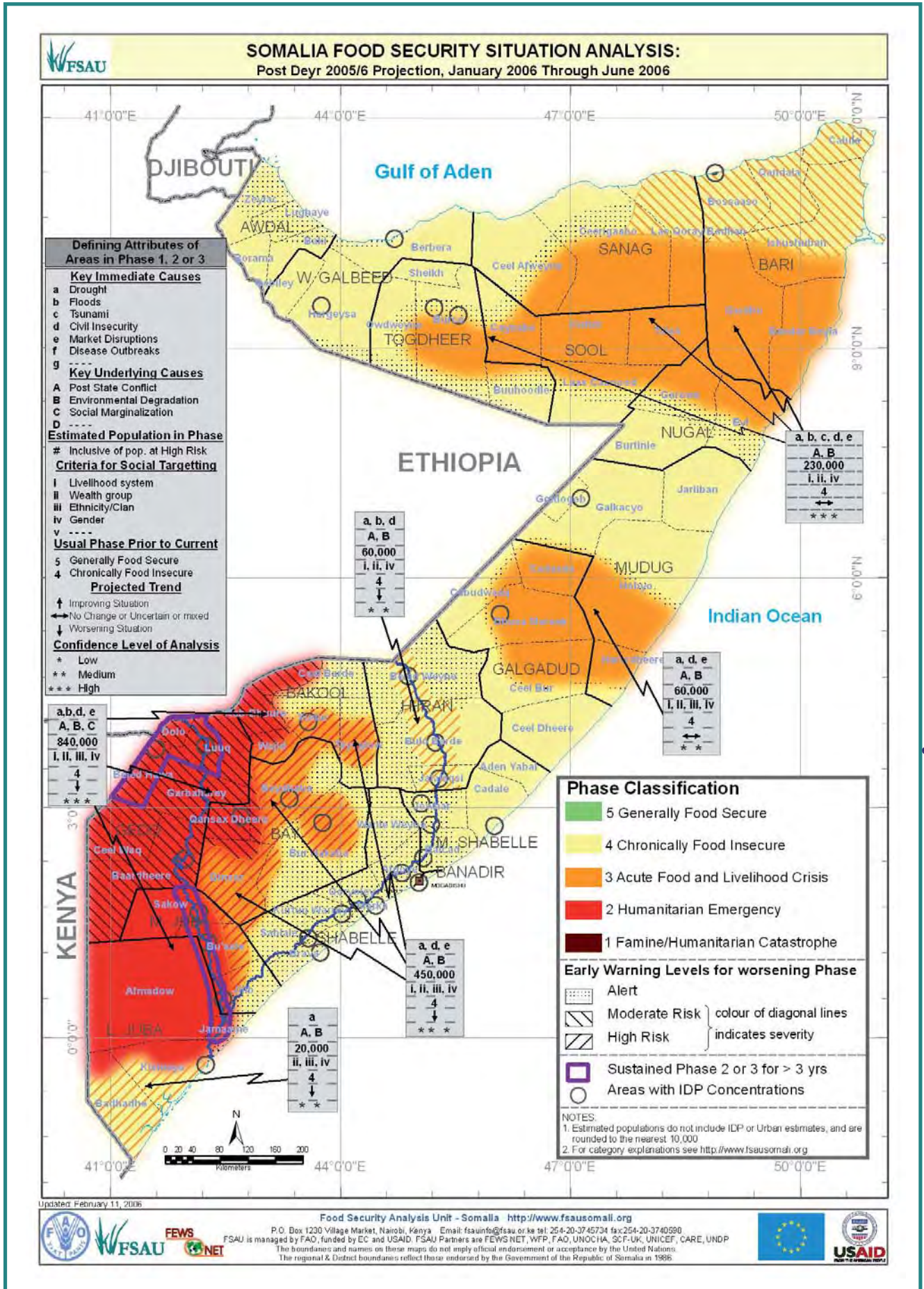
<sup>4</sup>Actual number is 1,660,000, however, this is rounded to 1,700,000 for purposes of rough planning and ease of communication.

<sup>5</sup>Source: UN-OCHA updated April 2004 (376,630) and UNHCR IDP map Dec.2005 (407,000), rounded to 400,000 as an estimate.

<sup>6</sup>Percent of total population of Somalia estimated at 7,309,266 (WHO 2004).



Map 1: Post Deyr (Jan 2006) Integrated Food Security Phase Classification



executive summary

**Table 2: Integrated Food Security and Humanitarian Phase Classification Reference Table (FAO/FSAU Feb 12, 2006)**

Phase Classification	Key Reference Characteristics <i>(current or imminent outcomes on lives and livelihoods; based on convergence of evidence)</i>	Strategic Response Framework <i>(address immediate outcomes, support livelihoods, and address underlying/structural causes)</i>
5 Generally Food Secure	<i>Crude Mortality Rate</i> < 0.5 / 10,000 / day <i>Wasting</i> <3 % (w/h <-2 z-score) <i>Disease</i> acceptable and containable prevalence <i>Food Access/ Availability</i> usually adequate (> 2,100 kcal ppp day), stable <i>Dietary Diversity</i> consistent quality and quantity of diversity <i>Water Access/Avail.</i> usually adequate (> 15 litres ppp day), stable <i>Hazards</i> moderate to low probability and vulnerability <i>Civil Security</i> prevailing and structural peace <i>Livelihood Assets</i> generally sustainable utilization (of 5 capitals)	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
4 Chronically Food Insecure	<i>Crude Mortality Rate</i> 0.5-1/10,000/day; U5MR<= 2/10,000/day <i>Wasting</i> <10 % (w/h <-2 z-score), usual range, stable <i>Disease</i> Sustained moderate to low prevalence <i>Food Access/ Availability</i> borderline adequate (2,100 kcal ppp day); unstable <i>Dietary Diversity</i> chronic dietary diversity deficit <i>Water Access/Avail.</i> borderline adequate (15 litres ppp day); unstable <i>Hazards</i> recurrent, with high livelihood vulnerability <i>Civil Security</i> unstable, disruptive tension <i>Coping</i> 'insurance strategies' <i>Livelihood Assets</i> stressed and unsustainable utilization (of 5 capitals) Structural Pronounced underlying hindrances to food security	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
3 Acute Food and Livelihood Crisis	<i>Crude Mortality Rate</i> 1-2 /10,000/day; >2x reference rate; U5MR 2-4/10,000/dy <i>Wasting</i> 10-15 % (w/h <-2 z-score), > than usual, increasing <i>Disease</i> outbreak; increasing <i>Food Access/ Availability</i> lack of entitlement; 2,100 kcal ppp day via asset stripping <i>Dietary Diversity</i> acute dietary diversity deficit <i>Water Access/Avail.</i> 15 litres ppp day accessed via asset stripping, <i>Destitution/Displacement</i> emerging; diffuse <i>Civil Security</i> limited spread, low intensity conflict <i>Coping</i> 'crisis strategies'; CSI > than reference; increasing <i>Livelihood Assets</i> accelerated and critical depletion or loss of access	Support livelihoods and protect vulnerable groups Strategic and complementary interventions to immediately ↑ food access/availability AND support livelihoods Selected provision of complementary sectoral support (e.g., water, shelter, sanitation, health, etc.) Strategic interventions at community to national levels to create, stabilise, 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
2 Humanitarian Emergency	<i>Crude Mortality Rate</i> 2-4 / 10,000 / day; increasing; U5MR > 4/10,000/day <i>Wasting</i> >15 % (w/h <-2 z-score), > than usual, increasing <i>Disease</i> epidemic outbreak <i>Food Access/ Availability</i> severe entitlement gap; unable to meet 2,100 kcal ppp day <i>Dietary Diversity</i> Regularly 2 or fewer food groups consumed <i>Water Access/Avail.</i> < 7.5 litres ppp day (human usage only) <i>Destitution/Displacement</i> concentrated; increasing <i>Civil Security</i> widespread, high intensity conflict <i>Coping</i> 'distress strategies'; CSI significantly > than reference <i>Livelihood Assets</i> near complete & irreversible depletion or loss of access	Urgent protection of vulnerable groups Urgently ↑ food access through complementary interventions Selected provision of complementary 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
1 Famine / Humanitarian Catastrophe	<i>Excess Mortality</i> > 5,000 deaths <i>Crude Mortality Rate</i> > 4 / 10,000 / day <i>Wasting</i> > 30 % (w/h <-2 z-score) <i>Disease</i> epidemic outbreak <i>Food Access/ Availability</i> extreme entitlement gap; much below 2,100 kcal ppp day <i>Water Access/Avail.</i> < 4 litres ppp day (human usage only) <i>Destitution/Displacement</i> large scale, concentrated <i>Civil Security</i> widespread, high intensity conflict <i>Livelihood Assets</i> effectively complete loss; collapse	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

Early Warning Levels	Probability / Likelihood of Worsening Phase	Severity	Key Reference Characteristics	Implications for Action
Alert	As yet unclear	Not applicable	<i>Hazard:</i> occurrence of, or predicted event stressing livelihoods; with low vulnerability <i>Process Indicators:</i> small negative change from normal	Close monitoring and analysis
Moderate Risk	Elevated probability / likelihood	Color of diagonal lines on map match predicted Phase Class	<i>Hazard:</i> occurrence of, or predicted event stressing livelihoods; with moderate vulnerability <i>Process Indicators:</i> large negative change from normal	Close monitoring and analysis Contingency planning Step-up current Phase interventions
High Risk	High probability; 'more likely than not'		<i>Hazard:</i> occurrence of, or strongly predicted major event stressing livelihoods; with high vulnerability <i>Process Indicators:</i> large and compounding negative changes	Preventative interventions—with increased urgency for High Risk populations Advocacy

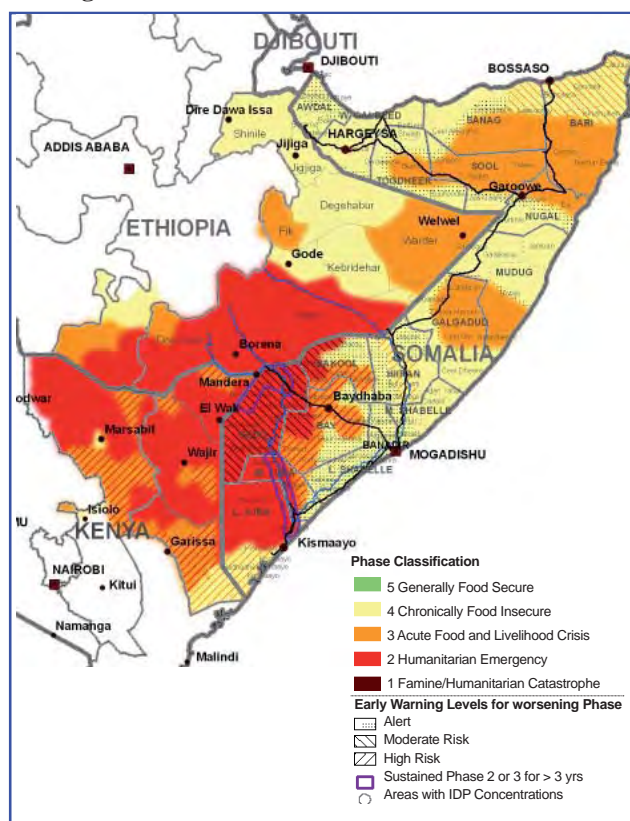


## 1.2 REGIONAL HIGHLIGHTS

### Southern Region

Southern Somalia is currently facing a dire Humanitarian Emergency with a severity that rivals other current humanitarian crises in the world. An estimated **1.4 million** people in Gedo, Juba, Bay, Bakol and Hiran regions are facing conditions of either **Acute Food and Livelihood Crisis** or **Humanitarian Emergency** and are in urgent need of humanitarian assistance (Map 1 and Table 1). Of this 1.4 million people, 915,000 people in Gedo, Juba and parts of Bay and Bakol are currently identified in state of **Humanitarian Emergency**. Gedo, the most severely drought affected area within the region, is also identified at a **Moderate Risk to Famine** in the coming months. It should be highlighted that there are two areas within this Humanitarian Emergency area, which were already in a sustained phase (longer than 3 years) of Humanitarian Emergency, that of Northern Gedo (Belet Hawa, Dolo and part of Luq) and Juba Riverine (Sakow, Buale Jilib and Jamame) (Map 1). Another 425,000 people in parts of Bakol, Bay, and Juba are estimated to be in a state of **Acute Food and Livelihood Crisis** and are at a **High Risk** of falling into a state of **Humanitarian Emergency** before June '06. Also included in the estimated 1.4 million people in HE or AFLC, is a rough estimate of 30,000 people from small rural urban centers in crisis areas of Gedo, Juba, Bay, and Bakool.

**Map 2. Somalia Cross Border Food Security Situation Analysis: Post Deyr 2005/6 Projection, January 2006 Through June 2006<sup>1</sup>**



<sup>1</sup>This Map is based on preliminary results and will be updated once the forthcoming Kenya and Ethiopia seasonal analysis reports are published

The current crisis is primarily due to the impact of two consecutive very poor rainy seasons (below normal *Gu* '05 rains, followed by completely failed *Deyr* '05 rains), compounded by ongoing civil insecurity. All livelihood systems (agro-pastoralists, pastoralists and riverine agriculturalists), are affected by this drought. Access to food and income is severely stressed due to a combination of poor crop and livestock production, limited income options (wage labour and sale of production), asset losses (cereal and livestock), and deteriorating terms of trade (increasing cereal prices and falling livestock prices). Even before this crisis, acute malnutrition rates in many of the affected areas were already among the worst in the region reaching over 20% W/H <-2 Z scores or oedema in parts of Gedo. Early indications of deteriorating nutrition status trends are already observed in many of the worst affected areas (parts of Belet Hawa, Luq, Dinsor, Qansah Dere, Baidoa, Rab Dhure, El Barde and Afmadow). Cereal production for the year in Gedo, Juba, Bay and Bakol is considered an almost complete crop failure, ranging between 7-23% of annual Post War Average. Cereal prices in Gedo, Juba and Bay and Bakol are increasing rapidly, roughly 50% between November - December alone and are expected to continue to increase sharply in the coming months. Sorghum prices, generally a cheaper cereal, are now higher than the maize prices in Shabelle and are at their highest levels in the last five years. In Gedo, sorghum prices have more than doubled since September '05.

Pasture and water is severely depleted, with the worst affected regions being Gedo, followed by Juba, Bay and Bakol. Already an estimated 20-30% of the cattle in Gedo have died due to lack of pasture, water and drought related disease, and preliminary estimates are that up to 80% of the cattle will die by April. Due to poor body condition, cattle prices have plummeted by over 40-50% in the past few months. Pastoralists are engaging in a range of distress coping strategies including abnormal migration, inducing still births to save breeding stock, skinning animals for their hide, sale of breeding animals, exposing animals to tsetse fly infested areas, and conducting 'compassion slaughtering' of weak animals as they move from place to place in search of water. The regional nature of this drought (Map 1), further worsens the plight of pastoralists as it means that there are limited options for migration, as well as increased pressure on water and pasture due to in-migrating livestock from Kenya and Ethiopia.

### Central Region

Central Region, although recovering from a previous phase of Humanitarian Emergency, continues to remain in a state of **Acute Food and Livelihood Crisis** (Map 1). There is a trend of improvement in most of Galgadud, but within northern Galgadud and south Mudug (between Adado/Gelinsor, Hobyo and Harar Dere) the situation is deteriorating due to the uncertainty surrounding the ongoing conflict. A total of 60,000 people are estimated to be in a continu-

ing state of **Acute Food and Livelihood Crisis**, of which 40,000 are in Galgadud and 20,000 in south Mudug (Table 1). *Deyr* '05/'06 rainfall in most inland pastoral areas was below normal (between 20% and 80%), with some areas up to 150% above normal. This is further supporting recovery in the area, especially as it follows above normal *Gu* '05 rains, as well as good *Deyr* '04/'05 rains. While much of Galgadud benefited from improvements in security, unresolved conflict in south Mudug and northern Galgadud continues to hinder livelihood recovery. Clan conflict boundaries are disrupting the migrations of people and livestock, and have affected access to markets and hindered commercial trade. Concentrations of IDPs from the current insecurity are present in Dusa Mareb, Adado, Bandiradley and Harar Dere. Although there are pockets of water shortages in some areas, pasture conditions are considered normal and recovery signs include improved livestock conditions, and continuing recovery in livestock productivity and reproduction.

## Northern Region

In the Northern Region the area recovering from a three year drought and humanitarian emergency continues to remain in a state of **Acute Food and Livelihood Crisis** due to the lag time in livelihood recovery given the cumulative livestock deaths, reduced herd sizes and continuing indebtedness (Map 1). An estimated 230,000 people are in state of **Acute Food and Livelihood Crisis** and require immediate livelihood support. This includes the worst affected households who lost most of their assets (an estimated 30,000 people) who are now concentrated in pockets of urban areas and small towns throughout the region and an estimated 20,000 people from the coastal fishing zone affected by the tsunami (Table 1A and 1B).

Pastoral livelihood recovery continues in most areas, following generally above normal *Deyr* '05 rains, which follows the exceptionally good *Gu* '05 rains and the above normal *Deyr* '04 rains. In the pockets that received poor *Deyr* '05 rains (within the Hawd of Togder, eastern Sanag and districts of Taleh, Hudun, Bandabeyla, Gardo, Badan and Dahar) livelihood recovery is threatened as the loss of pack animals limits pastoral mobility and access to available water sources. Water trucking has commenced unseasonably early and expenditure on water and animal transport, as well as competition for existing pasture resources is increasing in these areas. Northeast Bari (within Qandala, Alula and Iskushuban districts), the Hawd of Hargeisa, the southeast of the Hawd of Togder, and the Awdal and Marodi Jeh coastal zone are all identified in **Early Warning Levels of Alert** (Map 1). In all these areas *Deyr* '05 rains were below normal, leading to limited and deteriorating water and/or pasture availability, increasing distances between water and pasture resources, and abnormal migration patterns. The situation in northeast Bari is considered more severe and is identified at a **Moderate Risk** of deteriorating to **Acute Food and Livelihood Crisis**. All of these areas in **Early Warning Levels of Alert** require close monitoring over the coming long *Jilaal* dry season (January -April).

## 1.3 SECTOR HIGHLIGHTS

### Climate

*Deyr* '05/'06 season rains (October-December) generally started late in the south and parts of central regions and were poorly distributed in terms of time and spatial coverage. *Deyr* rains in many parts of southern Somalia are 0-10% of the long term mean for the season, which is considered a complete rainfall failure (Map 3). Seasonal rains, similarly, failed in the neighboring border regions of Kenya and Ethiopia. This poor *Deyr* rainfall performance is further compounded by the fact that the previous main seasonal rains, *Gu* '05 rains (April-June), were also largely below normal in much of the south, ranging between 20-50% of long term mean in parts of Bay, Shabele and Hiran, and between 50-80% of long term mean in Gedo, Juba and Bakol. Satellite images of vegetation coverage (Normalized Difference Vegetation Index, NDVI) clearly indicate a severe lack of vegetative cover in most of the agro-pastoral and pastoral areas in the southern region (Map 4). In the north, rains were largely above normal, with the exception of pockets in eastern Sanag, northeast Bari and parts of Hawd and Awdal region bordering Djibouti.

### Agriculture

*Deyr* '05/'06 cereal production in the southern Somalia, estimated at 42,400 MT, is the lowest *Deyr* production in a decade (39% of *Deyr* Post War Average or PWA, 34% of last *Deyr*). Two regions, Middle Juba and Lower Juba, experienced almost complete crop failure with estimated production levels less than 7% *Deyr* PWA (Lower Juba 1% and Middle Juba 7% of *Deyr* PWA). Cereal production estimates in another four regions (the Sorghum Belt) were also extremely poor, less than 20% *Deyr* PWA (Bakol 13%, Gedo 14%, Hiran 16% and Bay 23%). In addition, maize production estimates in Middle and Lower Shabelle was also significantly below normal, 50% and 64% of *Deyr* PWA respectively. This combined with the very poor cereal production estimate of the preceding *Gu* '05 season, which was also the lowest cereal production in a decade, translates into an overall annual cereal production (*Gu* '05 plus *Deyr* '05/'06) which is 50% of PWA and the lowest annual cereal production in a decade.

The Annual Cereal Balance Sheet (June '05-May '06) was updated with *Deyr* production estimates and actual food aid distributions to December '05. The results indicate that there will potentially be an overall shortfall in cereal supply of approximately 55,000 MT. Two consecutive seasons of below normal sorghum and maize production is already

resulting in increased cereal prices. On average, sorghum prices throughout the Sorghum-belt (Gedo, Bay, Bakol and Hiran) have reached their highest levels in the last five years and are now even higher than maize prices in Shabelle. In the Sorghum-belt, on average sorghum prices have increased by more than 50% since October '05. Maize prices in Juba have also increased sharply by almost 50% since September '05. In contrast, *Karan* cereal production (harvested in November '05) in the northwest agro-pastoral areas (Awdal, Galbed and Togder) is estimated at 160% above normal *Karan* cereal production. Although, this above normal production will benefit the northwestern regions, it only contributes roughly 26,000 MT to the total domestic cereal production.

## Livestock

Livestock body conditions, production and reproduction throughout most of the South is extremely poor and severely stressed due to limited water and pasture as a result of the compounding effects of a poor *Gu* '05 (April – June) and failed *Deyr* '05/'06 (October-December) rains. Cattle, the main livestock species in Gedo, Juba Valley and parts of Bay and Bakool regions, are the hardest hit by the drought and their survival over the coming long *Jilaal* dry season (January-April) is precarious at best. It is estimated that 20-30% of the cattle have already died in Gedo and parts of Juba Valley due to the lack of water, pasture and drought-related diseases. Preliminary estimates are that upwards to 80% of the cattle in Gedo could perish by April, before the next rains are expected. Abnormal livestock migration to Juba riverine areas has occurred since August '05, but is now increased and intensified. Abnormal migration of pastoralists from northeast Kenya to the Juba riverine area in search of water and pasture is worsening the situation by further depleting limited resources. Competition over rangeland resources and market opportunities is increasing resource based conflicts between farmers and herders. The market value of livestock, especially cattle, has plummeted and will continue to fall. Cattle prices have declined significantly, between 40-60% as compared to earlier this year (February '05), in Bar Dere (Gedo), Salagle, Sakow, Buale (Middle Juba) and, Afmadow (Lower Juba). Body conditions of camels and shoats in the South are fairly normal due to their natural resilience to dry seasons. In Northern and Central Regions, livestock conditions are largely normal. In many parts of Sol Plateau and Nugal Valley camel calving is ongoing and camel milk is available. However, due to the severity of the livelihood impact of the three years of drought, many pastoralists in pocket areas where the *Deyr* rains failed to materialise are struggling to meet their water needs due to the lack of pack camels and their high continuing levels of indebtedness.

## Markets

Both the Somali and Somaliland Shilling continue to remain stable at approximately the same level over the last one year (since January '05). The Somali Shilling is stable at around 15,000-15,600 SoSh/US\$ and the Somaliland Shilling at 6,000-6,400 SoSh/US\$. Both currencies gained strength against the dollar after January '04, but are still significantly lower in value than their pre-livestock ban levels, 131% and 55% depreciation against the US\$ since January 2000 for SoSh and SISH respectively.

## Nutrition

A significant proportion of the populations in areas currently experiencing a humanitarian emergency and livelihood crisis already show malnutrition levels that are among the highest in Somalia and in the region. As shown on the map (Map 10), global acute malnutrition levels of over 15% (W/H <-2 Z scores or oedema) are common with some areas indicating much higher levels. January's FSAU Nutrition Monthly Update provides some of the background information leading to this analysis. Early indications of the further deterioration of the situation are noted in the increased levels of malnutrition in clinics and therapeutic feeding programme admissions. Decreasing access to adequate food and water of acceptable quality and adequate quantity are the main factors contributing to the current deterioration. These are accompanied by an increase in incidence of communicable diseases, including measles, decreased access to health care and the devastating impact on care at household level as a result of widespread population movement.

## Civil Insecurity

Concurrent with the ongoing risk of widespread political conflict due to, as yet, unresolved tensions within the TFG, competition over natural resources remains a key driver of conflict. Unresolved conflicts in several locations (in Qansah Dere, Dinsor, Tieglow and Buloburti districts, continuing tension over water and grazing resources south of Brava, and renewed clan conflict between north Galgaduud and south Mudug) have disrupted trade and market access, led to population displacement and the destruction of assets. It is expected that as the impacts of the drought intensify the risk of resource-based conflict in the Gedo and Juba riverine areas will increase, as pastoralists clash with riverine agriculturalists over access to grazing resources. Increased resource based conflict will only further undermine the already rapidly deteriorating food and livelihood security situation. Furthermore, any security incidents (either continuing marine piracy, localised conflict or an increase in roadblocks on key strategic roads) that restrict the flow of commercial goods, including staple cereals and humanitarian assistance, risk further inflating cereal prices and the overall availability of and access to food for populations in areas of **Humanitarian Emergency** or **Acute Food and Livelihood Crisis**.



## 2. ANALYTICAL PROCESSES AND METHODS

This Technical Series Report provides the full technical findings of the Post *Deyr* '05/06 Analysis. The analysis focuses on the outcome of *Deyr* seasonal rains (mid October – mid December '05) and provides food security projections to June 2006. The analysis updates the 2005 Post *Gu* Assessment Analysis (FSAU Technical Series, Report No IV. 7, 2005 Post *Gu* Analysis September 13, 2005) and revises the annual food and livelihood security projections to June '06. FSAU collaborated with over 42 partners in the field and in Nairobi at all stages of the assessment including planning, fieldwork, and analysis. Table 3 provides an overview of the analytical process and timeline. For a complete listing of partners and full timeline see Appendix 5.3 and 5.4.1

### Analytical Process and Timeline

In November '05, FSAU began to issue early warnings of the rapidly deteriorating food security situation in Southern Somalia (FSAU November'05 Food Security and Nutrition Monthly Brief, November 14, 2005). In order to generate a more timely and in-depth understanding of the rapidly evolving crisis, FSAU advanced the timeline of the post *Deyr* assessment fieldwork to begin the first week of December and expanded the fieldwork, both in the duration and coverage in the South.

**Table 3: Overview of 2005/06 Post Deyr Assessment Analytical Process and Timeline**

Activity	Date	Description/Location
• FSAU Planning & Preparation	Nov. 15 - 18	NBI
• FSAU Issues Early Warning	Nov. 14	FSAU Monthly Brief
• Northwest Post Harvest Crop Assessment	Nov. 20 – Dec. 5	Somaliland with partners in Awdal, W. Galbeed, Togdheer
• Partner Planning Meeting	November 30	NBI with partners
• Regional Fieldwork Planning Workshops	Dec. 11 - 12	Regional Workshops with partners in Belet Weyne, Wajid, Buale, Merka, Garowe, Hargeisa
• Fieldwork	Dec. 12 -29	Throughout region with partners
• FSAU Issues Press Release of Deteriorating Situation	Dec. 20	FSAU Press Release
• Regional Analysis Workshop	Dec. 31 – Jan. 3	Regional Workshops with partners in Belet Weyne, Wajid, Buale, Jowhar, Garowe, Hargeisa
• All Team Analysis Workshop	Jan. 4 - 8	All FSAU team (NBI and field) in Hargeisa, SL
• Analysis Consolidation with Partners	Jan. 16	FSAU with Primary Technical Partners in NBI
• Cross Border Partner Analysis Workshop	Jan. 16	FSAU with Technical Lead Agencies and Institutions in Kenya and Ethiopia held in NBI
• Release of Preliminary Results	Jan. 18 Jan. 19 Jan. 26	SACB/FSRD FSAU Press Release FSAU Monthly Brief- Key Findings
• Release of Technical Series Report	Feb. 15	FSAU Website, Email distribution, Hardcopy Mailing

Two technical partner planning meetings were held in Nairobi on November 30, 2005 one with an agricultural sector focus and the other with pastoral and livestock sector focus. The purpose of these initial partner planning meetings was to finalise survey instruments, plan partner collaboration and coordinate and plan fieldwork logistics and support. Prior to fieldwork, Regional Partner Planning Workshops designed to train participants on field instruments and plan field logistics were held in Hargesia, Garowe, Belet Weyne, Marka, Wajid and Buale, from December 11 – 12. The team then conducted fieldwork in their respective regions between December 12 and 29. Fieldwork was followed by regional analysis meetings (December 31 – January 3, 2006) and then an FSAU All Team Analysis Workshop was held with FEWSNET and partners in Hargeisa, Somaliland, from January 4 to January 10 2006 to further consolidate findings and analysis and develop the overall Phase Classification Analysis for the country.

Given the projected severity of the crisis and the need to give early warning for a timely response, FSAU issued a Press Release during the ongoing Post *Deyr* fieldwork, as incoming information clearly indicated a serious and deteriorating situation (FSAU Press Release, Deteriorating Food Security Situation Rapidly Leading to Widespread Humanitarian Emergency in Southern Somalia, December 20, 2005). The post *Deyr* Assessment and Analysis was then completed the second week of January '06. Initial key analysis was then shared with partners from the Food Security and Rural Development Committee of the Somalia Aid Coordination Body (FSRD/SACB), including





**FSAU All Team Post Deyr Analysis held in Hargeisa, January 2006**

members of the TFG, UN, INGO/NGO agencies, donor agencies and other partners, in Nairobi on January 18, 2006. The same presentation was made throughout Somalia and in Somaliland by FSAU Field Analysts to participating agencies and local stakeholders in regional meetings in Belet Weyne, Mogadishu, Hargeisa, Garowe, and Wajid (January 19-24, 2006).

Immediately following the release of these findings, FSAU issued another Press Release on January 19, 2006, which was subsequently picked up by several news agencies around the world (FSAU Press Release, Early Warning Confirmed – Somalia Faces Dire Humanitarian Emergency, January 19, 2006). FSAU released highlights of the preliminary results in a Monthly Food Security and Nutrition January Brief (January 26, 2006). To review the news articles written based on the FSAU press release and January Monthly Brief, see FSAU website (<http://www.fsasomali.org>)

Due to the regional scope of this drought, covering large areas of the greater Somali livelihood system, for the first time, FSAU initiated a series of cross border meetings in January 16, 2006 with technical food security partners in Kenya and Ethiopia (FEWSNET, WFP, SC [UK], CARE, UNDP, USAID, OXFAM, ALRMP, OCHA, Kenya Ministry of Agriculture) to develop an analytical and consistent understanding of the food security crisis (and livestock and human migration patterns) in the bordering regions. Technical partners in Kenya and Ethiopia applied the FSAU Phase Classification and worked with FSAU to apply the same reference characteristics and convergence of evidence methods to arrive at a Cross Border Regional Food Security Phase Classification Map of the greater Somali Livelihood System (Map 2).

### **Assessment Methods and Instruments**

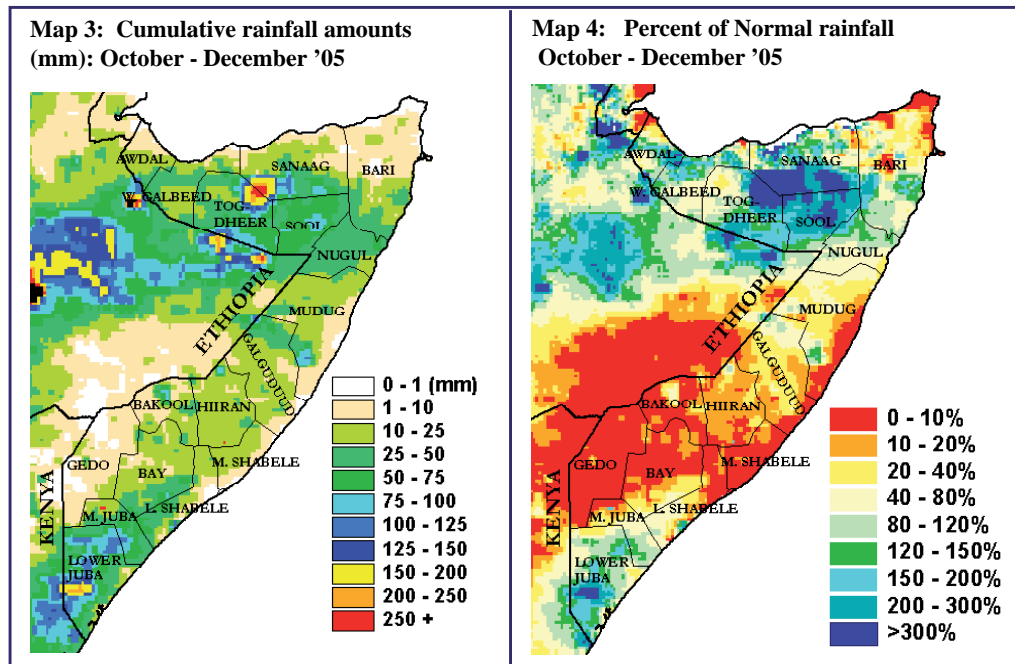
Primary data collection methodologies included focus group discussions, key informant interviews, market price surveys, crop production surveys, livestock surveys, and food and livelihood security questionnaires (Appendix 5.4.2). During this exercise the FSAU strengthened further its evidence based analysis by introducing new livelihood key parameter forms, revised pastoral questionnaire for the data collection (Appendix 5.4.2.1), and improved ground 'truthing' of rainfall satellite imagery. In total, 269 crop production surveys, 227 pastoral questionnaires, 78 market price surveys, and 36 Key Livelihood Parameter surveys were completed. These were supported and triangulated by secondary data (including livelihood profiles, regional and district administrative maps, USG/NVDI satellite imagery, nutrition and market data, and FSAU and partner situation reports). Areas not assessed due to security constraints include parts of Sol, the area between south Galkayo, Hoby, Abudwaq, and east and south of El Bur, and the districts of Bur Hakaba, El Barde and Badade, and Kismayo town.

Nutritional data utilised during the analysis stage included recent district nutrition surveys, rapid assessments, trends in health facility data, and sentinel site data (68 sites, covering Gedo, Lower and Middle Juba, Bay and Bakol, Hiran, Lower Shabelle, south Mudug, and Galgadud). Weight for height (WFH) indicators were used in the nutrition surveys and health facility monitoring. Measurement of the Mid-upper Arm Circumstance (MUAC) and WFH indicators were utilized in rapid assessments. Nutritional data interpretation was based on the relationship to typical or expected trends in the district.

FSAU utilises a livelihoods approach to analyse the situation to clearly highlight the causes and outcomes of food and livelihood insecurity and to facilitate multi-sector response planning and monitoring. Evidence based templates (Appendix 5.4.2.8) are used to consolidate all analytical field and secondary data and analysis to arrive at an evidence based identification of area specific Food Security Phase Classifications (Appendix 5.1).

### 3. SECTOR REPORTS

#### 3.1 CLIMATE AND RAINFALL OUTCOME



Source: FEWS NET / NOAA

*Deyr* '05 season rains (October-December) in southern and parts of central regions started late, were poorly distributed in terms of time and spatial coverage, and were significantly below normal or failed completely. Satellite imagery shows and field reports confirm that most of these areas received less than 50mm of rainfall between October to December (Map 3). Compared to a long-term mean, these *Deyr* rains are less than 10% of the normal, which is considered an almost complete rain failure (Map 4). An exception is Lower Juba Valley, where a few days of heavy but localized rains fell in the hinterland during the first dekad of November, which helped to replenish water catchments, although they had little impact on pasture regeneration due to their short duration.

Further compounding this poor *Deyr* rainfall performance is that this is the second consecutive season of below normal rainfall in southern Somalia. The previous main 2005 rainy season or *Gu* rains (April-June), were also largely below normal in much of the south, ranging between 20-50% of normal in parts of Bay, Shabelle and Hiran, and between 50-80% in Gedo, Juba Valley and Bakool (FSAU Technical Series Report No IV.7). The current situation is only worsened by the regional nature of the rain failure, as this seasons rains were also poorly distributed and significantly below normal in the surrounding border areas of Kenya and Ethiopia.

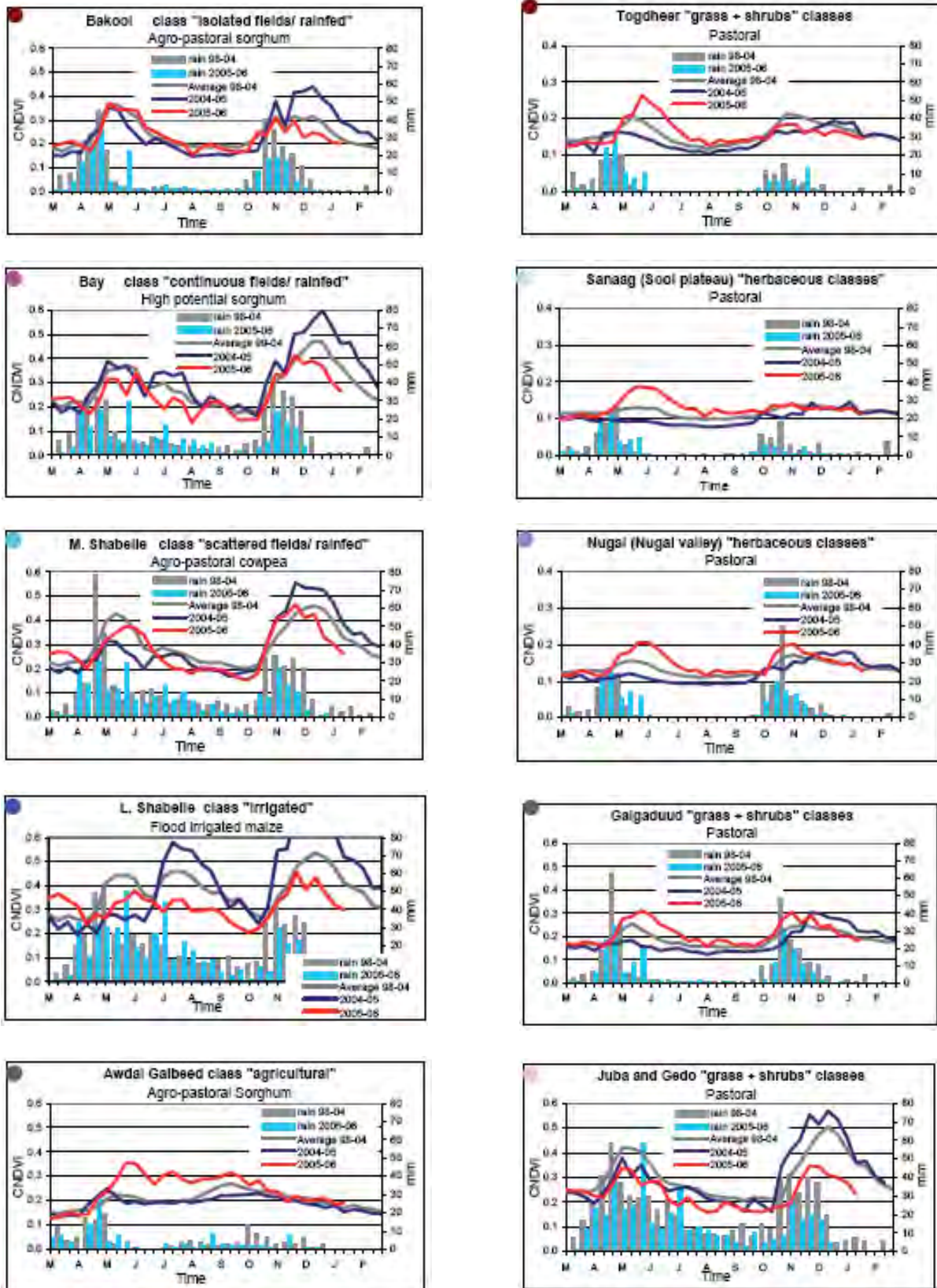
Vegetation conditions in all the regions in southern Somalia and the neighbouring border areas in Kenya and Ethiopia are currently extremely poor, as clearly indicated by normalized difference vegetation index (NDVI) satellite imagery data (Map 5). NDVI values for Juba, Gedo, Bay and Bakool, show a steadily declining trend since early November and are significantly below values for the same period last year, as well as the average values for this period between 1999-2004 (Figure 1). Field reports and recent field assessments confirm the severity of pasture shortages in these areas. This downward trend will only continue to decline and worsen in severity over the next three months of long dry *Jilaal* season, at least until late April or early May when the next *Gu* rains are expected. A review of historic NDVI trend data analysis clearly depicts the severity of the current situation in a historical context and indicates that NDVI vegetation conditions are poorer now than they have been in the last decade in agro-pastoral areas in the south and the worst in over twenty-five years in pastoral areas of Juba (Map 6 and Figure 2).



Source: FEWS NET / USGS



Figure 1: Rainfall Performance and NDVI for Awdal Galbeed, Togdheer, Nugal, Sanaag, Bakol, Galgaduud, Juba, Bay, Lower Shabelle and Middle Shabelle



MARS-FO 20

In the northwest and northeast, *Deyr* rains were largely normal, with the exception of pockets in eastern Sanag, northeast Bari and parts of Hawd and Awdal region bordering Djibouti. Cumulative *Deyr* rainfall (October-December) in much of the area was between 60-75mm, which is well above average (up to 300% above long term mean) in parts of Togder, Sol, Sanag, northeast Awdal and northwest Galbed.

Field reports confirm, however, that in several localised areas, rains were below normal, including pockets in west Togder, east Galbed, northwest Awdal, and parts of Sol and eastern Sanag regions. From November '05 to January '06 *Hays* rains were received in parts of Awadal and Bari regions regions. Although the rains were poor with some areas receiving less than 10% of normal rainfall (Map 4) they have improved rangeland condition and eased the problem of water shortage. Similarly light showers were received in parts of the South especially coastal areas of Juba Valley. However, it had little impact on rangeland conditions in the South due to the severity of the prevailing *Jilaal* season.

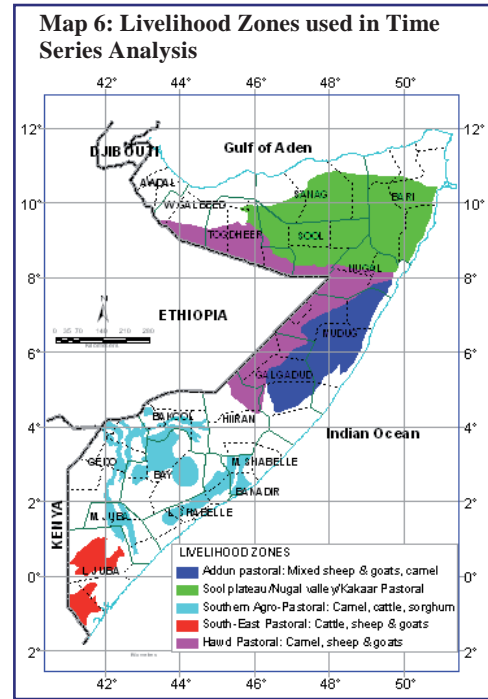
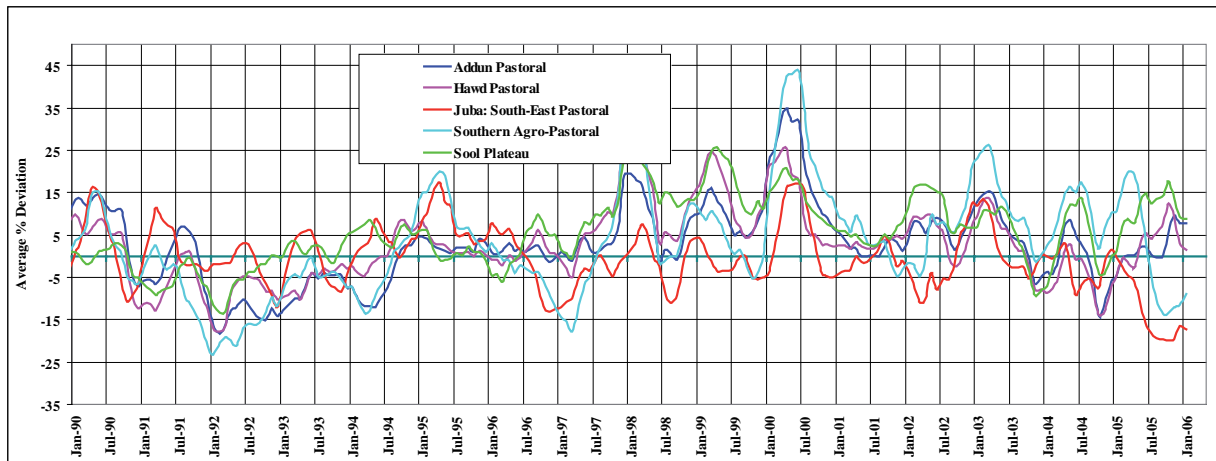


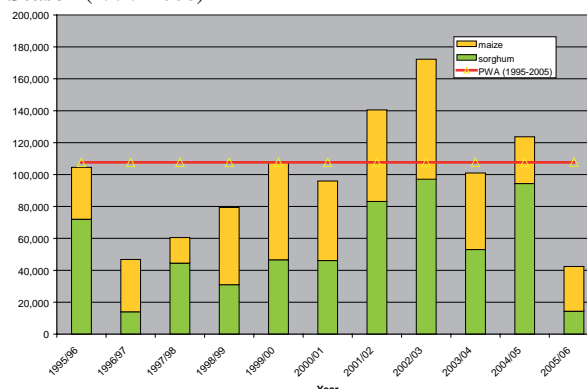
Figure 2: Historic NDVI Per cent Deviation from Long Term Average



### 3.2. DEYR 2005/06 CEREAL CROP PRODUCTION

*Deyr* '05/06 cereal crop production in Southern Somalia is the lowest in a decade. In many areas, both sorghum and maize crops failed primarily due to below normal and delayed rains. Low cereal production of the *Deyr* '05/06 season is mainly attributed to poor performance of the rain-dependent cereal crops throughout the southern regions. *Deyr* '05/06 cereal production is estimated at 42,400 MT, (34% is sorghum and 66% is maize), which is only 39% of *Deyr* Post War Average (PWA) and 34% of *Deyr* 2004 production (Figure 1 and Table 1). Two regions, Middle Juba and Lower Juba, experienced almost complete cereal crop failure with estimated production levels less than 70% *Deyr* PWA (Lower Juba 1% and Middle Juba 7% of *Deyr* PWA). Cereal production throughout the Sorghum-belt region was also extremely poor at less than 25% of *Deyr* PWA (Bakool 13%, Gedo 14%, Hiran 16% and Bay 23%). Cereal production estimates in Shabelle Valley regions are also significantly below normal at 50% in Middle Shabelle and 64% in Lower Shabelle of *Deyr* PWA respectively (Table 4).

**Figure 3: Annual Cereal Production by Agricultural Season (1995-2006)**

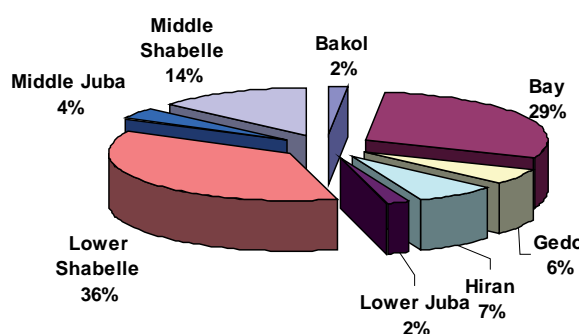


**Table 4: Deyr Cereal Production Estimates in southern Somalia**

Regions	Deyr 2005/06 Production in MT			Deyr 2005/06 as % of Deyr 2004/05	Deyr 2005/06 as % of Deyr PWA
	Sorghum	Maize	Total Cereal		
Bakool	250	0	250	9%	13%
Bay	6,650	430	7,080	16%	23%
Gedo	210	645	855	6%	14%
Hiran	750	470	1,220	11%	16%
L/Juba	0	25	25	3%	1%
L/Shabelle	3,580	21,750	25,330	70%	64%
M/Juba	100	200	300	6%	7%
M/Shabelle	2,820	4,500	7,320	87%	50%
<b>Deyr 2005/06 Total</b>	<b>14,360</b>	<b>28,020</b>	<b>42,380</b>	<b>34%</b>	<b>39%</b>

Cereal production from three regions, Bay, Lower Shabelle and Middle Shabelle, generally contribute the bulk of *Deyr* cereal production of southern Somalia in a normal year - 80% of total cereal production (Figure 2). This season, due to significant crop failures in Juba, Gedo and Hiran, these three regions make up more than 90% of the *Deyr* '05/06 production (Figure 3). Although cereal production in Lower Shabelle is lower than PWA, its contribution to current *Deyr* '05/06 is 60% (up from an average of 36% of PWA contribution). Most of the production coming from Shabelle Valley this season is maize produced along the riverine strip areas of Kurtun Warey, Qoryoley and Jowhar districts near the source of irrigation infrastructure. The expected contribution of rain-dependent crops (sorghum, maize) from this region is almost negligible.

**Figure 4: Regional Contribution of Cereal Production Deyr PWA (1995 - 2005)**



In the northwest, unlike the southern bimodal cropping pattern, there is only one main cropping season (referred to as *Gu/Karan* crop season), which runs from May to October, with harvest occurring in November. The 2005 *Karan* cereal harvest in the agro-pastoral areas of Awdal, Galbed and Togder regions was exceptionally good. *Karan* 2005 cereal production is estimated at 25,700 MT, which is 151% of last season's production (*Karan* '04) and 159% above PWA (Table 5). These are the final production figures and replace the preliminary figures presented FSAU Monthly Brief (December 14, 2005).



Sorghum is the main cereal crop grown, representing 82% of this seasons crop production, followed by maize at 18%. The three districts that produce most of the cereals, Gebiley, Borama and Hargeisa, all had above normal (PWA) production this season. Cereal production from Gebiley district alone produced most of this cereal production, roughly 66% of total *Karan* production, of which 59% of this is rainfed sorghum production. Borama and Hargeisa districts were the other two largest cereal productions in the region with 20% and 11% of the total *Karan* cereal production respectively. Although *Karan* cereal production benefits the northwestern region, it contributes only a small proportion to the overall total domestic cereal production, (5-10% of total annual cereal in a normal year).

**Table 5: Gu-Karan Cereal Production Estimates in Northwest Somalia**

Regions	Gu-Karan 2005 Production in MT			Deyr 2005/06 as % of Deyr 2004/05	Deyr 2005/06 as % of Deyr PWA
	Sorghum	Maize	Total Cereal		
Awdal	3,451	1,553	5,004	109%	176%
Galbeed	16,797	2,970	19,767	181%	158%
Togdheer	864	80	944	60%	119%
<b>Gu-Karan 2005</b>	<b>21,112</b>	<b>4,603</b>	<b>25,715</b>	<b>151%</b>	<b>159%</b>

### Maize Production

*Deyr '05/06* maize production in southern Somalia is extremely low compared to the long term average – approximately 40% lower than normal. Estimated at 28,000 MT, *Deyr '05/06* maize production is only 59% of the Post War Average maize production (Table 4). Roughly 75%, of *Deyr* maize production comes from Shabelle Valley. However, due to the severity of maize crop failures in Hiran, Gedo and Bay regions, most of this season’s maize production solely comes from Shabelle Valley (93%), i.e. 77% from Lower Shabelle and 16% from Middle Shabelle (Figure 4).

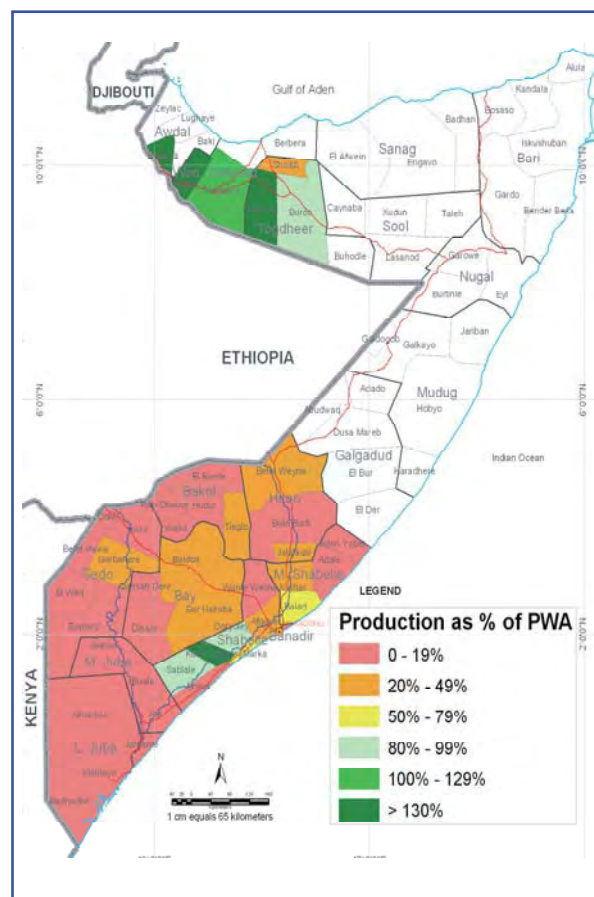
Generally, all rain-dependent maize crops failed this *Deyr* season throughout the southern region. Rainfed maize entered the development stage without enough assimilates for grain filling due to continued moisture stress throughout the season which further inhibited maize crop development and yield. Only localised production of maize crop in irrigated areas of Shabelle Valley was productive. Furthermore, reports from field have confirmed that long dry spells also negatively affected irrigated maize crops in Shabelle Valley.

In many areas, farmers have opted to sell their maize crops as fodder for livestock instead of grain. Poor and ineffective irrigation infrastructure or inaccessibility to irrigation facilities, especially in Lower Shabelle, contributed further to low production. In addition, fuel prices were also high and thus limited the use of pump irrigation for many farmers. The significant loss of maize crops this season will negatively impact on the availability of and access to (through increase price) maize over the coming year.

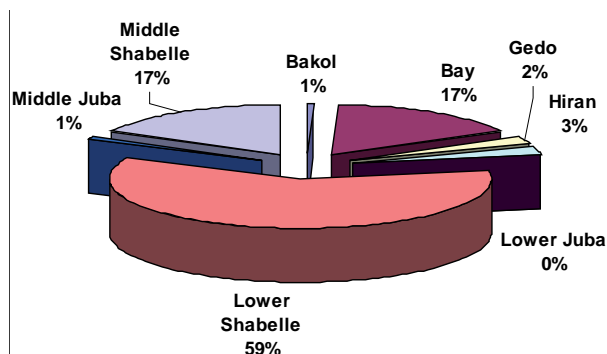
### Sorghum Production

Sorghum is the second most important staple food in Somalia, yet this season’s sorghum production, estimated at 14,360 MT, is only 24% of PWA and 59% of *Deyr '04/05* production. Sorghum production is rain dependent, and although more drought resistant than maize crop, was negatively affected by the delayed onset and extremely poor performance of the *Deyr '05/06* rains. The area planted, estimated at 85,870 Ha, is 47% of the area planted during *Deyr '04/05* and 38% of PWA.

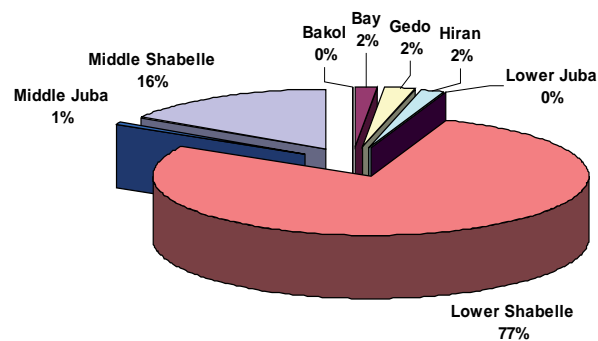
**Map 7: Deyr 2005/06 production as compared to post war average**



**Figure 5: Regional Contribution of Cereal Production Deyr 2005/06**



**Figure 6: Regional Contribution of Deyr 2005/06 Maize Production**

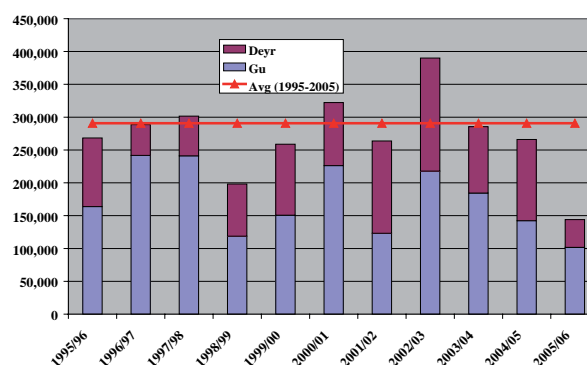


Delayed rains led to poor germination in the first planting, while short and erratic rains discouraged further planting and reduced overall production. In addition, in some areas, including parts of Gedo, Bay and Bakol, civil insecurity and tension further discouraged and/or prevented sorghum planting and production. The major contribution of this season's sorghum production came from Bay (46%), followed by Lower Shabelle (25%) and Middle Shabelle (20%) region (Figure 5).

**Annual Cereal Production (Gu '05, plus Deyr '05/06)**

Total annual cereal production for '05/06, estimated at roughly 144,000 MT, is only 50% of the PWA annual cereal production and is the lowest annual cereal production in more than ten years (Figure 6 and Table 4). Both the Gu '05 and the Deyr '05/06 season cereal production were extremely poor, with crop losses of more than half the expected cereal production and the lowest production in over a decade showing 44% and 39% of PWA respectively (FSAU Technical Series Report No. IV. 7 2005 Post Gu Analysis). Annual domestic cereal production, both maize and sorghum, is extremely low (Figure 7) and thus will negatively impact on the availability and pricing of cereals in the lead up to the next Gu '06 season harvest (August '06). Annual domestic sorghum production is the most severely affected, however, both sorghum and maize are less than 40% of their PWA annual cereal production levels. Annual domestic sorghum production is only 39% of its PWA levels (53,915 MT 2005/06 annual domestic sorghum production), while annual domestic maize production is 59% of its PWA levels (90,115 MT 2005/06 annual domestic maize production) (Table 6).

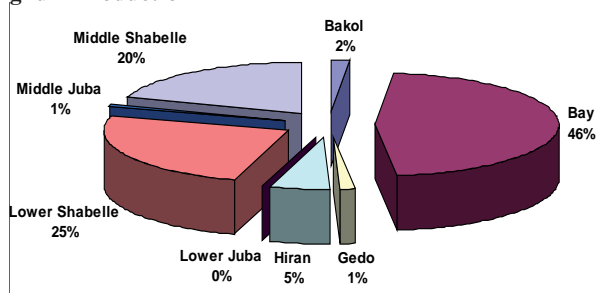
**Figure 7: Annual Cereal Production (1995-2006)**



**Table 6: Total Annual Cereal Production Estimates for Somalia**

	Sorghum	Maize	Total Cereal	% of 2004/05	% of PWA
<b>Gu 2005 Total</b>	18,445	54,410	72,855	58%	44%
<b>Off-season production</b>	0	3,080	3,080		
<b>Gu Karan - Northwest</b>	21,110	4,605	25,715	151%	159%
<b>Deyr 2005/06</b>	14,360	28,020	42,380	34%	39%
<b>Annual Prod (Deyr+Gu) 05/06</b>	<b>53,915</b>	<b>90,115</b>	<b>144,030</b>	<b>54%</b>	<b>50%</b>

**Figure 8: Regional Contribution of Deyr 2005/06 Sorghum Production**



**Cereal Prices**

Two consecutive seasons of below normal cereal production is already resulting in increased cereal prices. All cereal prices in southern Somalia have significantly increased since September and are expected to continue to increase over the next four to five months in the lead up to the next Gu cereal harvest in July '06 (Figure 8). On average, sorghum prices throughout the Sorghum Belt (Gedo, Bay, Bakol and Hiran) have reached their highest levels in the last five years and are now even higher than maize prices in Shabelle (Figure 9). In the Sorghum Belt, on average sorghum prices increased 54% since

October. '05 and although generally is a cheaper cereal than maize, prices are now higher than maize prices in Shabelle. Maize prices in Juba have also increased sharply by 47% between Sept.'05 and Jan.'05, and are now significantly higher than maize prices in Shabelle – 56% higher. Maize prices in Shabelle are also increasing, although not as sharply as in other regions, prices increased 23% since September.

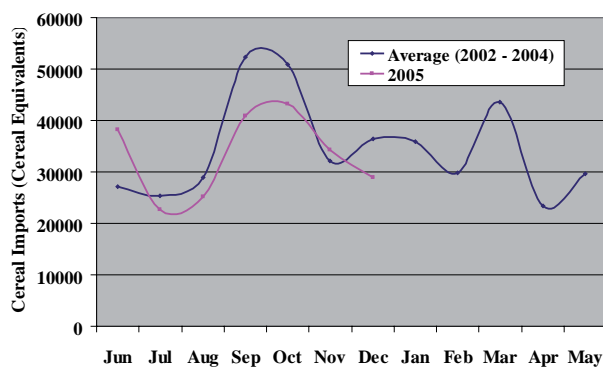
Locally produced cereal prices are closely linked with local cereal production and stock levels. In general, two consecutive seasons of poor production has depleted stocks and created shortages in market supply, which is clearly reflected in significantly increased cereal prices, especially sorghum prices. The bulk of the inadequate *Deyr* '05/'06 cereal production from southern Somalia is expected to enter into the markets by the end of January 2006, however, due to significantly limited production cereal prices are not expected to decline. Prices are expected to continue to increase over the next four to five months until the next *Gu* cereal harvest in July. If *Gu* '06 rains are normal, then a short period of cereal price decline is expected following this harvest. Otherwise, if the *Gu* '06 production is poor, cereal prices will continue to increase and will likely to be unaffordable even in the major producing areas of southern Somalia.

### Cereal Balance Sheet

Following the *Gu* '05 agricultural season, FSAU estimated an annual cereal balance sheet for the 2005/06 marketing year (June '05-May 2006). Domestic cereal supply within this initial projected cereal balance sheet was based on actual post *Gu* '05 crop production estimates and assumed a 'normal' or average *Deyr* '05/06 crop production. Cereal imports consisted of two components, commercial imports, estimated as a three year average of actual cereal imports (2002-04), and food aid distributed, stocks, transit or pipeline, as per actual donor figures at that time. In the initial projections, even with the very poor *Gu* cereal production outcome, the overall cereal balance sheet did not indicate an overall shortfall.

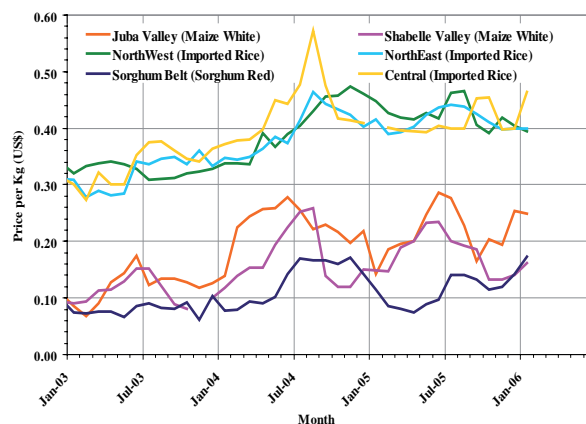
In November 2005, in response to growing concern over the poor performance of the *Deyr* '05 rains in southern Somalia, FSAU updated the cereal balance sheet with a forecast modeling scenario. This cereal balance sheet, published in FSAU Food Security and Nutrition Monthly Brief (November 2005), was revised to account for the high likelihood of a poor *Deyr* '05/'06 seasonal crop outcome. This forecast modeled two scenarios 1.) a below normal *Deyr* '05/'06 cereal production, estimated as 50% of the PWA and 2.) a very poor *Deyr* '05/'06 cereal production, estimated at 30% of PWA.

Figure 10: Commercial Cereal Import Trends (2002 - 2005)



In addition to the scenarios of *Deyr* '05/'06 seasonal outcome, a scenario of a revised commercial cereal imports estimate was added, considering that roughly 25% of commercial imports flow across the borders into Ethiopia and Northern Kenya (Figure 10). It must be noted, that informal cross border cereal flows, in both directions, between Ethiopia and Kenya, do occur, but are not recorded.

Figure 9: Regional Average Monthly Cereal Prices (US\$)



Crop failure due to below normal *Deyr* rains in the South

The best estimate of the balancing of the cross-border cereal flows, from key informants and local understanding, is one calculated assuming roughly 90% of imports from the southern ports of El Maan and Jazira ports, and 70% of the imports from Berbera and Bossaso Ports remain within Somalia. This calculation results in an overall



This Cereal Balance Sheet is now updated in Table 3 below, with actual *Deyr* '05/06 crop production estimates, *Gu/Karan* post harvest figures for the northwest, off season production in Juba, as well as more current information on food aid imports. Given the importance of cereal imports, actual cereal imports to date were analysed in relation to the three year average estimated figure used (2002-2004) in the cereal balance sheet. The analysis of current actual cereal imports indicates that current trend and levels in cereal imports are similar to the estimated three year average (Figure 7). Actual current year cereal imports are roughly 19,000 MT lower than the three year average for the current time period (June – December), a difference of less than 6% of total cereal imports (303,000 MT). Monthly cereal imports do vary slightly from month to month between the three year average and current year, however, the total amount imported in the first six months (June-Dec) is comparable, i.e. the three year average shows 253,000 MT (Figure 10) and the current actual is 234,000MT. The three year average is, therefore, retained in the cereal balance sheet as an estimated projection, but FSAU will closely monitor cereal imports for significant changes in the remaining six months of the marketing year.

Calculations and underlining assumptions of the Cereal Balance Sheet are fully referenced in the notes below table 7. In summary, the updated estimated annual Cereal Balance Sheet for 2005/06 indicates that in the most likely scenario (assuming 75% Commercial Imports)

- there is an overall projected cereal supply shortfall of roughly 55,000 MT
- this assumes that food aid stocks, transit and pipeline, foodaid of only 71,000 MT, which is the actual level as of end of December '05.
- estimates only reflect overall market supply conditions – they do not take into account the severe food access problems faced by people identified in state of **Humanitarian Emergency** or **Acute Food and Livelihood Crisis** – people who can not access cereal due to their lack of purchasing power, even if cereals are available in the market.

The Cereal Balance Sheet only provides an overall indication and estimation at the macro-level cereal supply and demand situation for the entire country, i.e. overall cereal availability in relation to overall per capita needs. It does not account for regional differences or blockages in cereal supply and flows, nor does it address issues of food access, nor vulnerability levels related to access problems.

**Table 7: Cereal balance Sheet**

Annual Cereal Balance Sheet for Somalia (June 2005 to May 2006)	CURRENT ESTIMATED Updated with Actual Deyr & Gu-Karan Crop Estimates	
	100% Commercial Imports (‘000MT)	75% Commercial Imports <sup>1</sup> (‘000 MT)
	<b>DOMESTIC AVAILABILITY</b>	<b>168</b>
Opening Stocks <sup>2</sup>	24	24
Domestic Cereal Supply 2004/05	144	144
Gu 2005 <sup>3</sup>	73	73
Gu-Karan 2005 Northwest <sup>4</sup>	26	26
Off-season Gu 2005 <sup>5</sup>	3	3
Deyr 2005 <sup>6</sup>	42	42
<b>DOMESTIC UTILIZATION</b>		
Cereal Utilization Requirements <sup>7</sup>	<b>633</b>	<b>633</b>
<b>IMPORT REQUIREMENTS</b>		
Anticipated Commercial Imports <sup>8</sup>	<b>395</b>	<b>303</b>
Food Aid Distributed <sup>9</sup>	<b>36</b>	<b>36</b>
<b>ESTIMATED SURPLUS/DEFICIT – CEREAL</b>	<b>-34</b>	<b>-126</b>
Stocks, Transit or Pipeline <sup>10</sup>	<b>71</b>	<b>71</b>
<b>ESTIMATED SURPLUS/DEFICIT – CEREAL</b>	<b>37</b>	<b>-55</b>

List of assumptions and calculations:

<sup>1</sup> Anticipated commercial imports estimated as 70 percent of imports from Berbera and Bossaso ports, and 90 percent of imports from El Maan and Jazira ports. This caters for imports assumed to be going into Ethiopia.

<sup>2</sup> Estimated opening stock consists of food aid and commercial import stocks at ports to markets. As of May 29, 2005 WFP stock are 6,075MT, CARE 1,540MT and commercial stocks are estimated at 16,000MT based on FAO/WFP Crop and Food Supply Assessment, Sept 9, 1999.

<sup>3</sup> 2005 Gu Crop production estimates in Southern Somalia is 72,857MT (rounded to 73,000MT).

<sup>4</sup> Gu-Karan 2005 crop production estimates for Northwest Somalia is 25,715MT (rounded to 26,000MT).

<sup>5</sup> Off-season crop production estimates are 3,081MT (rounded to 3,000MT).

<sup>6</sup> 2005 Deyr Crop production estimates in Southern Somalia is 42,379 MT (rounded to 42,000MT).

<sup>7</sup> Total cereal utilization requirement composed of 585,000 MT food use, 3000MT feed use, seed losses which are 10 percent of the crop production and 24,000MT closing stocks this is similar to opening stock. 'Food use' calculated based on assumption of total population of 7,309,266 (WHO 2004) and per capita cereal consumption of 80kg/year (1999 FAO/WFP Crop and Food Supply Assessment, September 9, 1999). Per capita cereal consumption in Somalia is lower than would be dictated by the standard 2,100 kilocalorie per capita per day. The percentage of kilocalories from cereals needs further research. Feed use and seed losses based on estimates derived for Cereal Supply/Demand Balance, 1999/2000, FAO/WFP Crop and Food Supply Assessment, September 9, 1999.

<sup>8</sup> Anticipated commercial imports estimated as actual three year average cereal imports for 2002 to 2004, for Berbera, Bossaso, El-Ma'an and Jazira Ports. The three year average is 394,877MT (rounded to 395,000), with 361,187MT in 2002, 482,912MT in 2003, and 340,533MT in 2004. Data are from Berbera and Bossaso Official Port Import Statistics and El-Ma'an and Jazira Port Figures collected by WFP. Estimated commercial imports consist of rice, wheat grain, wheat flour, pasta and small amounts of maize and sorghum. These are expressed in cereal equivalents with conversion factors of wheat flour = 1.33, pasta=2.00 and rice= 1.

<sup>9</sup> From June 2005 to January 2006, WFP distributed 19,738MT of food in Somalia and CARE distributed 16,230MT of food in Somalia.

<sup>10</sup> As of 2nd February 2006, WFP reports 4,755MT in stock and 56,199MT in the pipeline. As of 31st January 2006, CARE had 8,237MT in stocks and 1,830MT in transit.

### 3.3 IMPLICATIONS ON FOOD SECURITY FOLLOWING ETHIOPIA'S SUSPENSION OF CROSS BORDER CEREAL FLOW/TRADE

Normally, a substantial proportion of local produced cereals (maize and sorghum) and food aid consumed in Somaliland originates in Ethiopia, especially from Jijiga, Korrehey and Godey Zones. Due to the close proximity to Somaliland and short transportation distance, Ethiopia cereals are much cheaper than cereals from southern Somalia. The majority of poor households in rural and urban areas of Somaliland who cannot easily afford to purchase expensive imported cereal commodities (rice and wheat flour), therefore, consume the cheaper cereals that flow in from across the border.

The Ministry of Trade and Industry in Ethiopia recently suspended exports of grain products (*teff*, maize, sorghum, and wheat) indefinitely to neighboring countries (OCHA Humanitarian Bulletin, February 6, 2006). The suspension is intended to stabilize prices of local staple food in response to recent price increases in Ethiopia and fears of undue pressure on consumers. However, although the suspension is mainly intended for 'formal' grain exports, it will likely affect the informal cross border trade between Somalia and Ethiopia hence staple food availability and prices in Somaliland markets.

The biggest impact will fall on refugees who engage in trading and selling the wheat grain, sorghum and maize to Hargeisa markets as a means to generate income. Consequently, the overall volume of cereals imported into Somaliland will be reduced, thus affecting income opportunities for refugees. If the suspension of cereal trade continues, then, it is possible that consumers in Somaliland will face higher wheat grain, sorghum and maize prices in the coming months. However, buffering this reduction in cross-border cereal flow, at least in the short term, is the recent *Karan* sorghum and maize bumper harvest in Somaliland (November 2005), which was 159% of PWA.

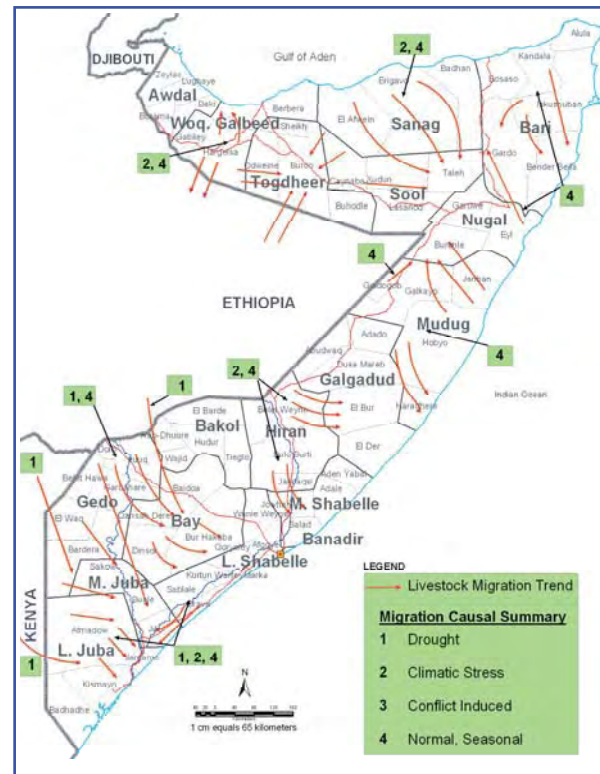
### 3.4 LIVESTOCK PRODUCTION AND EXPORT

#### Livestock Production and Migration

The livestock sector is the mainstay of Somalia's economy. With the exception of camel, which are considered drought tolerant, the livestock body condition, production and reproduction throughout most of the South is extremely poor (Table 8) and severely stressed due to limited water and pasture. This is due to the compounding effects of a poor *Gu* '05 (April – June) and failed *Deyr* '05/'06 (October-December) rains.

Cattle, the main livestock species in Gedo, Juba Valley and parts of Bay and Bakool regions, are the hardest hit by the prevailing drought and their survival over the coming long dry season or *Jilaal* (January-April) is precarious at best. Already there is widespread cattle death in Gedo - the epicentre of the drought - and parts of Juba Valley due to the lack of water, pasture and drought related diseases. Recent field assessment by different agencies confirms that 20-30% of the cattle have died in Gedo and parts of Juba Valley due to lack of water, pasture and diseases. A significant number of shoats have also died in Gedo and parts of Juba Valley and Bakool where drought conditions are most severe. Preliminary projections are that upwards to 80% of the cattle in Gedo could perish by April, before the next rains are expected if conditions persist.

Map 8: Livestock migration Post Deyr-2005/06



Throughout southern Somalia, there are no significant livestock remaining in the traditional grazing areas as most cattle and shoats (sheep and goats) are clustering around the rivers and *desheks*. Scarcity of water is the one most critical problem affecting livestock in the hinterland. Livestock body conditions have weakened considerably and many are unable to trek long distances. Most will likely remain in the riverine areas over the coming 2-3 months despite the obvious risks of tse tse fly related diseases such as trypanosomiasis. Concentration of livestock around water points will likely increase the incidence/spread of the endemic diseases. It is, however, clear that due to the prevailing economic hardships, it is unlikely that the majority of the households will not be able to treat their animals. This suggests that cattle deaths may reach alarming levels in the coming months.

Table 8: Post Deyr 2005/06 water and pasture, livestock body condition and migration summary

Region	Water availability	Pasture condition	Body condition	Migration pattern	Trends in LS holdings	Calving/kidding trends	Milk production and trends
Gedo and	Serious water shortage in the hinterland	Generally very poor	Cattle and shoats very poor; Camel below normal	Abnormal in-migration from Kenya; out migration to Juba Valley	Cattle and shoats decreasing; camel is normal.	Camel calving normal except in Gedo; cattle and shoats decrease	Camel milk below normal; cattle and shoats milk insignificant
Juba Valley	Serious water shortage in the hinterland	Generally very poor	Cattle very poor; Camel and shoats normal	Abnormal in-migration from Kenya	Cattle decreasing; camel and shoats normal.	Camel and shoats calving normal; cattle decrease	Camel milk normal; cattle and shoats milk insignificant
Bay/Bakool	Below normal	Very poor	Cattle and sheep below normal; goats and camel normal	Abnormal migration from Gedo and Ethiopia	Cattle and shoats are decreasing; camel calving increasing	Camel is normal; cattle and shoats decreasing	Camel milk normal; Cattle and goats scarce
Shabele Valley	Shortage in the rainfed area	Poor in the hinterland	Camel and shoats normal; cattle very poor	In migration from Bay; high internal migration	Cattle decreasing; camel and shoats normal	Cattle below normal; camel and shoats normal	Cattle below normal; camel normal
Central	Normal except pockets in Galgadud	Generally normal except Hiran	Normal	Internal migration due to pockets of water shortages	Increasing for all species	Normal for all species	Cattle milk normal; cattle and shoats below normal
Northeast	Normal except in eastern Sanaag, Bari and, part of Nugaal region	Generally normal	Normal for all species; Shoats in Qandala and Alula are under stress	Limited in-migration from Eastern Sanaag to Nugaal Valley	Increase for all species. Problem of pack animals still remains;	High kidding and calving rates for all species	Milk availability is normal except in Qandala and Alula
Northwest	Normal but pockets of below normal	Good in most places	Largely normal	Normal with but limited out migration to Nugaal Valley	Increase for shoats	High for shoats and cattle	Below normal

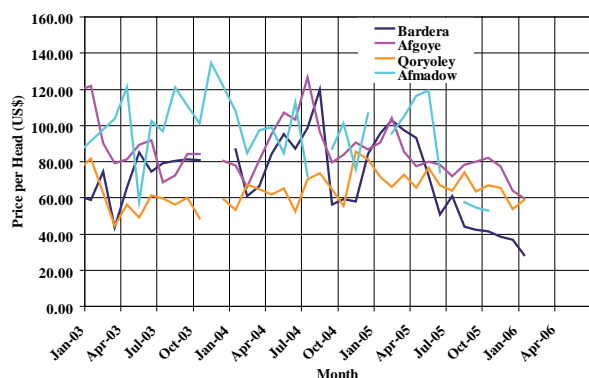
Abnormal migration of pastoralists from Northeastern Kenya to the Juba riverine area (Map 8) in search of water and pasture has worsened the situation by further depleting available resources. The unusual distress sale of breeding animals and the culling of the young calves in order to save mothers are clear manifestations of the severity of the prevailing drought. Competition for rangeland resources and market opportunities have increased incidences of resource-based conflicts between farmers and herders. In the northwest, northeast and central regions, livestock conditions in key pastoral areas remain normal. With the exception of pockets of eastern Sanag, parts of Bari and Galgadud regions, pasture and water availability and access are normal. Successive seasons of above normal rainfall have improved the rangeland situation hence livestock productivity and values. Camel calving rates are high and milk is widely available. Similarly goats kidding and sheep lambing rates were also high over the past several months leading to improved herd size among the drought affected communities in the northwest and northeast.

## LIVESTOCK EXPORT, VOLUME, PRICES AND TERMS OF TRADE

### Southern Somalia Livestock Trade

In southern Somalia, cattle are an important economic asset, especially among pastoral and agropastoral livelihood groups. Cattle provide sources of livelihood through milk and meat production and market sales. Over the past decade, the importance of the cross border cattle trade has been increasing due to the high value of cattle and the ever-increasing seasonal demand for slaughtering and restocking in Kenya and Tanzania. Traders buy cattle from southern Somalia assembly markets and trek them overland to Garissa (Northeastern Province, Kenya) where cattle trade is highly profitable. In the southern pastoralist economy, cross-border cattle marketing and its associated service sector provide a wide range of employment and income-earning opportunities for many people, including cattle owners, cattle herders who trek the cattle to their next destination, cattle branders, cattle traders, buyers and brokers, sellers of fodder and water, veterinary professionals and health services providers, money vendors who facilitate transactions, militias who extort illegal taxes at check points and local authorities who generate revenue through legal taxation. However, the prevailing drought has affected seriously the cross border livestock trade between southern Somalia and Kenya. As a result, in most of the key reference markets in the south, the market value of livestock, especially cattle and shoats, has plummeted and will likely continue to fall over the coming months.

**Figure 11: Average Monthly Prices Local Quality Cattle (US\$)**



Cattle prices declined significantly, between 40–60%, in Bardere (Gedo), Salagle, Sakow, Buale (Middle Juba), Dinsor (Bay Region) and, Afmadow (Lower Juba) from their levels earlier this year (February '05) and have reached their lowest levels in recent history (Figure 1). Even though the prices of camels and shoats remain normal, this does not help most households in the south whose main livestock holding is cattle. Local cattle traders in Gedo, Bay and Juba Valley are no longer buying cattle and markets in these areas are on the verge of collapse. Loss of animals due to lack of pasture and water along the trekking route between southern Somalia and Garissa market has been high for the last several months prompting traders to abandon the cross border cattle trade.

The cattle trade has a multiple effect on the local economy in southern Somalia through the creation of wealth and employment opportunities and extensive inter-sectoral linkages. Normally, proceeds from cattle trade are used to pay for imported commodities from Mogadishu's Bakara market to other main towns in the south. The collapse of the local markets and decreased livestock prices will seriously curtail traders' ability to bring imported commodities into the rural areas like Juba Valley and Gedo. This will reduce the supply/availability of consumer goods from Mogadishu. As a result, prices of imported commodities like sugar, rice, wheat flour and vegetable oil will likely increase. Poor livestock marketing will also affect income sources for various groups in the market chain, which will in turn reduce access to consumer goods.

### Northern Livestock Trade

Over the last few months, pastoralists in the northwest, northeast and central regions have benefited from the high seasonal demand for the Hajj period. Livestock exports are now at their highest levels since the collapse of the export market in 2001 following the livestock ban (Table 9 and 10). Exports reached their peak in December 2005, when a total of 530,512 head of live animals were exported from Berbera and Bosasso Ports, which is the largest number of livestock exported in a single month since February 2000 Table 9 and 10 for historical time series data see FSAU



**Table 9: Livestock Exports from Bossaso January to December '05**

Livestock Exports from Bossaso			
Month	Shoats	Cattle	Camels
January	153,320	5,218	19
February	70,834	8,658	128
March	98,207	8,740	1,087
April	97,120	6,429	600
May	85,550	6,868	50
June	112,606	9,069	1,853
July	118,613	5,232	1,581
August	98,140	7,340	3,898
September	156,730	11,974	3,875
October	193,442	6,544	1,221
November	140,318	5,472	2,633
December	269,979	10,366	9,164
<b>Total</b>	<b>1,594,859</b>	<b>91,910</b>	<b>26,109</b>

**Table 10: Livestock Exports from Berbera January to December '05**

Livestock Exports from Berbera			
Month	Shoats	Cattle	Camels
January	130,231	14,695	0
February	60,556	11,303	0
March	19,749	12,934	0
April	45,458	8,650	1,068
May	54,799	8,174	0
June	36,335	7,437	477
July	67,537	8,693	1,131
August	75,918	10,698	328
September	54,266	8,643	446
October	142,554	17,547	335
November	119,982	15,760	308
December	216,410	23,617	976
<b>Total</b>	<b>1,023,795</b>	<b>148,151</b>	<b>5,069</b>

Market Update January 2006). Sheep and goat (shoats) exports continue to be the dominant species exported in the north, constituting 91% of the livestock exports in December, followed by cattle at 6% and camels at 3%. Berbera Port has begun to regain its share of exports in the north, exporting 45% of the total livestock exports in December. The total number of livestock exported through Berbera and Bossaso Ports this year (January – December '05) reached 1,023,795 heads, which is the largest annual export in the recent past (Figure 12). Although over 50% of the exported animals through Berbera and Bossaso Ports are believed to have originated from Zone Five region of Ethiopia. The supply of livestock to the market supply has improved over the last year, due to improved rangeland situation in the north and central regions and improved livestock conditions. This was coupled with the increased demand from export markets in the Gulf.

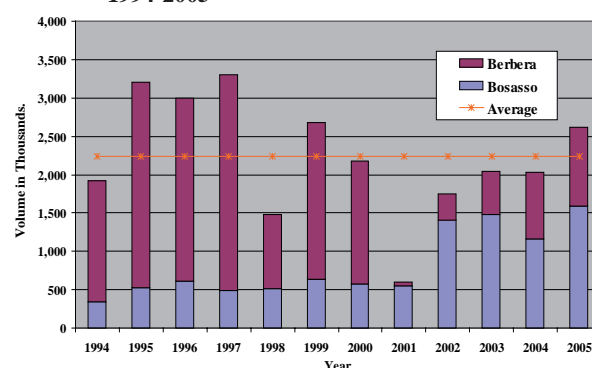
Export shoat prices increased sharply from September in all markets in the north (Bosaso, Galkayo, Burao, and Hargeisa), in the lead-up to the peak export period in December (Figure 12). Export quality shoat prices in Bossaso market increased the most, 30% from September to December, reaching a level comparable to last year's peak export period. With the end of the 2005 Hajj period, the seasonal export demand for livestock, especially sheep and goats, will decrease and livestock prices are expected to follow a normal downward trend.

In some areas, prices of local quality shoats have already started to decline gradually by early January 2006. Export of chilled meat is also flourishing. Information from the field confirms that 6,000 heads of young male-goat carcass meat was processed in Burao abattoir and exported to Arabian countries during January '06. However, this is 25% less than last month's figure. This shows that with the conclusion of the Eidul Ad-ha and Hajj festivals, demand from Gulf States started to decrease substantially.

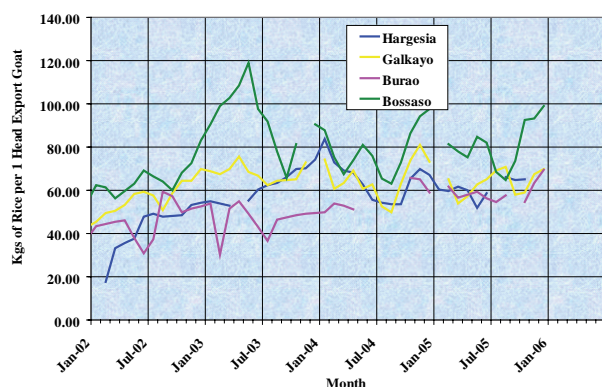


*Improved body condition of shoats following good Deyr rains in the Northwest*

**Figure 12: Goats Exports from berbera and Bossaso Ports, 1994-2005**



**Figure 13: Terms of Trade Imported Rice to Export Quality Goat (2002 -2006)**



Prices of imported cereals (rice) in the northwest and northeast, on the other hand, remained fairly stable for the last few months – at around US\$ 40/kg (Figure 9). Terms of trade (livestock to cereal) in most markets, therefore, improved during the lead-up to the peak export period in direct response to improved livestock prices (Figure 13).

In Burao, Hargeisa and Galkayo in September-October, one head of export quality goat was worth 50-60 kgs of rice, but this has increased to around 70kgs of rice by December due to increased livestock prices. The largest improvement in terms of trade occurred in Bosasso, where one head of export quality goat had reached an exchange of 100kg of rice by December 2005. Livestock export prices are beginning to decline as expected following the end of the peak export season. Any decrease in prices of export quality animals without proportional decrease in imported price will have an effect on purchasing power of the pastorals since terms of trade between livestock and imported cereals will deteriorate.

### 3.5 RANGELAND CONDITION AND TRENDS

In Somalia, the pastoral tradition land ownership is based on clan settlement of grazing lands and ownership of water rights (*deegaan*). Under the *deegaan* system, land is considered to belong to clans and their subdivisions who usually confine their use of rangeland to their particular area.

In the past government policies on land tenure regarded rangelands as communal and open to all pastorals. From 1978-1990 many projects engaged in rangeland management were implemented throughout the country. These projects applied a rotational grazing system on rangelands. In order to reduce overgrazing, parts of the pastoral lands were fenced and utilized only certain times of the year. These measures enabled increased availability of grazing lands at different times of the year, contributed to the general recovery of rangelands, and reduced the impact of droughts.

Since the collapse of the central government, however, there have been minimal range management projects. This, combined with a dramatic increase in environmental degradation due to overgrazing, proliferation of water points, increased human settlements and more importantly charcoal burning, have drastically undermined rangeland recovery and accelerated deforestation (see article on charcoal in page xx).

The absence of government policies implemented by a central government has also reversed the situation to the traditional clan ownership and exclusiveness to rangelands. Similarly, the number of private enclosures has increased thereby affecting the communal land use system and access. Hawd of Togder and Hargeisa are some of the areas where the issue of private enclosures are a major problem. As a result, incidences of resource based clan conflicts over rangelands and water has been increasing and reached a climax during this drought. Some of the most recent conflicts include those in Haraale and, Gelin soor, (Galgadud region), Hobyo(Mudug Region), Elwaq (Gedo Region) and many other places.

#### **Impact of the current situation on rangeland condition**

Generally, grass species are the most affected as compared to browsing species due to low recession capability, recurrent drought, poor rainfall, and disruption of traditional wet and dry season grazing patterns. Seasonal and annual grasses are tending to be exhausted as a result of the recurrent and prolonged droughts, which led to loss of seeds capacity to regenerate. North Gedo and, Sool Plateau are classical examples where increasing trend of loss of grass species is evident to the detriment of livestock production. Currently perennial grass, perennial forbs and acacia species are available for livestock feeding.

The most threatened grass species with high nutrient value include; *sporobolus variegates*, *cenchrus ciliarus*, *chrysopogon aucheri*, *cynodon dactylon*. These species are preferred by camel, sheep and cattle. The main forbs that are declining into a lower trend include *indigofera ruspolii*, *indigofera spinosa* that preferred by camel and shoats. Among the acacia species for browsing include: *acacia millifera*, *acacia bussei*, *acacia tortilis*, *acacia seyel*, *acacia misera*, *acacia Senegal*, *acacia socotrana*. The acacia species found in the rangeland had been in increasing trend with the exception of *Acacia Bussei* and *acacia Etbaica* which are being depleted due to charcoal production. Sool Plateau, parts of Shabeele valley, Bay, Bakool, Gedo and Juba valley experience serious depletion of acacia species due to rampant charcoal production over the past several years.

Acacia species play an important role for livestock feeding as camels and goats rely a lot on browsing the shoots and leaves. In the course of the dry seasons, the acacia species shed the leaves and pods which is preferred by all species with exception of cattle.

Other saline plant species that are in depletion include; *zygophyllum album*, and *salvadora persica*. These species, which are found near watershed zones and in the coastal belt, are very crucial for livestock feeding since they maintain the metabolism of the herds.

### 3.6 MARKET ANALYSIS AND TRENDS

#### Somalia and Somaliland Exchange Rates

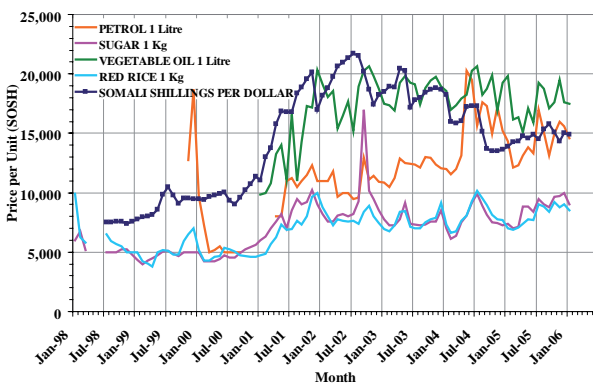
The exchange rate for both Somali and Somaliland Shillings against the US Dollar remained fairly stable throughout the year 2005 (Figure 14). The Somali Shilling exchange rate was between 15,000-15,600 per US dollar in most of the major markets, while the Somaliland Shilling rate ranged between 6,020-6,350 per US dollar.

Despite the stable exchange rate, both currencies are still significantly lower in value as compared to the pre-livestock ban levels (in the year 2000). One of the main factors which is contributing to the stability in the exchange rates is the improvement of the livestock export market in the Gulf States. Another factor is that there was limited printing of money over the previous several months.

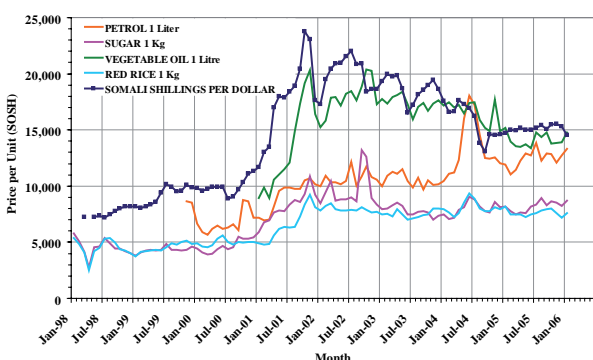
#### Imported Commodity Prices and Trends

Major imported commodity prices like sugar, rice and vegetable oil, remained fairly stable in most of the main regional markets for the last eight months, with the exception of Juba Valley, the Sorghum Belt and Shabelle Valley. However, the imported commodity prices are generally 10-55% higher in inland markets of Juba Valley (Gedo and Juba Region) and the Sorghum Belt (Gedo, Bay, Bakool Region) which are away from the seaport.

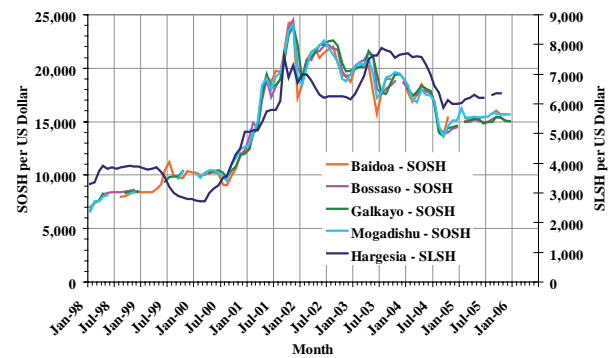
**Figure 15: Juba Valley: Trend in Imported Commodity Prices compared to Exchange Rate**



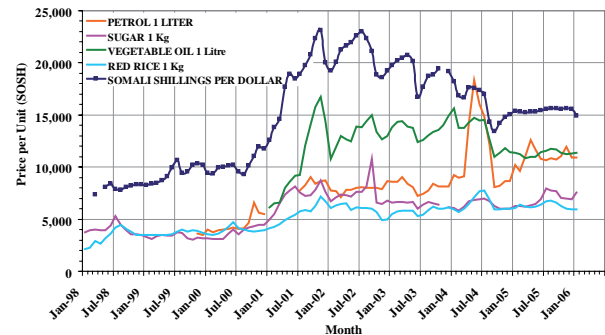
**Figure 17: Sorghum Belt: Trend in Imported Commodity Prices compared to Exchange Rate**



**Figure 14: Monthly Exchange Rates - SOSH and SLSH to USD**



**Figure 16: Shabelle Valley: Trend in Imported Commodity Prices compared to Exchange Rate**



For example, Juba Valley import commodity prices for vegetable oil, sugar, rice and petrol in December 2005, were between 20-55% higher than they are in Shabelle Valley (Figure 15 and 16). The price of vegetable oil in Juba Valley in December was around SoSh 17,600/litre, but in Shabelle Valley it was only SoSh 11,300/litre or 55% higher. Import commodity prices in the Sorghum Belt are also higher than Shabelle, but in December only between 15-25% higher (Figure 17).

These higher price levels in the hinterland are due to a combination of supply shortages, poor road infrastructure and high transportation costs associated with check points and distortions. Although changes in the price of imported commodities (rice, wheat flour and sugar) usually reflect changes in the exchange rate, it is striking that the depreciation of the shilling exceeds price increases (if any) of imported food items (Figure 15-17).

Demand for imported cereals (rice, wheat flour and pasta) will be high due to the very low domestic cereal production for two consecutive seasons. However, it is not clear whether traders will be able to respond and supply more imported food items in the coming months ahead due to off shore marine piracy off the coast of Somalia (Map 12). Accordingly, it is expected that import commodity prices will likely increase over the coming months.



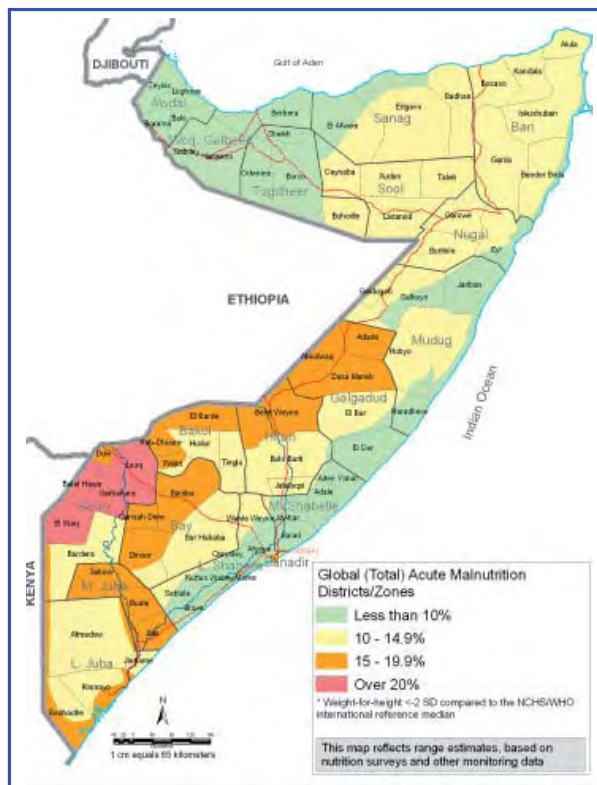
### 3.7 NUTRITION OVERVIEW

The following maps illustrate estimated levels of malnutrition in Somalia. Map 9 presents long term levels of global acute malnutrition presented as weight for height <-2 Z score or oedema and shows consistent tendencies over the past five years. These past estimates indicate clear tendencies with some areas showing relatively low levels i.e. < 10% W/H <-2 Z score or oedema and others consistently extremely high. In general, the lower rates are found in areas with greater political stability, civil security and food and livelihood security whereas the higher rates are typically seen in areas that have experienced civil unrest and/or food and livelihood insecurity. The high levels of over 15% W/H <-2 Z score or oedema and even over 20% W/H <-2 Z score or oedema in Gedo represent levels that are among the highest in the region.

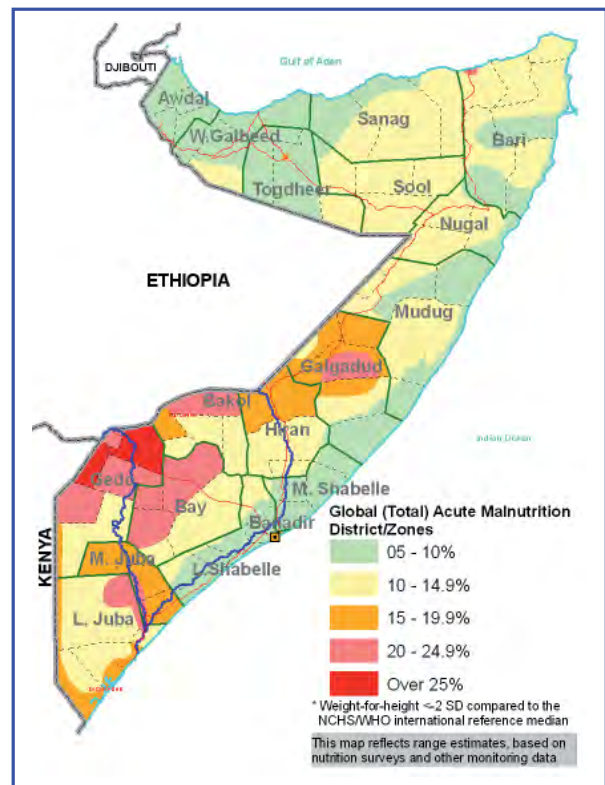
Map 10 presents the current range estimates of malnutrition which indicate early signs of deterioration in Gedo, Middle and Lower Juba and parts of Bay and Bakol. In many areas the numbers seeking treatment and care at health facilities and therapeutic feeding centres are already increasing. The information that has allowed the development of these maps and the estimation of ranges is derived from nutrition surveys, sentinel sites surveillance, health facility data, rapid assessments and seasonal trends in dietary data. No single data set is used in isolation but rather, triangulation is undertaken for an overall understanding of the nutrition situation in each area. The maps are updated as new information becomes available.

In response to the continuing deterioration in food security and livelihoods, FSAU's Nutrition Project has increased the coverage with new surveillance sites throughout Southern Somalia. While a first round of data collection has already been completed in most sites, more useful trends data will become available in February and March 2006 as second and third rounds of surveillance data are processed. Interagency nutrition surveys are currently in progress in Rabdure and Wajid Districts and preliminary results of both will be available in early February.

**Map 9: Somalia Malnutrition Long Term Levels (1999-2005)**



**Map 10: Current Range Estimates of Malnutrition January '06**





### 3.8 CIVIL INSECURITY

There is a direct link between conflict and food and livelihood security and this link is especially strong in the context of a collapsed state which is characterised by chronic and widespread civil insecurity and political uncertainty. FSAU began explicitly monitoring civil insecurity and its impact on food and livelihood security since earlier this year both within seasonal analysis and monthly monitoring (FSAU Technical Series Report No. IV 7, September 13, 2005 and FSAU Monthly Food Security and Nutrition Briefs).

The possibility of widespread reconciliation in southern and central Somalia cannot be ruled out, due to on-going negotiations and reconciliations within the Transitional Federal Government (TFG). However, the recent agreement over the location of the proposed parliamentary session resolves major divisions within the TFG. While there have been improvements in some areas in the past few months' tension and unresolved, often sporadic and unrelated localised resource-based conflict have intensified in southern and central Somalia. Map 1 shows the primary insecurity epicentres of concern as of January 2006. Of the fourteen insecurity epicentres identified, 10 are located in southern Somalia and 6 are within the areas identified in Humanitarian Emergency and Acute Food and Livelihood Crisis. Civil insecurity will only further compound the problems of poor agricultural and livestock production, as well as threaten or impede humanitarian access.

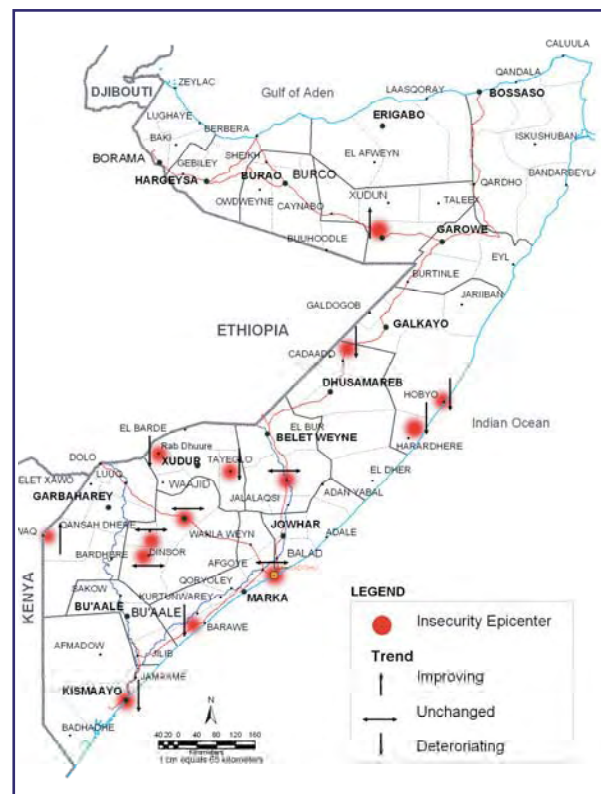
Areas in which the security situation has improved in the past few months include parts of Gedo region (although the conflict in El Wak, which straddles the Kenya Somalia border, has yet to reach a final resolution), in El Berde district in Bakol region, and in Habibayale and Rahole villages in Dinsor district of Bay region. Unfortunately, in other areas, the security situation has deteriorated as new resource-based conflicts have erupted or intensified in the past few months. Tensions have continued in the villages of Idale in Qansah Dere district and in Tuger-Hosle village in Dinsor district, both in Bay region. In Tieglow district (centred on the village of Sigle) fighting subsided from December, but tensions remain as elders continue try to resolve disputes over control of charcoal production resources.

Conflict over rangeland resources in Bulu-burti district, and continuing tension over water and grazing resources in the south of Brava district (Lower Shabelle region), also continue to cause concern. Renewed clan conflict in south Mudug, centred between Hobyo, Harar Dere and south Galkayo, is limiting access to the market in Galkayo for the affected populations in Hobyo and is leading to displacement of people to Harar Dere. However, recent attempts by TFG members to resolve the conflict between the two clans fighting in this area are positive and encouraging.

Competition over natural resources is a key driver of conflict in Somalia, and given the current severity of the Humanitarian Emergency in most of southern Somalia, there is an increased risk for localised resource-based conflict in the lead up to the next *Gu* rains (April-June '06). Limited pasture and water resources, combined with poor agricultural production and rising cereal prices, all contribute to heightened tension over the control of limited resources. Clans and sub-clans from within and between livelihood groups will increasingly compete for access to and control of natural resources out of sheer economic and survival necessity. As some of the examples above illustrate, some of which have been reported on over a period of several months, there are serious and recurring clashes among and between pastoral, agro-pastoral, and agricultural clan groups for access to and control of land for animal grazing, charcoal production, and of water points or sources.

In the worst affected Humanitarian Emergency areas of Gedo and Juba Valley, limited water and poor rangeland conditions have resulted in an increase in clashes between cattle pastoralists and riverine agricultural communities along the Juba river belt over access to grazing resources. Weakened cattle, already at risk of tsetse fly infection (carrying trypanosomiasis), are reported to be grazing in unfenced *deshek* (flood recession) and farm areas at night, as the risk of infection is greatest during daylight.

Map 11: Insecurity Hotspots for January 2006



In turn, field reports indicate that riverine communities are already adopting extreme counter measures, such as burning available grazing (in one example, an estimated 500 hectares of grassland) in an effort to deter further in-migration of cattle (See Photo). Large concentrations of cattle are rapidly depleting available resources and leading to further competition within pastoral groups for ever decreasing resources. It is expected that as the impacts of the droughts intensify, the risk of resource-based conflict of this nature will increase. The scenario of pastoralists crossing the Juba River into grazing areas south of Brava is a real possibility.



Rangelands on fire in Buale

**Map 12: Somalia - Sea Piracy and Armed Robbery  
January-December '05**



**Source: ICC International Maritime Bureau (2006)  
Piracy and Armed Robbery Against Ships Annual  
Report, January - 31 December 2005. London**

In resource poor environments, humanitarian assistance also is a potential source of increased tension and conflict, especially if it is insufficient to meet all the needs of the population or if it is perceived to be benefiting some groups while excluding others. In January 2006 the written security threat against the humanitarian community over allegations of the unbalanced allocation of resources led to the immediate suspension of flights and access to Garbaharey and Luuq districts of Gedo. This incident highlights not only the implications for humanitarian response but also the fragility of humanitarian access to areas that require sustained humanitarian presence.

Marine piracy, 35 reported incidents during 2005 alone, continues to affect the importation of commercial goods, including food, and the shipment of humanitarian relief supplies (Map 2). Humanitarian agencies are now forced to make alternative arrangements requiring shipment overland and through Kenya. Incidents that restrict access for the humanitarian community can only compound existing humanitarian problems as logistical constraints further hinder the delivery of much needed resources into areas classified as Humanitarian Emergency or Acute Food and Livelihood Crisis.

While it can be expected that the impacts of the drought will deepen over the coming few months of the *Jilaal* season, the timing, location and multiple impacts of conflict are far less predictable. However, given the context of already strained cereal supply and access within Southern Somalia and in the cross border areas of Ethiopia and Kenya, any localised conflict or increase in roadblock activity that restricts the transportation of cereals on strategically important roads (for example, from Mogadishu to Bur Hakaba/Baidoa or through Dinsor, through El Wak, or through Garissa to Lower Juba) will have serious implications for cereal availability, price and access in the worst affected areas of southern Somalia. Security on the roads in Lower and Middle Juba and from Sablale to Dinsor is already problematic, with high numbers of roadblocks and banditry reported. Efforts at conflict prevention and reconciliation to improve humanitarian access should, therefore, be a priority.

### 3.9 CHARCOAL PRODUCTION—UNDERMINING SOMALI LIVELIHOODS FOR YEARS TO COME

Cargo ships filled with charcoal routinely depart Somalia's main ports headed for the Arab Peninsula, South Asia, and other destinations. While meeting the insatiable demand for fuel wood and incense burning in foreign states, this illicit trade has direct negative effects on the very basis of the Somali economy and cultural identity.

By denuding the long-growing hard wood species of Somalia's rangelands (in particular the *Acacia busia*), the massive charcoal trade leads to a number of severe environmental consequences including: loss of forage for livestock, loss of water retention in soils, unfavorable changes in micro-climates, increased sheet and gully erosion, and loss of woodlands for a number of important forest products. Given that Somalia's domestic economic activity is dominated by livestock production, and the Somali cultural core is oriented around the pastoral way of life, this unabated destruction is tantamount to a direct and long term assault on the Somali people, and must be stopped.

**But who's doing it? Who benefits? Who loses?** Because this is an illicit trade, it is difficult to record the volume and details of the chain of production. A number of studies, supported by direct observation, confirm the massive scale of charcoal production and the widespread impacts on rangelands throughout Northern, Central, and Southern regions. The business is so lucrative that cartels have formed to ensure the production, transport, and marketing to foreign states, in addition to domestic consumption. Further, the charcoal trade can be directly linked to several on-going conflicts causing loss of life and property to ordinary Somalis. Owing to the collapse of the Somali State over 15 years ago, there is a vacuum of formal and informal resource management institutions that in the past had aggressively banned large scale charcoal production. Last year a Somaliland Ministry of Pastoralism study detailed how the big winners are the traders, not local people themselves. Further, the minimal money earned from charcoal production locally is mostly not spent on investment or social needs of households—rather, it is perceived as consumable income and mostly spent on *khat* and other unnecessary items.

So, while charcoal cartels profit handsomely, and foreigners eat nice tasting food cooked with Somalia's trees and enjoy exotic aromas, the **Somali people are left with a desertified landscape**—one with minimal economic potential and a tragic contrast to the proud pastoral cultural identity of Somali people.

**With every crisis there is an opportunity.** Declining resistance to drought is directly linked to rangeland degradation. The drought in Northern Regions a couple years ago was successfully used by NGOs like PENHA, Horn Relief, Candlelight, and others, along with authorities in Somaliland (e.g., NERAD) and Puntland (e.g., HADMA) to bring attention to the charcoal tragedy in the North and to initiate a number of mitigating programmes. The current Humanitarian Emergency in the Southern Regions is also an opportunity to highlight the charcoal tragedy there.

**What can be done?** First and foremost, the charcoal tragedy must be stopped by Somali people themselves—members of civil society, community leaders, religious leaders and the like must join hands to resist the trade locally. As well, the Transitional Federal Government and authorities in Somaliland regions should assert leadership in this Somali-wide crisis, make clear policy statements, and take action against the cartels. The international community and local development actors should make this a central theme to all assistance programmes—through direct programming such as reforestation, alternative livelihoods, alternative/improved energy sources, soil erosion and other projects; but also indirectly by using every opportunity to link other assistance programmes to heightening community awareness and empowering local actors to resist the trade. In the international arena, the importation of illicit charcoal by foreign states should cease through international treaties endorsed by the United Nations Security Council.

The Somali charcoal tragedy is **not a peripheral environmental issue**, but is undermining the foundation of Somali economic development and, sadly, over time it promises to undermine the very core of Somali cultural identity.



## 4. REGIONAL ANALYSIS

### 4.1 SOUTHERN SOMALIA

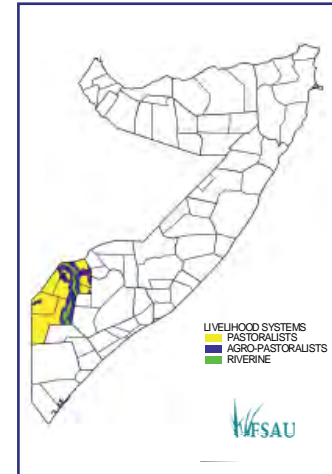
#### 4.1.1 Gedo Region

##### Overview

Gedo region is the epicenter of the ongoing **Humanitarian Emergency** which affects the wider Somali livelihood system including the cross border areas in northeastern Kenya and Ethiopia (Figure 2). Within Somalia, Gedo is the region affected the most by the current ongoing drought and is identified in a phase of **Humanitarian Emergency** with a *moderate risk* of turning into a **Famine or Humanitarian Catastrophe** before the next *Gu* rains (mid-April) (Map 14). An estimated 260,000 people or roughly 70% of the entire Gedo region population are either in a state of **Humanitarian Emergency** or **Acute Food and Livelihood Crisis** (180,000 and 80,000 people respectively) (Table 11A). Roughly 60% of this population is only recently affected by this current crisis, while 40% of the population (from Belet Hawa, Dolow and western part of Luq) is suffering worsening conditions from a previous *sustained phase* (more than 3 years) of **Humanitarian Emergency and Acute Food and Livelihood Crisis** (FSAU Technical Series No. IV 7 and IV 3, Feb. 28, 2004 and Sept 13, 2005 respectively). An estimated 92% of all agro-pastoralists or 63,300 people are either in a state of either **Humanitarian Emergency** or **Acute Food and Livelihood Crisis**. The largest livelihood population affected are pastoralists, estimated at 172,000 people (72% of pastoralists) are either in a **Humanitarian Emergency** or **Acute Food and Livelihood Crisis** (Table 11B). An estimated 26,000 riverine agriculturalists are also affected (78% of the riverine agriculturalists).

The immediate key cause of the current crisis is the year long drought, however, it is important to note that the severity of its impact is due to compounding effect of multiple shocks over a number of years, including increased and recurrent conflict, population displacement and migration fluxes, successive years of below normal rainfall and drought conditions, and restricted movement and market options, which has undermined the overall resilience and livelihoods of the population and led to a state of chronic 'structural vulnerability' (FSAU, Focus: Gedo A Complex Emergency, February 2002). The region suffered three successive years of below normal rains (1999 -2002) that negatively affected the ability of both pastoralists and agro-pastoralists to maintain their livelihood asset bases. Although in the following two years (2003 and 2004), the region received good rains, clan-based conflict restricted seasonal grazing patterns limiting the overall recovery process. This conflict negatively affected cross border trade and livestock and population movements which further increased the vulnerability of the Gedo pastoralists. The consistent influx of people and livestock over the last few years has led to an

Map 13: Gedo Valley Livelihood Systems



Map 14: Food Security Phase Classification - Gedo

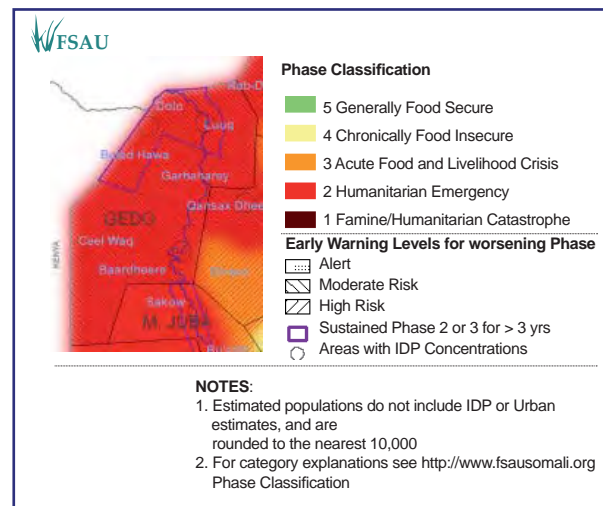


Table 11A: Estimated Population by District in Humanitarian Emergency (HE) and Acute Food and Livelihood Crisis (AFLC), inclusive of the High Risk Groups in Gedo

Affected Regions and Districts	Estimated Population of Affected Districts <sup>1</sup>	Assessed and Contingency Population in AFLC and HE		
		Acute Food and Livelihood Crisis (AFLC) <sup>2</sup>	Humanitarian Emergency (HE) <sup>2</sup>	Total in AFLC or HE as % of Region Population
<i>Gedo</i>				
Bardera	76,850	18,000	32,000	65
Belet Xaawo	58,035	11,000	32,000	74
Ceel Waag	52,150	15,000	11,000	50
Dolow	39,050	7,000	25,000	82
Garbahaarey	76,075	15,000	48,000	83
Luuq	73,120	15,000	32,000	64
<b>SUB-TOTAL</b>	<b>375,280</b>	<b>81,000</b>	<b>180,000</b>	<b>70</b>

See Appendix 5.2.2 for Footnotes

**Table 11B: Estimated Population by Livelihood Zone in Humanitarian Emergency (HE) and Acute Food and Livelihood Crisis (AFLC), inclusive of the High Risk Groups in Gedo**

Affected Regions and Livelihood Zones	Estimated Population of Affected Livelihood Zones <sup>1</sup>	Assessed and Contingency Population in AFLC and HE		
		Acute Food and Livelihood Crisis (AFLC) <sup>2</sup>	Humanitarian Emergency (HE) <sup>2</sup>	Total in AFLC or HE as % of Region Population
<b>Gedo</b>				
Southern Agro-Pastoral	45,343	2,000	41,000	95
Bay-Bakool Agro-Pastoral	23,055	4,000	16,000	87
Southern Inland Pastoral	111,441	38,000	28,000	59
Dawa Pastoral	125,016	31,000	75,000	85
Juba Pump Irrigated River	33,145	6,000	20,000	78
<b>SUB-TOTAL</b>		<b>81,000</b>	<b>180,000</b>	

See Appendix 5.2.3 for Footnotes

overcrowded, politically divided territory, fragmentation of administration and widespread insecurity. These events, in turn have led to increased pressure on already degraded rangelands, undermining coping mechanisms, and an overall crisis in production and trade. The impact of this year's drought and its regional cross-border nature has pushed a large proportion of the population beyond their limits of coping - with devastating effects in terms of collapsed livelihoods, loss of livelihood assets, excessively high and increasing malnutrition rates and crude mortality rates.

### Effects on livelihood Assets

**Natural capital:** Deyr '05 rains started late, were erratic, poorly distributed and significantly below normal. South Gedo received 0-10% of normal rainfall for the season. The impact of this rain failure is compounded by preceding Gu '05 rains which were also significantly below normal, leading community elders to conclude that the region is facing the worst drought in living memory. Almost all water catchments are dry and the river water levels are below normal. The water quality of most shallow wells is extremely poor and unfit for both human and livestock consumption. There are unconfirmed cases of children who have died after consuming contaminated water from wells, as well as many reports of livestock deaths caused by diarrhea after the consumption of contaminated water. Large populations are concentrating around the few remaining water points that still have water, while many people have already migrated out of the area. There has been an unusual and large human migration to riverine areas within Gedo, as well as to parts of Juba, and Bay/Bakool. Many rural villages in Bardera, Burdubo, Garba Harey and El Wak districts, are currently completely abandoned, as whole households have left their homes in search of water and pasture.

Pasture, both grazing and browse, in the rangelands is completely depleted, due primarily to two consecutive seasons of below normal rains and increased influx of livestock. A few areas in Bardera received patchy and light rains, but pasture was overgrazed due to huge in-migration from all directions including from northeastern Kenya. Due to the drought, whole plants, branches, leaves and pods from trees, like acacia, were cut and collected to feed livestock. Extensive and increased exploitation of rangelands, particularly fire-wood collection and charcoal production as a distress coping strategy is leading to an increased rate of deforestation and land degradation (see articles on rangeland condition and charcoal production pages 22 and 27 respectively). Increased supply of firewood and charcoal is leading to large market price declines in these commodities, i.e. the price of charcoal decreased by almost 40% this year, from SoSh 40,000/50 kg in February '05 to SoSh 25,000/50kg .

**Physical Capital:** Many villages in the region are currently faced with acute scarcity of water as several boreholes are broken and nonfunctional, while operational boreholes are overworked due to the very high and heavy concentration of livestock around them. River banks along the Juba River are eroded and destroyed due to the huge livestock and human in-migration to riverine areas. Gedo's transport and communication infrastructure are among the poorest in the country as they have never been consistently developed and lack routine maintenances. Climatic extremes, both drought and flooding, have contributed to the deteriorating road network. Poor transport infrastructure, road networks, and civil insecurity have negatively affected staple food supply and market prices.

**Social Capital:** Due to the prolonged drought conditions social support systems, such as gifts, remittance, and other systems of support (i.e. *irmansi*, *xologoyo*, *shaxad*), are over-stretched. Local kinship support is generally in the form of in-kind transfers of gifts, such as livestock and milk. However, given the widespread nature of the drought, (in terms of geographic spread, as well as also populations affected) and the resulting overall poor livestock conditions, high livestock mortality rates and limited availability of livestock products, there is very little means for providing social kinship support from within the community.

**Human Capital:** Current malnutrition levels in Gedo region are the highest malnutrition rates observed throughout the country - levels which by international standards are exceedingly high and unacceptable. Current malnutrition levels

in Belet Hawa and Luq district are > 25% and are the highest rates in the entire country (Map 10). In Dolo, El Wak and Garba Harey districts, malnutrition rates are at 20-24.9% (weight-for-height <-2 SD). This region is chronically faced with very high malnutrition rates generally, but there is very clear evidence that the situation is deteriorating even further. Admission rates to therapeutic feeding centers in Belet Hawa, have steadily and continuously increased since June '05 and took a dramatic jump in November '05 (Figure 20). Similarly, school attendance remains low due mainly to the inability to pay the fees and that children are required to support household activities.

**Financial Capital:** The purchasing power of the majority of population remains low and is compounded by the effects of increased civil insecurity, failed *Gu* '05 and *Deyr* '05/06 crop productions, very low livestock selling prices, and increased commodity and cereal prices. Access to loans and credit is limited, difficult to obtain or unavailable due mainly to insecurity and non-repayment of debt by the poor and middle wealth groups. The northern districts of the region are known for their high unemployment and dependence on humanitarian assistance.

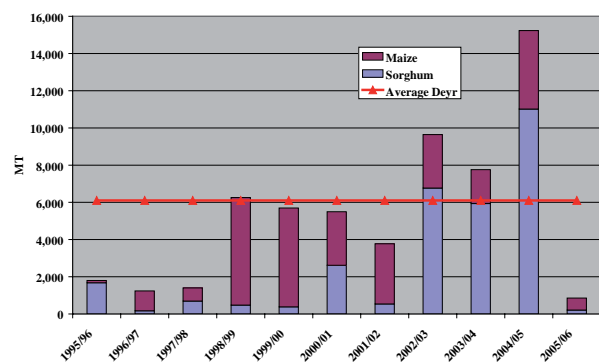
### Effect on Livelihood Strategies

Pastoralists in this region, both Dawa Pastoralists and Southern Inland Pastoralists, normally rely on purchases as their main source of food (40-60%), supplemented with own production of milk and meat and dairy productions from their livestock. Most of the income of pastoralists, if not all for the middle and better-off households, comes from milk and dairy sales, followed by livestock sales. Poor pastoralists, supplement this income with small amounts of employment in herding or sales of bush products, such as resins.

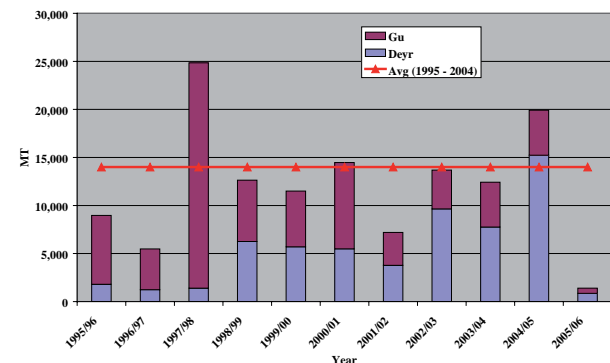
Agro-pastoralists, however, rely primarily on own production of cereal to cover the bulk of their food needs (50-65%), supplemented by food purchases (35-45%), and milk and livestock products (5-10%). Most agro-pastoralists, under normal conditions, rely primarily on livestock and livestock sales as the main source of income (55-75%), but supplement this income with crop sales (10-20%) and remittances (15-25%). The poor agro-pastoralists have smaller livestock holdings, therefore have a much smaller share of income (10-20%) derived from livestock and livestock product sales. They supplement their income with self-employment (collection and sale of bush products such as honey and dik-dik sales) and employment (agricultural labor, portaging, herding) (see FSAU Baseline Profiles).

**Food Sources:** Agro-pastoralists in the region face acute food access problems, attributed mainly to two consecutive seasons of cereal crop failure. *Deyr* '05/06 sorghum production failed completely and is the lowest production in more than a decade (Figure 18). This season *Deyr* cereal production was only 6% compared to *Deyr* '04 and 14% compared to PWA *Deyr* (Table 4). The last seasonal production, *Gu* '05, was also a complete crop failure and the lowest *Gu* production in more than a decade. The combination of a failed *Gu* '05, followed by a failed *Deyr* '05/06 translates into an overall 2005/06 annual cereal production for Gedo which is less than 2,000 MT - the lowest cereal production outcome since the collapse of the state (Figure 19). Although, two successive seasons of rain failure is the primary reason for this, irrigated farms, which are not as adversely affected by poor rainfall, also had limited production due to Juba River flooding during the *Gu* '05. The flooding not only destroyed crops during the *Gu* '05, it also destroyed productive assets, such as irrigation pumps and canals, which have not since been replaced, which in turn negatively impacted *Deyr* '05/06 production potential.

**Figure 18: Deyr Maize and Sorghum Production in Gedo (1995/06 - 2005/06)**



**Figure 19: Annual Cereal Production in Gedo (1995-2005/06)**



In terms of cereal purchases, buyers are facing significantly increased market prices. Sorghum prices in Bardere town increased 142% in the last year between February '05 and January '06 (Figure 20). The sharpest and most dramatic increase in cereal prices occurred when it became clear that the *Deyr* '05/06 rains would again fail, sorghum prices increased 54% in only 3 months (November '05 to January '06). Food access for pastoralists is also severely constrained, as their primary source of food, milk, meat and dairy, is extremely limited and below normal because of the overall poor body conditions of all species. Cattle are the hardest hit by the drought, with an estimated 20-30%

of cattle that have already died. It is estimated that cattle mortality could reach up to 80% before the next *Gu* rains (mid-April - June '06). There are also reports of very high abortion rates in cattle, as pastoralists abort new born calves in a desperate effort to save breeding cows. Strategic 'culling' of cattle, as well as mercy killing of weakened animals has also been reported. Camels, the more drought resistant livestock, are also negatively affected. It is roughly estimated that around 60-70% of the camels have out-migrated to Lower and Middle Juba regions, while the camels that are still within the region, notably pack camels and females, are weak. Culling rates of camels is also reported to be high. Sheep and goats are also in a weakened state and reproduction is below normal as they did not conceive during the last *Gu* season.

**Income sources:** All primary sources of income, i.e. crop sales and livestock sales and livestock product sales, for agro-pastoralists, pastoralists and riverine are severely constrained and reduced. The failure of both the *Gu* '05 and *Deyr* '05/'06 crops, translates directly into an almost complete loss of income from crop sales for riverine and agro-pastoralists. For pastoralists and agro-pastoralists, income from livestock production is also severely reduced due to weak livestock body conditions and the absence of livestock products. Milk and livestock products are limited or are simply not available for sale. Livestock body conditions are very poor and livestock prices have plummeted over the past year. The price of local quality cattle in Bardhere, for example, fell from SoSh 1,500,000/head in February '05 to a low price of only SoSh 400,000/head by January '06, a price fall of more than 73%.

Terms of trade of livestock (local goat and cattle) to cereal (sorghum) declined significantly from earlier this year (2005) due to the compounding effect of both falling livestock prices and increasing cereal prices. Terms of trade has declined so dramatically that now one head of cattle can be traded for an amount of cereal that is even less than could be traded for a shoat at the start of 2005. For example, in February '05 in Bardere, one local goat could be traded for around 222kg of sorghum, but by January '06 it only traded for 51kgs – a decline of more than 75%. Terms of trade for cattle is even worse, in February one local cattle could be traded for 1,500kg of sorghum, but by January '06 it only be traded for 171kgs – an amount less than for a local quality goat in Feb. '05 (a decline of more than 88%).

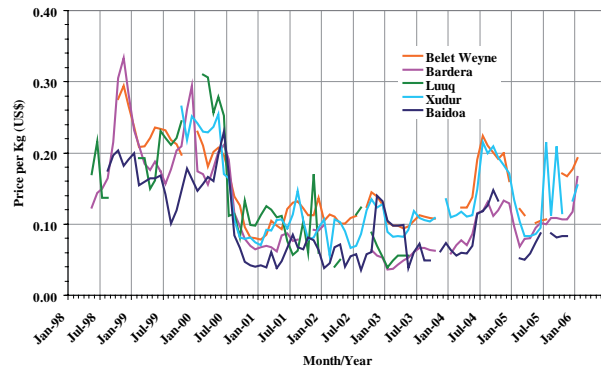
Employment opportunities are equally stressed due to the cumulative affects of the drought, with limited opportunities available and lower wage rates. The unskilled labour rate has fallen from SoSh 31,400 per day to as low as SoSh 12,000 per day, a more than three-fold drop. In Bardere in Feb. '05, one could secure 25kgs of sorghum from one day of wages, but by January '06 one day's wages, if one could find employment, would earn 5 kgs of sorghum – a decline in terms of trade of more than 80%.

**Expenditure:** Households in all livelihood groups are faced with rising household expenditures as they are forced to cover more of their food needs through purchases, at the same time that market prices, for both local and imported commodities, are increasing. In addition to cereal price increases, import commodity prices of petrol, vegetable oil, sugar and rice have also increased in Gedo and throughout the Sorghum Belt as a whole.

### Coping Strategies

Distress coping strategies are being adopted throughout the region by agro-pastoralists, pastoralists and agriculturalists alike, as people try to survive the hardships arising from the drought. Households are filling the shortfall in their food access by adopting rationing strategies namely, reduction of number of meals and quantity per day, and switching to low quality food items. There is also a large out-migration to main towns and riverine areas seeking kinship support from relatives and labour opportunities. Whole families are migrating out of the region and entire villages are being abandoned. Families are splitting, as stronger family members are out migrating long distances with livestock in search of pasture and water to save their herds. The collection of bush products and exploitation of natural resources is intensifying, including firewood collection, charcoal and construction materials.

Figure 20: Sorghum Prices (US\$) in Bay, Bakol, Hiran and Gedo Regions



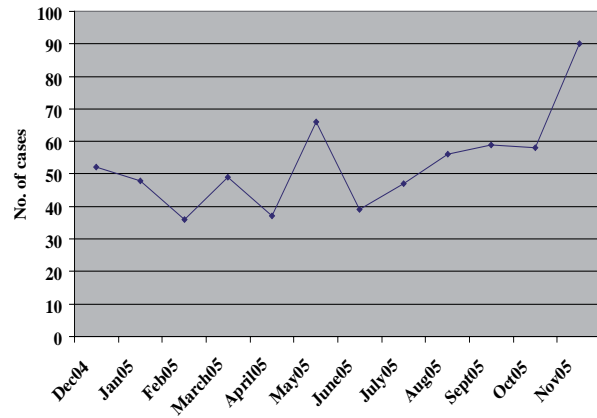
Cattle body condition deteriorating in Gedo



## Nutrition Situation

Over the past five years of monitoring, malnutrition levels in Northern Gedo have consistently remained among the worst in Somalia. The nutrition situation has deteriorated further with the worsening food insecurity in the past months. For example, between October '05 and November '05, there was significant increase in admissions of Somali children recorded in the Belet Hawa and Mandera (Kenya) Therapeutic Feeding Centres (Figure 21). Severe water shortage is experienced by the communities, with exception of the riverine population and an increase in related disease has been noted in the clinics. High malnutrition levels of children and women are also reported in sentinel sites and clinics. Dietary diversity is limited to two or three food groups and there is severe milk scarcity following the high livestock mortality, weakened body conditions and migration of livestock towards the Juba valley, in search of pastures and water. Insecurity in Northern Gedo has influenced humanitarian operations and the prices of imported food commodities have been high and unaffordable to many, due to levies of militia along the main trade links between Mogadishu and Northern Gedo.

Figure 21: Belet Hawa TFC Monthly Admissions



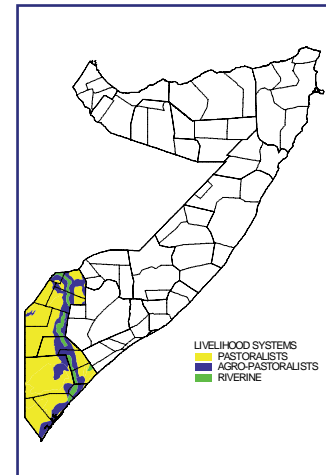


4.1.2 Lower and Middle Juba

Overview

Middle and Lower Juba regions are two of the most affected regions in the current humanitarian crisis facing southern Somalia. An estimated **345,000** people or 60% of the entire population in Middle and Lower Juba are identified in a state of either **Humanitarian Emergency** or **Acute Food and Livelihood Crisis** and are in need of immediate humanitarian assistance (Table 12A and Map 16). Of this number of people in need of assistance, it is estimated that 235,000 people (68%) are facing conditions of **Humanitarian Emergency**, while another 110,000 people are in a state of **Acute Food and Livelihood Crisis**. This current crisis is not confined to one specific population. All livelihood systems are facing crisis, including riverine communities, agro-pastoralists and pastoralists (Table 12B). In Lower Juba an estimated 47,000 agro-pastoralists, 32,000 pastoralists, and 37,000 riverine agriculturalists are either facing conditions of **Acute Food and Livelihood Crisis** or **Humanitarian Emergency**. In Middle Juba an estimated 45,000 agro-pastoralists, 8,000 pastoralists, and 66,000 riverine agriculturalists are either facing conditions of **Acute Food and Livelihood Crisis** or **Humanitarian Emergency**.

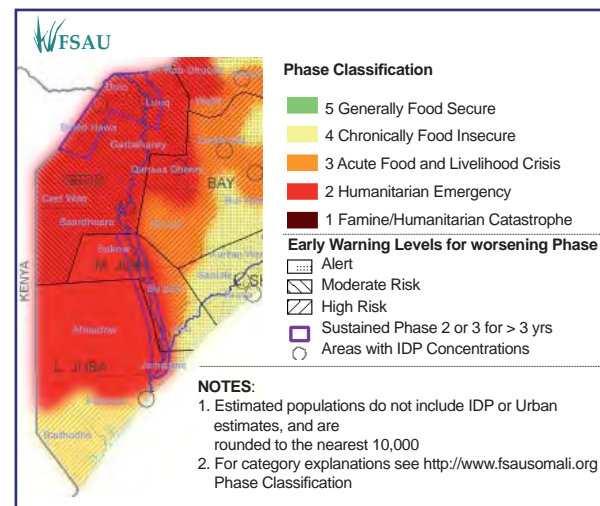
Map 15: Juba Valley Livelihood Systems



The food security situation of the riverine communities in Juba Valley is especially precarious, as this population was already classified in a state of **Sustained Phase** of (more than 3 years) **Humanitarian Emergency** – a sustained phase classification for more than 3 years. In addition, following the *Gu '05* there was a marked deterioration in the severity of the situation and most of the population was classified as in a state of **Humanitarian Emergency** (85% of total riverine population), while the remaining population was identified in state of **Acute Food and Livelihood Crisis** (FSAU Technical Series Report No IV. 7, 13 September, 2005).

It must be emphasised that both Middle and Lower Region are also hosting a large number of people from northeastern Kenya and Gedo, who have migrated into the area and have settled around strategic boreholes and water points along the Juba River. Table 12A only indicates resident populations, not the increase in population due to recent migrations.

Map 16: Food Security Phase Classification - Juba



The ongoing drought - both the failure of the *Gu '05* and *Deyr '05/06* rains - remains the principal immediate cause of the current crises. Access to food and income is significantly and severely stressed, as all the primary sources of food and income - crop production, livestock production, and market employment and purchases - are significantly

Table 12A: Estimated Population by District in Humanitarian Emergency (HE) and Acute Food and Livelihood Crisis (AFLC), inclusive of the High Risk Groups in Juba Valley

Affected Regions and Districts	Estimated Population of Affected Districts <sup>1</sup>	Assessed and Contingency Population in AFLC and HE		
		Acute Food and Livelihood Crisis (AFLC) <sup>2</sup>	Humanitarian Emergency (HE) <sup>2</sup>	Total in AFLC or HE as % of Region Population
<i>Lower Juba</i>				
Afmadow	100,075	23,000	46,000	69
Badhadhe	41,695	16,000	16,000	77
Jamame	100,625	9,000	42,000	51
Kismayo	86,845	13,000	12,000	29
<b>SUB-TOTAL</b>	<b>329,240</b>	<b>61,000</b>	<b>116,000</b>	<b>54</b>
<i>Middle Juba</i>				
Buale	46,520	10,000	28,000	82
Jilib	109,820	19,000	53,000	66
Sakow	87,935	20,000	38,000	66
<b>SUB-TOTAL</b>	<b>244,275</b>	<b>49,000</b>	<b>119,000</b>	<b>69</b>

See Appendix 5.2.2 for Footnotes

**Table 12B: Estimated Population by Livelihood Zone in Humanitarian Emergency (HE) and Acute Food and Livelihood Crisis (AFLC), inclusive of the High Risk Groups in Juba Valley**

Affected Regions and Livelihood Zones	Estimated Population of Affected Livelihood Zones <sup>1</sup>	Assessed and Contingency Population in AFLC and HE		
		Acute Food and Livelihood Crisis (AFLC) <sup>2</sup>	Humanitarian Emergency (HE) <sup>2</sup>	Total in AFLC or HE as % of Region Population
<b>Lower Juba</b>				
Southern Agro-Pastoral	25,019	8,000	16,000	96
Lower Juba Agro-Pastoral	70,434	26,000	31,000	81
Southern Inland Pastoral	60,496	7,000	12,000	31
South-East Pastoral	46,968	17,000	20,000	79
Southern Juba Riverine	43,903	3,000	37,000	91
Southern Coastal Pastoral	25,156	0	0	0
<b>SUB-TOTAL</b>		<b>61,000</b>	<b>116,000</b>	
<b>Middle Juba</b>				
Southern Agro-Pastoral	62,183	19,000	39,000	93
Lower Juba AgroPastoral	10,982	3,000	6,000	82
Southern Inland Pastoral	30,895	3,000	8,000	36
South-East Pastoral	20,706	12,000	0	58
Southern Juba Riverine	67,188	5,000	57,000	92
Juba Pump Irrigated River	26,381	7,000	9,000	61
Southern Coastal Pastoral	13,728	0	0	0
<b>SUB-TOTAL</b>		<b>49,000</b>	<b>119,000</b>	

See Appendix 5.2.3 for Footnotes

stressed and reduced. Annual cereal production for the region was a complete failure (the worst since the collapse of the state) and follows the lowest two years of annual production in the last decade. Cereal supplies are limited and cereal prices are high and continually increasing (47% in last four months). Livestock body conditions are very poor and livestock products are not available or very limited. Livestock prices have plummeted 40-60% since earlier this year. Livestock mortality is high and increasing (currently estimated at 20-30%). Purchasing power as measured by terms of trade is dramatically reduced (60-75% decline since September '05). Competition for rangeland resources and market opportunities have increased incidences of resource based conflicts. Malnutrition rates and crude mortality are extremely high, above internationally acceptable levels and are still increasing. This deepening crisis is alarming and necessitates immediate humanitarian assistance.

#### Effect on Livelihood Assets

**Natural Capital:** The pastoral hinterland areas in Lower and Middle Juba are faced with extreme water pasture shortages. Most rainfall water catchments are completely dry for the first time in many years due to the compounding impact of poor *Gu* '05 rains, followed by poor *Deyr*'05/06 rains. Rains that did fall during the *Deyr* 2005/06 rains were very localised and fell within a 2-5 day period, thus ineffective for pasture regeneration and replenishment of water catchments. Field ground 'truthing' confirms that satellite imagery overstates (reflecting primarily cloud cover) the overall *Deyr* rainfall outcome in the region.

Most range areas are completely bare due to the compounding impact of several seasons of erratic and below normal rainfall, rampant deforestation for charcoal production and export, and overgrazing due to high concentration of livestock (See Rangeland condition, page xx). Throughout the Juba region charcoal production and export trade to Gulf countries is booming and is leading to large scale deforestation and environmental degradation. Increased production of charcoal and resulting high supply is already leading to significant charcoal price declines. The price of a 50kg bag of charcoal declined from SoSh 45,000 in December '05 to only SoSh 25,000 in January '06, a drop of more than 44%. The consequence of environmental degradation will impact negatively and severely on the long-term food and livelihood security of the entire population of the Juba region (See Charcoal Production, page 27).

**Physical Capital:** Boreholes are critical for watering livestock, especially given that most rainfed water catchments are dry. Currently, over half (52%) of these strategic boreholes are not functioning at all, while those that are functioning are working overcapacity, 24 hours a day, serving large concentrations of livestock that have come from as far away as Gedo and northeastern Kenya (Map 17). Boreholes which are currently functioning are also concentrated within a single 'strip' area and are close in proximity, which is leading to a large concentration of animals within a confined area and overgrazing of pasture. Functioning boreholes will soon breakdown, given the high use, if not serviced. Most of the region is difficult to access as infrastructure and road networks, especially west of the Juba River, are extremely poor. Road networks are limited or nonexistent, thus the area is increasingly isolated and faced with high

transportation costs within the region and between other regions. Further compounding this situation is that the damage inflicted to feeder roads and other infrastructure by floods in May and June '05 have not been repaired, thus infrastructure conditions are worsened and rapidly deteriorating. Increased inaccessibility to the region, is leading to higher transportation costs, unreliable market supplies, and higher cereal and imported commodity prices (Figure 13). Equally as important is that inaccessibility results in the inadequate access to essential public services, such as veterinary care, health clinics and schools.

**Social Capital:** Agro-pastoralists and pastoralists in **Humanitarian Emergency** have limited access to support in terms of remittances and traditional social networks. Urban dwellers and the better off households, generally, are the people who have access to remittances, while it is the poorer and middle agro-pastoralist and pastoralist households from the hinterland which are most severely affected by the current crisis.

Traditional mechanisms of social support and sharing, such as *zakat* (religious obligation paid annually) and *irmaansi* (borrowing of milking cows), are also overstretched and reduced due to the cumulative affects of drought, crop failure, increased costs for livestock (watering, fodder, and veterinary drugs) and livestock losses.

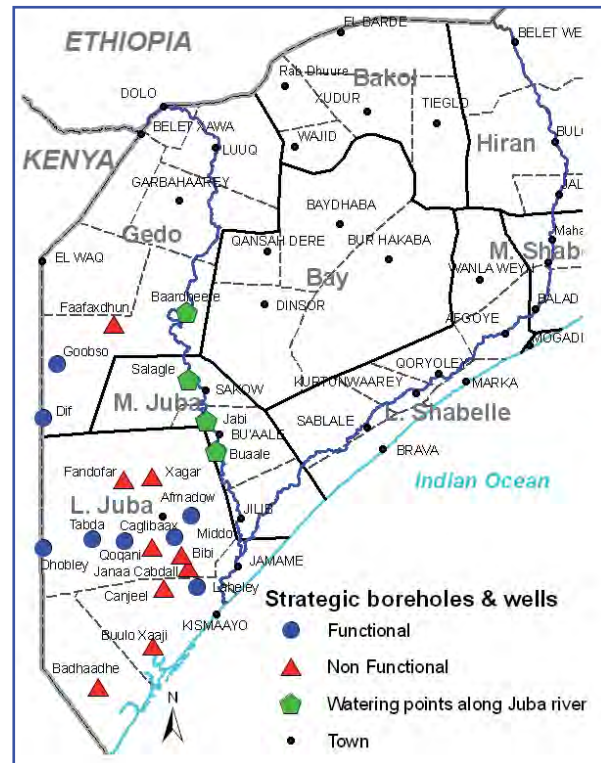
Riverine communities have even less access to social support. These communities of Bantu ethnicity normally have weak social links outside their community and in general are socially marginalised, with no clan affiliation of their own for support during periods of hardship. The **Sustained Phase** (more than three years) of **Humanitarian Emergency** for this population, combined now with another crop failure, further limits access to social support or sharing. Even worse, the additional influx of people and livestock into the riverine area due to the drought is increasing tensions and creating conflicts over already overstretched resources. Farmers are even resorting to extreme measures, such as burning their fields in order to prevent in-migrating livestock from settling and grazing on their land.

**Human Capital:** Global acute malnutrition rates among riverine communities remain high (GAM 20 -24.9%) and are significantly above long term trends of (Map 9 and 10). The nutrition situation beyond the riverine area is also deteriorating, with global acute malnutrition rates in agro-pastoral areas of Afmadow between 20-24.9% (January '06). The number of severely malnourished children is also increasing.

Mareeray TFC, one of the few TFC clinics in the region, is recording increased admissions of severely malnourished children coming from riverine communities, as well as from pastoral and agro-pastoral communities from Afmadow and Hagar. The rapidly deteriorating nutrition situation is attributed to inadequate dietary intake and diversity (a maize based diet is mainly consumed) and high incidence of disease (measles and respiratory infections). Food consumption problems are attributed to household food insecurity, to the high incidence of disease (such as measles and acute respiratory illnesses), and to poor access to curative and preventive (e.g. vaccination) health services facilities (see Nutrition Section below).

**Financial Capital:** Demand for credit and loans have increased due to crop failure, lack of labour opportunities, and increasing market prices. Access to credit and loans, however, is severely strained and limited. In Juba Valley, the cumulative impact of consecutive seasons of poor crop production (*Gu* '05 and *Deyr*'05/06) have increased levels of indebtedness and limited access to further credit.

Map 17 Strategic boreholes, wells & watering points in Juba Valley



Source: FEWSNET



High rates of malnutrition in children in Hager



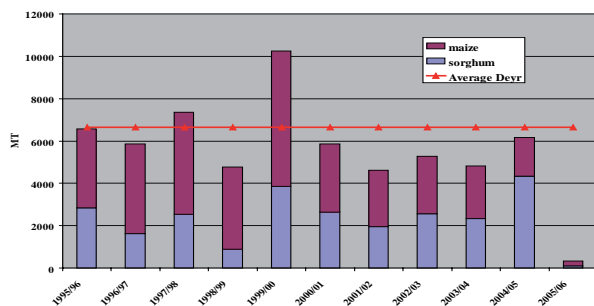
## Effects on Livelihood Strategies

There are three main livelihood systems in Lower and Middle Juba region, riverine (pure agriculturalists-maize and sorghum), agro-pastoralists (cattle and rainfed or recessional sorghum) and pastoral (either cattle with sheep/goats or camels with sheep/goats) – all of which are affected by the current drought and Humanitarian Emergency. In a normal situation, the main source of food for the riverine and agro-pastoralist is own crop production (50-60 %), which is supplemented with market purchase, i.e. cereal, sugar, oil, milk (35-45%). Pastoralists, however, are primarily dependent on market purchases as their main source of food (60-75%), followed by own livestock products (25-35%).

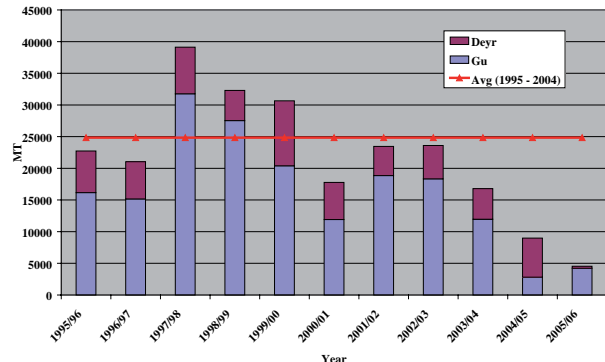
The two main sources of cash income for the resource-poor riverine community is first employment/self-employment (60%), followed by crop sales (35%). For middle riverine wealth groups, however, crop sales account for the largest share of cash income (80%), followed by employment/self-employment. Poor agro-pastoralists, given their low crop production and livestock holdings, obtain cash income from a number of sources, with employment/self-employment the largest source (35-55%), followed by livestock and livestock product sales (20-30%), and crop sales (5-15%). Middle wealth group agro-pastoralists, on the other hand rely primarily on livestock and livestock product sales (55-75%), followed by cereal sales (10-20%) and remittances (15-25%). Pastoralists, irrespective of whether they are poor or middle wealth groups, rely primarily on livestock and livestock product sales (65-85%), supplemented by either petty trade or employment (FSAU Baseline Profiles).

**Food Source:** Agro-pastoralists, pastoralists and riverine communities access to food is significantly and severely stressed, as all primary food sources – cereal crops, market purchases, and livestock products - are significantly reduced and negatively affected. *Deyr* 2005/06 crop production in both Lower and Middle Juba was a complete failure, at 1% and 7% of *Deyr* PWA respectively (Table 4 and Figure 22).

**Figure 22: Deyr Cereal Production in Middle and Lower Juba (1995 - 2005/06)**



**Figure 23: Annual Cereal Production in Middle and Lower Juba (1995 - 2005/06)**



Not only is this season's crop production a complete failure, the previous *Gu* '05 crop production also failed, resulting in the worst annual crop production the region has had since the collapse of the state (Figure 23). The high off season flood recessional crop production (October '05), though an important short-term outcome and boost to the region, did not compensate for the huge crop losses of the main 2005/06 *Gu* and *Deyr* seasons. Worse yet, this year's failed crop production directly follows two years of the lowest annual cereal production in the last decade, thus the compounding effect on overall food stocks and food access (Figure 23).

There is very little livestock production (meat, milk and ghee) available for consumption, due to extremely poor livestock body conditions. The *Deyr* season is generally the calving production period for cattle, however, due to the severity of the drought pastoralists are inducing still births and slaughtering newborns to save breeding animals, thus further reducing the availability of milk and ghee production. Cereal market prices are high and have dramatically increased since earlier this year. Maize prices have increased sharply by 47% between September '05 and January '06, and are now significantly higher than maize prices in Shabelle - 56% higher (Figure 9).

**Income Sources:** Access to income is also severely and significantly reduced for agro-pastoralists, pastoralists and riverine communities, as the primary means of livelihoods



*Carcasses of animals dying because of the drought in Juba Valley*

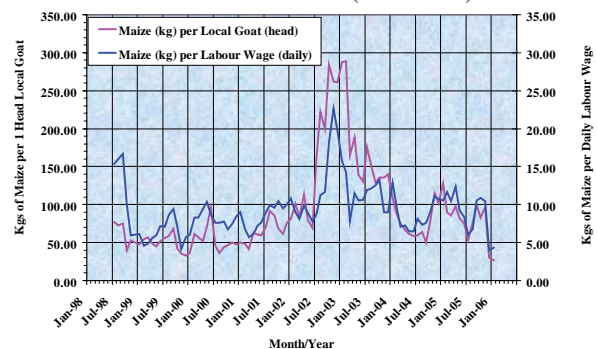


and earning income – crop sales, livestock and livestock product sales, and employment are all negatively impacted by the ongoing drought. The *Deyr* '05/'06 crop failure, combined with the *Gu* '05 crop failure translates directly into lost income from crop sales for riverine agriculturalists and agro-pastoralists.

Income from livestock sales is also severely reduced and compromised. Livestock body conditions are extremely poor and livestock are dying due to extremely poor pasture and water conditions. It is already estimated that 20-30% the cattle in region have died and projections are that up to 80% could die before the end of the long dry *Jilaal* (mid-April). Although cattle are the most susceptible to drought and are the first to die, other livestock species have also started dying, i.e. donkey and sheep. In response to poor livestock body conditions and reduced demand, cattle prices have plummeted throughout the region – by more than 50% in the past few months (Figure 11). Local goat prices are also significantly reduced and falling. For example, in Afmadow goat prices have fallen from SoSh 219,200/head in May '05 to SoSh 102,000/head in January '06 - a drop of more than 53%, while in Doblei the price fell from SoSh 250,000/head to 110,000/head, a drop of more than 52%. Income from employment and self-employment is also reduced. During the *Deyr* '05/'06 season there were few farm labour opportunities, such as weeding and harvesting, due to very poor rainfall and crop failure. Self-employment, such as charcoal production and bush product sales, is also limited or unprofitable due either to increased transportation costs and/or low market prices caused by low demand and high market supply as many people are engaged in these activities.

Purchasing power, as measured by the amount of cereals one can buy by selling a local quality goat or by earning a day's wage (terms of trade), is severely and significantly reduced. Rising cereal prices combined with falling livestock prices and daily wage rates has led to the lowest terms of trade in more than a decade (Figure 24). In January '06, selling one local quality goat can buy only one quarter of the amount of cereals of what it could only five months ago, a 73% decline in terms of trade since September '05. The money earned from selling one goat can only buy 27kg of maize now as opposed to roughly 100kgs in September '05. Terms of trade between cereals and daily wage labour is also significantly reduced by almost 60% since September '05.

**Figure 24: Terms of Trade in Juba Valley - Sorghum to Local Goat and Labour (1995-2006)**



**Expenditures:** The complete failure of cereal crops, combined with the limited availability of livestock products means that most people are now reliant on market purchases for food. However, cereal prices are high and increasing, while income is falling. Import commodity prices (rice, sugar, vegetable oil) are also increasing – between 15-42% in the last year (Figure 15). Staple food prices are expected to continue to increase through the *Jilaal* season. The overall effect is that people must spend more money, thus expenditures are increasing. For many of the poor, options for spending more are limited; therefore distress coping strategies are adopted.

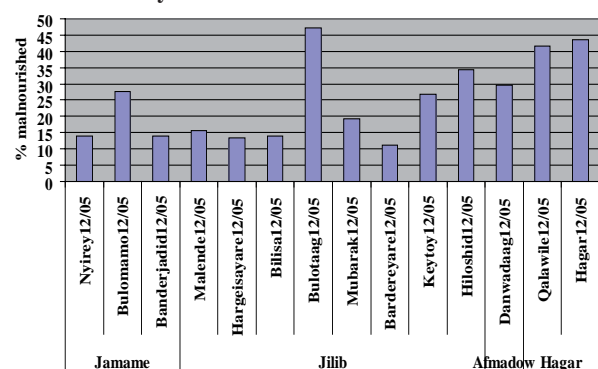
**Coping Strategies**

Field assessments confirm that for most people in this region, normal coping mechanisms are now exhausted, and people are engaging in a number of distress coping strategies. Distress consumption coping strategies include increased wild food consumption, reducing non-staple food purchases, reducing number of meals per day, reducing the quantity of food intake and skipping whole days without food. There is also abnormal migration and population movements taking place, such as whole families migrating from their villages and a general rural exodus to urban centres, riverine areas and water points. Pastoralists and agro-pastoralists are engaging in a number of distressed coping strategies including, inducing still births in livestock to save breeding animals, exposing animals to tsetse fly infested areas and conducting ‘compassion slaughtering’ of weak animals.

**Nutrition Situation**

High levels of malnutrition have been recorded in many sites in the first round of data collection at surveillance sites in both Middle and Lower Juba (Figure 25). The Marere supplementary and therapeutic feeding programmes run by MSF Holland report increasing number of admissions. About 60% of the admissions manifest bilateral oedema, which indicates a worrying and serious nutritional problem. For the first time, some of the TFC beneficiaries come from the pastoral community of Afmadow and Hagar districts – a clear indication that the nutrition situation is serious and deteriorating among pastoralist communities. Significant increasing trends of malnutrition have been recorded in Jamame, Bualle and Jilb MCH centres. Increased incidences of communicable disease, such as measles and respiratory infection have been reported.

**Figure 25: Proportion of malnourished children in Juba Valley sentinel sites**



### 4.1.3 Sorghum Belt – Bay, Bakol and Hiran

#### Overview

The food security situation in Bay and Bakol regions was reported in December '05 to be deteriorating. Pastoralists and agro-pastoralists in the two regions were reported to be facing a critical food security situation and remained at high risk of **Acute Food and Livelihood Crisis** (FSAU January 2006 Monthly Brief). The predictions proved accurate, and an estimated 105,000 people in Bakol and another 396,000 in Bay region are identified to be in a state of **Humanitarian Emergency**.

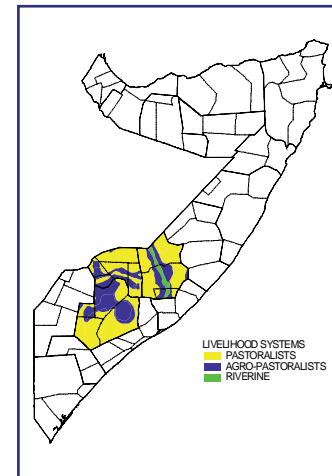
In addition, 47,000 people in Bakol and 133,000 people in Bay region are facing an **Acute Food and Livelihood Crisis**. The Bay-Bakol Agro-Pastoral livelihood zone is hardest hit with 240,000 people in Humanitarian Emergency and further 60,000 in Acute Food and Livelihood Crisis, followed by the Southern Agro-Pastorals with 130,000 people in HE and 60,000 in AFLC. In the Southern Agro-Pastoral livelihood zone of Bakol region, 86,000 people are considered to be in Humanitarian Emergency and a further 41,000 people in Acute Food and Livelihood Crisis (see Map 19 and Table 13A and 13B).

Very poor *Gu* 2005 production and below normal rainfall (between 0% and 10% in most areas) leading to *Deyr* '05/06 crop production failure, compounded by continuing and increased civil insecurity, has resulted in deteriorating livestock conditions, an increase in cereal prices and reduced and declining purchasing power (labour to sorghum) and terms of trade.

Consequently, pastoralists and agro-pastoralists are engaging in a variety of extreme coping strategies including abnormal out-migration in search of water and pasture, killing of calves to save breeding stock, skinning weak animals for their skins, sale of breeding females, and risking their livestock in tsetse fly infested grazing areas.

In addition, migration to Lower and Middle Shabelle and large urban centres in the northeast (including Galkayo, Burtinle, Goldogob and Bosasso) in search of social support and employment is increasing and putting additional strain on urban infrastructure and support mechanisms in these areas. Malnutrition rates in these areas are high and above the usual range observed (usual range is 15% -19.9% GAM) (See Map 9 and 10).

Map 18: Sorghum Belt Livelihood Systems



Map 19: Food Security Phase Classification Bay, Bakol and Hiran

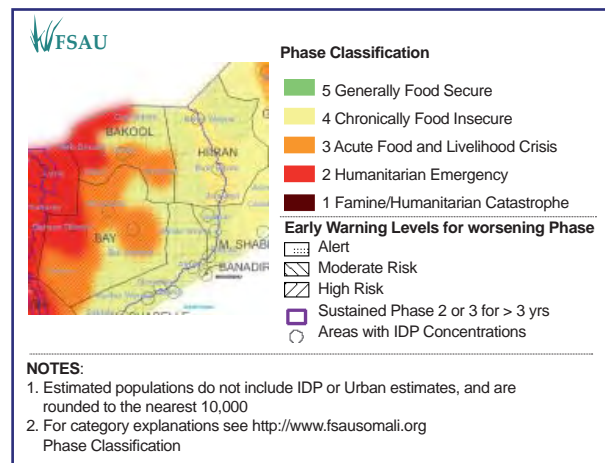


Table 13A: Estimated Population by District in Humanitarian Emergency (HE) and Acute Food and Livelihood Crisis (AFLC), inclusive of the High Risk Groups in Bay Bakol

Affected Regions and Districts	Estimated Population of Affected Districts <sup>1</sup>	Assessed and Contingency Population in AFLC and HE		
		Acute Food and Livelihood Crisis (AFLC) <sup>2</sup>	Humanitarian Emergency (HE) <sup>2</sup>	Total in AFLC or HE as % of Region Population
<b>Bakol</b>				
El Barde	42,350	4,000	9,000	31
Hudur	55,000	13,000	26,000	71
Rabdure	33,580	8,000	19,000	80
Tieglo	57,525	12,000	30,000	73
Wajid	36,995	10,000	21,000	84
<b>SUB-TOTAL</b>	<b>225,450</b>	<b>47,000</b>	<b>105,000</b>	<b>67</b>
<b>Bay</b>				
Baidoa	303,104	58,000	182,000	79
Burhakaba	135,330	26,000	79,000	78
Dinsor	106,802	24,000	64,000	82
Q/dheere	110,450	25,000	71,000	87
<b>SUB-TOTAL</b>	<b>655,686</b>	<b>133,000</b>	<b>396,000</b>	<b>81</b>

See Appendix 5.2.2 for Footnotes

**Table 13B: Estimated Population by Livelihood Zone in Humanitarian Emergency (HE) and Acute Food and Livelihood Crisis (AFLC), inclusive of the High Risk Groups in Bay Bakol**

Affected Regions and Livelihood Zones	Estimated Population of Affected Livelihood Zones <sup>1</sup>	Assessed and Contingency Population in AFLC and HE		
		Acute Food and Livelihood Crisis (AFLC) <sup>2</sup>	Humanitarian Emergency (HE) <sup>2</sup>	Total in AFLC or HE as % of Region Population
<b>Bakol</b>				
Southern Agro-Pastoral	137,679	41,000	86,000	92
Bav-Bakool Agro-Pastoral	14,863	2,000	10,000	81
Southern Inland Pastoral	72,909	4,000	9,000	18
<b>SUB-TOTAL</b>		<b>47,000</b>	<b>105,000</b>	
<b>Bav</b>				
Southern Agro-Past	207,190	60,000	130,000	92
Bav-Bakool Agro-Pastoral	343,560	60,000	240,000	87
Southern Inland Pastoral	46,429	3,000	5,000	17
South-East Pastoral	36,586	10,000	21,000	85
<b>SUB-TOTAL</b>		<b>133,000</b>	<b>396,000</b>	

See Appendix 5.2.3 for Footnotes

An estimated 54,000 Riverine and agropastoral livelihood zones in Hiran region are in an **Early Warning Level of Alert**, with **High Risk** of deteriorating to **Acute Food and Livelihood Crisis** of which 48,000 are Southern Agro-pastoral and 6,000 Hiran Riverine (See Table 14A and 14B). Pastoral areas are in a state of **Early Warning Level of Alert** (see Figure 25). *Gu' 05* and *Deyr'05/06* season cereal production in Hiran was only 3% and 16% of PWA respectively and is attributed to inadequate rainfall (40% of normal) in rain-fed production areas as well as high infestations of crop pests (such as stem borers and aphids). Livestock body condition is poor and anticipated to worsen as the *Jilaal* progresses. Currently, there is no problem of water availability for agropastoral and riverine zones due to the presence of permanent water sources (river and shallow wells).

The riverine community will remain susceptible to cyclical floods due to the continuing deterioration of river and irrigation infrastructure (further damaged during the *Gu' 05* flood). However, income from fodder sales and employment in urban centres partially offsets the loss of income from crop sales. The regional civil security situation is generally calm, with the exception of localized clan clashes and tensions related to the TFG divisions in the region. Malnutrition rates in Hiran are still within the usual range (15-19.9% in Beletweine district and 10-14.9% in Jalalaqsi and Bulo-burti districts).

**Table 14A: Estimated Population by District in Humanitarian Emergency (HE) and Acute Food and Livelihood Crisis (AFLC), inclusive of the High Risk Groups in Hiran**

Affected Regions and Livelihood Zones	Estimated Population of Affected Livelihood Zones <sup>1</sup>	Assessed and Contingency Population in AFLC and HE		
		Acute Food and Livelihood Crisis (AFLC) <sup>2</sup>	Humanitarian Emergency (HE) <sup>2</sup>	Total in AFLC or HE as % of Region Population
<b>Hiran</b>				
Southern Agro-Pastoral	136,760	48,000	0	35
Hiran Riverine	32,441	6,000	0	18
Southern Inland Pastoral	57,768	0	0	0
Ciid Pastoral	32,630	0	0	0
<b>SUB-TOTAL</b>		<b>54,000</b>	<b>0</b>	

See Appendix 5.2.2 for Footnotes

**Table 14b: Estimated Population by Livelihood Zone in Humanitarian Emergency (HE) and Acute Food and Livelihood Crisis (AFLC), inclusive of the High Risk Groups in Hiran**

Affected Regions and Districts	Estimated Population of Affected Districts <sup>1</sup>	Assessed and Contingency Population in AFLC and HE		
		Acute Food and Livelihood Crisis (AFLC) <sup>2</sup>	Humanitarian Emergency (HE) <sup>2</sup>	Total in AFLC or HE as % of Region Population
<b>Hiran</b>				
Belet Weyne	163,150	31,000	0	19
Bulo Burti	87,060	18,000	0	21
Jalalaqsi	30,670	5,000	0	16
<b>SUB-TOTAL</b>	<b>280,880</b>	<b>54,000</b>	<b>0</b>	<b>19</b>

See Appendix 5.2.3 for Footnotes



## Effects on Livelihood Assets - Bay and Bakol

**Natural Capital:** In Bay and Bakol regions, *Deyr* rains were erratic and inadequate to replenish water catchments and regenerate pasture. Poor rains also affected crop development and yield. Some areas, including southern parts of Hudur and Rabdure in Bakol, Ufurow in Qansah Dere, Tugar Hosle in Dinsor and southwest of Bur-Hakaba, are already facing water shortages. Wildlife is also affected by acute water shortages. Reports on the competition for water between humans/livestock and monkeys and pigs leading to damage to houses and loss of small ruminants are widespread in Bakool. Water prices in El-barde have increased from SoSh 6,000/200 litre barrel in January '05 to SoSh 16,000/barrel in December '05, a 167% increase. Collection and sale of wild foods, firewood, charcoal and lime production by poor households are increasing, especially in areas south of Huddur. These unsustainable distress coping strategies further enhance environmental degradation (See Charcoal Production, page 27).

The distance between pasture and water sources continues to increase with most livestock trekking distances of 15 to 20 kilometres while return time for households has increased from 6 to 9 hours. Cattle from Qansah Dere district are in Bur-Hakaba, and livestock from Bardere, Luq and Bur-Dubo are reportedly grazing in Doy (western Dinsor).

**Physical Capital:** Road networks are in poor condition and deteriorating. The recently increased civil insecurity, tensions and large number of roadblocks is further hindering the flow of food commodities and accessibility to major markets leading to increased market prices. Bay and Bakol are currently facing acute water scarcity and the pressure on the operational boreholes remains high due to concentrations of livestock around them.

**Human Capital:** Malnutrition rates in Bay and Bakol in general and Rabdure, El-barde and Wajid (Bakol), Qansah Dere, Dinsor (Bay) in particular, indicated a serious nutrition situation long before the current drought. Current rates of over 15% are greater than long-term trends. Amongst IDP populations, prevalence of diseases (ARI, malaria, intestinal parasites, diarrhea and measles) remains high. There are a limited number of health posts and facilities and pastoralists in the hinterlands have very little access even to these limited facilities. School attendance is low and unpredictable and school closures have increased due to prevailing civil unrest and the inability to pay school fees.

**Financial Capital:** Crop production failure, the lack of labor opportunities and employment, and recurrent civil insecurity has led to a high demand and low access to and supply of credit. Escalating commodity prices and increasing expenditures on basic household goods have led to an increase in the average level of household debt. Livestock prices are declining in line with deteriorating body condition. In one example, a truckload of shoats from Hudur destined for sale in the market of Belet Weyne returned with its unsold cargo after failing to reach a desirable price.

**Social Capital:** Payment of gifts and *zakat*, which play an important role in supporting poor wealth groups, are decreasing due to the increasing and widespread stress on the overall livelihood system. Local social support networks are also interrupted due to widespread displacement. IDP camps are reported in Wajid and neighboring Burduhunle village (an estimated 250 households in Burduhunle and 200 in Wajid) and are the result of out-migration from Rabdure due to on-going clan conflicts in the district.



*Cattle carcass north of Dinsor*



*A child carrying a weak cattle calf*

## Livelihood Strategies

The main elements of food access in the two regions are cereal and livestock production, followed by employment and self-employment. Poor agro-pastoralists rely on own crop production (50-75% of annual food requirements), followed by food purchases (30-45%). Poor agro-pastoralists earn 40-50% of their annual cash income from employment (agricultural labour, portering, herding and building construction) and self-employment (sale of bush products). An additional 10-20% of cash income comes from the sale of livestock and livestock products. Pastoralists rely on food purchases to meet most of their



food needs (50-50%), supplemented with own livestock products. Pastoralists derive most of their cash income from livestock and livestock product sales (70-80%).

**Food Sources:** Cereal production in Bay and Bakol was 23% and 13% of PWA respectively. Total cereal production for the two regions is estimated at 7,330MT (250MT of sorghum in Bakool and 6,650MT of sorghum and 430MT of maize in Bay) (See Figure 26). No sorghum production was recorded in El-barde and Rabdhure of Bakool region. Therefore locally produced staple food is available although in short supply in most markets. Purchasing power and access to food, especially for poor households, is affected by increasing food prices.

Average sorghum prices are currently increasing throughout the sorghum belt and at key locations within Bay and Bakol (See Figure 20). The price in Hudur (Bakol region) was SoSh 2,219/kg in January '06, compared to SoSh 2,000/kg in January 2005 (and a low of SoSh 1,250/kg in between March and May '05). Prices in Baidoa have increased dramatically – SoSh 800/kg in February '05 compared to SoSh 1,575/kg, although the dynamics of conflict in the area have also played a role in distribution channels and market prices. This trend will continue through the *Jilaal* season and until the benefits of 2006 *Gu* rains are felt. Poor households will increase their dependence on market purchase as household stocks are depleted, while the better-off households have limited food reserves.

**Income sources:** Livestock body conditions are poor and are attributed to the prolonged drought in the region. This is further supported by the sharp decline in prices of local quality cattle in Baidoa from SoSh 1,075,000 in February '05 (a high of SoSh 2,000,000 in April '05) to SoSh 450,000 in January '06, a fall of over 50%.

In general, there has been a decline in terms of trade in the sorghum belt (See Figure 27). Terms of trade for poor households (labour to cereals) in Hudur have declined from 6.88kg in January '05 to 4.39kg in January '06 (a decline of 36%), and from a high of 12.40kg in March '05. TOT in Baidoa (currently 12.70kg) are also lower (by 50%) than for the same period in 2005. Charcoal production, as an income source, has intensified. Major charcoal producing areas include Werdile and Molimad villages of Baidoa district, Durey and Bakaro of Wajid district, Waney and Luway weyne of Hudur district, and, most importantly, Sigle and Dalandole areas which remain the centre of conflict in Tieglow district.

**Expenditure:** As prices of cereals continue to rise an increasing proportion of income will be used for staple food purchase. Sale of water was for the first time observed in the villages of Rahole and Habibayal of Dinsor district, Esow, Mayaw and Hassan Mumin of Qansah Dere district where water is fetching between SoSh 10,000 and SoSh 20,000/200 litre drum.

### Coping Strategies

Some Agro-pastoralists in Bay and Bakol regions have started exercising distress coping strategies, namely: killing newly born animals to save their weak mothers; reducing the number of meals which will have negative implications for nutrition at a time when energy demand on the body is high; and increasing practice of theft and begging in the streets of main towns.

Figure 26: Deyr Cereal Production in Bay & Bakol (1995 - 2005/06)

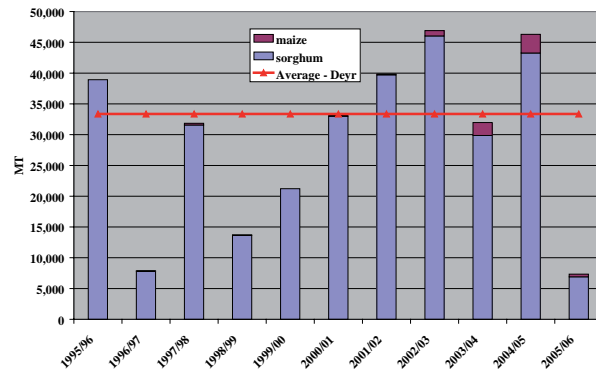
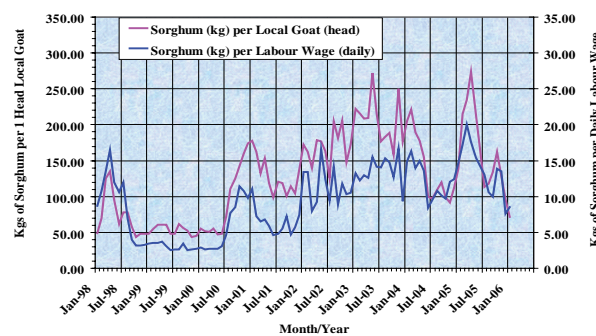


Figure 27: Terms of Trade in Bay, Bakol, Gedo and Hiran Region - Sorghum to Local Goat and Labour (1995-2006)



## Nutrition

The malnutrition rate estimates for the Bay Region are over 15% in all the districts with the exception of Bur Hakaba District<sup>1</sup> and the lower part of Dinsor District where information indicates lower levels of malnutrition. Early manifestations of the current crisis are seen noted in the recent increase in malnutrition levels and communicable diseases at the MCH centres of Baidoa, Berdale and Qansah Dere, increased admissions in supplementary feeding programme and the high levels of malnutrition recorded in the sentinel sites surveillance. In December '05, there was an outbreak of measles in Bay Region. Dietary diversity is generally decreasing with exception of Bur Hakaba and Baidoa town where milk is available. Insecurity hinders humanitarian interventions.

Malnutrition levels of over 15% in El Berde, Rabdure and part of Wajiid signify a serious nutrition situation even before the impact of the current food insecurity. Population movement and household splitting indicate the impact of the deteriorating situation. Insecurity in most parts of Bakol Region (mainly El Berde, Rabdure and recently Tayeglow) continues to disrupt both livelihood and humanitarian activities. Increasing trends of malnutrition are recorded in Tayeglow, Rabdure and Wajiid MCH while the sentinel sites data show high levels of malnutrition, especially in Rabdure and Hudur. High numbers of admissions continue in the supplementary feeding programmes in Bakol. Use of poor quality water, due to scarcity, is on the increase with a resultant increase in water borne diseases. Incidences of acute respiratory infections and measles have also increased between September '05 and December '05. Population influx from Gedo puts further pressure on resources available in Bakol. The population is relying on cereal based diets with severe scarcity of milk and other animal products experienced in the Northern of Bakol region.

### Livelihood Strategies – Hiran

Poor riverine households in Hiran primarily rely on own crop production (55-75%) and purchases (30- 40%) for their food needs, while those who are better-off supplement this with own milk consumption. For the poor households sources of income are diversified between sales of own crops, including cereals, pulses, fruits and vegetables (25-40%), self employment (25-35%), and employment (5-15%). Better off-households also supplement income through milk and livestock sales.

**Food Sources:** Due to poor cereal crop production (and low household stocks) and increasing reliance on market purchase access to staple cereals is declining as prices rise, especially for the poor households within the riverine zone. The price of white maize in Belet Weyne was SoSh 2,800 in January '06 compared to SoSh 2,225/kg in January '05. Sorghum prices in Belet Weyne have risen from a low of SoSh 1,560/kg in May 2005 to a high of SoSh 2,900/kg (compared to SoSh 2,400 in December '04). High cereal demand from markets in Mogadishu markets, the largest market concentration in southern Somalia, is further reducing cereal supply and availability in the region. Cereal prices are expected to continue to rise over the coming months due to a shortfall in supply from local production and from the high potential sorghum producing regions of Bay and Bakol. Furthermore, the recent announcement from the Minister of Trade and Industry in Ethiopia to suspend all cereal exports until further notice may affect, negatively, cereal supply.

### Footnote

<sup>1</sup> Burhakaba District is well served by the World Vision sponsored primary health care programme and it is hosting camels which are still providing some milk to most of the households.

Figure 28: Proportion of households by dietary diversity in Bay Region sentinel sites

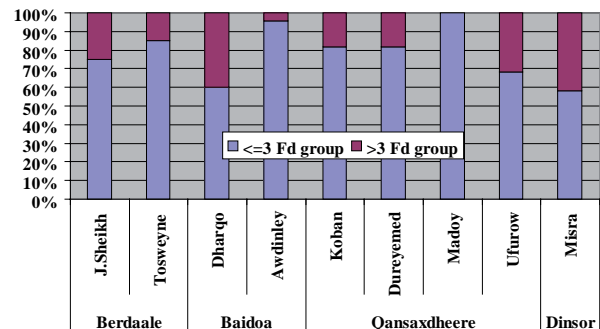
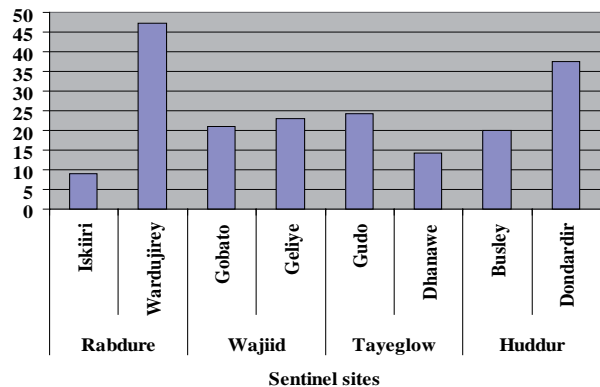


Figure 29: Proportion of malnourished children in Bakool sites, Nov '05



In Belet Weyne, terms of trade for the poor (labour to cereal) has decreased from a high of 20.78kg in June '05 to 11.64kg in January '06 – in February '05 the amount of cereal was 13.11. Terms of trade for the middle wealth group (goat to cereal) follow a similar pattern – 175.00kg in June '05, 91.38kg in January '06 and 124.32kg in February '05. This is due mainly to increasing cereal prices and follows the trend throughout the sorghum belt (see Figure 3).

**Income Sources:** Agricultural labour, crop and fodder sales, employment and self-employment activities are the most important income earning opportunities for the majority of the population in Hiran and the availability of these income sources defines people's purchasing power at any point in time. In the riverine zone, increasing sales of fodder are partially offsetting the loss of income from crop sales. For riverine and agropastoral groups income from employment in urban centres is increasing in importance. However, as the situation deteriorates in neighboring regions and migration to urban centres throughout southern Somalia intensifies it is expected that competition for these opportunities will increase.

**Expenditure:** Prices of both local and imported commodities such as sorghum, maize, wheat grain have increased further putting pressure on the purchasing power of poor households. Importantly for riverine households, the price of diesel, used for pump irrigation, has risen from SoSh 8,000/litre in February '05 to SoSh 10,000/litre in January '06 (with a high in October 2005 of SoSh 10,625/litre).

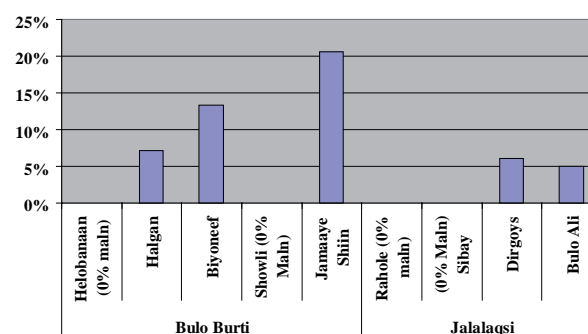
### Coping Strategies

In Hiran, agro-pastoralists and pastoralists are expanding their coping strategies in response to the deteriorating food security situation. These strategies include migration to large urban centres for employment, the production and sale of lime, and the reduction of the number of meals per day (from 3 to 2). To cope with the livelihood stress, communities are also resorting to the exploitation of natural resources through the collection and sale of construction materials (sticks, thatch and poles), charcoal production, and hunting for wild animals.

### Nutrition

Malnutrition levels in the region are still within the long term levels for the area (see Map 9). Sentinel sites surveillance data,<sup>2</sup> a recent survey,<sup>3</sup> and health facility information indicate that the situation remains stable. High morbidity especially reports of diarrhoea, poor sanitation, poor quality of drinking water and inadequate child care practices are among the causes of malnutrition in the region. Findings of the recent sentinel sites data indicate that some areas are already experiencing stress in food access for example Biyonef and Showli sites. Only 44% households consumed a diversified diet. Milk consumption was particularly good in most areas though this could decline as there is inadequate pasture and livestock are moving towards Middle Shabelle and riverine areas of Zone V in Ethiopia. Morbidity levels are high, in particular diarrhea and ARI. Under the prevailing conditions the nutrition situation could deteriorate in the coming months and so close monitoring will continue.

**Figure 30: Proportion of children with acute malnutrition in the sentinel sites in Hiran Region in Dec '05**



### Footnotes

<sup>2</sup> In December 2005, FSAU commenced sentinel sites surveillance in Hiran region. Nine sites (Helobanaan, Halgan, Biyonef, Showli, Jamaaye Shiin, Rahole, Sibay, Dirgoys and Bulo Ali) were selected from which both quantitative and qualitative data were collected. Except for Jamaaye Shiin, all other sites indicated malnutrition levels within or below the long term levels.

<sup>3</sup> Survey undertaken by SC-UK in selected villages of Belet Weyn District in October 2005 indicated a global acute malnutrition (weight for height <-2 Z score or oedema) of 13.3%.

#### 4.1.4 Lower and Middle Shabelle

##### Overview

The Shabelle Valley, both riverine and agro-pastoral areas, is identified as being in **Early Warning Level of Alert** due to three consecutive seasons of below normal rainfall, poor *Deyr* '05/06 crop production, poor pasture conditions and unusual livestock in-migration from neighbouring livelihood zones in search of pasture (see Map 8).

Generally, the main livelihood of the Shabelle valley is crop production (Lower and Middle) which are classified as Riverine and Agro-pastoral. Both livelihoods rely on rainfall for crop and livestock production. *Deyr* season rainfall was erratic in its timing and distributed unevenly. Evidence from satellite imagery indicates that the cumulative rainfall estimate from mid October to end December was less than 40% of normal (see Map 3).

The *Deyr* season contributes normally 30-35% of annual regional cereal production. However, due to insufficient rainfall, crops in the Shabelle valley experienced severe moisture stress, leading to poor crop production in both livelihood zones. Most of the production coming from Shabelle valley this season is maize produced along the riverine strip areas of KurtunWarey, Qoryoley and Jowhar districts near the source of irrigation infrastructure. The expected contribution of rain-dependent crops (sorghum, maize) from this region is almost negligible. Total cereal production for this *Deyr* '05/06 is estimated to be 25,330 MT in Lower Shabelle (70% of *Deyr* '04 production) and 64% of the PWA. Cereal production in Middle Shabelle is estimated to be 7,320 MT (87% of *Deyr* '04/05 and 50% of PWA). However, sesame production, an important crop that is expected to be harvested in February '05 onwards, will increase income opportunities and help to offset losses from cereal production.

*Deyr* rainfall was insufficient also for widespread pasture regeneration. In areas that received rains, in-migration of livestock from other regions (Bay and Bakol) and from within the Shabelle valley, has led to competition for and rapid depletion of pasture resources. This influx of livestock and herders is compounding existing problems in the Shabelle valley. Disputes between host-farmers and in-migrants over access to grazing and water are frequent and competition for employment opportunities in urban centres is increasing.

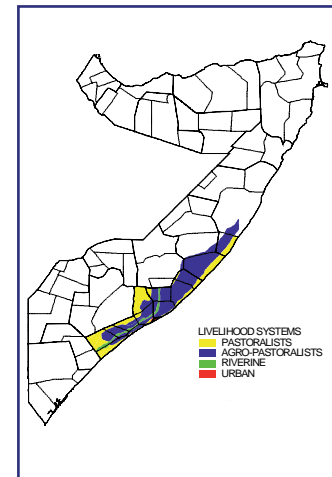
##### Effects on Livelihood Assets

**Natural Capital:** Water shortages for human and livestock are widespread throughout agro-pastoral zones of Shabelle valley and water prices are rising in these areas (see the section on expenditure) and are expected to continue to rise through the *Jilaal* season and to the next *Gu* rains. In riverine areas, the River Shabelle is the main water source of water but access is restricted for livestock due to the presence of standing crops. Furthermore, farmers limit access to livestock as they damage canal infrastructure. Widespread growth of an exotic invasive plant is overwhelming the natural flora. The noxious exotic plant is invading agricultural and urban areas of the Shabelle valley.

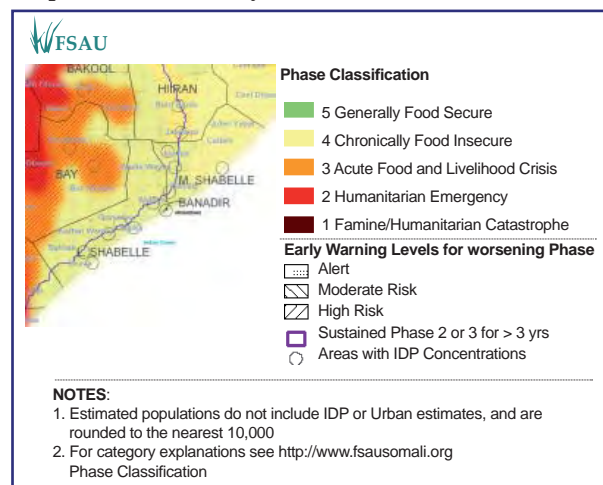
**Physical Capital:** The road infrastructure is deteriorating season after season due to the lack of maintenance and the impacts of river flooding and canal seepages. The irrigation infrastructure (river embankments, primary canals, culverts and sluice gates) of the Shabelle valley is generally poor, contributing to lower production than pre-war levels. Canal rehabilitation, such as the initiative in Marka district to rehabilitate one of the main canals, a length of 32km starting at Jenale Bridge and ending in the coastal area of Bulo Marer, will play a significant role in improving the livelihoods of households in the riverine zone.

**Financial Capital:** Trust based credit systems from the better off, and cereal traders and other retailers, are available for households with standing crops or other assets. In areas of poor rainfall, this form of credit has declined. However, charcoal exporters are offering similar credit as cash or in-kind and this has attracted many people to opt for charcoal

Map 20: Shabelle and Cowpea Belt Livelihood Systems



Map 21: Food Security Phase Classification - Shabelle







Fire wood headed for markets in Middle Shabelle



Crop Failure in Lower Shabelle

processing as an income option. No livestock disease outbreaks have been reported during this *Deyr*; though tsetse (trypanosomiasis) infection is a concern for cattle pastoralists forced to seek pasture in unfavourable high-risk areas. The knock-on effect of this will be deteriorating body condition and reduced milk production.

**Human Capital:** Ongoing nutritional surveillance information indicates that malnutrition levels are within the usual range of <10%. Recent sentinel sites surveillance data indicated good dietary diversity in most sites. In order of importance cereals, milk, fruits, sugar, pulses and oil were the commonly consumed food groups. Notably, there was a significant proportion of households consuming micronutrient rich foods namely milk, fruits, pulses and vegetables. However, dietary diversity could decrease as most households are gradually depleting previous food stocks and as food prices increase. Safe drinking water is scarce in most parts of the region such that people are consuming contaminated water from catchments and/or canals.

**Social Capital:** Poor crop production from this *Deyr* season will lead to a reduction of *zakaat* contributions. Other mutual support (*goob*) and informal loans have also declined due to the increasing strain on the livelihood system. Local money transfers from Mogadishu and Puntland, for example, contribute to riverine household's income. Abnormal patterns of livestock migration due to poor pasture conditions are leading to increased tensions and disputes over grazing between immigrants and herders from the host areas.

**Livelihood strategies:** There are two primary livelihood zones in the Shabelle valley: Agro-Pastoral (rainfed, flood irrigated, maize and cattle) and Shabelle Riverine (irrigated maize). Both the poor agro-pastoralists and the riverine communities rely primarily on own-crop production for their food needs (65-80%), supplementing this with purchases (10-20%) and animal products (0-15%). Poor agro-pastoralists earn 45-65% of cash income through employment and self-employment, i.e. agricultural labour, collection and sale of bush products, which is supplemented with the sale of livestock and livestock products (0-20%). Poor riverine households earn more than half of their income from crop sales (both cereals and non-cereals) followed by seasonal casual labour.

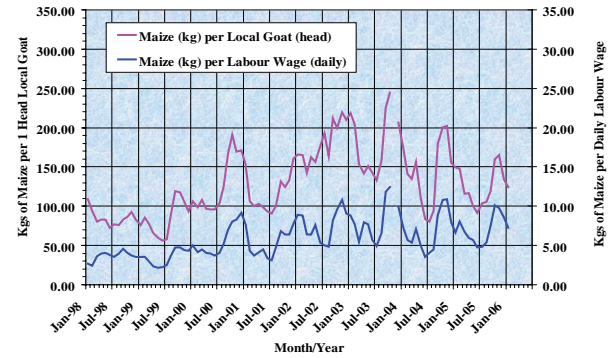
**Food sources:** Due to successive seasons of poor cereal production households in riverine and agro-pastoral livelihood zones (with the exception of those in Qoryoley, Marka and Kurtin-Warey districts who have access to stocks and some *Deyr* season production), are relying increasingly on market purchase as previous cereal stocks have become depleted and the consumption and sale of livestock products.

In January '06, the average white maize price was SoSh 2,421/kg, an increase of 5% compared to the January '05 price of SoSh 2,288/kg, though prices are currently lower than the high of SoSh 3,610/kg in June '05 but have been increasing steadily since October '05. However, the bulk of the *Deyr* season production has not entered the market yet. When it does the price is expected to fall, at least in the short term. The January '06 price of maize in Sablaale was SoSh 3,000/kg. This is thought to be due to high market demand arising from the concentration of in-migrants from Bay and Bakol and from neighbouring districts.

Cattle milk availability is considered below normal. This situation is reflected in market prices (January '06) in Brava and Jenale of SoSh 4,000/litre that are almost double what would be considered normal for this time of year. Although there are high and increasing concentrations of cattle in the Shabelle valley area, available grazing resources are depleting rapidly and cattle body condition is deteriorating, affecting the supply of milk. This is compounded by high demand.

**Income sources:** Opportunities for crop sales are low due to poor *Deyr* production and low cereal stocks. Among agro-pastoral households the sale of livestock to meet food and non-food needs, including the purchase of inputs to keep remaining livestock alive, is increasing. However, increasing supply, reduced demand and decreasing livestock body condition are eroding prices. The average price of cattle (local quality) in January '06 was SoSh 890,833/head, 19% lower than that of January 2005 (SoSh 1,096,667). Terms of trade between maize and daily wage earnings (the amount of maize one can purchase from a daily wage) is 7.25kg (compared to 6.65kg in January '05). This, though, has declined from a yearly high of 10.12kg in October, and there is marked variation between locations (from 10.20kg in Afgoye to 5.11kg in Marka). Terms of trade, maize to local quality goat, have declined from 160kg in October and 165kg in November '05 to 124kg in January '05/06, in turn below the level in January '05 (150kg) (see Figure 31). For riverine poor households potential alternative sources of income include the sale of expected cash crops (sesame), the sale of bush products (firewood and grass), the sale of craft products, vegetables and fruit (due to the proximity to and demand from major urban centres), and house mudding. Charcoal production is an important income source for poor and middle wealth coastal agro-pastoral groups, though the average price has dropped in the past few months and at SoSh 36,951/50kg (January '06) is lower than for the same period last year (SoSh 42,716/50Kg).

**Figure 31: Terms of Trade in Shabelle Valley - Maize to Local Goat and Labour (1995-2006)**



Due to the high concentration of livestock in the riverine areas the demand for fodder (including maize crop stalks and grass fodder) is increasing. Consequently, income from this source is increasing as prices rise, partly making up for the shortfall in income from crop sales. Poor agro-pastoral households seek employment in the riverine areas and the major urban centres, including Mogadishu. However, there is increased competition for existing employment opportunities due to the additional demand from the new immigrants from Bay and Bakol. Sesame production, due to be harvested in February and March, will also increase income opportunities, purchasing ability and further offset some losses from cereal production. Combined production for Lower and Middle Shabelle is estimated at 9,110 MT from 25,300 ha.

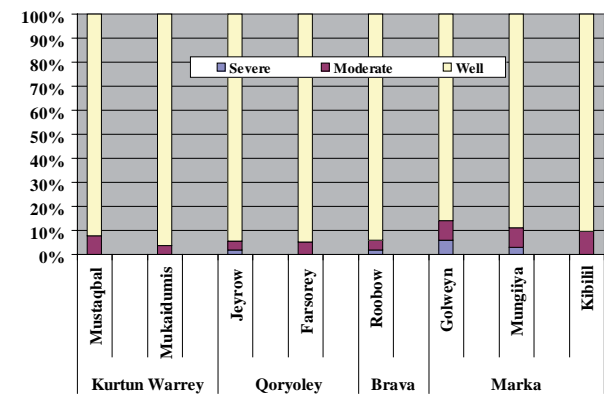
**Expenditure:** In contrast to cereal prices, the prices of imported food commodities, which are linked to US\$-SoSh exchange rate trends, such as sugar, rice and vegetable oil have remained fairly constant over the last six months. Water prices in the rain dependent areas of Marka and Brava districts are currently high (SoSh 50,000 – 60,000/barrel). Prices, and expenditure for households reliant on trucked water in these areas (such as Farsoley and Golweyn) will increase during the *Jilaal* season.

**Nutrition Situation**

In the past, malnutrition levels in this area have been among the best in the country. However, both regions are now in a precarious situation following a below normal *Gu* '05, a failed *Deyr* '05/06 season and localized flooding. Most households are gradually depleting their past food stocks and cereal prices are increasing.

In order to observe the impact of the decreased level of food security, FSAU has intensified nutrition surveillance and set up sentinel sites surveillance in both regions. In December '05, the first round of data collection was undertaken in eight<sup>1</sup> sites of Lower Shabelle while that of Middle Shabelle is underway (Figure 32). The proportion of malnourished children was relatively low in general with sites in Golweyn and Mungiya reporting slightly higher levels. Malaria and measles were reported to be the most prevalent diseases. Health facilities in the regions continue to report low levels of malnutrition among the under-five children screened on a monthly basis. Overall, good dietary diversity was observed in most sites. In order of importance cereals, milk, fruits, sugar, pulses and oil were

**Figure 32: Distribution of childrens nutritional status in the sentinel sites in Lower Shabelle Region**



**Footnote**

<sup>1</sup> The sites are Mustaqbal, Mukaidumis, Jeyrow, Farsoley, Robow, Golweyn, Mungiya and Kibilil.

the commonly consumed food groups. Notably, there is significant proportion of households consuming micronutrient rich foods namely milk, fruits, pulses and vegetables. Malnutrition rates are estimated to lie within the long term estimated range shown on Map 9. Close monitoring will continue. Civil insecurity continues to dominate Benadir region greatly hampering humanitarian access. The nutrition situation among the IDPs in Mogadishu remains poor<sup>2</sup>. The two ACF managed TFC's have noted a sharp increase in admissions of severely malnourished children since October '05. Some of these beneficiaries are coming from other regions in South Central zone. With the prevailing drought conditions in Southern Somalia, the admissions are likely to increase as additional households move into Mogadishu in search of a means of livelihood. (See Displacement and IDPs on page 48).

### Future outlook

Through the remainder of the *Jilaal* and up to the point that the benefits of *Gu* rains are felt, it is clear that the food security and livelihood situation in areas identified as **Humanitarian Emergency** and **Acute Food and Livelihood Crisis** in southern Somalia will continue to deteriorate. Local cereal prices (maize and sorghum) are expected to increase up to the next harvest (the *Gu*) in July/August '06. Concurrently, livestock prices are expected to decrease during the *Jilaal*. In areas with no permanent sources of water, household expenditure will increase as water is purchased for both human and livestock consumption, if it is available. The combined impact of these factors will be a decline in purchasing power, access to purchased food commodities, and terms of trade for all livelihood groups. The limited availability of local cereals places increasing importance on imported food commodities (wheat, wheat flour, pasta, rice, and sugar). In turn, the prices of imported goods depend on SoSh/US\$ exchange rate stability, marine piracy, and in-country transportation costs. Over the previous three months insecurity has led to local and regional price fluctuation and variation and cannot be discounted also.

In areas where livestock have concentrated, including the Juba riverine areas or in areas receiving *Deyr* or *Hays* rains, increasing competition for available pasture and water is leading to rapid depletion of resources. Households are already pursuing opportunistic migration strategies in search of pasture, water, employment and social support. Further deterioration in livelihood resources will lead, inevitably, to further migration (including household splitting) and increasing strain on these resources. The risk of increasing tension and resource based conflict over access and control of water and grazing resources cannot be ruled out and this risk will increase further as the *Jilaal* progresses. Alarmingly, an early forecast suggests below normal rainfall for the *Gu* '06 season. However, this will be confirmed during the Climate Outlook Forum (March 3, 2006).

The Shabelle valley (**Chronically Food Insecure**, and **Early Warning Levels of Alert** risk of deteriorating) is a focus for the coming months as a host for pastoral in-migrants from other regions of southern Somalia (including Bay and Bakol). While this phase classification indicates the relatively positive food and livelihood security status of the region this in-migration has and will put additional strain on and competition for existing water and grazing resources, in addition to employment opportunities in the major urban centres. Labour migration from Bay and Bakool is a normal seasonal pattern, though this has intensified due to the crop failure and poor rangeland conditions in those areas. Labour opportunities have declined with the collapse of commercial farming (such as bananas and grapes) and the demand for employment is high. It is expected that as employment requirements are unmet there will be a general drift towards Mogadishu with a concomitant increase in 'IDPs ( (See Displacement and IDPs on page 48).

### Footnote

<sup>2</sup> A nutrition survey undertaken by UNICEF and partners in September 2005 indicated GAM levels of 16%, similar to a past survey done in 2004; health facility data and sentinel sites surveillance data trend analysis



#### 4.1.5 Displacement and IDPs

Multiple displacements due to conflict and naturally triggered disasters, such as drought and floods, or more simply because the minimal requirements for life are unmet, have resulted in an estimated 370,000 to 400,000 people currently considered internally displaced. However, this number reflects what are considered the most vulnerable of the displaced. The majority of these are women and children. Much of this displacement has been to urban areas in search of improved livelihood opportunities, including employment, and access to basic social services. The largest concentrations are to be found in the centre and south of the country with the majority displaced in Mogadishu and Kismayo, where an estimated 250,000 and 15,000 reside respectively (see Map 2).

However, in a livelihood system where mobility is the norm, distinguishing IDP migration from other forms of population movement is difficult. Several Somali words hint at this and subtlety of population movement, even in the absence of conflict: the term *kiimaan* describes the voluntary seasonal movement of people in search of resources, for example from Bakool to relatives living in Bay region, or in search of employment in Lower Shabelle; *hayaan* describes a long journey; and *qaxooti* describes someone who has travelled a great distance and is destitute (this is often used as a synonym of 'refugee'). Perhaps *barakac* comes closest to the internationally accepted definition of IDP – it describes situations of conflict-induced displacement. Within the pastoral and agro-pastoral economy population displacements are by no means random or limitless. In its grazing, permanent cultivating, and trading centres, and above all in its wells and water points, every clan and group possesses a series of nodes between which movement rotates. Migration and household splitting does not necessarily reflect an exception to the normal patterns of society. In agricultural and agro-pastoral populations household members do not even necessarily live together continuously year round: the numbers present at any given time depend largely upon seasonality, the nature of the productive assets available to the household, economic and employment opportunities elsewhere (more likely than not to be found in urban centres), kinship ties and the strength of social networks, and the nature of the shock or stress experienced.

While vulnerable communities face similar challenges across the country, the displaced are particularly vulnerable in terms of their food and livelihood security. The displaced are often disadvantaged in terms of their access to food, income, access to basic services, and protection compared to a host or indigenous community, even during 'non-crisis periods'. Levels of acute malnutrition are generally above those of resident communities. In addition, their location may influence their access to humanitarian assistance, their degree of social network support, and their ability to survive and regain their economic security. The degree of vulnerability, and resilience to further shocks or stresses, is a function of their level of integration into the host community. This varies between those who seek support directly from family (and this may be in its widest sense of clan) and are relatively well integrated (and less 'visible'), to those who have little or no clan affiliation within the host community, and usually 'reside' in visible 'camp like situations' occupying private or 'public' land such as former government buildings. Living conditions in camps are far from the humanitarian norms established by the international community. Rents are paid in often exploitative arrangements with landlords where tenure of shelter is far from secure.

The degree of economic viability of the displaced is dictated by a number of factors: firstly, and most importantly, by socio-ethnic status, that, in turn, affects the degree of access (or reinforces the lack of access) to education and health facilities; the portfolio of marketable skills; access to social network support (including internal and external remittances and direct or indirect access to productive assets in their areas of origin); and, fourthly, the supply of available opportunities (for example, market portering, construction work, and housework). In turn, the degree of social network support and the supply of available employment opportunities are largely reliant upon the strength of the local economy. In other words, the displaced are not insulated from the world outside the camp or host environment.

It is expected that as the humanitarian situation continues and its impacts intensify there will be increased opportunistic migration to urban areas in search of water, social support and employment (and even humanitarian assistance) in an effort to diversify the resource portfolio. Entire households may migrate (especially for those with no access to water), or households may split, such as those with skills seeking employment. This influx will put further strain on existing urban infrastructure. Perhaps more worryingly, as the economy weakens there will be less social support and fewer employment opportunities available. Inevitably for those already economically marginalised and stressed any increase in cereal or water prices, or decline in income opportunities, or increase in rents as demand for shelter outstrips supply will lead to deterioration in their food and livelihood status. Already, there are reports of increasing numbers of people from Bay and Bakool present in Goldogob, Burtinle and Galkaacyo, and also in the Lower Shabelle. A further indication of an increase in the severity of the humanitarian situation in southern Somalia will be an increase in registration applications in the refugee camps in Kenya.

While the magnitude of the current humanitarian crisis is the largest in ten years, the IDP caseload will inevitably increase. The food security, livelihood and protection needs of these marginalised groups should continue to be addressed but the label IDP should not mask the problems faced by other vulnerable groups, including the urban poor. The situation will need close monitoring.



## 4.2. CENTRAL SOMALIA

### Overview

In central Somalia, rainfall in most inland pastoral areas was below normal, between 20% and 80%, with pockets of up to 150% above normal. This follows above normal *Gu* '05 rains (up to 160% above normal), as well as following the good *Deyr* '04/05 rains. Although satellite imagery suggests rainfall in the coastal cowpea belt at 0-10% of normal, the field assessment indicates 'normal' rains for the season.

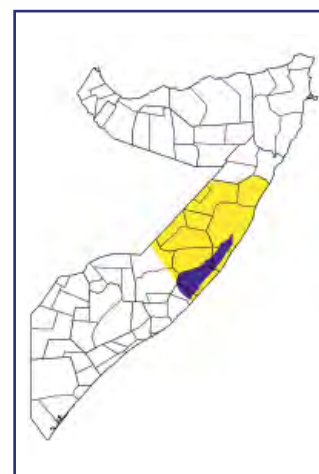
While much of Galgadud has benefited from improvements in security, unresolved conflict in south Mudug and northern Galgadud continues to hinder livelihood recovery and limit the presence of humanitarian actors. Clan conflict boundaries are disrupting the migrations of people and livestock, and have affected access to markets and hindered commercial trade. Concentrations of IDPs from the current insecurity are present in Dhusa Mareb, Adado, Bandiradley and Harar Dere. Although there are pockets of water shortages in some areas, pasture conditions are considered normal and recovery signs include improved livestock conditions, and continuing recovery in livestock productivity and reproduction.

While the area remains in **Acute Food and Livelihood Crisis**, there is a trend of improvement in most of Galgadud. However, for the area of northern Galgadud and south Mudug (between Adado/Gelinsor, Hobyo and Harar Dere) there has been a deterioration in the situation due to the uncertainty surrounding the ongoing conflict. It is estimated that a total of 57,000 people are in a state of **Acute Food and Livelihood Crisis**, 38,000 in Galgadud and 19,000 in south Mudug (See Map 23 and Table 15).

### Effects on Livelihood Assets

**Natural Capital:** For households relying on rainwater catchments (*berkads*) in Galgadud, water availability is currently considered poor. Water trucking has started earlier than normal for the season in Adado and Dhusa Mareb (particularly in the Guri'el area) districts. While pastoral conditions throughout the two regions are generally normal, an influx of livestock from Hobyo district, due to ongoing insecurity in this area, and from Hiran region and the Somali Region of Ethiopia is increasing grazing pressure on available rangeland resources. The encroachment of sand dunes to grazing lands and fertile areas remains a concern.

Map 22: North and Central Regions: Livelihood Systems



Map 23: Food Security Phase Classification Central Region

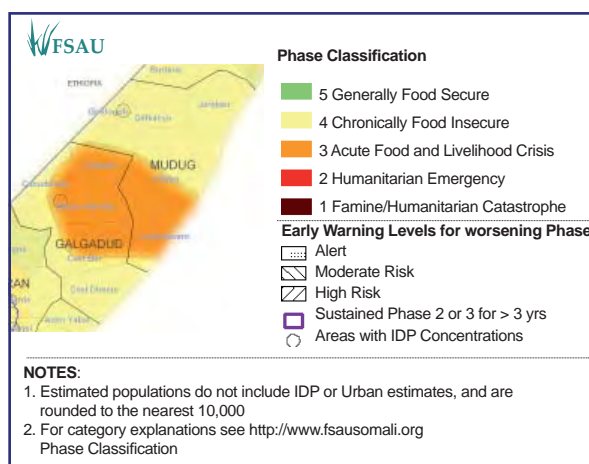


Table 15: Estimated Population by District in Humanitarian Emergency (HE) and Acute Food and Livelihood Crisis (AFLC), inclusive of the High Risk Groups in Central Region

Affected Regions and Districts	Estimated Population of Affected Districts <sup>1</sup>	Assessed and Contingency Population in AFLC and HE		
		Acute Food and Livelihood Crisis (AFLC) <sup>2</sup>	Humanitarian Emergency (HE) <sup>2</sup>	Total in AFLC or HE as % of Region Population
<i>Galgadud</i>				
Abudwaq	62,500	3,000	0	5
Adado	48,740	7,000	0	14
Dusa Mareb	88,425	15,000	0	17
El Bur	56,155	13,000	0	23
El Der	63,915	0	0	0
<b>SUB-TOTAL</b>	<b>319,735</b>	<b>38,000</b>	<b>0</b>	<b>12</b>
<i>Mudug</i>				
Galkayo	74,750	0	0	0
Goldogob	20,300	0	0	0
Haradhere	43,705	6,000	0	14
Hobyo	42,895	13,000	0	30
Jariban	18,245	0	0	0
<b>SUB-TOTAL</b>	<b>199,895</b>	<b>19,000</b>	<b>0</b>	<b>10</b>
<b>TOTAL</b>	<b>519,630</b>	<b>57,000</b>	<b>0</b>	<b>11</b>

See Appendix 5.2.2 for Footnotes

**Physical Capital:** In the coastal districts of El Der and Harar Dere, the encroachment of sand dunes on roads restricts the movement of commercial goods resulting in higher transportation costs. Roads and basic transport infrastructure are poor and deteriorating making the central region one of the most isolated and inaccessible parts of Somalia. Difficulties of access due to civil insecurity continue to limit the presence of international actors in some areas and consequently the provision of humanitarian resources.

**Social Capital:** General improvements in livelihood conditions have reduced the importance of previously strained social support networks, from internal sources and from the diaspora. Levels of traditional support for poor households (for example, *kaalmo*, *zakat*, *irmaansi*, and *amah*) are continuous but normal for the current season. However, for those in the conflict areas, including out migrating IDPs, social support in host communities still remains important.

**Human Capital:** Access to health care services and education is extremely poor in rural areas and remains a concern. Levels of malnutrition remain within the long term (past five year) range estimates in both regions except among the Addun pastoralists in Dhusa Mareb and El Bur districts which appear worse than long term levels (Map 9 and Figure 35).

**Financial Capital:** After two successive seasons of declining debt levels, this trend continues from an average of US\$323 in the previous season to the current level of US\$209. However, debt levels may increase once again for those households having to pay for water. In Galgadud, livestock holdings have increased from previous *Deyr* '04 levels: sheep and goats, 30-40%, camels 15-20%, and cattle 5-10%. Calving and kidding trends are normal for the season for all species with camels expected to calve in January 2006. Cowpea and sorghum production in Harar Dere within the cowpea belt is estimated to be 125-135% and 110-125% respectively of *Deyr* '04 levels.

**Effects on Livelihood Strategies**

Knowledge of the primary sources of food and income is important in understanding the overall impact of different shocks or seasonal changes on food and livelihood security. Under normal conditions, all pastoralists in this region, irrespective of their wealth group, rely on livestock and livestock product sales for income generations (65-75%) with the exception of the poor wealth groups whose livestock income (35-45%) is supplemented by self-employment and employment (40-50%). All pastoralists purchase most of their food needs that consist mostly of sorghum or rice, sugar and oil. The consumption of own livestock products of meat and milk make up the balance of their food needs (15-35%).

**Food sources:** Average sorghum prices in the Sorghum-belt (Bay, Bakol, Hiran, and Gedo) have increased dramatically in recent months as cereal availability and stocks have declined, from approximately SoSh 1,780/kg in October '05 to SoSh 2,500/kg in December '05, a 40% increase. However, this is still considerably lower than that reported in the markets of Galkayo (SoSh 5,000/kg) and Abudwaq (SoSh 4,000/kg). Prices in these markets are generally higher than those in southern Somalia due to the increased distance and therefore transportation costs from production areas. However, sorghum prices in Galkayo market have actually decreased over the last two months (from SoSh 6,000/kg (US\$ 0.40) in December '05 to SoSh 5,000/kg (US\$ 0.33) in January '06), the opposite of the trend noted above (Figure 32).

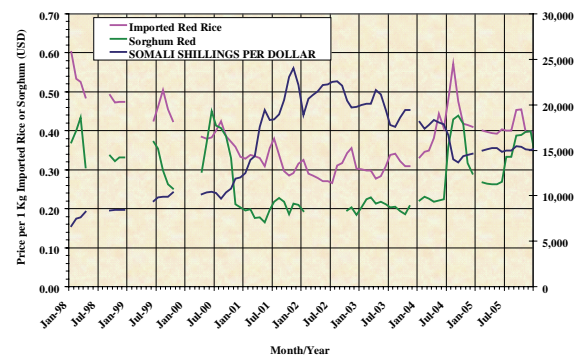
This may be attributed to the distribution of food aid in neighbouring regions of Ethiopia in January '06 that has had a deflationary impact on cereal prices in the Central Regions. Imported rice prices in Galkayo have remained relatively stable throughout 2005 (Figure 33). The inaccessibility and disruption of markets in the Central Region (notably in Hobyo) due to ongoing conflict often de-links the markets in the region (and from Galkayo) and leads to localised supply shortages and spikes in prices, further compounded by increased transportation costs due to the presence of shifting sand dunes on the coastal road. Cereal prices are reported to be higher than normal in Hobyo, although no figures are available, due mainly to the increased transportation costs associated with conflict in the area. Camel milk availability is considered normal and is plentiful at this time due to ongoing calving. Camel milk prices in Galkayo have fallen significantly in the last two months, due to the increased supply following the high peak of camel calving in November-December '05.

**Income Sources:** Pastoral incomes continue to improve generally as a result of good to normal livestock body condition and productivity, although there is increased expenditure on water in some areas. Goat prices (both local and export)



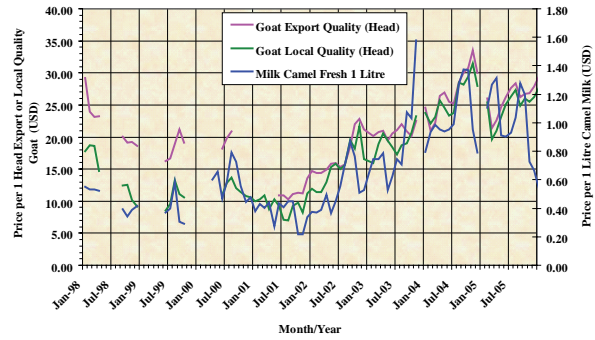
*Improved sheep body condition in Central Regions*

**Figure 33: Various Commodity (Rice & Sorghum) Prices in Galkayo**



closely follow a seasonal pattern directly linked to the swing in demand associated with peak livestock export season. In Galkayo, the average price of export quality goats in December '05 was SoSh 420,000/head (US\$ 27.91) compared to SoSh 440,000/head (US\$ 30.03) in December '04 (see Figure 34). While prices increased in response to the start of Ramadan (October) and the peak livestock demand period of the Hajj (January/February '06) they are expected to decrease over the following few months as demand declines. If imported or local cereal prices remain stable, decreased livestock prices immediately translate into decreased terms of trade (imported rice to goat). Income for pastoralists remains balanced between the need to increase livestock holdings through stock retention for breeding purposes (as a consequence of the large mortality during the prolonged drought) and the need for livestock sales to purchase food commodities.

**Figure 34: Various Commodity (Export & Local Quality Goat and Camel Milk) Prices in Galkayo**



**Expenditures:** In areas that have received below normal rainfall, water prices are increasing. Water prices in Gidhays (Adado district) have risen to SoSh 20,000 per drum in December '05, up to 30% higher than prices in December '04. In general, terms of trade have deteriorated. In December '04 the sale of one export quality goat purchased 73kg of rice compared to the December '05 terms of 54kg of rice. Average sugar prices have declined from a peak in July '05 of SoSh 9,250/kg to SoSh 9,000/kg but are still higher than during the same period last year (SoSh 6,750/kg). In December 2005, vegetable oil prices were between SoSh 20,000/litre (in Dhusa Mareb and El Bur) and a low of SoSh 10,000/litre (Harar Dere), with an average of SoSh 16,000/litre. There has also been an increase in prices compared to December '04 (SoSh 13,750/litre).

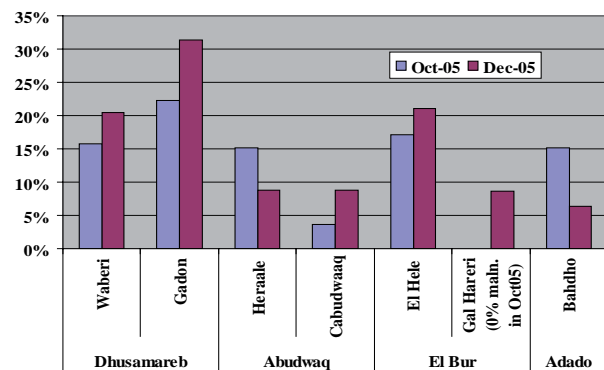
**Coping Strategies**

The main current coping strategies include the conflict induced migration of pastoral households affected by the unresolved conflict in north Galgadud and south Mudug seeking protection and support in their home clan areas. This places further strain on livelihood recovery for those affected and for the host households and communities. Migration of pastoralists in search of water and pasture is also ongoing. In-migration of livestock into Dhusa Mareb district is reported from neighbouring Hiran.

**Nutrition situation**

The levels of malnutrition remain within the long term (past five year) range estimates in both regions except among the Addun pastoralists in Dhusa Mareb and El Bur districts which appear worse than long term levels. These areas host a high proportion of non-residents whose means of livelihood have been disrupted. These populations also report increased cases of ARI and measles. Parts of Abud Wak district (Heraale area) show decreasing levels of malnutrition that are associated with lower morbidity levels and good dietary diversity (Map 9 and 10). The situation in this area has deteriorated from that during the *Gu* '05 season. Milk availability has generally improved for most households and is expected to further improve with the increasing livestock holdings and calving of camels in January '06.

**Figure 35: Proportion of children with acute malnutrition in the sentinel sites in Galgadud Region**



**Future Outlook**

While rangeland conditions and water availability for the entire region are generally similar, southern areas of Galgadud will continue to see improvements in food and livelihood security due to the absence of civil insecurity. In areas of poor rainfall, increasing expenditure on water and competition for available pasture resources will slow livelihood recovery. However, predictions for the northern areas of Galgadud and south Mudug are uncertain due to the unresolved conflict, continuing tensions and the consequent disruption to livelihood activities and markets that threaten food and livelihood security. The declining availability of sorghum and continuing insecurity are likely to further increase prices during the *Jilaal* season, and before the benefits are felt from *Gu* rains, impacting, negatively, upon terms of trade and food access for pastoralists.



### 4.3 NORTHEAST AND NORTHWEST SOMALIA

#### Overview

Cumulative *Deyr* rainfall (October - December) was well above average in some areas of the northwest and northeast, up to 300% above normal in parts of Togder, Sol, Sanag, northeast Awdal and northwest Galbed. However, west Togder, east Galbed, northwest Awdal, parts of Sol and most of eastern Sanag regions (including Gardo, Dangorayo, Dahar, Bandabeyla and east Erigavo, Taleh and Hudun) received below normal rainfall (0-20%). Satellite imagery does not necessarily reflect below normal rainfall in all these areas, therefore, this is primarily based on ground 'trudging' and field reports. Many of the areas which received below normal *Deyr* rains, however, benefited from late *Hays* rains (January '06) received in Bossaso and Iskushuban districts of the Northeast and the coastal and sub-coastal zones of Awdal, the west of Odweyne district, north of Burao and parts of the Sarar plains of the Hawd. In areas where the late *Hays* rains fell, water availability and rangeland conditions have improved as a result. *Deyr* rains in Aaluula and Kandala districts of Bari and Zeyla district of Awdal were 0-20% of normal and these areas did not benefit from Hays rains.

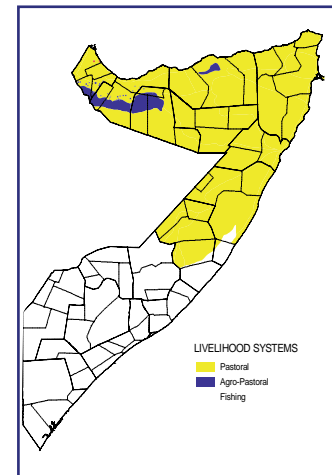
For those areas receiving above average *Deyr* '05/06 rains there have been positive effects on pastoral livelihoods in terms of range resources, water availability, kidding and milk production. Pasture conditions are generally normal to good in most places, with livestock body conditions largely normal for all species. Livelihood recovery continues in those areas that received good rains, building upon the gains made during the previous *Deyr* and *Gu* seasons (see FSAU Technical Series Reports No. IV, 3 and 7). Recovery is threatened, however, in the areas noted above which failed to receive good rains. Localised rain failures normally would not create such large problems for pastoralists, as migration is a normal coping strategy. However, with the loss of pack camels (up to 80% died during the three year drought '02/04), migration and trekking long distances to bring water becomes problematic. For these pastoralists, faced with increased water prices and limitations in migration, conditions are deteriorating.

Due to the cumulative impacts of the prolonged drought and the lag time in overall recovery, the areas previously considered in a state of Acute Food and Livelihood Crisis but receiving good rains remain in **Acute Food and Livelihood Crisis**, with a positive trend of recovery. Areas that received poor rains also remain in **Acute Food and Livelihood Crisis**, but with a downward trend of recovery. It is estimated that a total of 227,000 people are in a state of **Acute Food and Livelihood Crisis** in these areas (including 20,000 in the coastal fishing area) (Map 25 and Table 16). Difficulties in access to the contested areas of Sool and Sanaag continue to limit the presence of humanitarian actors, areas that require assistance support to livelihoods recovery. The situation in Northeast Bari requires close monitoring as it is identified in **Early Warning Levels of Alert** with **moderate risk** of being downgraded to **Acute Food and Livelihood Crisis**. In the Northwest, the Awdal and Maroodi-jeeh coastal zone are identified to be in **Early Warning Levels of Alert**.

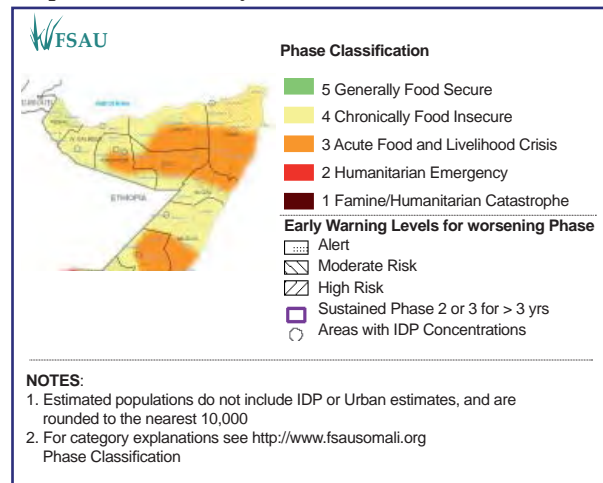
#### Effects on Livelihood Assets

**Natural Capital:** Pasture is generally available in the northeast and northwest due to above normal rainfall received this season, as well as in two previous *Gu* and *Deyr* seasons. There are, however, areas where either pasture or water is limited or strained. In west Sanag region, water is generally available, but there is no pasture, whereas in east Sanag water is not available, but there is adequate pasture. Water shortages are also reported in Alula and Kandala districts. In areas of poor rainfall, water trucking has commenced unseasonably early and distances to water and/or pasture have increased. In other areas, such as in the central Hawd area of Bali Weyn, there is an increased pressure on pasture resources due to high livestock concentrations. Late *Hays* rains received in January have decreased grazing pressure in parts of the northeast, as livestock migrated from the Gebi Valley and Sol Plateau to the foothills of

Map 24: North and Central Regions: Livelihood Systems



Map 25: Food Security Phase Classification- North





**Table 16: Estimated Population by District in Humanitarian Emergency (HE) and Acute Food and Livelihood Crisis (AFLC), inclusive of the High Risk Groups in Central Region**

Affected Regions and Districts	Estimated Population of Affected Districts <sup>1</sup>	Assessed and Contingency Population in AFLC and HE		
		Acute Food and Livelihood Crisis (AFLC) <sup>2</sup>	Humanitarian Emergency (HE) <sup>2</sup>	Total in AFLC or HE as % of Region Population
<i>Bari</i>				
Bender Beila	7,650	4,000	0	52
Bossaso	93,670	0	0	0
Calula	26,320	0	0	0
Gardo (includes Dangoroyo)	53,245	39,000	0	73
Iskushuban	30,390	2,000	0	7
Kandala	24,700	0	0	0
<b>SUB-TOTAL</b>	<b>235,975</b>	<b>45,000</b>	<b>0</b>	<b>19</b>
<i>Nugal</i>				
Burtinle	30,080	0	0	0
Eyl	24,500	7,000	0	29
Garowe	45,055	12,000	0	27
<b>SUB-TOTAL</b>	<b>99,635</b>	<b>19,000</b>	<b>0</b>	<b>19</b>
<i>Sanag</i>				
Las Qoray (includes Badhan)	92,050	33,000	0	36
Ceel Afweyn	38,080	8,000	0	21
Ceerigaabo	60,325	13,000	0	22
<b>SUB-TOTAL</b>	<b>190,455</b>	<b>54,000</b>	<b>0</b>	<b>28</b>
<i>Sool</i>				
Cavnaba	45,990	3,000	0	7
Laas Caanood	90,110	12,000	0	13
Taleh	29,660	20,000	0	67
Xudun	28,900	13,000	0	45
<b>SUB-TOTAL</b>	<b>194,660</b>	<b>48,000</b>	<b>0</b>	<b>25</b>
<i>Togdheer</i>				
Buhodle	35,800	3,000	0	8
Burco	202,770	32,000	0	16
Odweine	39,905	4,000	0	10
Sheikh	23,680	0	0	0
<b>SUB-TOTAL</b>	<b>302,155</b>	<b>39,000</b>	<b>0</b>	<b>13</b>
<b>Coastal Fishing</b>		<b>22,000</b>		
<b>TOTAL</b>	<b>1,022,880</b>	<b>227,000</b>	<b>0</b>	<b>22</b>

See Appendix 5.2.2 for Footnotes

the Golis Mountains and coastal areas. Increased commercial charcoal burning in parts of the South of Taleh and in the Hawd of Togder has intensified pressure on environmental resources.

**Physical Capital:** The strategic water points (boreholes) in Armale, Hingalool, Baragaha Qol are either broken or are not functioning efficiently. The borehole in El Buh was recently rehabilitated by local traders and this has improved water availability for the surrounding catchment area. The physical isolation of areas in **Early Warning Levels of Alert** (northwest Awdal and northeast Bari) due to poor road conditions, limits accessibility to markets and other services.

**Social Capital:** General improvements in livelihood conditions over the previous two seasons have reduced the importance of previously strained social support systems. In the areas of **Early Warning Levels of Alert** and in the areas of **Acute Food and Livelihood Crisis** that experienced poor rainfall levels of traditional support for poor households (for example, *kaalmo*, *zakat*, *irmaansi*, and *amah*) are increasing and considered above normal for this period of the season. Demands for support will increase during the *Jilaal* season. Social support remains important for the worst affected pastoral households who lost most of their assets during the prolonged drought and who are now concentrated in pockets of urban areas and small towns throughout the northwest and northeast.

**Human Capital:** School attendance remains low due to the lack of education facilities, and/or the inability to pay fees. An influx of IDPs from southern Somalia has been reported in Galkayo, Burtinle, Galdogob, and Jariban. The late *Hays* rains in Awdal region may attract pastoralists from the Shinile zone of Ethiopia. Overall, throughout the northeast and northwest, malnutrition rates are consistent with long term trends in most regions (Map 9 and Figure 37). One exception is the southern area (Hawd) of Hargeisa district where nutritional status is worse than long term trends. On the positive side, the northern and southern part of *Gardo* district, northern Iskushuban district, and southern Eyl district – nutrition status is better than long term trends.

**Financial Capital:** In general, debt levels continue to decline from *Gu* '04 levels. This is due to a combination of repayments made from livestock and livestock products sales during the previous two seasons, from cash transfer projects in some areas by INGOs, and by local and international remittances. Pastoralists take credit from large stores within major settlements, including regional capitals, and at the village level. However, for households with increasing expenditure for water and livestock trucking, debt levels are rising once again. Although livestock sales (and income) increased due to the high demand of Ramadan and the Hajj, the general trend is one of stock retention for breeding. However, there is still a lack of pack animals (camels and donkeys) due to losses during the drought (loss estimated at 80%).

**Livelihood Strategies**

A basic understanding of how pastoralists in the region access food and income under normal conditions provides the basis for analyzing the impact of a seasonal event, like the *Deyr* rains, or a shock, like a prolonged drought, on their ability to access food and income. In the northeast and northwest regions, most pastoralists normally rely on food purchases to cover between 60-80% of their food needs in a given year, which is primarily imported rice, sugar, and oil. Own livestock products (i.e. milk, meat) make up the remaining food basket. The primary source of income for pastoralists is livestock sales (50-65%). Poor pastoralists, supplement this income with employment (20-30%), and sale of livestock products (15-25%).



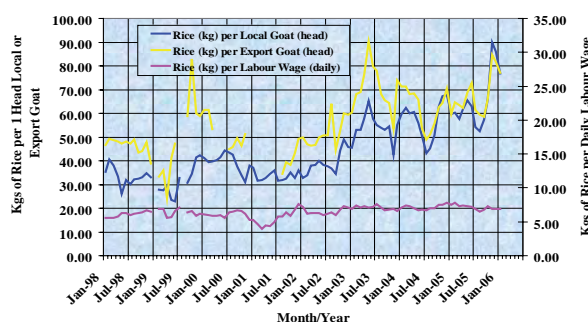
*Mature sorghum crop in the Gabiley District in the Northwest*

Middle income pastoralists do not engage in employment, but supplement livestock sale income with a substantial amount of livestock product sales (35-45%). Key indicators to monitor and analyse, therefore, are market supplies and prices of key food items, and livestock productivity and prices, and in the case of poor pastoralists the availability and wage rates for employment.

**Food Sources:** In general, access to food through own production and purchase through income from livestock product sales is normal for the season. However, in areas of poor rainfall (such as northeast Bari and eastern Sanag) milk availability is below normal. In the Northeast, average rice prices increased significantly (31%) between January '04 and August '04 and then declined thereafter to SoSh 5,800/kg in February '05. From February '05 there has been a steady increase in rice prices to a high of SoSh 6,667/kg in August, declining to SoSh 6,000 in January '05. Rice prices in the Northwest have followed a similar pattern – SiSh 2,778/kg in December '04, to SiSh 2,550/kg in January '06.

**Income Sources:** Income for pastoralists is balanced between the need to increase livestock holdings through stock retention for breeding purposes (as a consequence of the large mortality during the prolonged drought) and the need for livestock and livestock product sales to purchase food commodities and repay debt. There has been high demand for export quality goats in the markets of Burao, Galkayo and Bosasso since the start of Ramadan (October) and the peak livestock demand period of the Hajj (January/February '06). In the northeast, the January '06 price of export quality goat was SoSh 449,500/head compared to SoSh 359,000/head in January '05. This translates to terms of trade between rice and export quality goats of roughly 77kg of rice in January '06 compared to 60kg in January '05, a clear improvement.

**Figure 36: Terms of Trade in Northeast - Rice to Local or Export Goat & Labour (1998-2006)**



In the northeast, terms of trade for the poor wealth group (kg of rice per labour daily wage) have declined compared to the same period last year, i.e. 6.90kg in January '06 from 7.50kg in January '05 (Figure 36). In the northwest, terms of trade for the poor decreased compared to the same period last year (9.71kg in January '05 compared to 7.8kg in January '06). However, this hides significant variation between main regional and district markets: Bosasso SoSh 17,300/litre; Gardo SoSh 16,000/litre; Garowe SoSh 8,000/litre. In general, prices at village level markets are lower than those at larger markets where transportation costs from the pastoral production areas are included.

**Expenditure:** In areas of poor rainfall, expenditure on water and animal trucking has increased, although debt levels were reduced over the previous two seasons. Water prices in northeast Bari are up to SoSh 60,000-80,000/200 litre drum, in the Gebi Valley and Sool Plateau prices vary between SoSh 30,000 to SoSh 70,000/drum – the normal seasonal price is SoSh 5,000-10,000/drum. This expenditure is expected to continue and increase during the *Jilaal* period.

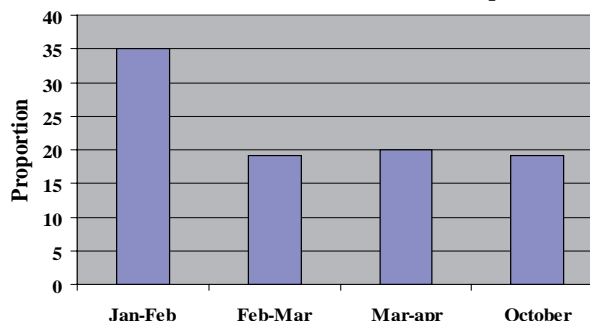
### Coping Strategies

The extreme coping strategies that pastoralists used during the prolonged drought, such as long distance migration to urban centers, reducing the frequency of meals, feeding on wild fruits, and living with relatives, have declined due to the continued general improvements in livelihood conditions. However, abnormal migration patterns are observed in northeast Bari as the coastal *Hays* rains failed leaving many pastoralists trapped in the cold mountain areas of Kandala and the Alula golis. In the Northwest, pastoralists from Oogo, Hawd and even from the Somali Region of Ethiopia normally migrate to the coastal Guban areas to benefit from the *Hays* rains, avoiding the cold weather in the upland areas. The pattern of this season is abnormal as pastoralists have remained in the highlands (the area between the Damal and Salay grazing areas) for pasture and water. Opportunistic livestock migrations in eastern Sanag have been restricted by the limited number of pack animals.

### Nutrition Situation

The current nutritional situation analysis indicates acute malnutrition rates to be within the typical ranges for the area in most parts of Bari and Nugal. Analysis of data from nutritional surveillance<sup>1</sup> indicates acute malnutrition levels of about 10 – 14.9% (WFH < -2z scores) except the coastal Deh. Within the coastal Deh, the situation also remains consistent with the longer term tendency i.e. 5-9.9% WFH < -2z scores. This better situation is attributed to access to fish and income from fish sales. The pastoral livelihood groups of Kakar-daror (in Ishkushban and Qardho) and the southern Sol plateau region of Qardho and Benderbeyla are experiencing a decreased level of malnutrition attributed to dietary diversity and improving health situation.

**Figure 37: Malnutrition (WFH z scores) among screened Children (N>900) in Bosaso IDPs camps in '05**



This is linked to humanitarian support and improving household food security. Bossasso IDPs face above typical levels of acute malnutrition (Figure 37) attributed to limited access to food and non-food items. Sool plateau and Nugal region of Eyl districts show better than typical rates (i.e. estimated at 5-9.9%). This is mainly due to access to fish, milk and to on-going humanitarian assistance. However, sentinel sites surveillance data from Budunburto village indicates a declining trend of malnutrition. The current situation in north Mudug is within typical levels in all the pastoral groups, apart from Goldogob district where it is better than usual (i.e. 5-9.9%)<sup>2</sup>. This is attributed to access to meat, milk and milk products by all wealth groups, and access to water. Mergaga IDPs are faced with above typical rates of acute malnutrition, attributed to limited access to food and income. Admissions of severely malnourished children from the Hawd to Galkaacyo TFC are mainly IDPs.

In Awdal, Galbed, Togder, Sol and Sanag regions levels of acute malnutrition are within the long term levels, except for the Hawd of Hargeisa where there are some indications that levels are slightly higher than long term levels, and within IDP and urban poor populations<sup>3</sup>. Within the Hawd, morbidity rates are also high with reports of an increased incidence of measles, ARI and diarrhoea. Measles immunization and vitamin A supplementation were low during six months prior to the assessment at 31% and 17% respectively.

### Future Outlook

Areas benefiting from normal to above normal *Deyr* rains will continue to see an improvement in food security and livelihood conditions. However, full recovery is still limited mainly by the lack of pack animals. The problems experienced in areas of poor rainfall threaten to slow down the recovery process as the burden is spread throughout the pastoral system. The situation for pastoralists with limited mobility will deteriorate, and debt levels continue to increase, during the *Jilaal* months. Although the security situation in the contested areas of Sool and Sanaag remains uncertain, there has been a general reduction in the tension over the last few months. However, access to these areas for humanitarian actors remains problematic. The situation in the **Early Warning Levels of Alert** areas requires close monitoring.

#### Footnotes

<sup>1</sup>Nutrition surveys in Allula/Qandala/Bargal/Ishkushban districts: Aug 2002 & Sept. 2004; Qardho district: Sept. 2004; Sool Plateau: July 2004; June 2003; Sanaag region: May 2002; health facility and sentinel sites surveillance data trend analysis

<sup>2</sup>Goldogob nutrition survey Aug 05: GAM of 8.8% (WFH < -2z scores), health facility and sentinel sites surveillance data trend analysis

<sup>3</sup>Nutrition assessment conducted in nine villages of Salahley and Balaygubadle Districts in December 2005 by FSAU/Ministry of Health and Labour indicated malnutrition levels (weight for height Z score < -2 or oedema) of 11.4% among underfive children.

## 5. APPENDIX

### 5.1. COMPONENTS OF THE FOOD SECURITY AND HUMANITARIAN PHASE CLASSIFICATION

#### 5.1.1. Explanation of the Integrated Food Security and Humanitarian Phase Classification

The Integrated Food Security and Humanitarian Phase Classification (IPC) is a tool developed at FSAU over the past two years to improve **linkages** between **complex information** on food, nutrition, and livelihood security; and **response**. The classification of ‘Generally Food Secure’, ‘Chronically Food Insecure’, ‘Acute Food and Livelihood Crisis’, ‘Humanitarian Emergency’, and ‘Famine/Humanitarian Catastrophe’ is based on consistent and internationally accepted criteria, and is mapped in a clear and informative manner (see forthcoming FSAU Technical Series for more details). Evidence supporting a particular categorization is provided in the analytical text, guided by the FSAU’s “Evidence-based Templates”. Because the classification is based on consistent reference characteristics, it allows for comparison of food security situations over space (see Map 1) and over time (see Appendix 5.1.3)

Over the past several months, FSAU has had the opportunity to present findings utilizing the IPC as well as the IPC itself to dozens of *fora* around the world, including not only meetings within East Africa, but also in Rome, Washington, Johannesburg, and Bangkok. Numerous professionals, government officials, donors, and media people within the broad food security and humanitarian community have provided invaluable feedback towards improving the IPC. While there is scope for further improvement, the resounding feedback has been positive, which is a strong indication that the IPC is likely to have relevance beyond usage at the FSAU. As an example, the Food Security and Nutrition Working Group of the Greater Horn of Africa is strongly considering adopting the IPC as a means to enhance the comparability and rigour of analysis with the GHA.

As part of the 2006 Post *Deyr* analysis, FSAU has made a few improvements to various parts of the IPC (see FSAU Technical Series IV.2 and IV.3, and IV.7 for explanations of previous developments), which should further enhance its usefulness for interpretation and decision making. These include:

- Further Refining the Phase Classification Categories
  - The worse possible category is now called ‘Famine/Humanitarian Catastrophe’, as opposed to ‘Humanitarian Emergency Level 1’
  - ‘Intermittent Food Insecurity with High Risk’ is now called ‘Chronically Food Insecure’
  - ‘Food Security with Moderate to Low Risk’ is now called ‘Generally Food Secure’
  - The category of ‘Alert’ has been deleted as a Phase Classification, and shifted to an ‘Early Warning Level’ (see below).
  - The order of the phase classes has been reversed (with Generally Food Security now on top) in order to highlight that as the goal, and to be consistent with the notion of ‘moving downwards’ on the reference table means ‘getting worse’.
- Inclusion of additional reference characteristics
  - A few reference characteristics have been added including: ‘water availability/access’, ‘disease’, and ‘dietary diversity’. Each of these is important and provide further objective and measurable triangulation to make the analysis more comprehensive and rigorous.

**Phase Classification**

- 5 Generally Food Secure
- 4 Chronically Food Insecure
- 3 Acute Food and Livelihood Crisis
- 2 Humanitarian Emergency
- 1 Famine/Humanitarian Catastrophe

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**Early Warning Levels for worsening Phase**

- Alert
- Moderate Risk
- High Risk
- Sustained Phase 2 or 3 for > 3 yrs
- Areas with IDP Concentrations

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**NOTES:**

1. Estimated populations do not include IDP or Urban estimates, and are rounded to the nearest 10,000
2. For category explanations see <http://www.fsasomali.org> Phase Classification



### 5.1.2. Integrated Food Security and Humanitarian Phase Classification Reference Table (FAO/FSAU Feb 12, 2006)

	Phase Classification	Key Reference Characteristics (current or imminent outcomes on lives and livelihoods; based on convergence of evidence)	Strategic Response Framework (address immediate outcomes, support livelihoods, and address underlying/structural causes)
5	Generally Food Secure	<i>Crude Mortality Rate</i> < 0.5 / 10,000 / day <i>Wasting</i> <3 % (w/h <-2 z-score) <i>Disease</i> acceptable and containable prevalence <i>Food Access/ Availability</i> usually adequate (> 2,100 kcal ppp day), stable <i>Dietary Diversity</i> consistent quality and quantity of diversity <i>Water Access/Avail.</i> usually adequate (> 15 litres ppp day), stable <i>Hazards</i> moderate to low probability and vulnerability <i>Civil Security</i> prevailing and structural peace <i>Livelihood Assets</i> generally sustainable utilization (of 5 capitals)	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
4	Chronically Food Insecure	<i>Crude Mortality Rate</i> 0.5-1/10,000/day; U5MR<= 2/10,000/day <i>Wasting</i> <10 % (w/h <-2 z-score), usual range, stable <i>Disease</i> Sustained moderate to low prevalence <i>Food Access/ Availability</i> borderline adequate (2,100 kcal ppp day); unstable <i>Dietary Diversity</i> chronic dietary diversity deficit <i>Water Access/Avail.</i> borderline adequate (15 litres ppp day); unstable <i>Hazards</i> recurrent, with high livelihood vulnerability <i>Civil Security</i> unstable, disruptive tension <i>Coping</i> 'insurance strategies' <i>Livelihood Assets</i> stressed and unsustainable utilization (of 5 capitals) Structural Pronounced underlying hindrances to food security	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
3	Acute Food and Livelihood Crisis	<i>Crude Mortality Rate</i> 1-2 /10,000/day; >2x reference rate; U5MR 2-4/10,000/dy <i>Wasting</i> 10-15 % (w/h <-2 z-score), > than usual, increasing <i>Disease</i> outbreak; increasing <i>Food Access/ Availability</i> lack of entitlement; 2,100 kcal ppp day via asset stripping <i>Dietary Diversity</i> acute dietary diversity deficit <i>Water Access/Avail.</i> 15 litres ppp day accessed via asset stripping, Destitution/Displacement emerging; diffuse <i>Civil Security</i> limited spread, low intensity conflict <i>Coping</i> 'crisis strategies'; CSI > than reference; increasing <i>Livelihood Assets</i> accelerated and critical depletion or loss of access	Support livelihoods and protect vulnerable groups Strategic and complementary interventions to immediately ↑ food access/availability AND support livelihoods Selected provision of complementary sectoral support (e.g., water, shelter, sanitation, health, etc.) Strategic interventions at community to national levels to create, stabilise, 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
2	Humanitarian Emergency	<i>Crude Mortality Rate</i> 2-4 / 10,000 / day, increasing; U5MR > 4/10,000/day <i>Wasting</i> >15 % (w/h <-2 z-score), > than usual, increasing <i>Disease</i> epidemic outbreak <i>Food Access/ Availability</i> severe entitlement gap; unable to meet 2,100 kcal ppp day <i>Dietary Diversity</i> Regularly 2 or fewer food groups consumed <i>Water Access/Avail.</i> < 7.5 litres ppp day (human usage only) Destitution/Displacement concentrated; increasing <i>Civil Security</i> widespread, high intensity conflict <i>Coping</i> 'distress strategies'; CSI significantly > than reference <i>Livelihood Assets</i> near complete & irreversible depletion or loss of access	Urgent protection of vulnerable groups Urgently ↑ food access through complementary interventions Selected provision of complementary 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
1	Famine / Humanitarian Catastrophe	<i>Excess Mortality</i> > 5,000 deaths <i>Crude Mortality Rate</i> > 4 / 10,000 / day <i>Wasting</i> > 30 % (w/h <-2 z-score) <i>Disease</i> epidemic outbreak <i>Food Access/ Availability</i> extreme entitlement gap; much below 2,100 kcal ppp day <i>Water Access/Avail.</i> < 4 litres ppp day (human usage only) Destitution/Displacement large scale, concentrated <i>Civil Security</i> widespread, high intensity conflict <i>Livelihood Assets</i> effectively complete loss; collapse	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

Early Warning Levels	Probability / Likelihood of Worsening Phase	Severity	Key Reference Characteristics	Implications for Action
Alert	As yet unclear	Not applicable	<i>Hazard:</i> occurrence of, or predicted event stressing livelihoods; with low vulnerability <i>Process Indicators:</i> small negative change from normal	Close monitoring and analysis
Moderate Risk	Elevated probability / likelihood	Color of diagonal lines on map match predicted Phase Class	<i>Hazard:</i> occurrence of, or predicted event stressing livelihoods; with moderate vulnerability <i>Process Indicators:</i> large negative change from normal	Close monitoring and analysis Contingency planning Step-up current Phase interventions
High Risk	High probability; 'more likely than not'		<i>Hazard:</i> occurrence of, or strongly predicted major event stressing livelihoods; with high vulnerability <i>Process Indicators:</i> large and compounding negative changes	Preventative interventions--with increased urgency for High Risk populations Advocacy

- Inclusion of explicit ‘Early Warning Levels’
  - On both the IPC reference table and the map, the reader will now see ‘Early Warning Levels’ of three types: ‘Alert’, ‘Moderate Risk’, and ‘High Risk’. Each of these levels also have associated probabilities/likelihoods, severity, reference characteristics, and implications for action.
- Expansion of the ‘Defining Attributes of Areas in Phase 1,2, or 3 on the map’
  - In addition to the previously identified defining attributes of ‘Key Immediate Causes’, ‘Key Underlying Causes’, ‘Estimated Population’, ‘Criteria for Social Targeting’ (note, this name has changed), and ‘Confidence Level of Analysis’, the current IPC version includes ‘Usual Phase Prior to Current’. This last attribute identifies whether an area currently classified as Phase 1, 2, or 3 was, under previous ‘normal’ circumstances, ‘Generally Food Secure’ or ‘Chronically Food Insecure’. This information enables the user to better distinguish transitory versus chronic food insecurity.

<b>Defining Attributes of Areas in Phase 1, 2 or 3</b>	
<b><u>Key Immediate Causes</u></b>	
a	Drought
b	Floods
c	Tsunami
d	Civil Insecurity
e	Market Disruptions
f	Disease Outbreaks
g	----
<b><u>Key Underlying Causes</u></b>	
A	Post State Conflict
B	Environmental Degradation
C	Social Marginalization
D	----
<b><u>Estimated Population in Phase</u></b>	
#	Inclusive of pop. at High Risk
<b><u>Criteria for Social Targeting</u></b>	
i	Livelihood system
ii	Wealth group
iii	Ethnicity/Clan
iv	Gender
v	----
<b><u>Usual Phase Prior to Current</u></b>	
5	Generally Food Secure
4	Chronically Food Insecure
<b><u>Projected Trend</u></b>	
↑	Improving Situation
↔	No Change or Uncertain
↓	Worsening Situation
<b><u>Confidence Level of Analysis</u></b>	
*	Low
**	Medium
***	High

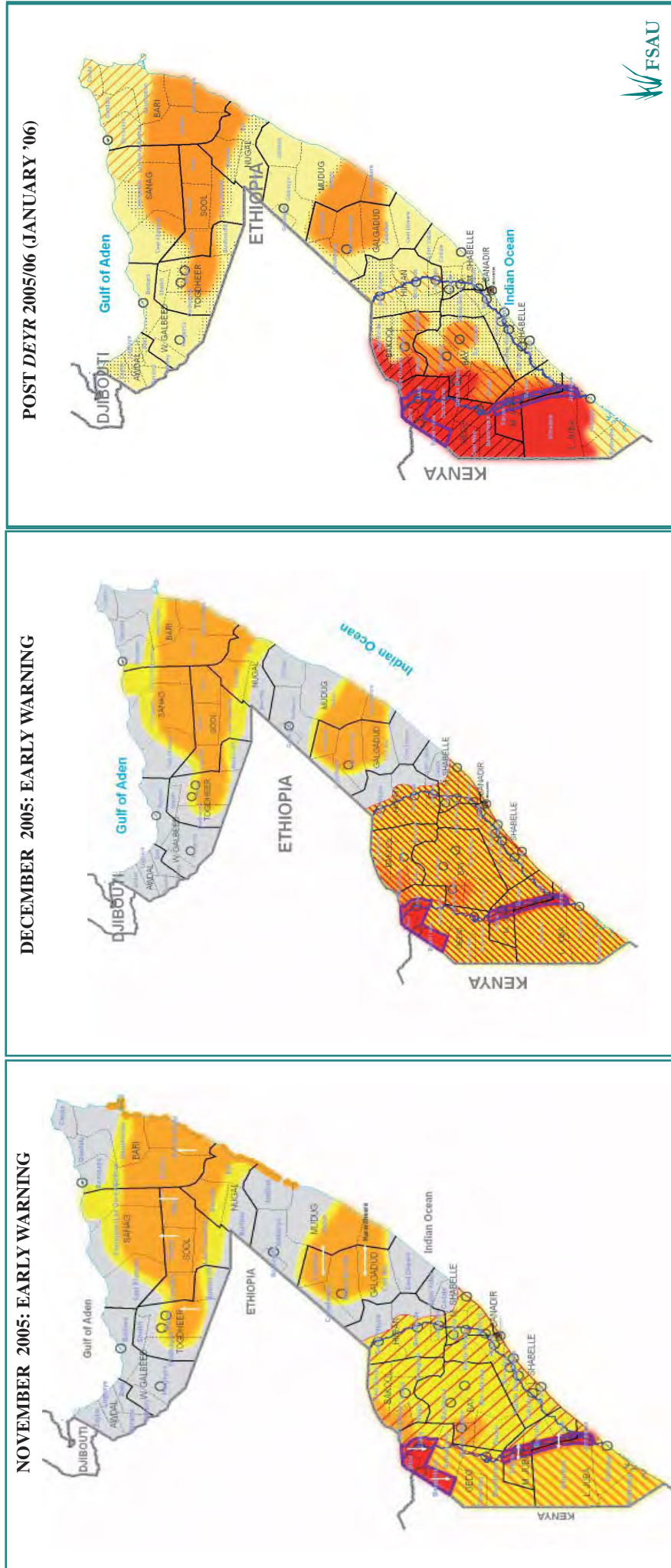
- The colour scheme of the Phase Classification on the map has changed to incorporate the deletion of ‘Alert’ as a category and to better distinguish the phases visually.

FSAU will release a Technical Series by April 2006 that comprehensively describes the concepts, technical details, and practice of using the IPC. We welcome feedback on this and other tools.





5.1.4. Progression of Early Warning



Presented here are the food security phase classifications for November 2005, Post Deyr 2005/2006 and the Somali Cross Border Food Security situation (January 2006).



## 5.2 ESTIMATED POPULATION FIGURES

5.2.1 Table 1A: Estimated Population by Region in Humanitarian Emergency (HE) and Acute Food and Livelihood Crisis (AFLC), inclusive of the High Risk Groups.

Affected Regions	Estimated Population of Affected Regions <sup>1</sup>	Assessed and Contingency Population in AFLC and HE		
		Acute Food and Livelihood Crisis (AFLC) <sup>2</sup>	Humanitarian Emergency (HE) <sup>2</sup>	Total in AFLC or HE as % of Region Population
<b>North</b>				
Bari	235,975	45,000	0	19
Nugal	99,635	20,000	0	20
Sanag	190,455	55,000	0	29
Sool	194,660	50,000	0	26
Togdheer	302,155	40,000	0	13
Coastal (fishing)		20,000		
<b>SUB-TOTAL</b>	<b>1,022,880</b>	<b>230,000</b>	<b>0</b>	<b>22</b>
<b>Central</b>				
Galgadud	319,735	40,000	0	13
Mudug	199,895	20,000	0	10
<b>SUB-TOTAL</b>	<b>519,630</b>	<b>60,000</b>	<b>0</b>	<b>12</b>
<b>South</b>				
Bakol	225,450	45,000	105,000	67
Bay	655,686	135,000	395,000	81
Gedo	375,280	80,000	180,000	69
Hiran	280,880	55,000	0	20
Lower Juba	329,240	60,000	115,000	53
Middle Juba	244,275	50,000	120,000	70
<b>SUB-TOTAL</b>	<b>2,110,811</b>	<b>425,000</b>	<b>915,000</b>	<b>63</b>
<b>TOTAL</b>	<b>3,653,321</b>	<b>715,000</b>	<b>915,000</b>	<b>45</b>

Table 1B: SUMMARY TABLE <sup>2</sup>

Assessed and Contingency Population Numbers in AFLC or HE	1,630,000	22 <sup>6</sup>
Urban Populations in Crisis Areas in the South <sup>3</sup>	30,000	1 <sup>6</sup>
Combined Assessed, Urban & Contingency Populations in AFLC and HE	1,700,000 <sup>4</sup>	23 <sup>6</sup>
Estimated Number of IDPs <sup>5</sup>	400,000	6 <sup>6</sup>
<b>Estimated Total Population in Crisis</b>	<b>2,100,000</b>	<b>29 <sup>6</sup></b>

<sup>1</sup>Source: WHO 2004. Note this only includes population figures in affected regions. UNDP recently released region level population figures for 2005. However, these estimates have not been finalised and therefore are not used in this analysis.

<sup>2</sup>Estimated numbers are rounded to the nearest five thousand, based on resident population not considering current or anticipated migration, and are inclusive of population in High Risk of AFLC or HE (estimated at 210,000) for purposes of planning.

<sup>3</sup>Roughly estimated as 30% and 20% of urban population in HE and AFLC areas respectively.

<sup>4</sup>Actual number is 1,660,000, however, this is rounded to 1,700,000 for purposes of rough planning and ease of communication.

<sup>5</sup>Source: UN-OCHA updated April 2004 (376,630) and UNHCR IDP map Dec.2005 (407,000), rounded to 400,000 as an estimate.

<sup>6</sup>Percent of total population of Somalia estimated at 7,309,266 (WHO 2004).

5.2.2 Table 2A: Estimated Population by District in Humanitarian Emergency (HE) and Acute Food and Livelihood Crisis (AFLC), inclusive of the High Risk Groups.

**SOUTH**

Affected Regions and Districts	Estimated Population of Affected Districts <sup>1</sup>	Assessed and Contingency Population in AFLC and HE		
		Acute Food and Livelihood Crisis (AFLC) <sup>2</sup>	Humanitarian Emergency (HE) <sup>2</sup>	Total in AFLC or HE as % of Region Population
<i>Bakol</i>				
El Barde	42,350	4,000	9,000	31
Hudur	55,000	13,000	26,000	71
Rabdure	33,580	8,000	19,000	80
Tieglo	57,525	12,000	30,000	73
Wajid	36,995	10,000	21,000	84
<b>SUB-TOTAL</b>	<b>225,450</b>	<b>47,000</b>	<b>105,000</b>	<b>67</b>
<i>Bay</i>				
Baidoa	303,104	58,000	182,000	79
Burhakaba	135,330	26,000	79,000	78
Dinsor	106,802	24,000	64,000	82
Q/dheere	110,450	25,000	71,000	87
<b>SUB-TOTAL</b>	<b>655,686</b>	<b>133,000</b>	<b>396,000</b>	<b>81</b>

Affected Regions and Districts	Estimated Population of Affected Districts <sup>1</sup>	Assessed and Contingency Population in AFLC and HE		
		Acute Food and Livelihood Crisis (AFLC) <sup>2</sup>	Humanitarian Emergency (HE) <sup>2</sup>	Total in AFLC or HE as % of Region Population
<i>Gedo</i>				
Bardera	76,850	18,000	32,000	65
Belet Xaawo	58,035	11,000	32,000	74
Ceel Waaq	52,150	15,000	11,000	50
Dolow	39,050	7,000	25,000	82
Garbahaarey	76,075	15,000	48,000	83
Luuq	73,120	15,000	32,000	64
<b>SUB-TOTAL</b>	<b>375,280</b>	<b>81,000</b>	<b>180,000</b>	<b>70</b>

Affected Regions and Districts	Estimated Population of Affected Districts <sup>1</sup>	Assessed and Contingency Population in AFLC and HE		
		Acute Food and Livelihood Crisis (AFLC) <sup>2</sup>	Humanitarian Emergency (HE) <sup>2</sup>	Total in AFLC or HE as % of Region Population
<i>Hiran</i>				
Belet Weyne	163,150	31,000	0	19
Bulo Burti	87,060	18,000	0	21
Jalalaqsi	30,670	5,000	0	16
<b>SUB-TOTAL</b>	<b>280,880</b>	<b>54,000</b>	<b>0</b>	<b>19</b>

Affected Regions and Districts	Estimated Population of Affected Districts <sup>1</sup>	Assessed and Contingency Population in AFLC and HE		
		Acute Food and Livelihood Crisis (AFLC) <sup>2</sup>	Humanitarian Emergency (HE) <sup>2</sup>	Total in AFLC or HE as % of Region Population
<i>Lower Juba</i>				
Afmadow	100,075	23,000	46,000	69
Badhadhe	41,695	16,000	16,000	77
Jamame	100,625	9,000	42,000	51
Kismavo	86,845	13,000	12,000	29
<b>SUB-TOTAL</b>	<b>329,240</b>	<b>61,000</b>	<b>116,000</b>	<b>54</b>
<i>Middle Juba</i>				
Buale	46,520	10,000	28,000	82
Jilib	109,820	19,000	53,000	66
Sakow	87,935	20,000	38,000	66
<b>SUB-TOTAL</b>	<b>244,275</b>	<b>49,000</b>	<b>119,000</b>	<b>69</b>

**CENTRAL**

Affected Regions and Districts	Estimated Population of Affected Districts <sup>1</sup>	Assessed and Contingency Population in AFLC and HE		
		Acute Food and Livelihood Crisis (AFLC) <sup>2</sup>	Humanitarian Emergency (HE) <sup>2</sup>	Total in AFLC or HE as % of Region Population
<i>Galgadud</i>				
Abudwaq	62,500	3,000	0	5
Adado	48,740	7,000	0	14
Dusa Mareb	88,425	15,000	0	17
El Bur	56,155	13,000	0	23
El Der	63,915	0	0	0
<b>SUB-TOTAL</b>	<b>319,735</b>	<b>38,000</b>	<b>0</b>	<b>12</b>
<i>Mudug</i>				
Galkayo	74,750	0	0	0
Goldogob	20,300	0	0	0
Haradhere	43,705	6,000	0	14
Hobyo	42,895	13,000	0	30
Jariban	18,245	0	0	0
<b>SUB-TOTAL</b>	<b>199,895</b>	<b>19,000</b>	<b>0</b>	<b>10</b>
<b>TOTAL</b>	<b>519,630</b>	<b>57,000</b>	<b>0</b>	<b>11</b>

**NORTH**

Affected Regions and Districts	Estimated Population of Affected Districts <sup>1</sup>	Assessed and Contingency Population in AFLC and HE		
		Acute Food and Livelihood Crisis (AFLC) <sup>2</sup>	Humanitarian Emergency (HE) <sup>2</sup>	Total in AFLC or HE as % of Region Population
<i>Bari</i>				
Bender Beila	7,650	4,000	0	52
Bossaso	93,670	0	0	0
Calula	26,320	0	0	0
Gardo (includes Dangoroyo)	53,245	39,000	0	73
Iskushuban	30,390	2,000	0	7
Kandala	24,700	0	0	0
<b>SUB-TOTAL</b>	<b>235,975</b>	<b>45,000</b>	<b>0</b>	<b>19</b>
<i>Nugal</i>				
Burtinle	30,080	0	0	0
Evl	24,500	7,000	0	29
Garowe	45,055	12,000	0	27
<b>SUB-TOTAL</b>	<b>99,635</b>	<b>19,000</b>	<b>0</b>	<b>19</b>
<i>Sanag</i>				
Las Qoray (includes Badhan)	92,050	33,000	0	36
Ceel Afweyn	38,080	8,000	0	21
Ceerigaabo	60,325	13,000	0	22
<b>SUB-TOTAL</b>	<b>190,455</b>	<b>54,000</b>	<b>0</b>	<b>28</b>
<i>Sool</i>				
Caynaba	45,990	3,000	0	7
Laas Caanood	90,110	12,000	0	13
Taleh	29,660	20,000	0	67
Xudun	28,900	13,000	0	45
<b>SUB-TOTAL</b>	<b>194,660</b>	<b>48,000</b>	<b>0</b>	<b>25</b>
<i>Togdheer</i>				
Buhodle	35,800	3,000	0	8
Burco	202,770	32,000	0	16
Odweine	39,905	4,000	0	10
Sheikh	23,680	0	0	0
<b>SUB-TOTAL</b>	<b>302,155</b>	<b>39,000</b>	<b>0</b>	<b>13</b>
Coastal Fishing		22,000		
<b>TOTAL</b>	<b>1,022,880</b>	<b>227,000</b>	<b>0</b>	<b>22</b>

**Table 2B: Population Estimates for the North, Central and South.**

	Estimated Population Affected in North, Central	Assessed and Contingency Population in AFLC and HE		
		Acute Food and Livelihood Crisis	Humanitarian Emergency	Total in AFLC or HE as % of Region
<b>SOUTH</b>	2,110,811	425,000	915,000	63
<b>CENTRAL</b>	519,630	60,000	0	12
<b>NORTH</b>	1,022,880	230,000	0	22
<b>TOTAL</b>	3,653,321	715,000	915,000	

**Appendix 4d**

**Table 2C: SUMMARY TABLE <sup>3</sup>**

<b>AFLC or HE</b>	1,630,000	22 <sup>7</sup>
<b>Urban Populations in Crisis Areas in the South <sup>4</sup></b>	30,000	1 <sup>7</sup>
<b>Populations in AFLC and HE</b>	1,700,000 <sup>5</sup>	23 <sup>7</sup>
<b>Estimated Number of IDPs <sup>6</sup></b>	400,000	6 <sup>7</sup>
<b>Estimated Total Population in Crisis</b>	2,100,000	29 <sup>7</sup>

<sup>1</sup>Source: WHO 2004. Note this only includes population figures in affected regions. UNDP recently released region level population figures for 2005. However, these estimates have not been finalised and therefore are not used in this analysis.

<sup>2</sup>Estimated numbers are rounded to the nearest one thousand, based on resident population not considering current or anticipated migration, and are inclusive of population in High Risk of AFLC or HE (estimated at 210,000) for purposes of planning.

<sup>3</sup>Estimated numbers are rounded to the nearest five thousand.

<sup>4</sup>Roughly estimated as 30% and 20% of urban population in HE and AFLC areas respectively.

<sup>5</sup>Actual number is 1,660,000, however, this is rounded to 1,700,000 for purposes of rough planning and ease of communication.

<sup>6</sup>Source: UN-OCHA April 2004 (376,630) and UNHCR IDP map Dec.2005 (407,000), rounded to 400,000 as an estimate.

<sup>7</sup>Percent of total population of Somalia estimated at 7,309,266 (WHO 2004).

**5.2.3 Table 3A: Estimated Population by Livelihood Zone in Humanitarian Emergency (HE) and Acute Food and Livelihood Crisis (AFLC), inclusive of the High Risk Groups.**

Affected Regions and Livelihood Zones	Estimated Population of Affected Livelihood Zones <sup>1</sup>	Assessed and Contingency Population in AFLC and HE		
		Acute Food and Livelihood Crisis (AFLC) <sup>2</sup>	Humanitarian Emergency (HE) <sup>2</sup>	Total in AFLC or HE as % of Region Population
<b>Bakol</b>				
Southern Agro-Pastoral	137,679	41,000	86,000	92
Bay-Bakool Agro-Pastoral	14,863	2,000	10,000	81
Southern Inland Pastoral	72,909	4,000	9,000	18
<b>SUB-TOTAL</b>		47,000	105,000	
<b>Bay</b>				
Southern Agro-Past	207,190	60,000	130,000	92
Bay-Bakool Agro-Pastoral	343,560	60,000	240,000	87
Southern Inland Pastoral	46,429	3,000	5,000	17
South-East Pastoral	36,586	10,000	21,000	85
<b>SUB-TOTAL</b>		133,000	396,000	

Affected Regions and Livelihood Zones	Estimated Population of Affected Livelihood Zones <sup>1</sup>	Assessed and Contingency Population in AFLC and HE		
		Acute Food and Livelihood Crisis (AFLC) <sup>2</sup>	Humanitarian Emergency (HE) <sup>2</sup>	Total in AFLC or HE as % of Region Population
<b>Gedo</b>				
Southern Agro-Pastoral	45,343	2,000	41,000	95
Bay-Bakool Agro-Pastoral	23,055	4,000	16,000	87
Southern Inland Pastoral	111,441	38,000	28,000	59
Dawa Pastoral	125,016	31,000	75,000	85
Juba Pump Irrigated River	33,145	6,000	20,000	78
<b>SUB-TOTAL</b>		81,000	180,000	



Affected Regions and Livelihood Zones	Estimated Population of Affected Livelihood Zones <sup>1</sup>	Assessed and Contingency Population in AFLC and HE		
		Acute Food and Livelihood Crisis (AFLC) <sup>2</sup>	Humanitarian Emergency (HE) <sup>2</sup>	Total in AFLC or HE as % of Region Population
Hiran				
Southern Agro-Pastoral	136,760	48,000	0	35
Hiran Riverine	32,441	6,000	0	18
Southern Inland Pastoral	57,768	0	0	0
Ciid Pastoral	32,630	0	0	0
<b>SUB-TOTAL</b>		<b>54,000</b>	<b>0</b>	

Affected Regions and Livelihood Zones	Estimated Population of Affected Livelihood Zones <sup>1</sup>	Assessed and Contingency Population in AFLC and HE		
		Acute Food and Livelihood Crisis (AFLC) <sup>2</sup>	Humanitarian Emergency (HE) <sup>2</sup>	Total in AFLC or HE as % of Region Population
Lower Juba				
Southern Agro-Pastoral	25,019	8,000	16,000	96
Lower Juba Agro-Pastoral	70,434	26,000	31,000	81
Southern Inland Pastoral	60,496	7,000	12,000	31
South-East Pastoral	46,968	17,000	20,000	79
Southern Juba Riverine	43,903	3,000	37,000	91
Southern Coastal Pastoral	25,156	0	0	0
<b>SUB-TOTAL</b>		<b>61,000</b>	<b>116,000</b>	
Middle Juba				
Southern Agro-Pastoral	62,183	19,000	39,000	93
Lower Juba AgroPastoral	10,982	3,000	6,000	82
Southern Inland Pastoral	30,895	3,000	8,000	36
South-East Pastoral	20,706	12,000	0	58
Southern Juba Riverine	67,188	5,000	57,000	92
Juba Pump Irrigated River	26,381	7,000	9,000	61
Southern Coastal Pastoral	13,728	0	0	0
<b>SUB-TOTAL</b>		<b>49,000</b>	<b>119,000</b>	

**Table 3B: South Region Livelihood System Population Estimate.**

Affected Livelihood Systems	Estimated Population of Affected Livelihood Systems <sup>1</sup>	Assessed and Contingency Population in AFLC and HE		
		Acute Food and Livelihood Crisis (AFLC) <sup>3</sup>	Humanitarian Emergency (HE) <sup>3</sup>	Total in AFLC or HE as % of Region Population
Agropastoral	1,077,066	275,000	615,000	83
Pastoral	680,726	125,000	180,000	45
Riverine	203,058	25,000	120,000	71
<b>TOTAL</b>		<b>425,000</b>	<b>915,000</b>	

**Table 3C: SUMMARY TABLE <sup>3</sup>**

<b>AFLC or HE in the South</b>	<b>1,340,000</b>	<b>18 <sup>7</sup></b>
<b>Central</b>	<b>290,000</b>	<b>4 <sup>7</sup></b>
<b>Urban Populations in Crisis Areas in the South <sup>4</sup></b>	<b>30,000</b>	<b>1 <sup>7</sup></b>
<b>Populations in AFLC and HE</b>	<b>1,700,000 <sup>5</sup></b>	<b>23 <sup>7</sup></b>
<b>Estimated Number of IDPs <sup>6</sup></b>	<b>400,000</b>	<b>6 <sup>7</sup></b>
<b>Estimated Total Population in Crisis</b>	<b>2,100,000</b>	<b>29 <sup>7</sup></b>

<sup>1</sup>Source: WHO 2004. Note this only includes population figures in affected regions. UNDP recently released region level population figures for 2005. However, these estimates have not been finalised and therefore are not used in this analysis.

<sup>2</sup>Estimated numbers are rounded to the nearest one thousand, based on resident population not considering current or anticipated migration, and are inclusive of population in High Risk of AFLC or HE (estimated at 210,000) for purposes of planning.

<sup>3</sup>Estimated numbers are rounded to the nearest five thousand.

<sup>4</sup>Roughly estimated as 30% and 20% of urban population in HE and AFLC areas respectively.

<sup>5</sup>Actual number is 1,660,000, however, this is rounded to 1,700,000 for purposes of rough planning and ease of communication.

<sup>6</sup>Source: UN-OCHA April 2004 (376,630) and UNHCR IDP map Dec.2005 (407,000), rounded to 400,000 as an estimate.

<sup>7</sup>Percent of total population of Somalia estimated at 7,309,266 (WHO 2004).

### 5.3 LIST OF PARTNER AGENCIES

FSAU would like to thank all the agencies that participated and made this assessment possible. Our regional partners assisted with data collection and logistical support.

1. World Food Programme (WFP)
2. International Committee of The Red Cross (ICRC)
3. Candlelight
4. Horn of Africa Volunteer Youth Organization (HAVAYOCO)
5. Somali Red Crescent Society (SRCS)
6. Ministry of Health and Labour (Somaliland)
7. Ministry of Livestock (Somaliland)
8. Ministry of Agriculture (Somaliland) ,
9. National Environmental Research and Disaster Preparedness (NERAD)
10. United Livestock Professional Association (ULPA)
11. CARE
12. SACID
13. United Nations Children's Fund (UNICEF)
14. Agrosphere
15. Somalia Euroean Committee for Agricultural Training (CEFA)
16. Africa Rescue Committee (AFREC)
17. Action Internationale Centre la Faim (ACF)
18. World Vision International (WVI)
19. Save The Children Fund
20. UN Office for Coordination of Humanitarian Affairs (OCHA)
21. Danish Refugee Council (DRC)
22. Pastoral and Environmental Network for the Horn of Africa (PENHA),
23. Food and Agricultural Organisation (FAO),
24. Oxfam GB
25. Vetaid
26. Horn Relief
27. Ministry of Fisheries Puntland
28. Ministry of Agriculture and Livestock and Environment (Puntland) ,
29. Humanitarian Affairs and Disaster Management Agency (HADMA) Puntland,
30. Concern
31. Ministry of Planning and Rural Development (MPRD)
32. Ministry of Water & Mineral Resources Somaliland (MWMR)
33. Committee for Development and Initiatives (CDI)
34. Jubbaland Charity Center (JCC)
35. SDIO
36. Somali Aid Foundations (SAF)
37. MERCY
38. Sanaag Agricultral Development Organization (SADO)
39. ACA
40. BARDA
41. Transitional Federal Government of Samalia (TFG)
42. FEWSNET

## 5.4 ASSESSMENT PROCESS, ANALYTICAL TOOLS AND TIMELINE

### 5.4.1 POST DEYR ASSESSMENT TIMELINE

Activity	Date	Description/Location
• FSAU Planning & Preparation	Nov. 15 - 18	NBI
• FSAU Issues Early Warning	Nov. 14	FSAU Monthly Brief
• Northwest Post Harvest Crop Assessment	Nov. 20 – Dec. 5	Somaliland with partners in Awdal, W. Galbeed, Togdheer
• Partner Planning Meeting	November 30	NBI with partners
• Regional Fieldwork Planning Workshops	Dec. 11 - 12	Regional Workshops with partners in Belet Weyne, Wajid, Buale, Merka, Garowe, Hargeisa
• Fieldwork	Dec. 12 -29	Throughout region with partners
• FSAU Issues Press Release of Deteriorating Situation	Dec. 20	FSAU Press Release
• Regional Analysis Workshop	Dec. 31 – Jan. 3	Regional Workshops with partners in Belet Weyne, Wajid, Buale, Jowhar, Garowe, Hargeisa
• All Team Analysis Workshop	Jan. 4 - 8	All FSAU team (NBI and field) in Hargeisa, SL
• Analysis Consolidation with Partners	Jan. 16	FSAU with Primary Technical Partners in NBI
• Cross Border Partner Analysis Workshop	Jan. 16	FSAU with Technical Lead Agencies and Institutions in Kenya and Ethiopia held in NBI
• Release of Preliminary Results	Jan. 18 Jan. 19 Jan. 26	SACB/FSRD FSAU Press Release FSAU Monthly Brief- Key Findings
• Release of Technical Series Report	Feb. 15	FSAU Website, Email distribution, Hardcopy Mailing



The tools used during the Post Deyr Assessment and Analysis process are listed below.

#### 5.4.2 Assessment Instruments and Tools

- 5.4.2.1 Food Security Livelihoods and Nutrition Assessment Pastoral
- 5.4.2.2 Southern Somalia 2005/6 Deyr Seasons District Crop Establishment Survey
- 5.4.2.3 Southern Somalia 2005/6 Deyr Seasons Farmer Crop Establishment Survey
- 5.4.2.4 Food Security Livelihood and Nutrition Assessment, Market Questions
- 5.4.2.5 Key Parameter Form for Milk Production by District - Shebelle valley
- 5.4.2.6 Key Parameter Form for Livestock Production by District - Shebelle valley
- 5.4.2.7 Key Parameter Form for Other Food and Income Sources - Shebelle valley
- 5.4.2.8 Food Security Phase Classification Evidence Based Analysis Template:  
Post Deyr '05/06 Assessment

## 5.4.2 ASSESSMENT INSTRUMENTS AND TOOLS

### 5.4.2.1 Food Security Livelihoods and Nutrition Assessment Pastoral

 <b>FOOD SECURITY ANALYSIS UNIT (FSAU)/FEWSNET</b> <b>FOOD SECURITY, LIVELIHOODS AND NUTRITION ASSESSMENT</b> <b>PASTORAL</b> 		
<b>Date:</b> _____	<b>Interviewer's name:</b> _____	<b>Region:</b> _____
<b>District:</b> _____	<b>Village/Settlement</b> _____	<b>Livelihood zone:</b> _____
<b>GPS Coordinates</b> _____	<b>North:</b> _____	<b>East:</b> _____
<b>Key informant/focus group/household interview: (circle one)</b>		<b>Data entry Number</b> _____
A. EVENT/HAZARD/SHOCK/RISK		
RAINS		
1.	Current season: when did the rains start?	[ ] enter date
2.	Current season: what is the total number of days that rain fell this season?	[ ] days
3.	Current season: for the days that rain fell, what was the intensity of heavy and light days?	a. Heavy [ ] days b. Light [ ] days
4.	Current season: what was the distribution of rainfall? (select only one)	Widespread [ ] OR Localised [ ]
5.	How do this seasons rains compare with this season last year? (select only one)	Better [ ] Same [ ] Worse [ ]
Map A	Using a map of the district/region, identify the areas that have had poor rains and identify the areas that have had good rains.	
6.	How do field reports of the rains compare with the satellite imagery? Are they:	Very Similar [ ] Somewhat Similar [ ] Different [ ]
CIVIL INSECURITY		
7.	Currently, is civil insecurity disrupting food security and livelihoods in the area?	Yes [ ] OR No [ ]
8.	If YES, explain why?	
Map B	Using a map identify where there are areas of civil insecurity	
9.	Is the risk of insecurity in the coming 6 months likely to increase?	Yes [ ] OR No [ ]
10.	If YES, explain why?	
Map C	Using a map identify where there are areas of civil insecurity by circling the areas.	
B. OVERALL SEASONAL PERFORMANCE - CURRENT		
11.	Note the key events for the current season. Key events may include, for example, reference to floods, drought, freezing rains, conflict, and extreme currency fluctuation.	
12.	What is the overall seasonal (current and previous) performance Rank 1-5? <i>* Note that seasonal performance is a multi-factor indicator that includes rainfall (duration, intensity, distribution), rangeland conditions (the availability of grazing and browsing), livestock health, and crop performance</i>	a. Current Season [ ] b. Previous Season [ ]  Key: 1 very poor, 2 poor, 3 average, 4 good, 5 very good
C. EFFECTS ON LIVELIHOOD ASSETS - NATURAL CAPITAL		
WATER		
13.	Currently, what is the main source of water? (select only one)	River [ ] Catchments [ ] Shallow well [ ] Borehole [ ] Water tanker [ ] Other (specify) [ ]
14.	Currently, where is the location of this main source of water? (give the location where)	[ ]
15.	Currently, what is the distance (one way) to this main source of water?	a. kilometres [ ] b. minutes [ ]
16.	Is this main water source 'normal' for the season?	Yes [ ] OR No [ ]
17.	If NO, explain why?	
18.	How long will this main source of water last (select only one)?	0-2 months [ ] 4-6 months [ ] 2-4 months [ ] 6+ months [ ]
19.	What is the current price of water for human consumption (currency/barrel)?	a. currency (specify) [ ] b. unit (litres) [ ]
RANGELAND		
20.	What is the condition/quality of the main grazing areas? (select only one)	Very good [ ] Poor [ ] Good [ ] Very poor [ ] Average [ ]
21.	What is the distance (one way) to the current grazing areas (by species)?	Camel a. km [ ] b. min [ ] Goat c. km [ ] d. min [ ] Sheep e. km [ ] f. min [ ] Cattle g. km [ ] h. min [ ] Other i. km [ ] j. min [ ] (specify)
22.	For those places that had good rains, will it be enough for rangeland recovery?	Yes [ ] OR No [ ]
23.	Will it be enough to support the livestock from the area until the next rain season?	Yes [ ] OR No [ ]
24.	If NO, for how many months will forage last?	[ ] months
25.	Has there been any in-migration of livestock from neighbouring districts, regions, or even countries (for example, Kenya or Ethiopia)?	Yes [ ] OR No [ ]
26.	If YES, note the up to four main locations where the livestock originated from. Rank these by importance (with 'a' being the most important).	a. [ ] b. [ ] c. [ ] d. [ ]
CHARCOAL PRODUCTION		
27.	Currently, does charcoal production take place in this area?	Yes [ ] OR No [ ]
28.	Has the production of charcoal increased compared to this time last year?	Yes [ ] OR No [ ]





29.	If YES or NO, explain why		
30.	Is charcoal production leading to <b>rangeland degradation</b> in this area?		
<b>Map D</b>	<i>Using a map identify the areas where there are the most severe pockets of charcoal production</i>		
31.	Is this <b>trend</b> expected to continue?	Yes [ ]	OR No [ ]
<b>ENCLOSURES</b>			
32.	Are there private land <b>enclosures</b> in your area?	Yes [ ]	OR No [ ]
33.	If YES, what is the <b>impact of private enclosures</b> on pastoral livelihoods?		
<b>Map E</b>	<i>Using a map identify the areas where the enclosures are located</i>		
<b>D. EFFECTS ON LIVELIHOOD ASSETS – PHYSICAL CAPITAL</b>			
<b>MARKETS</b>			
34.	What is the main market that serves this community?		
35.	Are there any factors that are <b>limiting access</b> to markets?	Yes [ ]	OR No [ ]
36.	If YES, what is the <b>two main factors</b> limiting access to markets?	a. main factor [ ] b. secondary factor [ ] 1. Poor roads 2. Insecurity 3. Communication 4. Other (specify)	
37.	If YES, describe in detail <b>how access</b> to named markets has been <b>affected</b>		
<b>INFRASTRUCTURE</b>			
38.	Has there been any deterioration in the <b>physical condition of 'public' infrastructure</b> this season compared to the previous season?	Yes [ ]	OR No [ ]
39.	If YES, indicate <b>which infrastructure</b> has been affected (YES or NO)	a. Roads Yes [ ] b. Bridges Yes [ ] c. Riverbanks Yes [ ] d. Other (specify) Yes [ ]	No [ ] No [ ] No [ ] No [ ]
40.	If YES, explain how?		
<b>Map F</b>	<i>Using a map identify the areas affected</i>		
<b>E. EFFECTS ON LIVELIHOOD ASSETS – FINANCIAL CAPITAL</b>			
<b>LIVESTOCK HOLDINGS</b>			
41.	What is the <b>total estimated average % change of herd size by species</b> (due to death, distress sales, or births) since this season last year?	a. Camel (general) [ ] % b. Camel (pack) [ ] % c. Goat [ ] % d. Sheep [ ] % e. Cattle [ ] % f. Other (specify) [ ] %	
42.	Is this trend normal?	Yes [ ]	OR No [ ]
43.	If YES or NO, explain why		
44.	What is the average <b>current body condition</b> of livestock by species? <i>Key: good = g, normal = n, poor = p</i>	a. Camel (general) [ ] b. Camel (pack) [ ] c. Goat [ ] d. Sheep [ ] e. Cattle [ ] f. Other (specify) [ ]	
45.	What is the current <b>trend in average livestock holdings</b> by species? <i>Key: increasing = i, same = s, decreasing = d</i>	a. Camel (general) [ ] b. Camel (pack) [ ] c. Goat [ ] d. Sheep [ ] e. Cattle [ ] f. Other (specify) [ ]	
<b>DEBT</b>			
46.	What is the average level of <b>total accumulated household debt for poor households?</b>	[ ]	US\$
47.	What was the average level of total accumulated household debt for poor households in the previous season?	[ ]	US\$
48.	If these are different explain the difference		
49.	What are the two most important <b>sources of household debt for poor households</b> this season?  1. Food (staple food purchase), 2. Food (non-staple food purchase), 3. Transport, 4. Human health services, 5. Livestock health services, 6. Water (human), 7. Water (livestock), 8. Other (specify)_____	a. Main Source [ ] b. Secondary Source [ ]	
<b>F. EFFECTS ON LIVELIHOOD ASSETS - SOCIAL CAPITAL</b>			
50.	Are pastoralists receiving <b>livelihood support</b> from relatives and friends?	Yes [ ]	OR No [ ]
51.	If YES, which <b>wealth group</b> in the community is <b>benefiting</b> most?		
52.	If YES, currently, what are the <b>main types of livelihood support</b> that are being received? Rank 1-9 or 10 (with 1 being the most important and 9 or 10 being the least important)	a. Xool goin [ ] b. Irmaansi [ ] c. Amah [ ] d. Remittances [ ] e. Shaxaad [ ] f. Kaalmo [ ] g. Zakat [ ] h. Sadaqa [ ] i. Other (specify) [ ]	
53.	If YES, <b>how long</b> can this support continue?		
54.	If YES, is this support <b>normal</b> ?	Yes [ ]	OR No [ ]
55.	If NO, explain why it is not normal		
56.	According to the Imam of the nearest mosque has there has been an <b>increase</b> in the number of people seeking assistance?	Yes [ ]	OR No [ ]
<b>G. EFFECTS ON LIVELIHOOD ASSETS – HUMAN CAPITAL</b>			
<b>EDUCATION</b>			
57.	Is there a primary school in this community or nearby that this community use?	Yes [ ]	OR No [ ]
58.	If YES, has <b>access (positively or negatively) to education</b> changed compared to this time last year?	Yes [ ] b. Positive [ ]	OR No [ ] OR Negative [ ]

59.	If YES, give the <b>main reason why access has changed</b> ( <i>select only one</i> )	Financial [ ] Insecurity [ ] HH labour [ ] Other (specify) [ ] _____
60.	If YES, explain any <b>differences in access</b> by households or for men and women, girls and boys	
<b>HUMAN HEALTH</b>		
61.	Is there a health service in this community or nearby that this community use?	Yes [ ] OR No [ ]
62.	If YES, has access ( <b>positively or negatively</b> ) to health services changed compared to this time last year?	Yes [ ] OR No [ ] b. Positive [ ] OR Negative [ ]
63.	If YES, give the <b>main reason why access has changed</b>	Financial [ ] Insecurity [ ] HH labour [ ] Other (specify) [ ] _____
64.	If YES, explain any <b>differences in access</b> by households or for men and women, girls and boys	
<b>VETERINARY SERVICES</b>		
65.	Is there a veterinary service in this community or nearby that this community use?	Yes [ ] OR No [ ]
66.	If YES, has access (positively or negatively) to veterinary services changed compared to this time last year?	Positive [ ] OR Negative [ ]
67.	If YES, give the main reason <b>why access has changed</b> . Rank 1-3 (where 1 is most important and 3 is least important)	Financial [ ] Insecurity [ ] Other (specify) [ ] _____
68.	Where is the nearest location where animal drugs can be purchased?	[ ] _____
<b>LABOUR</b>		
69.	This season has the <b>availability of labour</b> (from family or other labour sources) been adequate for the management of <b>household livestock</b> ?	Yes [ ] OR No [ ]
70.	If NO, why is this and what are and will be the consequences?	
71.	Currently, are <b>income-earning labour opportunities</b> available in the area?	Yes [ ] OR No [ ]
72.	If YES, where is the main location for these opportunities?	
73.	If YES, what are the <b>four main opportunities</b> ? Rank these by importance (with 'a' being the most important).	a. [ ] b. [ ] c. [ ] d. [ ]
74.	Are these opportunities normal for the season?	Yes [ ] OR No [ ]
75.	If NO, <b>what</b> has changed?	
<b>H. LIVELIHOOD STRATEGIES</b>		
<b>FOOD SOURCES</b>		
76.	Currently, is household <b>access to food</b> less than normal for this season?	Yes [ ] OR No [ ]
77.	If YES, <b>what sources</b> of food are constrained? (tick all that apply)	a. own production (milk/meat) [ ] b. staple purchase [ ] c. non-staple purchase [ ] d. other (specify) [ ]
78.	If YES, explain <b>why</b> and <b>how</b> access to food is constrained?	
79.	If YES, identify <b>which households</b> are affected. <i>This may be by wealth group or by other defining characteristics (such as by location, or those displaced)</i>	
80.	If the household has normal access to food, does the household anticipate a <b>problem of food access</b> in the next 6 months?	Yes [ ] OR No [ ]
81.	If YES, explain why	
<b>INCOME SOURCES</b>		
82.	Currently, is household <b>access to income</b> less than normal for this season?	Yes [ ] OR No [ ]
83.	If YES, <b>what sources</b> of income are constrained?	a. Livestock sales [ ] b. Milk sales [ ] c. Labour [ ] d. Other (specify) [ ]
84.	If YES, explain why and <b>how</b> access to income is constrained?	
85.	If YES, identify <b>which households</b> are affected. <i>This may be by wealth group or by other defining characteristics (such as by location, or those displaced)</i>	
86.	If the household has normal access to income, does the household anticipate a <b>problem of food access</b> in the next 6 months?	Yes [ ] OR No [ ]
87.	If YES, explain why	
<b>EXPENDITURES</b>		
88.	Currently, is household <b>expenditure</b> more than normal for this season?	Yes [ ] OR No [ ]
89.	If YES, explain <b>how expenditure has changed</b> ?	
90.	If YES, explain <b>why</b>	
91.	If YES, identify <b>which households</b> are affected. <i>This may be by wealth group or by other defining characteristics (such as by location, or those displaced)</i>	
92.	If YES, what strategies are households adopting to meet this change?	
93.	If the household has normal expenditure, does the household anticipate a <b>problem of expenditure</b> in the next 6 months?	Yes [ ] OR No [ ]
94.	If YES, explain why	
<b>I. COPING STRATEGIES</b>		
<b>GENERAL</b>		
95.	What are the main <b>coping strategies currently</b> used by pastoralists from various wealth groups? Rank these by importance (with 'a' being the most important).	a. [ ] b. [ ] c. [ ] d. [ ] e. [ ] f. [ ]

<b>LIVESTOCK MIGRATION MAP</b>			
Map G	<i>Using a map, what is the current migration pattern of livestock (and note by species) in the area (including from Kenya and/or Zone V of Ethiopia)? What parts of that migration are considered normal and what parts are not? Indicate with arrows on the map the points of origin and destination for the migrations.</i>		
<b>OUT-MIGRATION (OUTWARD)</b>			
96.	Are <b>out-migration patterns</b> normal or abnormal for this season?	Normal [ ]	OR Abnormal [ ]
97.	If out-migration is taking place are <b>households splitting</b> ?	Yes [ ]	OR No [ ]
98.	If YES, explain <b>why</b> they are splitting?		
99.	When did the main <b>out-migration</b> take place? (select only one)	This month [ ]	
		1-2 month ago [ ]	
		3-4 months ago [ ]	
		5-6 months ago [ ]	
		6+ months ago [ ]	
		Other (specify) [ ]	
100.	If YES, what is the estimated <b>total number of households</b> (or partial households) that out-migrated?	[ ]	Number of HH
101.	If YES, identify and rank which <b>wealth groups out-migrated</b> (with 'a' being the most important).	a. [ ]	
		b. [ ]	
		c. [ ]	
		d. [ ]	
102.	What were the <b>reasons for the out-migration</b> ? Rank them 1 - 6 (1 being the most important)	a. Income [ ]	
		b. Water [ ]	
		c. Pasture [ ]	
		d. Insecurity [ ]	
		e. Pest & disease [ ]	
		f. Other (specify) [ ]	
103.	What are the <b>factors</b> , if any, that have <b>limited migration mobility</b> and rank them 1-8 (with 1 being the most important)?	a. Income [ ]	
		b. Water [ ]	
		c. Pasture [ ]	
		d. Insecurity [ ]	
		e. Pest & disease [ ]	
		f. Road conditions [ ]	
		g. Pack animals [ ]	
		f. Other (specify) [ ]	
104.	If any factors have been highlighted explain <b>why</b> ?		
<b>IN-MIGRATION (INWARD)</b>			
105.	Are <b>in-migration patterns</b> normal or abnormal for this season?	Normal [ ]	OR Abnormal [ ]
106.	If in-migration is taking place are <b>households splitting</b> ?	Yes [ ]	OR No [ ]
107.	If YES, explain <b>why</b> they are splitting?		
108.	When did the main <b>in-migration</b> take place? (select only one)	This month [ ]	
		1-2 month ago [ ]	
		3-4 months ago [ ]	
		5-6 months ago [ ]	
		6+ months ago [ ]	
		Other (specify) [ ]	
109.	If yes, what is the estimated <b>total number of households</b> (or partial households) that in-migrated?	[ ]	Number of HH
110.	If yes, identify and rank which <b>wealth groups in-migrated</b> (with 'a' being the most important).	a. [ ]	
		b. [ ]	
		c. [ ]	
		d. [ ]	
111.	What were the <b>reasons for the in-migration</b> and rank in importance 1 - 6 (with 1 being the most important)?	a. Income [ ]	
		b. Water [ ]	
		c. Pasture [ ]	
		d. Insecurity [ ]	
		e. Pest & disease [ ]	
		f. Other (specify) [ ]	
112.	What are the <b>factors</b> , if any, that have <b>limited migration mobility</b> and the choice of end destinations and rank in importance 1-8 (with 1 being the most important)?	a. Income [ ]	
		b. Water [ ]	
		c. Pasture [ ]	
		d. Insecurity [ ]	
		e. Pest & disease [ ]	
		f. Road conditions [ ]	
		g. Pack animals [ ]	
		f. Other (specify) [ ]	
113.	If any factors have been highlighted explain <b>why</b> ?		
<b>CONSUMPTION STRATEGIES</b>			
114.	In the past 30 days, if households have not had enough food or enough money to buy food, what are the <b>most common consumption strategies</b> employed in this community?	a. [ ]	
		b. [ ]	
		c. [ ]	
		d. [ ]	
		e. [ ]	
115.	Are current <b>household food consumption patterns</b> different from this season last year?	Yes [ ]	OR No [ ]
116.	If YES, explain how		
<b>J. SCENARIO DEVELOPMENT</b>			
117.	<i>Develop the most likely scenario for the next 6 months, or until the next rain season whichever is sooner. This should include information on the capital assets, potential coping strategies and food security outcomes</i>		
<b>K. INDICATORS</b>			
118.	What are the <b>key 4 indicators to be monitored</b> in order of importance (with 'a' being the most important) over the next 6 months?	a. [ ]	
		b. [ ]	
		c. [ ]	
		e. [ ]	
<b>L. ISSUES OF CONCERN</b>			
119.			
<b>M. ADDITIONAL COMMENTS</b>			
120.	<i>Note the question(s) the additional comment(s) refers to.</i>		

### 5.4.2.2 Southern Somalia 2005/6 Deyr Season District Crop Establishment Survey

	<b>FOOD SECURITY ANALYSIS UNIT (FSAU)/FEWSNET</b> <b>FOOD SECURITY, LIVELIHOODS AND NUTRITION ASSESSMENT</b> <b>AGRO-PASTORAL &amp; AGRICULTURAL</b>	
Date: _____	Interviewer's name: _____	Region: _____
District: _____	Village/Settlement _____	Livelihood zone: _____
GPS Coordinates _____	North: _____	East: _____
Key informant/focus group/household interview: (circle one)		Data entry Number _____

#### 2: RAINFALL

2.1 When did this Deyr rainy season begin?

Date: ..... / ..... / 2005

If you are not sure about the date, please precise:

Before  After the 15<sup>th</sup> of the month of .....

2.2 How do you assess rainfall situation at this stage of the Deyr season?

Very bad  Bad  Normal  Good  Very good

2.3 Are the rains at this time of the year better than the same time in a normal year?

Worse  Same  Better

#### 3: PLANTING

3.1 Compared to the normal situation, when did most of the households plant the main crop?

Early  On time  late  Never

3.2 Date of first planting: ..... / ..... / 2005

If you are not sure about the date, specify:

Before  After the 15<sup>th</sup> of the month of .....

3.3 Date of last planting: ..... / ..... / 2005

If you are not sure about the date, please precise:

Before  After the 15<sup>th</sup> of the month of .....

3.4 Did a significant number of households have to replant?

Yes  No

If yes, specified the proportion: \_\_\_\_\_

3.5 Did all the villages within the FEG plant?

Yes  No

If no, what is the proportion of villages that did not plant? \_\_\_\_\_

Why? \_\_\_\_\_

#### 4: SEEDS

4.1 Did most of the households have enough seeds at the beginning of this Deyr Season?

Yes  No

4.2 How was the situation of seeds this Deyr season compared with a normal Deyr?

Worse  Same  Better  Do not know

4.3 How was the germination of seeds?

Bad  Normal  Good

#### 5: PLANTED AREA

5.1 Compared to a normal year, the estimated planted area is:

lower Why? \_\_\_\_\_

similar

higher Why? \_\_\_\_\_

5.2 Average planted area per household, by wealth group (range of ha):

CROP	Poor	Middle	Better off
Maize			
Sorghum			
Cowpeas			
Sesame			
Other			



**6: CROP CONDITION**

What is the crop condition at this time of the Deyr season?

Crop	Failure	Poor	Normal	Good crop	Very good
Maize					
Sorghum					
Cowpeas					
Sesame					
Other (.....)					

**7: EXPECTED PRODUCTION**

7.1 Indicate how much is expected to be the Deyr harvest, for each wealth group and type of crop grown (range of bags).

Crop	Poor	Middle	Better off
Maize			
Sorghum			
Cowpeas			
Sesame			
Other crops			

7.2 How does this season's expected cereal production compare with same season last year?

Crop	Production compared to same season last year			
	Below	Same	Above	Don't Know
Maize				
Sorghum				
Other				

7.3. Forecasted contribution of the FEG to the total cereal production of the district?

**8: STOCKS**

	<10%	10-25%	25-50%	50-75%	>75%
Contribution (%)					

8.1 Estimation of average cereal stocks at household level (range of bags), by wealth group

Poor	Middle	Better off

8.2 How long do you expect these cereal stocks to last (number of months)?

Poor	Middle	Better off

**9: ACCESS TO STAPLE FOOD**

At this time of the year, how do the poor households access their staple food? Classify in decreasing order the origin of the cereal consumed (only the 3 main ones, indicate the corresponding number: 1, 2, 3):

**COMMENTS/OBSERVATIONS:** .....

5.4.2.3 Southern Somalia '05/06 Deyr Season Farmer Crop Establishment Survey



FOOD SECURITY ANALYSIS UNIT (FSAU)/FEWSNET  
 FOOD SECURITY, LIVELIHOODS AND NUTRITION ASSESSMENT  
 AGRICULTURAL



Date: \_\_\_\_\_ Interviewer's name: \_\_\_\_\_ Region: \_\_\_\_\_  
 District: \_\_\_\_\_ Village/Settlement \_\_\_\_\_ Livelihood zone: \_\_\_\_\_  
 GPS Coordinates \_\_\_\_\_ North: \_\_\_\_\_ East: \_\_\_\_\_  
 Key informant/focus group/household interview: (circle one) Data entry Number \_\_\_\_\_

**2: RAINFALL**

2.1 When did this Deyr season rains begin?

Early  On time  late  Never

2.2 How do you assess rainfall situation at this stage of the Deyr season?

Bad  Normal  Good

2.3 Are the rains at this time of the year better than the same time last year?

Worse  Same  Better

**3: AGRICULTURAL INPUTS AND PLANTING**

3.1 Did you have enough seeds at the beginning of this Deyr Season?

Yes  No

3.2 How is the situation of seeds this Deyr season compared with last year's Deyr?

Worse  same  better  do not know

3.3 When did you plant the main crop this season?

Before rains  on time  late

3.4 How is the germination of seeds?

Bad  Normal  Good

3.5 Did you have to replant?

Yes  No

**4: CROP CONDITION**

What is the crop condition at this time of the Deyr season?

Crop	Crop failure	Poor crop	Normal crop	Good crop	Other
Maize					
Sorghum					
Cowpeas					
Sesame					
Other (Specify)					

**5: PLANTED AREA AND EXPECTED PRODUCTION**

**5.1 How many fields do you have under each of the following crops and how big are they?**

CROP	FIELD 1	FIELD 2	FIELD 3	OTHER FIELDS	TOTAL AREA
Maize					
Sorghum					
Cowpeas					
Sesame					
Other					

**5.2 For each crop grown, indicate how much you expect to harvest this Deyr season.**

CROP	EXPECTED HARVEST	
	Units of Measurement	Amount
Maize		
Sorghum		
Cowpeas		
Sesame		
Other crops		

**5.3 How does this season's expected production compare with same season last year?**

Crop	Production compared to same season last year			
	% Below	Same	% Above	Don't Know
Maize				
Sorghum				
Cowpeas				
Sesame				
Other				

**6: LIVESTOCK CONDITION**

**6.1 How is the water availability for livestock situation this Deyr season?**

Bad  Normal  Good

**6.2 How are pasture conditions this Deyr season?**

Bad  Normal  Good

**6.3 Have there been any outbreak of livestock diseases in the last one month?**

Yes  No (skip Q5.4)

**6.4 Were there any livestock deaths?**

Yes  No (skip Q5.5)

**6.5 How many livestock died (numbers)?** \_\_\_\_\_

**6.6 Are livestock drugs available at the local markets?**

Yes  No

**7: COPING MECHANISM**

**7.1 How much food do you have in stock** \_\_\_\_\_ **(food type and units)**

**7.2 How long do you expect this food stock to last?** \_\_\_\_\_ **(Months/weeks/days)**



**7.3 If the food stocks do not last until the next harvest, how will you cope with the shortfall?**

1. Purchase food
2. Stop non-food uses
3. Sell livestock
4. Non-food activities   
(Employment, petty trade)
5. Other (Specify)

*Thank the respondent for his/her co-operation*

**COMMENTS/OBSERVATIONS**



#### 5.4.2.4 Food Security, Livelihood and Nutrition Assessment Market Questions

 <div style="text-align: center;"> <b>FOOD SECURITY ANALYSIS UNIT (FSAU)/FEWSNET</b>  <b>FOOD SECURITY, LIVELIHOODS AND NUTRITION ASSESSMENT</b>  <b>MARKET QUESTIONS</b> </div> 	
Date & season: _____	Interviewer's name: _____
Market location (region): _____	Market location (district): _____
Market location (settlement): _____	Livelihood zone: _____
GPS Coordinates: North: _____	East: _____

	Unit	Current prices (note currency)	Expected change in 6 months	Reason
<b>1. Price of major staples and non-staples</b>				
Imported rice	1 kg			
Sorghum	1 kg			
Maize	1 kg			
Wheat flour	1 kg			
Vegetable oil	1 lt			
Sugar	1 kg			
<b>2. Employment (non-skilled) wage rates</b>				
Herding	Per day			
Agricultural labouring	Per day			
Construction	Per day			
Other (specify):	Per day			
Other (specify):	Per day			
<b>3. Sale price of bush products (self-employment)</b>				
Firewood/logs	Bundle			
Charcoal	Bag			
Incense/gum	1 kg			
Other (specify):				
Other (specify):				
<b>4. Sale price of livestock products</b>				
Camel milk	1 lt			
Cow milk	1 lt			
Other (specify):				
Other (specify):				
<b>5. Sale price of livestock</b>				
Export shoats	Per head			
Local shoats	Per head			
Local cattle	Per head			
Export cattle	Per head			
Local camel	Per head			
Other (specify):	Per head			
Other (specify):	Per head			
<b>6. Price of water</b>				
Water (human)	1 drum			
<b>Local exchange rate</b>				
	US\$1 =			



### 5.4.2.5 Key Parameter Form for Milk Production by District - Shabelle Valley

	<b>FOOD SECURITY ANALYSIS UNIT (FSAU)/FEWSNET</b> <b>FOOD SECURITY, LIVELIHOODS AND NUTRITION ASSESSMENT</b> <b>PASTORAL/AGROPASTORAL</b>	
Date & season: _____		Interviewer's name: _____
Village/settlement _____		Livelihood zone: _____
GPS Coordinates: North: _____ East: _____		Data entry no: _____
Key informant/focus group/household interview: _____		

#### **MILK PRODUCTION BY DISTRICT - SHABELLE VALLEY**

##### **CURRENT YEAR MONITORING DATA**

##### **YEAR**

**2005-06**

- (A) Typical number of milking animals per 100 mature females in the season
- (B) Actual number of milking animals per 100 mature females this season
- (C) Typical milk yield in the season (liters per day)
- (D) Actual milk yield this season

##### **Camels**

Region	District	1st season				2nd season				Explanation Notes
		Gu				Deyr				
		(A)	(B)	(C)	(D)	(A)	(B)	(C)	(D)	
L. Shabelle	Afgooye/Awdheegle	45		3.5		45		3		
L. Shabelle	Brava									
L. Shabelle	Kurtunwarey	45		3.5		45		3		
L. Shabelle	Merka	45		3.5		45		3		
L. Shabelle	Qoryoley	45		3.5		45		3		
L. Shabelle	Sablaale	45		3.5		45		3		
L. Shabelle	Wanle Weyne	45		3.5		45		3		
M. Shabelle	Aden Yabaal/runnirgod									
M. Shabelle	Balcad/Warsheikh									
M. Shabelle	Cadale									
M. Shabelle	Jowhar	45		3.5		45		3		
-	-									

##### **Cattle**

Region	District	1st season				2nd season				Explanation Notes
		Gu				Deyr				
		(A)	(B)	(C)	(D)	(A)	(B)	(C)	(D)	
L. Shabelle	Afgooye/Awdheegle	50		2.75		50		2.25		
L. Shabelle	Brava									
L. Shabelle	Kurtunwarey	50		2.75		50		2.25		
L. Shabelle	Merka	50		2.75		50		2.25		
L. Shabelle	Qoryoley	50		2.75		50		2.25		
L. Shabelle	Sablaale	50		2.75		50		2.25		
L. Shabelle	Wanle Weyne	50		2.75		50		2.25		
M. Shabelle	Aden Yabaal/runnirgod									
M. Shabelle	Balcad/Warsheikh									
M. Shabelle	Cadale									
M. Shabelle	Jowhar	50		2.75		50		2.25		
-	-									

##### **Shoats**

Region	District	1st season				2nd season				Explanation Notes
		Gu				Deyr				
		(A)	(B)	(C)	(D)	(A)	(B)	(C)	(D)	
L. Shabelle	Afgooye/Awdheegle	60		0.4		60		0.4		
L. Shabelle	Brava									
L. Shabelle	Kurtunwarey	60		0.4		60		0.4		
L. Shabelle	Merka	60		0.4		60		0.4		
L. Shabelle	Qoryoley	60		0.4		60		0.4		
L. Shabelle	Sablaale	60		0.4		60		0.4		
L. Shabelle	Wanle Weyne	60		0.4		60		0.4		
M. Shabelle	Aden Yabaal/runnirgod									
M. Shabelle	Balcad/Warsheikh									
M. Shabelle	Cadale									
M. Shabelle	Jowhar	60		0.4		60		0.4		

### 5.4.2.6 Key Parameter Form for Livestock Production - Shabelle Valley



**FOOD SECURITY ANALYSIS UNIT (FSAU)/FEWSNET**  
**FOOD SECURITY, LIVELIHOODS AND NUTRITION ASSESSMENT**  
**PASTORAL/AGROPASTORAL**



Date & season: \_\_\_\_\_ Interviewer's name: \_\_\_\_\_  
 Village/settlement \_\_\_\_\_ Livelihood zone: \_\_\_\_\_  
 GPS Coordinates: North: \_\_\_\_\_ East: \_\_\_\_\_  
 Key informant/focus group/household interview: \_\_\_\_\_

#### **LIVESTOCK PRODUCTION - SHABELLE VALLEY**

Data entry no: \_\_\_\_\_

#### **CURRENT YEAR MONITORING DATA**

**YEAR 2005-06**

#### **HERD SIZE BY DISTRICT AND LIVELIHOOD ZONE**

1. The table gives reference year herd sizes by district and livelihood zone
2. Enter revised herd size in the yellow cells, or leave blank to retain existing herd sizes.
3. Changes in herd size are used to calculate changes in the number of livestock sold and in the number of mature females
4. Data for poor will be applied to very poor and for middle will be applied to b/off.

#### **Camels**

Region	District	Livelihood Zone			Explanation Notes
		SIP - Southern Inland Pastoral			
		P	M		
L. Shabelle	Afgooye/Awdheegle	25	50		
L. Shabelle	Brava				
L. Shabelle	Kurtunwarey	25	50		
L. Shabelle	Merka	25	50		
L. Shabelle	Qoryoley	25	50		
L. Shabelle	Sablaale	25	50		
L. Shabelle	Wanle Weyne	25	50		
M. Shabelle	Aden Yabaal/runnirgod				
M. Shabelle	Balcad/Warsheikh				
M. Shabelle	Cadale				
M. Shabelle	Jowhar	25	50		
-	-				



#### **Cattle**

Region	District	Livelihood Zone			Explanation Notes
		SIP - Southern Inland Pastoral			
		P	M		
L. Shabelle	Afgooye/Awdheegle	7.5	20		
L. Shabelle	Brava				
L. Shabelle	Kurtunwarey	7.5	20		
L. Shabelle	Merka	7.5	20		
L. Shabelle	Qoryoley	7.5	20		
L. Shabelle	Sablaale	7.5	20		
L. Shabelle	Wanle Weyne	7.5	20		
M. Shabelle	Aden Yabaal/runnirgod				
M. Shabelle	Balcad/Warsheikh				
M. Shabelle	Cadale				
M. Shabelle	Jowhar	7.5	20		
-	-				

#### **Shoats**

Region	District	Livelihood Zone			Explanation Notes
		SIP - Southern Inland Pastoral			
		P	M		
L. Shabelle	Afgooye/Awdheegle	40	75		
L. Shabelle	Brava				
L. Shabelle	Kurtunwarey	40	75		
L. Shabelle	Merka	40	75		
L. Shabelle	Qoryoley	40	75		
L. Shabelle	Sablaale	40	75		
L. Shabelle	Wanle Weyne	40	75		
M. Shabelle	Aden Yabaal/runnirgod				
M. Shabelle	Balcad/Warsheikh				
M. Shabelle	Cadale				
M. Shabelle	Jowhar	40	75		
-	-				

### 5.4.2.7 Key Parameter Form for Other Food and Income Sources - Shabelle Valley

	<b>FOOD SECURITY ANALYSIS UNIT (FSAU)/FEWSNET</b> <b>FOOD SECURITY, LIVELIHOODS AND NUTRITION ASSESSMENT</b> <b>PASTORAL/AGROPASTORAL</b>	
Date & season: _____ Interviewer's name: _____ Village/settlement _____ Livelihood zone: _____ GPS Coordinates: North: _____ East: _____ Key informant/focus group/household interview: _____		Data entry no: _____

#### **OTHER FOOD AND INCOME SOURCES - SHABELLE VALLEY**

##### **CURRENT YEAR MONITORING DATA**

2005-06

1. The table gives reference year herd sizes by district and livelihood zone
2. Enter estimated access (i.e. quantity) for year if it was greater or less than baseline year  
 e.g 100% = baseline access - same as baseline  
 e.g 50% = 50% of baseline access
3. Note - This is rough estimate for annual access: Year June 2005 to May 2006.

Region	District	gifts	food stocks	ag.labour - gu	ag.labour - deyr	labour migration	remittances	wood/charcoal	gums/resins	other labour	loans	Explanation notes
L. Shabelle	Afgooye/Awdheegle											
L. Shabelle	Brava											
L. Shabelle	Kurtunwarev											
L. Shabelle	Merka											
L. Shabelle	Qorvoley											
L. Shabelle	Sablaale											
L. Shabelle	Wanle Weyne											
M. Shabell	Aden Yabaal/runnirgod											
M. Shabell	Balcad/Warsheikh											
M. Shabell	Cadale											
M. Shabell	Jowhar											
-	-											

## 5.4.2.8 Food Security Phase Classification - Evidence Based Analysis Template: Post Deyr 05/06 Assessment

### Part 1

Part 1: Area Affected, Phase Classification, Characteristics and Evidence				
Affected Area by Region (Area)	Phase Classification (HE or LC)	General Characteristics International Standards	Key Evidence Indicator Source; Evidence Reliability Score (1=very reliable, 2=somewhat reliable 3=unconfirmed); Relevant Phase Classification HE or LC;	Supporting Evidence Triangulation of Supporting Evidence; Source; Evidence Reliability Score (1=very reliable, 2=somewhat reliable 3=unconfirmed); Relevant Phase Classification HE or LC; By Livelihood Assets and Livelihood Strategies (Strategies also done by LZ)

HE=Humanitarian Emergency, LC=Livelihood Crisis, A=Alert

### Part 2

Part 2: Immediate Cause, Effects on Livelihoods, Risks to Monitor and Opportunities for Response						ACTION	
Affected Area (by Region/Area)	Phase Classification (HE, LC)	Immediate Causes (Driving Forces)	Effect on Livelihood Strategies Summary Statements	Identification, Characteristics & % of Population Affected	Projected Trend (up until Nov 05) <ul style="list-style-type: none"> <li>Improving situation</li> <li>No change or Uncertain</li> <li>Worsening Situation</li> </ul>	Risk Factors to Monitor	Opportunities for Response (Immediate Response to Improve Access to Food and Assist with Other Immediate Needs, i.e. Health, Shelter, etc.)

### Part 3

PART 3: Underlying Causes, Effects on Capitals and Mitigation in the Medium and Long Term					ACTIONS
Affected Area (by Region/Area)	Phase Classification (HE, LC or A)	Underlying Causes	Effect on Specific Capitals (Most Affected Capitals)	Projected Trend for Specific Capitals	Opportunities for Mitigation by Specific Capital (Policy, Programmes, Advocacy, etc)

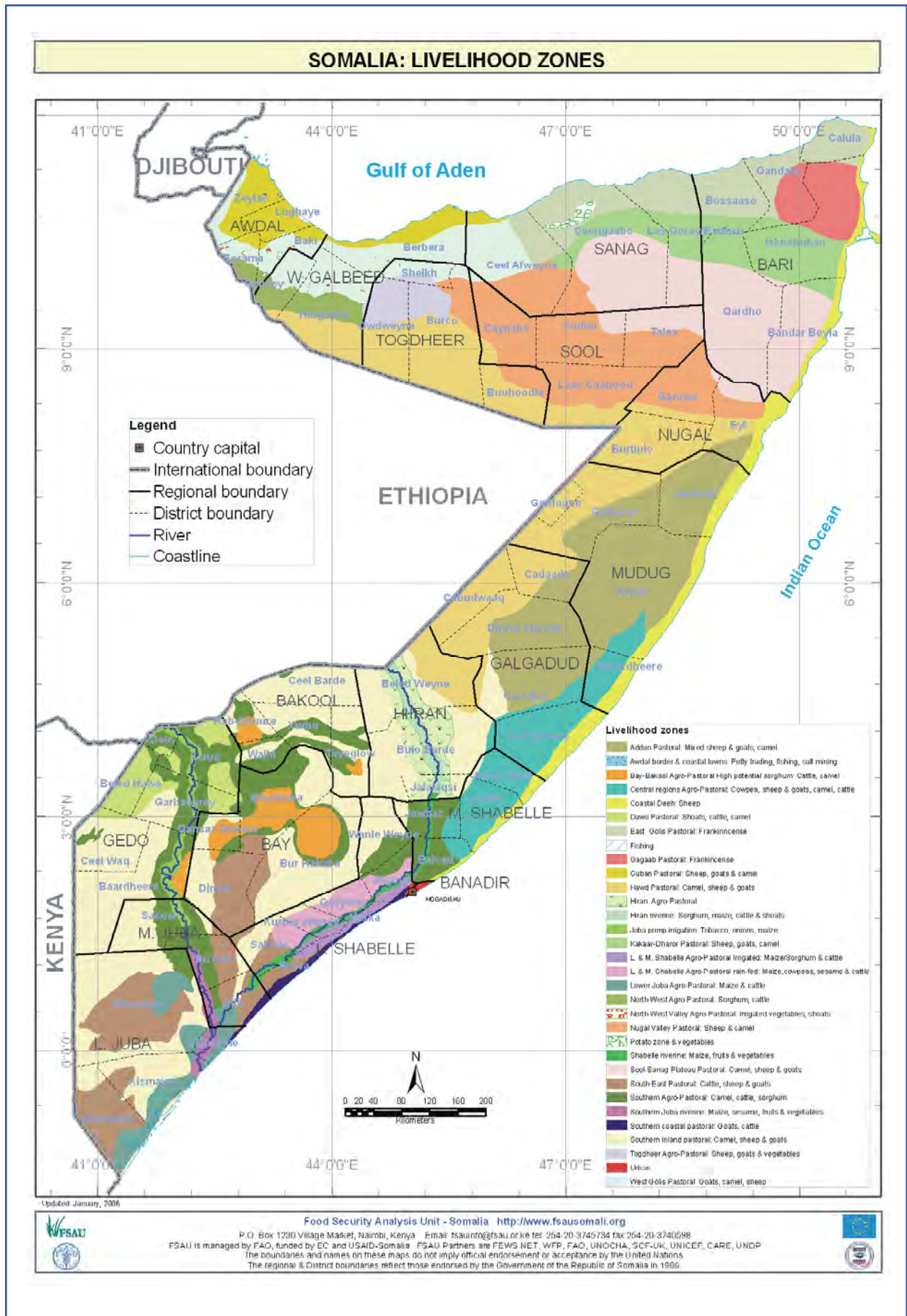
#### Estimating Affected Population Numbers

1. Define geographic area that spatially delineates the affected population (in a State Humanitarian Emergency, Livelihood Crisis, or Alert).
2. Identify the most current population estimates for this geographic area (i.e. WHO 2003 population estimates by district).
3. Adjust total population estimates to account for any known recent migration in or out of the affected area.
4. Estimate the percent of the population affected (by both Humanitarian Emergency and Livelihood Crisis) within the affected geographic area. The most appropriate method could be by wealth group, but in some instances may be more accurate to estimate by clan, gender, etc.



APPENDIX 6

Map 18: Livelihood Zones of Somalia



livelihood zones map

