FSAU
Food Security Analysis Unit - Somalia

NUTRITION UPDATE

August/September - 2007

Shabelle Regions Nutrition Situation Update

- Following the FSAU nutrition survey results from May 2007 which indicated critical levels of Global (17.3%) and Severe Acute Malnutrition (4.5%) in the Shabelle Regions and the continuing deterioration in food security situation with the ongoing conflict situation, FSAU conducted a rapid assessment in August and September to monitor the situation. The assessment was conducted using Mid Upper Arm Circumference (MUAC) and involved a random selection of villages from the riverine, agropastoral and newly displaced populations in Lower and Middle Shabelle Regions as well as the IDP populations in Afgoye. Information was also collected on health, water and sanitation. Food security information was collected at household level and stratified by the nutritional status of the child (well nourished, moderately malnourished, severely malnourished). A total of 1887 children were assessed in Middle Shabelle, 875 children in Lower Shabelle and 1081 children in the IDP settlement along the road from Mogadishu to Afgoye. The key driving force for the deteriorating food security and nutrition situation has been the on-going conflict in Mogadishu which has resulted in displacement, loss of assets and livelihoods, and reduced access to basic services such as food, health care and water; in addition to successive seasons of crop failure

FSAU's Nutrition Analyst, Mohamed Moalim, assesses oedema of the feet of a child in Lower Shabelle, Sept '07

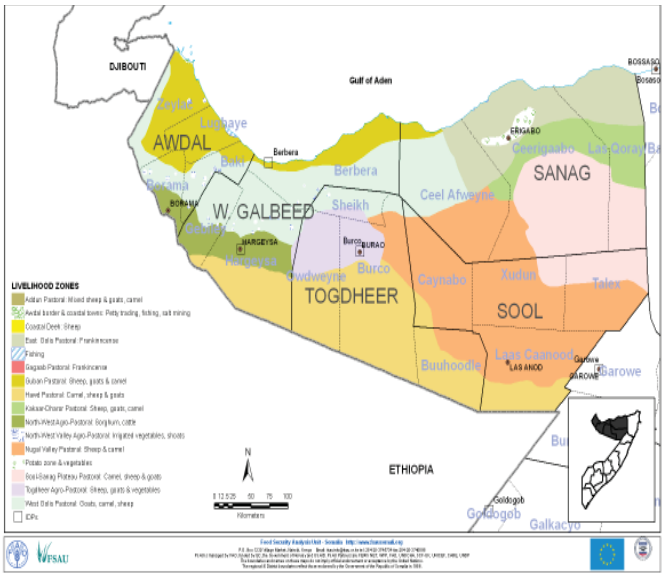
- The results cannot be directly compared to the reported nutrition survey results from May as a different indicator (weight for height) is reported. However as MUAC data was also collected in May, where an average of 14% of the children assessed (n=1838) in Middle and Lower Shabelle were identified as acutely malnourished (MUAC <12.5cm), therefore, this can be referred to for trends analysis. The current results indicate a continuing deterioration in Middle Shabelle Region with an average of 25% of the children identified as acutely malnourished (MUAC <12.5cm); this was consistent across the different livelihoods and IDP and host populations. Families reported food shortages and disease outbreak as the main causes of the elevated levels. In Lower Shabelle the results indicate a more stable situation from May with an average of 14% of children identified as acutely malnourished again consistent across livelihoods, though with pockets of higher numbers reported in Kurtunwarey riverine areas. Finally in the IDP settlements along the Mogadishu Afgoye road, findings from Elasha, Lafole Arbis and Hawa Abdi reported <10% of children identified as acutely malnourished with higher levels of 16.4% reported from the settlements at the Ministry of Agriculture faculty.
- An integrated analysis of the food security information stratified by the nutritional status of the household indicated the following:
  - **Middle Shabelle Region:** Higher proportions of the households in Middle Shabelle were female headed and split compared to the population in Afgoye IDP settlements and Lower Shabelle. In addition 20% of households accessed food from food aid compared to 75% in Afgoye. As a coping strategy, 100% of assessed household in Middle Shabelle reported to less expensive food, reduced portion and numbers of meals whereas 50-67% of assessed household in Lower Shabelle reported the same.
  - **Afgoye IDP population:** Households with acutely malnourished children had a higher reliance on relief assistance for food than those without acutely malnourished children. Although many households reported reducing meal frequency and switching to less expensive foods to meet their needs, this most notably seen in the households with severely malnourished children with 90% of households reporting this practice.
  - **Lower Shabelle Region:** Similar to Middle Shabelle region, households with severely malnourished children were more likely to be female headed and split compared to families with no acutely malnourished children. These households were also more dependent on purchase of food rather then production and were also more likely to be limiting portion sizes.
- These results indicate specific nutritional vulnerabilities relating to female headed and split households, as well as household with limited own production currently relying on purchase for food. Given the continuing conflict and increasing market prices the future food security situation for these households is uncertain and needs close monitoring. FSAU with partners are planning to repeat the nutrition surveys conducted in May at the end of October in the Shabelle Regions therefore a direct comparison to the nutrition information data from May will be possible as well as up to date nutrition health and food security information.

SPECIAL FOCUS ON THE PROTRACTED IDP POPULATIONS IN THE NORTHWEST REGION

Context

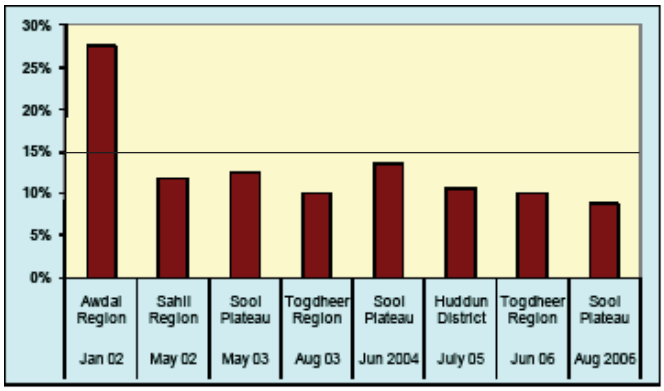
The northwest region, also referred to as Somaliland, comprises of the urban, agro pastoral and pastoral livelihood systems. The urban livelihood groups reside in the major urban towns of Hargeisa (the Capital), Burao, Berbera (the sea port), Lasanod and Erigavo. The Toghdeer and North West agro pastoral livelihood zones are found in Toghdeer and Woq Galbeed Regions; while pastoralism is predominant in the Hawd, Nugal Valley, Sool Plateau and Golis/Guban livelihood zones.

Map 1: Livelihood Zones - Northwest Region



The Nutrition Surveillance Project is managed by FAO, funded by USAID/OFDA, SIDA and receives support from the EC

Figure 1: Trends in Levels of Acute Malnutrition Northwest Region 2002 - 2006



Somaliland has had relative peace and stability since 1991 when it declared autonomy from the Central Government of Somalia. This has led to many returnees from refugee camps in Ethiopia and the Diaspora, settling in Hargeisa and the major towns of Burao and Berbera and taking advantage of investment or income opportunities including employment.

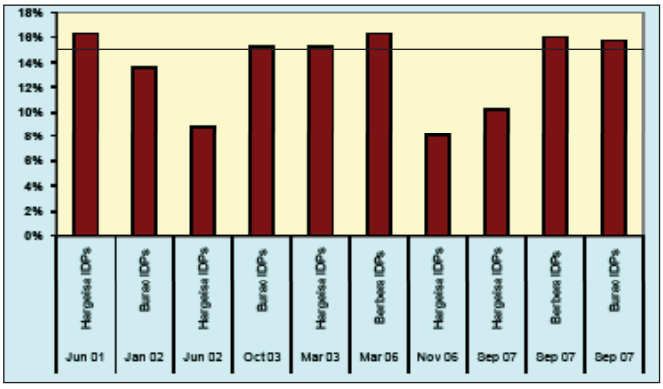
The growth of these urban centers has had a ripple effect in the rural pastoral and agro pastoral livelihoods as they offer a ready market for their products. The only setbacks to rural livelihoods have been natural calamities, mainly drought (2001-2004) whose effects on human life has been mitigated by a strong social support structure from within Somaliland and those in the Diaspora, as well as humanitarian assistance.

The above mentioned factors have contributed to general food security situation with Somaliland being classified in the **Chronically Food Insecure** phase (Integrated Phase Classification) which is the best case scenario so far in Somaliland. In the rural livelihoods, the nutrition situation has mostly remained in the **Alert** phase with levels of acute malnutrition ranging from **5 – 9.9%** since 2002, the exception being Awdal *(See Figure 1).*

The favorable conditions in Somaliland have been a pull factor to Protracted Internally Displaced Persons (IDPs) and immigrants from South and Central Somalia who are either fleeing conflict or in search of income opportunities. These Protracted IDPs live in various settlements within or around the towns.

Unfortunately, the income opportunities and basic services such as health care, water and sanitation are limited, predisposing protracted IDPs to food insecurity and excess morbidity and contributing to the higher levels of acute malnutrition *(See Figure 2).*

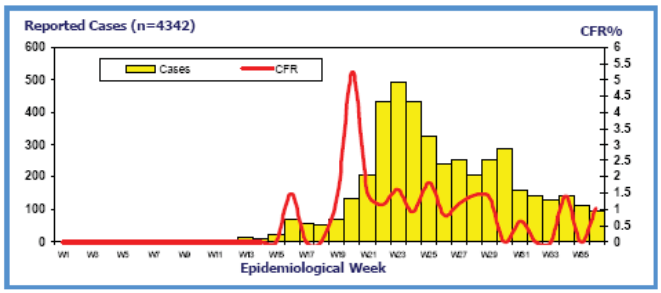
Figure 2: Trends in Levels of Acute Malnutrition Northwest Region Protracted IDPs 2002 - 2006



Acute Water Diarrhoea Outbreak

From January 1st –September 7th 2007 a total of **4,342** cases of Acute Watery Diarrhoea (AWD) were reported from the northwest region including 49 related deaths, giving a Case Fatality Rate of **1.13%.** Cases were reported from 3 regions, Togdheer, Awdal and Wogooyi Galbeed with an estimated population of 1,063,855; giving an overall attack rate of 0.41%. **Overall, the number of reported AWD cases is decreasing in the northwest zones**. *(See Figure 3)*

Figure 3: Distribution of AWD cases in Somaliland, January 1 - September 7, 2007 (WHO)



In the table below, a historical timeline of events in Somaliland and how these may have contributed to the nutrition and or food security situation is provided Also provided is a summary of key findings from three nutrition assessments conducted in IDP settlements in Hargeisa, Burao and Berbera. In the Hargeisa IDP assessment, the Lot Quality Assurance Sampling (LQAS) methodology was tested alongside the standard two stage cluster (30x30) assessment methodology used in all the assessments. The findings are also presented.

Historical Timeline of Events, Somaliland, and their Potential Contribution to the Nutritional Outcome		
Year	Events And Potential Risk Factors for Acute Malnutrition	Nutritional Status Outcome
1970-1981	• General hostility between the Central Government of Somalia lead by Siad Barre in Mogadishu and the Somaliland associated with the regime reneging on previous pledges of posts in the public administration and government and neglecting the region in terms of investment. *Sources:* *1. Hargeisa Urban Food Economy Baseline Report FSAU 1998, 2003* *2. Final Evaluation Report of FSAU IV Oct. 05;* *3. Analysis of Macro-Economic Situation in South and Central Somalia Discussion Paper, UNDP, CRD June 2004*	No nutrition data available
1982-early 1987	• Political instability in Somalia; factional and clan-based armed conflict gains momentum • Large numbers of civilians flee from conflict-affected areas of Somaliland and Somalia to refugee camps in eastern Ethiopia and northeastern Kenya. *Sources:* *1. Hargeisa Urban Food Economy Baseline Report FSAU 1998, 2003* *2. Final Evaluation Report of FSAU IV Oct. 05;* *3. Analysis of Macro-Economic Situation in South and Central Somalia Discussion Paper, UNDP, CRD June 2004*	No nutrition data available
1988-1990	• Civil war between the Central government of Somalia and Somali National Movement (SNM) in the North West • Hargeisa town is badly destroyed and most of the urban population flees to Eastern Ethiopia or to rural relatives. • Most of the urban population in Hargeisa continues to be displaced to refugee camps in Ethiopia or rural relatives *Source: The Hargeisa Urban Food Economy Baseline Profile, FSAU 1998; and reports, 2003*	No nutrition data available
1991	• Collapse of the Central Government (Siad Barre's regime) in January 1991 • The Republic of Somaliland is declared an independent state on May 18th, 1991. • Abdirahman Mohammed Ali the last Chairman of SNM is nominated as president of Somaliland for a 2-year transition period. • People start to return to Hargeisa. • Humanitarian food assistance and monetized food floods Berbera port and Hargeisa markets in late 91 *Source: Somali Joint Needs Assessment Livelihoods and Solutions for the Displaced, Cluster Report 2006* • Very poor rains and production especially for the Toghdeer agropastoralists *Source: Toghder Agro Pastoral Food Economy Baseline Profile, FSAU 2002*	No nutrition data available
1992	• Humanitarian food assistance attracts militia • Berbera port closed March 92-Aug 92 • Jesan livestock market in the Kingdom of Saudi Arabia is used for the first time *Source: The Hargeisa Urban Food Economy Baseline Profile 1998 FSAU 1998; and reports, 2003* • Poor Gu, failed Deyr rains, poor livestock trade and production in the rural agropastoral and pastoral livelihoods *Source: Golis/Guban Pastoral Food Economy Baseline Profile, FSAU 2002*	No nutrition data available

1993	• Egal is elected as President of Somaliland following a national reconciliation meeting in Boroma, Somaliland • UNOSOM international intervention commences in Somaliland in December 92 -Jan 93 *Sources: 1. The Hargeisa Urban Food Economy Baseline Profile 1998 FSAU 1998; and reports, 2003* 2. Toghder Agro Pastoral Food Economy Baseline Profile, FSAU 2002) • Very poor rains resulting in poor harvest • Poor terms of trade, locally known as BEER DHIGA. *Sources: Toghder Agro Pastoral Food Economy Baseline Profile, FSAU 2002; Hawd and Sool Pastorals Food Economy Baseline Profile, FSAU/SCUK 2002*	
1994	• Demobilization & re-integration program by UNDP/GTZ/WFP/CARE • Nationalization of armed militia based to the west of Hargeisa • New Somaliland currency in Hargeisa, Berbera and Boroma in October. Slsh 50 = $1 • Trade routes re-opened • 15 November - 11 Jan 95 conflict in the airport and town *Source: .The Hargeisa Urban Food Economy Baseline Profile FSAU 1998; and report, 2003* • Very good Gu and Deyr and very rains leading to good harvests. Livestock products/ sales were good and generally fair Terms of Trade recorded in Toghdeer Agro pastorals. *Source: Toghder Agro Pastoral Food Economy Baseline Profile, FSAU 2002*	No nutrition data available
1995	• President Egal completed 2 terms. • More Somaliland currency notes printed contributing to escalation in prices of staple foods The Government of Somaliland (GOSL) in collaboration with the Central Bank, establishes trade policies regarding prices of shoats, oxen and camels for export *Source: 1.The Hargeisa Urban Food Economy Baseline Profile 1998 FSAU 1998; and reports, 2003* • Relatively good rainfall in both Gu and Deyr seasons improving pasture conditions and livestock production. *Source: Toghder Agro Pastoral Food Economy Baseline Profile, FSAU 2002*	No nutrition data available
1996	• Introduction of transit/export permits in March • Devaluation as new notes are circulated The third national reconciliation meeting commences in Hargeisa in late 96 • Good crop and livestock production and very good market access with high demand for small ruminants. *Source: The Hargeisa Urban Food Economy Baseline Profile 1998 FSAU 1998; and reports, 2003*	No nutrition data available
1997	• The third national reconciliation meeting held in Hargeisa from Oct '96 to May '97 ended the 20 month old civil conflict within the country and encouraged the voluntary repatriation of displaced/refugee urban dwellers to Hargeisa from rural areas in Somaliland and Ethiopia as well as from the refugee camps in Eastern Ethiopia. *Sources: Toghder Agro Pastoral Food Economy Baseline Profile, FSAU 2002; Hawd and Sool Pastorals Food Economy Baseline Profile, FSAU/SCUK 2002* • President Egal is re-elected. • Elnino rains in Deyr season *Source: Toghder Agro Pastoral Food Economy Baseline Profile, FSAU 2003* • Good pasture/ grazing but poor ToTs because of the suspected rift valley fever. *Source: Toghder Agro Pastoral Food Economy Baseline Profile, FSAU 2002*	No nutrition data available

1998	• The kingdom of Saudi Arabia declares a ban of livestock from Somaliland 7 February 1998 • Poor production for both livestock and crops. Poor livestock health and increased diseases. Low ToTs for all groups. *Source: Toghder Agro Pastoral Food Economy Baseline Profile, FSAU 2002* • FSAU started activities in Somaliland and Puntland in 1998	No nutrition data available
1999	• Livestock trade ban lifted in March by the Kingdom of Saudi Arabia • Poor Gu and Deyr seasons that resulted in crop failure and unusual out migration of livestock. • Lower livestock prices and poor Terms of Trade because of weakened body condition. GACMADHERE that literally means, seeking support *Source: Toghder Agro Pastoral Food Economy Baseline Profile, FSAU 2002; Hawd and Sool Pastorals Food Economy Baseline Profile, FSAU/SCUK 2002*	No nutrition data available
2000	• The Somali shilling is devalued due to illegal printing of Somali shilling notes • Poor crop and livestock production • Unusual livestock out-migration to South Hargeisa due to lack of pastures and water • High livestock mortality • Livestock ban re-imposed by the Kingdom of Saudi Arabia in September resulting in low purchasing power for the agro pastoral communities particularly the poor wealth groups *Source: Toghder Agro Pastoral Food Economy Baseline Profile, FSAU 2003*	No nutrition data available
2001	• Drought in parts of Somalia • Poor crop production. High prices of the cereal grains and low prices of livestock sales *Source: North West Agropastoral Food Economy Baseline Profile FSAU 1998* • President Egal passes away on May 3rd, 2001 following surgery in SA. • Dahir Rayale Kahin, the Vice President is nominated to act as president according to the constitution then elected in December, 2005 as President.	• Lughaya & Zeila districts Nutrition Assessments in November 2001 by UNICEF/MOHL/SRCS: Global Acute Malnutrition (GAM) levels of 27.5% (22.2-32.9) and Severe Acute Malnutrition (SAM) levels of 4.2 (3.1-5.3) • Hargeisa IDP settlements nutrition assessment by UNICEF/MOHL/FSAU in June 2001: GAM levels of 16.1% (13-18) and SAM levels of 6.0% (3.4-9.5) • The anaemia survey conducted in Sept 2001 indicates a prevalence of 59.5% in the 6-59 age category with 18.3% classified as mild, 33.3% as moderate and 8% as severe anaemia.
2002	• Below normal crop production but relatively normal livestock production and rerouted markets opened. • Good terms of trade and employment opportunities. High prices of livestock sales as well as cereal grains. *Source: Toghder Agro Pastoral Food Economy Baseline Profile, FSAU 2002*	• Sanaag Region Nutrition Assessment in May 2002 by UNICEF/MOHL/ FSAU: GAM levels of 13.4% (10.2-21.9) and SAM levels of 5.0% (2.1-7.7). • The Hawd of Hargeisa Nutrition assessment by FSAU/ UNICEF/MOHL in May 2002 GAM levels of 8.6% (6.9 – 10.7) and SAM levels of 1.4% (0.6-2.2).
2003	• The general food security situation of the pastorals in Sool Plateau, Sanaag, and Gebi Valley is deteriorating gradually due to 3 + years of drought followed by loss of assets and loss of earnings from livestock sales and products. This coincides with the high price of water and also sales of breeding and pack animals further, the normal coping strategies have become depleted. The food and income sources of the Sool plateau have changed considerably in terms of quantity and quality. • In the agro pastorals areas, the Karan rains improved the condition of wilting crops, livestock and crop in good condition. *Source: FSAU Food security monthly report, Jan &August 2003*	• Hargeisa IDPs & Returnees Nutrition Assessment in February 2003 by UNICEF/MOHL/FSAU: GAM levels of 15.3% and SAM levels of 3.8% (2.2-5.6) • Sool Plateau in Sool and Sanaag Regions in June 2003 by FSAU/UNICEF/ SRCS: GAM levels of 12.5% (10.5-14.9) and SAM levels of 1.8% (1.1-3.0) • Hawd of Toghdeer Assessment in August 2003 by FSAU/ MOHL/ SRCS: GAM levels of 10% (8.1-12.1) and SAM levels of 1.3% (0.7-2.4) • Burao IDPs assessment in October 2003 by FSAU/ MOHL/SRCS: GAM levels of 15.3% (11.8-19.9) and SAM levels of 1.9% (0.9-4.2) • An interagency rapid MUAC assessment in Toghdeer indicates 8.4% as acutely malnourished (<12.5cm) (N=391).

2004	Post Gu 2004 Analysis: • A three year drought in Northern Somalia precipitates immediate needs for humanitarian assistance and severe environmental degradation. Lack of water and grazing has been particularly severe in camels, with upwards to 80% cumulative deaths rates in some areas. Without pack camels, herders are unable to relocate to areas with rain and pasture. • Large numbers of pastoral drop outs who have lost their livelihoods and are displaced and dependent on social support systems. • A total of 57, 700 are faced with a Humanitarian Emergency, and 159, 100 with an Acute Food and Livelihood Crisis in Sanag, Sool and Las Qoray. *Source: FSAU Technical Series IV.2 Sept 21, 2004* Post Deyr 2004/05 Analysis: • The Deyr 2004/05 rains ended the 3+ drought cycle in the region, which has been compounded with multiple shocks freezing temperatures and flooding, environmental degradation and resulted in cumulative livestock deaths, high level of indebtedness and widespread destitution. • An estimated 52,000 people in Sool and Sanag are faced with a Humanitarian Emergency and require humanitarian support, while about 115,000 are faced with an Acute Food and Livelihood Crisis and require livelihood support. *Source: FSAU Technical SeriesIV.3 Feb 28, 2005*	• Sool Plateau Livelihood Zone assessment in July 2004 by FSAU/UNICEF: GAM levels of 13.6% (13.1-24.2) and SAM of 3.1% (CI: 1.4-4.8). • Hawd of Toghdeer Livelihood Zone Rapid MUAC assessment in April 2004 (N=5300) in 161 villages indicates 17.1% at risk
2005	Post Gu 2005 Analysis: • Positive gains of two good seasons (Deyr 04/05 and Gu 2005) has led to improved rangeland, water availability and livelihood recovery resulting in a downgrading of most of the Sool Plateau and Lower Nugal Valley from the previous Humanitarian Emergency to Acute Food and Livelihood Crisis with the remaining areas classified as Alert. Toghdeer remains in an Acute Food and Livelihood Crisis *Source: FSAU Technical Series IV.7 Sept 13, 2006* Post Deyr 2005/06 Analysis: • Due to the cumulative impacts of the prolonged drought and the lag time in overall recovery the areas receiving good rains remained in Acute Food and Livelihood Crisis with a positive trend of recovery while those that received poor rains remained in Acute Food and Livelihood Crisis with a downward trend of recovery. Thus an estimated population of 141,000 in the North West is faced with an Acute Food and Livelihood Crisis. *Source: FSAU Technical Series IV.8 February 22, 2006*	• Taleex Huddun Districts Assessment in June 2005 by FSAU/UNICEF/SCRS/ MOHL: GAM levels of 10.5% (8.1-13.0) and SAM of 0.7% (CI: 0.2-1.2). • Hargeisa IDPs & Returnees Nutrition Assessment in September 2005 by FSAU/UNICEF/MOHL: GAM levels of 6.0% (3.4-8.6) and SAM of 1.1% (CI:0.0-2.1)
2006	Post Gu 2006 Analysis: • An estimated 100,000 people in the Nugal Valley, Sool and Hawd livelihood zones are faced with an Acute Food and Livelihood Crisis which is roughly half, and therefore an improvement, from the number affected in the post Deyr '05/06 analysis. Other parts remain Chronically Food Insecure *Source: FSAU Technical Series IV.9 Sept 15, 2006* Post Deyr 2006/07 Analysis: • There is recovery of the pastoral livelihood with those previously identified to be in an Acute Food and Livelihood Crisis now categorized as Chronically Food Insecure. *Source: FSAU Technical Series, March 7, 2007*	• Hawd of Toghder Nutrition Assessment in July 2006, GAM of 10.1% (CI:7.3-12.8) and SAM of 0.7% (CI: 0.1-1.2) • Sool Plateau Sanag Nutrition Assessment in August 2006 by FSAU/UNICEF/MOHL: GAM levels of 8.7% (6.1-12.3) and SAM of 0.8% (CI: 0.0-1.8) • Hawd of Hargeisa Nutrition Assessment in November 2006 by FSAU/UNICEF/MOHL: GAM levels of 9.1% (6.2-12.0) and SAM of 2.0% (CI: 0.8-3.2) • Nugal Valley Livelihood nutrition Assessment in November 2006 by FSAU/UNICEF/MOHL: GAM levels of 8.9% (6.1-11.8) and SAM of 1.4% (CI:0.4-2.4).

2007	Post Gu 2007 Analysis: • All Pastoral and Agro Pastoral areas in the northern regions remain in the usual phase of Chronically Food Insecure (CFI). • The consecutive seasons of above normal Gu/Karan '07 production have improved food security by increasing cereal availability and accessibility as well as providing a source of cash income for agro pastorals. *Source: FSAU Technical Series V. 13 September 21, 2007*	• Rapid MUAC assessments on 3,628 children in July 2007 indicated <5% with MUAC<12.5cm with lowest in Nugal Zone (0.44%) and highest (3.7%) in Golis Livelihood Zone. • Analysis of the Post Gu'07 nutrition situation indicates a relatively stable situation in all regions apart from the Golis/Guban livelihoods that show a likelihood of deterioration. The nutrition situation is therefore classified as 'Alert' and likely to deteriorate in the Golis/Guban livelihoods in the coming six months. • Hargeisa IDPs Nutrition Assessment, Sept '07 by FSAU/ UNICEF and MOHL, GAM levels of 10.3% (8.4-12.2) and SAM levels of 1.2% (0.6-1.9%) • Burao IDPs Nutrition Assessment by FSAU/UNICEF/ MOHL, GAM levels of 15.8% and SAM levels of 1.4% • Berbera IDPs Nutrition Assessment by FSAU/UNICEF/ MOHL, GAM levels of 16.0% and SAM levels of 0.6%.

Nutrition Assessment findings Hargeisa Protracted IDP Populations

Hargeisa, the Capital of Somaliland is the biggest urban setting in the northwest region. Due to the general stability, peace and better prospects for income in the town, Hargeisa has for a long time hosted the majority of the protracted IDPs and returnees from South and Central Somalia and Ethiopia since early 90s. Currently, the seven[1] IDP settlements in Hargeisa have an estimated 83,200 people (WHO's NID figures September 2007).

The IDP population is highly vulnerable to socio-economic, health and nutrition risk factors due to lack of a stable livelihood. Past assessments have identified poor health, sanitation, shelter conditions, food insecurity and high malnutrition levels as major problems affecting the returnee/IDP populations in Hargeisa town. A previous nutrition assessment conducted in October 2005 recorded an alert nutrition situation with a Global Acute Malnutrition (GAM) rate of **7.6%** (6.0 – 9.5) and Severe Acute Malnutrition (SAM) **1.3%** (0.7 – 2.3).

This was an improvement from previous assessments which had shown a critical nutrition situation with GAM rates of over 15% (see chart 2). The improvement at that time was attributed to reintegration of the IDPs to urban livelihood and increased access to social services and casual labour opportunities leading to improved purchasing power and hence access to quantity and quality food. However, due to the unstable livelihoods of the IDPs and their vulnerability to malnutrition, constant monitoring is necessary.

From 30th August to 9th September 2007, FSAU, MoH and partners undertook a nutrition and mortality assessment of the protracted IDPs aimed at determining the current nutrition situation and influencing factors.

1 IDP camps Ayaha A, B, Daami, Mohamed Mooge, Sheik Nuur , Aw Adam, Stadium and State House

Using the standard assessment methodology, a total of 905 children aged 6 – 59 months and measuring 65 – 109.9 cm in height/length from 503 households were assessed; and mortality data collected from 913 households.

Results indicate that the majority (58.3%) of the people in the IDP settlements were returnees from Ethiopia and that most (84.9%) of them had stayed in the settlements for period of more than two years. The main reason for their displacement was civil insecurity. Findings show a **GAM of 10.3%** (8.4 – 12.2) and a **SAM of 1.1%** (0.5 – 1.7). Though on the borderline, results indicate a serious nutrition situation according to WHO classification. The results also indicate slight deterioration from the findings of September 2005 assessment that reported an alert nutrition situation. However, since the confidence intervals overlap the deterioration is not statistically significant. Morbidity was high with 27% of the children reported to have suffered from one or more communicable diseases during the two weeks prior to the assessment. Diarrhoea and ARI were the most prevalent reported at 15.3% and 15.4% respectively.

Dietary diversity was good with the majority (80.9%) of the households reporting to have consumed four or more food groups (mean=4.9) in the twenty four hours prior to the assessment. Most households (67%) were reportedly consuming three meals in a day which mainly comprised of cereals, sugar, oil and vegetables. Purchase was the main food source for three quarters (75.3%) of the households while the main source of income for the majority (68.6%) of the households was casual labour.

Less than half (45.1%) of the children aged 6 – 24 months were reportedly still breastfeeding at the time of assessment with 89% of the children introduced to foods other than breast milk before the age of 6 months indicating sub optimal childcare practices. The coverage for health services (polio, measles and vitamin A supplementation) fell below the SPHERE recommendation of 95%.

A mother from an IDP settlement, breastfeeding her infant, September 2007

The retrospective crude and under five mortality rates were **0.90** (0.55 – 1.25) and **1.42** (0.68 – 2.71) deaths/10,000/day respectively, indicating an acceptable situation (WHO). These results show a slight improvement in the under five mortality rate compared to September 2005 assessment which recorded crude and under five rates of **2.13** (1.07 – 3.19) and **0.79** (0.51 – 1.07) deaths/10,000/day respectively. Diarrhoea, ARI and birth related complications were the major reported causes of deaths for both the under five and those aged five years and above.

Table 1 provides a summary of key findings.

Table 1. Summary of the Hargeisa IDP assessment findings

Indicator	n	%	95% CI
Total number of households surveyed	503	100	
Total number of children assessed	905	100	
Global Acute Malnutrition (WHZ<-2 or oedema)	93	10.3	8.4 – 12.2
Severe Acute Malnutrition (WHZ<-3 or oedema)	11	1.2	0.6 – 1.9
Global Acute Malnutrition (WHM<80% or oedema)	60	6.6	5.0 – 8.3
Severe Acute Malnutrition (WHM<70% or oedema)	2	0.2	0-1.0
Children reported with diarrhoea in 2 weeks prior to assessment	143	15.3	11.8 – 19.7
Children reported with ARI within two weeks prior to assessment	139	15.4	11.3 – 19.4
Children reported with febrile illness in 2 weeks prior to assessment	27	3.0	0.9 – 1.2
Children reported with suspected measles within one month prior to assessment (N=878)	19	2.2	0.8 – 3.6
Children (9-59 months) immunised against measles (N=878)	498	58.3	52.3 – 64.5
Children who have ever received polio vaccine	809	89.4	86.5 – 92.5
Children reported to have received vitamin A supplementation in last 6 months	551	60.9	53.6 – 68.2
Proportion of children 6-24 months reported to be breastfeeding (N=270)	152	45.1	39.3 - 50
Children (6-24 months) reported to have been introduced to other foods before 6 months	300	89.0	85.1 – 92.1
Proportion of households reported to have consumed ≤3 food groups (N=456)	96	19.1	15.8 – 22.9
Proportion of households who reported to have consumed ≥4 food groups (N=456)	407	80.9	77.1- 84.2
Under five Death Rate (U5MR) as deaths/10,000/day	1.42		(0.68 – 2.71)
Crude Death Rate (CMR) as deaths/10,000/day	0.90		(0.55 – 1.25)

Analysis of findings indicates morbidity and sub-optimal child care practices as the main contributing factors to the serious nutrition situation. Morbidity, diarrhoea in particular was significantly associated with acute malnutrition with children who had suffered from diarrhoea two weeks prior to the assessment being 1.76 times more likely to be acutely malnourished than those who were not ill (RR=1.76; p=0.005). Diarrhoea does not only interfere with food ingestion but also alters digestion and absorption of food hence predisposing the child to malnutrition. Lack of access to sanitary facilities and safe water by 31.6% and 15.1% of the households respectively, is also a predisposing factor to diarrhoea. The age of the children was also significantly associated with acute malnutrition with children aged 6-24 months being **1.35 times more likely** to be acutely malnourished than those aged 25-59 months (RR=1.35; p=0.02). This may be attributed to the poor child care and feeding practices of children in this age group where children are stopped from breast feeding and introduced to infrequent complementary feeding early in life.

Most IDP households rely on irregular sources of income (occasional casual labour and petty trade) and yet depend on purchase to access food. This predisposes them to times of stress when access to food is reliant on unstable income opportunities. The continued increase of the IDPs population including the arrival of about 300 households from Mogadishu since February 2007 may have also led to increased pressure on the existing facilities at the camps and also competition for limited casual labour opportunities. Consequently, most people may not be accessing adequate food and other essential services.

The assessment team recommends continued short and long-term efforts that address increased access to income and food among the IDPs, rehabilitation of acutely malnourished children through the community-based approaches, measures to increase access to safe water and sanitation facilities to curb diarrhoeal diseases, and nutrition education to women and other child care givers on appropriate infant and child feeding practices.

Alternative Survey Methodology - Lot Quality Assurance Sampling: Pilot in Hargeisa IDPs

Background

Lot Quality Assurance Sampling (LQAS) is a method of sampling derived from the manufacturing industry for assessing quality of lots (or batches) of products. Originally, the LQAS method was developed in the 1920s as a quality control technique for industrially produced goods, but by the 1980s its sampling concepts were recognized as having universal applications. It is now being used all over the world to assess coverage in communities with programs in maternal and child health, family planning and HIV/AIDS; to assess the quality of health workers performance and even to assess disease prevalence. It is based on the principle that inspection of a small, representative sample of a lot will allow for the acceptance or rejection of the entire lot with high probability, should the number of defective goods in that sample exceed a predetermined allowable number. The purpose of using LQAS in this setting is to: determine whether a specific supervision area has reached the predetermined coverage target as well as comparing the performance of difference supervision areas.

A global review (covering a total of 805 LQAS surveys) on the use of lot quality assurance sampling (LQAS) surveys to assess aspects of health care including service delivery, health behaviour and disease burden was carried out by WHO in 2006. LQAS surveys were found to be a practical field method increasingly applied in the assessment of

preventative and curative health services, and can be used to measure variation in behaviour change when collected recurrently at multiple time points. The use of the LQAS method in various health sectors has thus spread worldwide, with the greatest uptake in Africa and in America. The greatest numbers of LQAS surveys have been used to assess risk factors for HIV/AIDS and sexually transmitted infections, although substantial numbers have also been conducted to assess immunization coverage, growth and nutrition, and post-disaster health status of communities. The LQAS surveying technique can provide insight in these areas into understanding the relationships between various investments in social, human, and physical capital, and into the effectiveness of differing health strategies in achieving behavioural outcomes.

More recently adaptation of LQAS principles in estimating the prevalence of Global Acute Malnutrition has been explored. In emergency settings, governments and humanitarian organizations need reliable and timely data about the nutritional status of the population. The sampling method traditionally used to assess the prevalence of acute malnutrition in emergencies is a 30 x 30 cluster survey. This method provides statistically reliable results if implemented correctly, but with a sample size requirement of 900, can be time-consuming and expensive to carry out. FANTA (Food and Nutrition Technical Association, based in Washington) has been exploring the use of Lot Quality Assurance Sampling (LQAS) as a rapid and cost-effective alternative for assessment of the prevalence of acute malnutrition. A study by FANTA, Catholic Relief Services (CRS), and Ohio State University (OSU)[2], field-tested the use of the LQAS designs in an emergency setting in Ethiopia. The study concluded that LQAS designs provide statistically appropriate alternatives to the more time-consuming 30X30 cluster survey though additional field testing is necessary.

The benefits of LQAS are that the outcome at lot level allows for smaller sample sizes while still informing decision makers of individual defective lots, and proportions thereof at aggregate level[3] The characteristics that have made LQAS attractive for use in the health system include:

- A small sample is needed to judge whether a supervision area has reached the predetermined coverage target. This means that data collection does not compete with time for provision of health services.
- LQAS sampling procedures and analyses are relatively simple, which is helpful for supervisors and health workers who need management tools that can be easily understood and applied.
- The results provide supervisors with a decisive judgment about action based on a predetermined hypothesis. It allows for hypothesis testing of an indicator against threshold prevalence levels (e.g. for GAM above 10% this reflects serious levels of acute malnutrition).
- LQAS is time saving, less expensive and require less resources than the conventional 30X30 design

It is for these expected benefits that FSAU undertook to pilot and field-test the LQAS methodology among the IDPs in Hargeisa in order to compare the findings with a 30X30 assessment and explore its application in the nutrition surveillance system in Somalia.

Methodology

A 33 by 6 cross-sectional assessment was conducted alongside a 30 by 30 assessment among the protracted displaced populations concentrated in seven sites[4] in Hargeisa town of Somaliland. Two-stage cluster (33 by 6) sampling methodology was used to select 6 children aged 6-59 months and height/length of 65-109.9 cm from each of the 33 clusters.

FSAU, MoH and UNICEF Staff conducting a Nutrition Survey in a Protracted IDP Population, September '07

A list of all settlements/villages/towns within each of the seven assessed sites with their respective populations formed a sampling frame and was used to construct cumulative population figures for the assessment area from which 33 clusters were randomly drawn using the Nutrisurvey software. The EPI method was used for the second stage sampling of households and children as outlined in the Nutrition Working Group/Cluster Somali Nutrition Assessment Guidelines.

Quantitative data was collected through a standard household questionnaire for nutrition assessments and included household characteristics; child anthropometry, morbidity, vitamin A supplementation, measles and polio immunization coverage; dietary diversity; and access to water and sanitation. Qualitative data was collected by an interagency team comprising of assessment supervisors and coordinators through focus group discussions and key informant interviews to provide further understanding of possible factors influencing nutritional status. All eligible children in a sampled household were assessed giving a total of 204 children. Since only 198 children were required for analysis, the six extra children were randomly eliminated at the analysis stage using a table of random numbers. Household and child data was entered, processed (including cleaning) and analysed using EPI6 software.

Results and Discussion

Overall, the 33X6 LQAS design produced more or less similar results to the conventional 30X30 design for both child data (malnutrition, morbidity and health programmes coverage) and household data (household dietary diversity, access to water and access to sanitation facility). However, as expected from the smaller sample size from the LQAS design (198 children) than the 30X30 design (905 children assessed), the confidence intervals are generally wider while the standard error is generally higher for the LQAS results (Table 3). Again as expected the design effects were generally lower for LQAS design (See Table 2).

2 International Journal of Epidemiology: A Field Test of Three LQAS Designs to Assess the Prevalence of Acute Malnutrition; May 2007.

3 Hoshaw-Woodard, 2001

4 Ayaha; Aw Aden; Sheikh Nur; Daami; Mohamed Mooge; Stadium and State House.

Table 2: Comparative Analysis of findings using 30X30 and LQAS methodologies

Indicator	Prevalence		95% CI		CI Width		Standard Error		Design Effect	
	30X30	33X6	30X30	33X6	30X30	33X6	30X30	33X6	30X30	33X6
GAM (WHZ)	10.3	9.6	8.4 – 12.2	6.1 – 13.1	± 1.9	± 3.5	0.06	0.08	0.91	0.72
SAM (WHZ)	1.1	1.0	0.5-1.7	0-2.4	±0.6	±1.4	0.003	0.007	0.70	0.98
Stunting (HAZ)	19.2	19.2	16.3 – 22.2	12.7 – 25.7	± 3.0	± 6.5	0.09	0.10	1.30	1.42
Underweight (WAZ)	18.0	20.7	14.8 – 21.3	15.0 – 26.4	± 3.3	± 5.7	0.06	0.08	1.68	1.02
Diarrhoea	15.3	13.6	11.7 – 19.9	7.9 – 19.4	± 1.8	± 5.8	2.07	2.94	2.91	1.46
ARI	15.4	19.2	11.3 – 19.4	11.9 – 26.5	± 2.3	± 6.3	2.08	3.71	3.00	1.74
Febrile illness	3.0	2.5	1.2 – 4.7	0.5 – 4.6	± 1.4	± 2.1	0.90	1.06	2.53	0.90
Suspected measles	2.2	1.6	0.82 – 3.64	0.0 – 3.9	± 1.3	± 2.3	0.72	1.17	2.03	1.65
Measles immunization	58.3	57.7	52.3 – 64.3	43.6 – 71.8	± 3.4	± 14.1	3.08	7.20	3.33	4.01
Vitamin A supp	60.9	43.4	53.5 – 68.2	33.4 – 53.5	± 3.4	± 10.1	3.74	5.13	5.33	2.12
Polio immunization	89.4	93.9	86.4 – 92.4	88.7 – 99.2	± 2.2	± 5.3	1.53	2.70	2.23	2.53
Dietary diversity	80.9	90.6	76.5 – 85.3	84.1 – 97.0	± 3.8	± 6.5	2.23	3.30	1.63	1.35
Access to safe water	84.7	97.2	75.9 – 93.5	94.2 - 100	± 8.8	± 3.0	4.50	1.55	7.82	0.94
Access to latrine	68.4	74.5	58.2 – 78.6	65.1 – 82.5	± 10.2	± 9.4	5.18	4.73	6.25	1.25

Analysis of the findings from the two assessment designs, indicate similar estimates of acute malnutrition. Acute malnutrition rates (WHZ<-2 and/or oedema) of **9.6%** (6.1 – 13.1) was reported from the 198 children assessed using the LQAS (33X6) design. Comparable results (confidence limits overlapping) were reported from the conventional 30X30 design with acute malnutrition rates (WHZ<-2 and/or oedema of **10.3%** (8.4 – 12.2). For hypothesis testing against a threshold of below or above GAM of 10%; 19 children were found to be malnourished indicating levels above 10%[1].

Because it is less resource and time demanding, this method could be adopted in the surveillance system especially to fill information gaps during the seasonal (post *Gu* and post *Deyr*) assessments and in areas with limited accessibility. However, since the levels of acute malnutrition were on the borderline and very close to the threshold (GAM≤10%), a second field pilot in another region with typical levels of acute malnutrition of 10 – 14.9% (serious) or 15 – 19.9% (critical) would be recommended before the design can be adopted for situation categorization of acute malnutrition (hypothesis testing) and estimation of levels for nutrition surveillance.

Nutrition Assessment findings Berbera Protracted IDP Populations

Context

Berbera town has a population estimate of 21,263 (WHO NID, September 2007) and is the capital of Sahil region. The main livelihoods are urban and pastoral, there are also fishing activities along the beaches of the Gulf of Aden. There are two main ecological systems in Sahil, namely the coastal (Guban) and the mountainous belts (Oogo). Considerable variations in the climate occur in these zones leading to population migrations within the region at various times of the year. The coastal belt is usually cool between November and January while May to September is normally hot and windy. Thus, there is normally population movement from the coastal belt to cool mountainous areas at this time.

5 Only 13 malnourished children are required to hypothesize GAM levels of ≤10%.

Berbera town serves as the main entry point for imported food and non food commodities; it also serves as the main export facility for livestock. The town attracts a large number of displaced and immigrant populations, largely in search of employment opportunities. Consequently, there is a large vulnerable population of immigrant laborers who live in squatter villages and rely on casual port activities as the main source of income.

An exhaustive nutrition assessment was conducted between September 4th to 7th 2007, by FSAU in collaboration with the Ministry of Health and UNICEF in the vulnerable settlements of Jamalaye, Sabowanaag, Finland and Burosheikh, to determine the nutritional status and associated influencing factors of the children 6-59 months or 65-109.9cm tall using the weight for height index and subsequently to present suitable recommendations for interventions based on the findings.

Table 3: Summary of the Berbera IDP Assessment Findings		
Indicator	n	%
Total number of households surveyed	169	100
Total number of children assessed	313	100
Global Acute Malnutrition (WHZ<-2 or oedema)	50	**16.0**
Severe Acute Malnutrition (WHZ<-3 or oedema)	2	**0.6**
Global Acute Malnutrition (WHM<80% or oedema)	32	10.2
Severe Acute Malnutrition (WHM<70% or oedema)	0	0
Children reported with diarrhoea in 2 weeks prior to assessment	36	19.4
Children reported with ARI within two weeks prior to assessment	58	31.2
Children reported with febrile illness in 2 weeks prior to assessment	2	1.1
Children reported with suspected measles within one month prior to assessment (N=313)	4	2.3
Children (9-59 months) immunised against measles (N=313)	152	52.4
Children who have ever received polio vaccine	290	92.7
Children reported to have received vitamin A supplementation in last 6 months	246	78.6
Proportion of children 6-24 months reported to be breastfeeding (N=145)	84	57.9
Children (6-24 months) reported to have been introduced to other foods before 6 months	137	94.5
Proportion of households who reported to have consumed ≤3 food groups (N=169)	45	26.6
Proportion of households who reported to have consumed ≥4 food groups (N=169)	124	73.4

A total of 313 children (aged 6-59 months) were assessed from 169 households, of whom 85.8% were male headed and 14.2% female headed. The Global Acute Malnutrition (GAM) rate (WHZ<-2) was **16.0 %** while the Severe Acute Malnutrition (SAM) rate was **0.6%**, these rates are similar to a nutrition assessment conducted in March 2006 in the same area that indicated a global acute malnutrition rate of (WHZ<-2) of 16.3% and a severe acute malnutrition rate of 2.2%. No oedema cases were reported, indicating a stable but critical nutrition situation amongst the vulnerable groups in the town. Households consumed an average of 4.3 (SD=1.3) food groups with about 25% consuming three or fewer food groups during the previous 24 hours. The majority of the households consumed an average of two meals a day. Cereals, sugar and oil was consumed by majority of the households (>94%). The main source of food was through purchasing. Complementary food were introduced to majority (82.1%) of the children at <3 months, while only 45.5% of the children were fed at least 5 times a day as recommended (Facts for Life, 2002). About 58% of the children aged 6-24 months were being breastfed and majority (82.1%) of the mothers breastfed their children on demand.

About a quarter (26.5%) of the children were reported to have been ill in the two weeks prior to the assessment. The main diseases were diarrhoea (16.3%) and ARI (12.8%), while suspected malaria was only 2.9%. There were two reported cases of suspected measles. Skin diseases were also frequently noted in both adults and children, and reportedly were mainly attributed to the high seasonal climatic temperatures (*see Photo below*). Immunization coverage of polio in the town was high due to the on-going campaign being conducted by UNICEF and MOH with partners, the vaccination coverage for polio was 93%, while measles was 52.4% and vitamin A supplementation was 78.6%.

A child with a skin infection in Berbera

Majority of the households (88%) visited health facilities, private and public to seek medical assistance, while the remaining self medicated or sought no assistance at all. It was positive to note that a high number of households (87.6%) accessed protected water, while 67.5% of the households had access to sanitation facilities.

As there has been no marked improvement in the nutrition situation since the previous assessment conducted in March 2006, the results will help in providing useful information in order to develop short and long term interventions that are required to address the underlying issues of morbidity, sanitation and livelihoods.

Nutrition Assessment findings Burao Protracted IDP Populations / Returnees

Burao town in Burao District is the biggest urban area in Togdheer region. It hosts four main returnee/IDP settlements namely, Kosaar, Aden Suleiman, Ali Hussein and Yiroowe. Majority of the settlement inhabitants (estimated at over 2,000) are either returnees from Ethiopia or displaced people from south Somalia with some having been in the area for over ten years. New arrivals from Ethiopia continue to join these informal settlements. The poor urban populations of Burao Town (about 30%), including those in the settlement camps, have limited sources of livelihood and mainly rely on purchase to access food. The main sources of income for the poor returnee/IDP population include casual labour in the construction sector, petty trade, and domestic workforce. However, construction activities are few due to reported economic decline and conflicts over land ownership. The most recent nutrition assessment in these Burao Town settlements was conducted in **October 2005** and recorded a global acute malnutrition rate (WHZ<-2 or oedema) of 14.1% (9.6-20.2) while severe acute malnutrition (WHZ<-3 or oedema) was 2.2% (0.7-5.8). On September 4th – 7th, 2007, a total population nutrition assessment was conducted by FSAU in collaboration with MOH and UNICEF in the four IDP settlements. The assessment aimed at determining the nutritional status and associated factors in children aged between 6-59 months or 65-109.9cm tall using weight for height index.

Table 3: Summary of the Burao IDP Assessment Findings		
Indicator	n	%
Total number of households surveyed	182	100
Total number of children assessed	292	100
Global Acute Malnutrition (WHZ<-2 or oedema)	46	15.8
Severe Acute Malnutrition (WHZ<-3 or oedema)	4	1.4
Global Acute Malnutrition (WHM<80% or oedema)	25	8.6
Severe Acute Malnutrition (WHM<70% or oedema)	1	0.3
Children reported with diarrhoea in 2 weeks prior to assessment	37	12.7
Children reported with ARI within two weeks prior to assessment	28	9.6
Children reported with febrile illness in 2 weeks prior to assessment	30	10.3
Children reported with suspected measles within one month prior to assessment (N=292)	3	1.1
Children (9-59 months) immunised against measles (N=292)	176	63.1
Children who have ever received polio vaccine	264	90.4
Children reported to have received vitamin A supplementation in last 6 months	179	61.3
Proportion of children 6-24 months reported to be breastfeeding (N=105)	38	36.2
Children (6-24 months) reported to have been introduced to other foods before 6 months	94	89.5
Proportion of households who reported to have consumed ≤3 food groups (N=182)	52	28.6
Proportion of households who reported to have consumed ≥4 food groups (N=182)	130	71.4

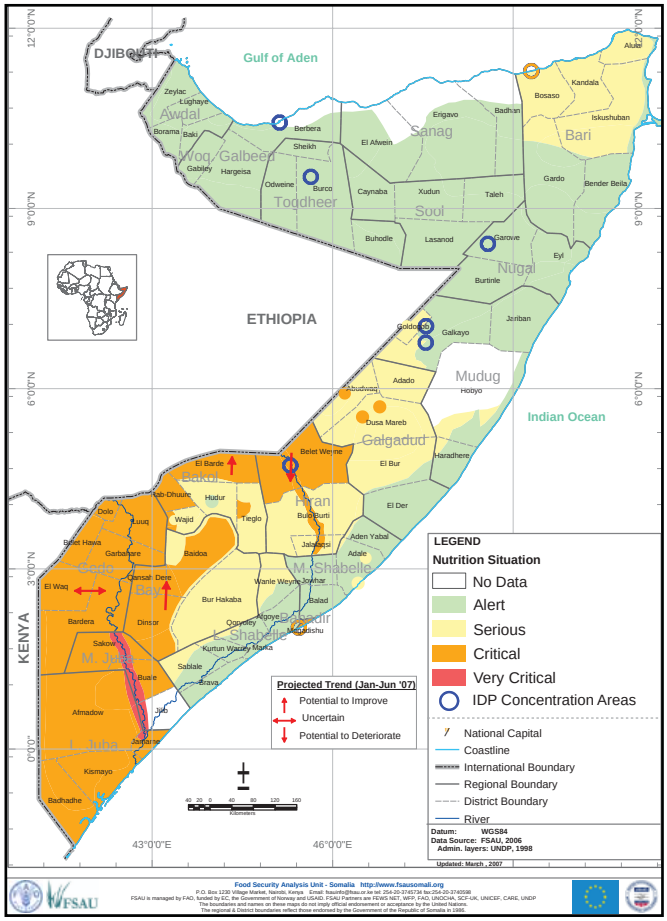
A total of 292 children (aged 6-59 months) from 182 households were assessed. Findings indicate GAM levels of **15.8%** and SAM levels of **1.4%.** This is consistent with the levels seen in other displaced and urban poor groups in Somaliland (*See Figure 2*) and do not indicate a significant change to the rates recorded in the previous assessment in October 2005. Additional findings indicate 25% of the children assessed as having been reported to have fallen ill in the two weeks prior to the assessment. About 13% of the children had suffered from diarrhea, 9.6% from ARI, while 10.3% had suspected malaria (febrile illness). There were 3 cases of suspected measles reported. Due to the ongoing polio campaign being conducted by MOH in collaboration with UNICEF, majority (90.4%) of the children had received polio vaccination, while 63.1% had received measles vaccination, and 61.3% had received vitamin A supplementation, but overall below the recommended coverage levels of 95% (Sphere, 2004).

Skin infections among children and mothers were also reported. About 70% of the population sought medical assistance from public and private health facilities, while the remaining households resorted to self medication, traditional remedies, or sought no medical assistance at all. More than half of the children (58.1%) were introduced to complimentary foods at ≤3 months, while the remaining percentage at ≤ 6 months. On feeding frequency, 32% of the children were reportedly fed five or more times a day as recommended indicating poor child feeding practices. It was positive to note that 90.7% of the households had access to protected clean water. Almost 70% of the households had access to sanitation facilities in the settlements. Additional findings are summarized in Table 3.

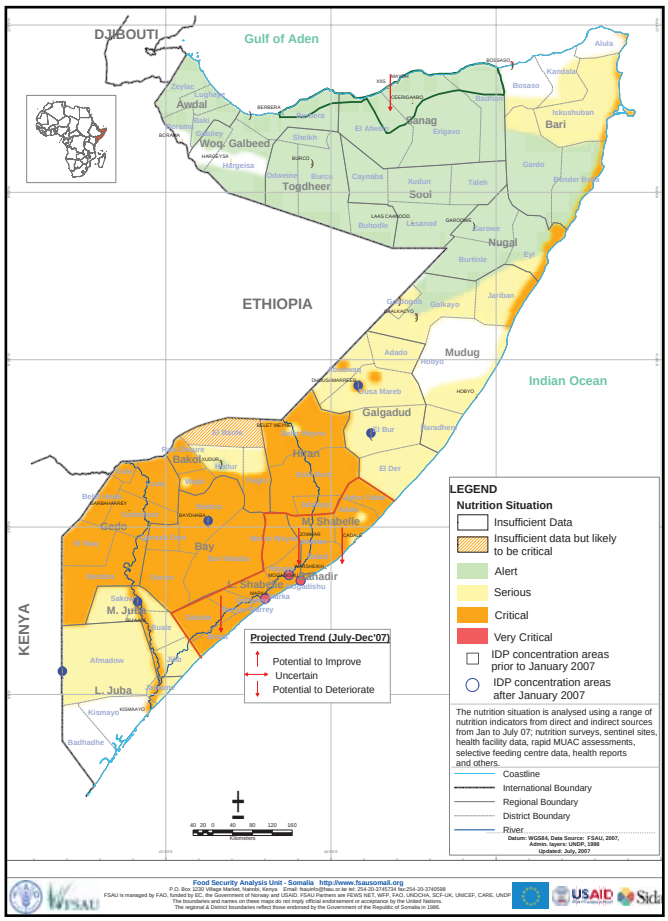
Analysis of findings indicates an average of 4.1 (SD=1.2) food groups as consumed by households (based on 24 hour recall), with 27% of the households consuming three or fewer food groups, and 71.4% of the households consuming four or more food groups. The main source of food was purchase. On frequency of meal consumption, most of the households (64.3%) reported consuming three meals a day. Qualitative information reveals that one of the main constraints experienced by this population is the low level of employment opportunities.

Casual labour opportunities are not readily available to the majority, and with the main source of food being purchase, it is difficult for many households to be able to access food, therefore some resort to relying on gifts and also begging. Efforts to improve dietary intake, access to health, water and sanitation services will improve the health of the population substantially. Short and long term multi-sectoral interventions that address the need of the IDP populations should be implemented simultaneously to address the factors directly influencing the health and nutrition of the population.

Map 2: Nutrition Status January '07



Map 3: Nutrition Status July '07



Training and courses announcements

- ***Sphere Global Training of Trainers***, *Venue: Pretoria, South Africa hosted by Oxfam GB; Dates 14-22nd October, 2007; Language: English*
- ***Public Health in Complex Emergency (PHCE) Course***, *Makerere University Institute of Public Health (IPH) in Kampala on December 3-15. Information and application forms are also available at: www. phcetraining.org*

Other related publications and Releases

- *FSAU/FEWSNET Food Security and Nutrition Brief, October 12th 2007*
- *FSAU/FEWSNET Climate Data Update, October 2007*
- *FSAU/FEWSNET Market Data Update, October 2007.*
- *FSAU Technical Series Report No V.13, September 21st 2007*

Physical address: Kalson Towers, Parklands, Nairobi. Postal address: PO Box 1230, Village Market, Nairobi, Kenya
Telephone: +254-20-3741299, 3745734, 3748297. Fax: +254 20 3740598 General email: fsauinfo@fsau.or.ke
Comments and information related to nutrition: grainne.moloney@fsau.or.ke, Website: http://www.fsausomali.org