

## OVERVIEW

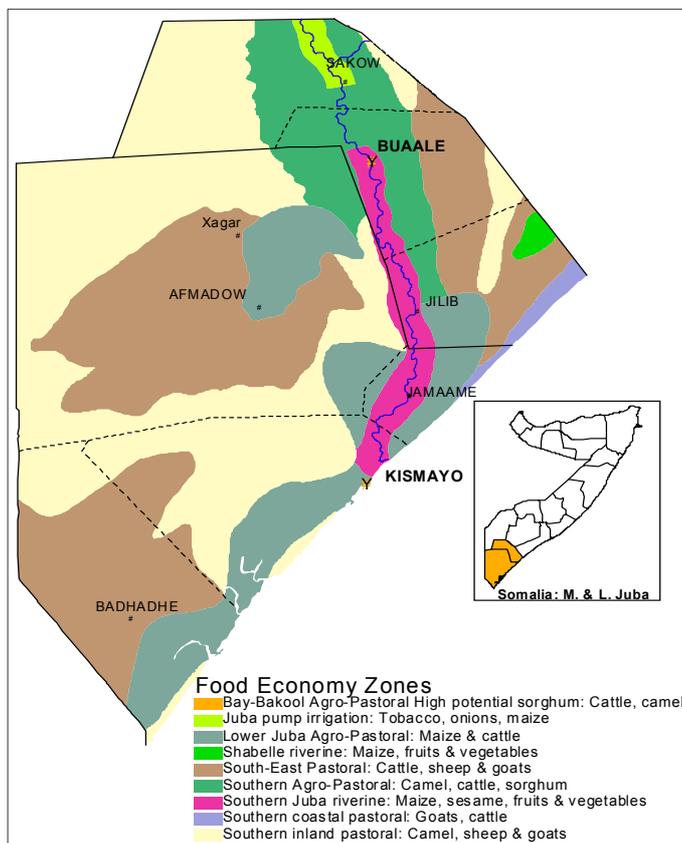
In this month's issue, summaries of two nutrition surveys are presented. The surveys highlight the differing responses to a deterioration in food security for two communities in Somalia and the resulting nutritional and mortality outcomes.

The vulnerability of the Jilib Riverine nutrition and the weak social support mechanisms have resulted in devastating consequences for the population in terms of malnutrition and mortality. Meanwhile, in Sool Plateau, the capacity to move and to benefit from very strong social support systems have enabled affected populations to withstand the crisis for a much longer period. Both situations require substantial attention with both short and longer term interventions indicated.

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## JILIB NUTRITION SURVEY REPORT - Summary



Over the past three years, the Southern Juba Riverine livelihood group of Jilib District has experienced successive drought that has led to a decline in crop production and increased food insecurity particularly among the poor socio-economic group.

Since September 2002, over five rapid nutrition assessments have been conducted by FSAU, WFP, ICRC, MSF-Holland and SRCS in the southern Juba riverine livelihood zone, all highlighting vulnerability, serious malnutrition much of which manifested as oedema, and high mortality among children. These have been attributed, partially, to declining food security and outbreaks of communicable diseases. MSF Holland established a day care therapeutic feeding centre (TFC) and out-patient's department (OPD) in June 2003. About 70% of the Marere TFC beneficiaries have had oedema on admission. A survey involving FSAU, UNICEF, UNOCHA, SRCS and the southern Juba riverine livelihood group was undertaken in May 2004 to estimate the levels of malnutrition and mortality, the underlying causes and to examine how these factors can be addressed.

A total of 913 children aged 6-59 months and measuring 65-110 cm, from southern Juba Riverine livelihood group were

surveyed using a 30x30 cluster sampling methodology. Results indicate global acute malnutrition (WFH < -2 z score or oedema) of 19.5% (CI: 17.0 – 22.2) and severe acute malnutrition (WFH < -3 z score or oedema) of 3.7 (CI: 2.6 – 5.2). About 82% of the surveyed children were from Bantu households. Among the malnourished, about 79.8% of them came from the Bantu households. Findings on the retrospective under-five and crude mortality rates of 5.4/10,000/day and 2.2/10,000/day, depict an emergency situation (WHO). A summary of findings is presented in the table on page 2.



Photo: UNICEF

**The Nutrition Surveillance Project is funded by USAID/OFDA and receives support from the EC**

SURVEILLANCE PROJECT PARTNERS INCLUDE MOHL SOMALILAND, MOSA PUNTLAND, FAO, UNICEF, WHO, SRCS/ICRC, SCRS/IFRC, WVI, GEDO HEALTH CONSORTIUM, IMC, MSF-S, COSV, AAH, MUSLIM AID-UK, INTERSOS, CISP, ZAMZAM FOUNDATION, COMMUNITIES OF WABERI, HAMARWEIN AND HAMAR JABJAB, IRC, ACF, COOPI, MSF-H, MSF-B.

Production for household consumption needs has declined due to the successive poor crop harvests. This has led to a decline in the income accessed through agricultural labour and crop sales. Coping mechanisms currently employed to access the food and income include self employment, intensified bush product collection and charcoal burning, change of food preferences from cereal to dried mangoes and family splitting for labour to urban area.

Vulnerability within the southern Juba riverine livelihood group is increased by their lack of livestock, a subsistence farming livelihood, and a fragile social support network system with limited access to remittances. This situation has been exacerbated by civil unrest in the district. The number of road blocks between Kismayo and Jilib is high. Taxes are extorted at each of the road blocks resulting in high retail prices of food and non food commodities.

Most of the surveyed children came from households that depend mainly on open hand dug wells, river and stagnant pools (97%), (refer to photo, page 1) for water. Only about 3% of the children came from households using borehole/protected wells. The water is of poor quality, and is neither treated nor boiled prior to consumption. The river is inhabited by crocodiles which often attack those fetching water or fishing. About 92% of the children came from households which do not own pit latrines. Human waste disposal in the open ground is common thus contributing to poor environmental sanitation and contamination of the water points. This practice, coupled with infrequent hand washing before feeding children has exacerbated prevalence of diarrhoeal diseases (43%) and infestation with intestinal parasites. These factors are also identified at MSF- Holland OPD as the leading causes of morbidity. Unfortunately, due to the long distance covered in accessing health services, most children do not receive treatment promptly, resulting in malnutrition and mortality. Diarrhoeal diseases and oedema/ malnutrition were identified to be the leading causes of the under five mortality (30% and 22%). For crude mortality, the leading causes were diarrhoeal diseases (16%), tuberculosis (11%), child-birth related problems (11%) and malnutrition (11%). Statistical analysis of the survey data found significant association between malnutrition and diarrhoea ( $p=0.0002$ ). Children aged less than 24 months were more malnourished than those aged 2 years and above ( $p<0.05$ ).

A relatively high prevalence of diseases during the two weeks preceding the survey was revealed in the study group. About 34% of the assessed children had suffered from respiratory infection, 43% diarrhoea, 32% suspected malaria two weeks prior to the survey, and 5% had suffered measles a month before the survey. About 71% of the assessed children had received Vitamin A supplementation in the previous 6 months, 23% of immunizable age had been vaccinated against measles while about 84% had received at least one dose of polio vaccine during the polio campaign. About 61% of the assessed children were taken for medical assistance when sick (about 40% to the four NGO-sponsored public health facilities and 21% to private clinics). Unfortunately, the distance to the NGO-sponsored clinics (which were located in the major villages of Marere, Gududei and Jilib) ranged from 1-50 km thus limiting attendance from villages located beyond 12 km radius.

Medical assistance from the clinics was often sought at advanced stages of infections when signs of malnutrition had manifested. The survey also found inadequate technical capacity and limited supplies in some of the public health clinics leading to overstretched services at the MSF-Holland sponsored OPD in Marere where most of the services could be accessed. These factors have contributed to high malnutrition and mortality rates.

About 97% of the assessed children had been introduced to foods other than breast milk in their first three months of life. About 18% of the children had stopped breastfeeding within their first year of life while about 43% of the children received less than three meals a day. (Care takers spent little time on child care practices, mainly due to farm labour engagement). These practices limit appropriate nourishment of children and contributed to malnutrition.

The critical levels of global acute malnutrition and mortality rates were therefore attributed to the southern Juba riverine livelihood group's lack of access to adequate food, lack of access to safe water, poor sanitation, health services, fragile social support network system and a poor social care environment for women and children with the insecure environment being a major contributor.

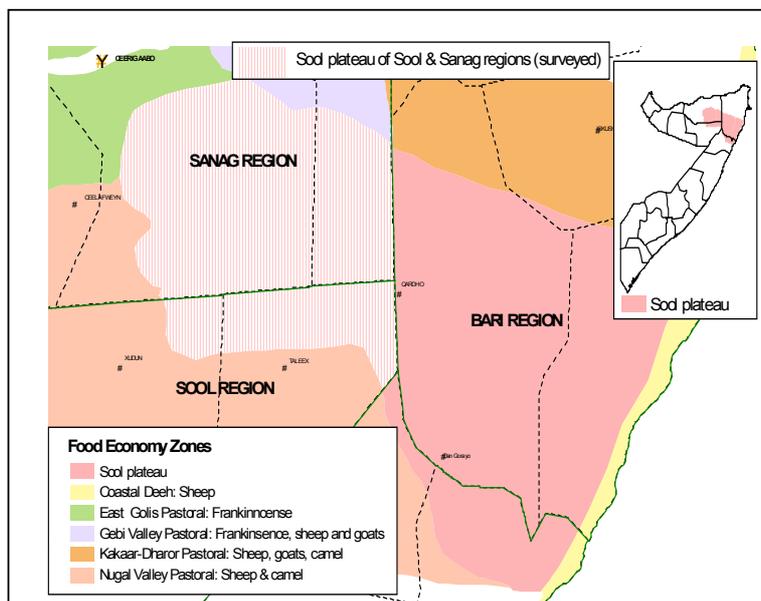
Indicator	No.	%
Children aged 6-59 months assessed	913	100
Number of households	514	100
Global acute malnutrition (WFH <-2 Z-score or oedema)	178	19.5
GAM: Ages 6-23 months (n= 350)	99	10.8
Ages 24-59 months (n=563)	79	8.7
Severe acute malnutrition (WFH <-3 Z-score or oedema)	34	3.7
SAM: Ages 6-23 months (n= 350)	17	1.8
Ages 24-59 months (n=563)	17	1.8
Severe acute malnutrition, no oedema	33	3.3
Oedema	4	0.4
Children with diarrhoea in 2 weeks prior to the survey	392	43
Under-five mortality rate (per 10,000/day)	69	5.4
Crude mortality rate (per 10,000/day)	88	2.2
Children with ARI in 2 weeks prior to the survey	311	34
Children with measles in 1 month prior to the survey	46	5
Children with Malaria in 2 weeks prior to the survey	293	32
Measles vaccination coverage(n=836, aged 9-59 months)	194	23
Vitamin A supplementation coverage	645	71
Source of water: Borehole	23	3
Source of water: Unprotected wells/springs/river	885	97
Faecal disposal: Use pit latrines	73	8
Do not use pit latrines	840	92
Frequency of feeding: less than 3 times a day	394	43
Access to health services: NGO health clinics	365	40
Private clinics	192	21
Traditional healers	320	35

Based on the analysis of the situation, the survey team made several recommendations to address the situation. The following interventions are required urgently to avert increased mortality, between now and the next harvest :

- Improve access to safe water for consumption, including storage services.
- Increase the household access to food.
- Improve the access to health and immunization services.
- Improve the immediate environmental sanitation and hygiene at household level through health awareness and facilitating construction of pit latrines.
- Opportunities to restore livelihoods include:
  - Construction of canals from the river for irrigation purpose
  - Flood protection and river bank initiatives
  - Provision of farm inputs, fruit trees and fishing gear
  - Control the crocodiles in the Juba river
  - Tse-tse fly control initiatives
- Closer monitoring of the situation is essential.

## SOOL PLATEAU NUTRITION SURVEY – Preliminary results

The Sool Plateau food economy zone (FEZ) stretches across the Sool, Sanaag and Bari regions of Northern Somalia. The Sool Plateau of Sool and Sanaag regions form the largest part of the plateau with a population estimate of 69,550 (WHO population estimates, revised in June 2004 by survey team). Pastoral livelihood is practiced with shoats and camels being the dominant animal species. The plateau has experienced more than four years of a chronic drought that led to severe pasture depletion, cumulative degradation of rangeland with little potential for recovery and regeneration and water scarcity. All these culminated in massive livestock deaths including pack camels towards the end of the year 2003. This negatively affected the migration options for poor and middle pastoral groups. Overall it is estimated that the pastoralists have lost large herds of livestock, about 50% of the shoats and 60-70% camels.<sup>1</sup> Nutrition and food security data from the area have persistently shown a poor situation in well being of the population.



A nutrition survey and an inter-agency assessment were conducted in May/June 2003<sup>2</sup> and in October 2003 respectively. This led to commencement of various interventions<sup>3</sup> in December 2003 (January 2004, February 2004 and April 2004 Nutrition Updates, summary of interventions within Sool Plateau). During these interventions, nutritional screening of children has been undertaken using weight for height, revealing high levels of malnutrition. Since December 2003 FSAU has undertaken three rounds of sentinel sites data collection in the Sool Plateau of Sool and Sanaag regions which has revealed a gradual improvement in the under fives nutritional status from around 19% to 15% of those screened. In contrast, the nutrition status for mothers was seen to deteriorate (May 2004 Nutrition Update).

Between 29<sup>th</sup> May and 8<sup>th</sup> June 2004 a nutrition survey was conducted by FSAU, UNICEF, MOHL and SRCS to determine changes in nutritional status and establish the influencing factors since the last survey in May 2003. Using a two-stage (30x30) cluster sampling methodology, a total of 901 children aged 6-59 months and measuring 65-110 cm in height/ length were surveyed. The children came from 457 randomly selected households. A high proportion (about 32%) of the households was female headed while the rest were male headed. Preliminary results indicate a global acute malnutrition rate (W/ H <-2 Z score or oedema) of 13.7 % compared to 12.5 % recorded in May 2003 survey. Severe acute malnutrition was 3.1% compared to 1.8 % in 2003 with oedema cases having increased from 5 to 12 cases.

<sup>1</sup> FEWS-NET, FSAU. Somalia, Food Security Emergency. November 22, 2003.

<sup>2</sup> Survey was undertaken by FSAU, UNICEF, SRCS and MOHL.

<sup>3</sup> Interventions consist of targeted food distribution, supplementary feeding of malnourished children, water trucking, mass treatment of livestock, free cash distribution, cash for work, treatment of common illnesses and immunization of children.

The under five mortality rate also increased from 1.9 deaths/10,000/day in 2003 to 2.89 deaths/10,000/day. Crude mortality rate was 0.88 deaths/10,000/day compared to 0.86 deaths/ 10,000/day in 2003. A total of 11.2% of the mothers were malnourished (MUAC <21 cm). This indicates a poor nutrition situation among mothers though not directly comparable to past sentinel sites data. The summary of the results is as detailed in the table.

The difference in the levels of global acute malnutrition in both surveys is not statistically significant although the rates remain higher than those seen in similar communities in the country. The increase in under five mortality rate to the alert level further reveals a poor situation in the plateau. The malnutrition rates by sex were statistically significant with more girls (18.1%) being malnourished than boys ( $p < 0.05$ ); a factor that will require further investigation. Measles and diarrhoea incidences were relatively high, 8% and 17.8% respectively. The results indicate a strong relationship between malnutrition

and malaria and diarrhoeal diseases. Though relatively low, there was an improvement in the coverage of Vitamin A supplementation and measles vaccination.

Child feeding practices were found to be sub-optimal among children aged 6-24 months. Among children of breast feeding age, the proportion still breastfeeding reduced from 61% in the previous survey to 31%. This can be attributed to the high demand of women's time, leaving children for long hours as they engage in casual employment and search for loans to buy food. Additionally, mothers are opting not to breastfeed their children due to lack of enough foods to feed themselves too as was noted in the focus group discussions.

A high proportion (93.1%) of the children aged between 6 and 24 months were introduced to foods other than breast milk very early in life between 0-3 months. The results further indicate reduction on

frequency of feeding of children. The proportion of children feeding few times per day between 1-2 times increased by more than half from about 17% in 2003 to 42%. At the same time the proportion of children feeding more than 4 times reduced, only about 7% of the children were feeding more than 4 times per day compared to 27% in 2003.

About two thirds of the people were obtaining water from unprotected wells/spring. Qualitative information from focus group discussions, key informant interviews and food security information indicate that the household level coping mechanisms have been overstretched and people are resulting in extreme coping strategies; for example significantly reducing the amount of food consumed and frequency of meals.

Further analysis of the results is currently underway.

Indicator	2003 Survey		2004 Survey	
	No	%	No	%
Children under five years screened during the survey	895		901	
Global acute malnutrition – W/ H <-2 Z score or presence of oedema	112	12.5 (CI 10.5-14.9)	123	13.7(CI 11.5-16.1)
Severe acute malnutrition – W/ H <-3 Z score or presence of oedema	16	1.8 (CI 1.1-3.0)	28	3.1 (CI 2.1-4.5.)
Global acute malnutrition – W/ H <- 80% of median or oedema	58	6.5	78	8.7
Severe acute malnutrition – W/ H <- 70% of median or oedema	3	0.2	23	2.6
Oedema	5	0.5 (CI 0-0.9)	12	1.3 (0.7-2.3)
Crude mortality rate (per 10000/day)	38	0.88	46	0.86
Underfive mortality rate (per 10000/day)	26	1.9	38	2.89
Children with diarrhoea in two weeks prior to survey	219	24.5	160	17.8
Children with malaria in two weeks prior to survey	110	12.3	72	8.0
Children with measles in one month prior to survey	33	3.7	72	8.0
Children supplemented with Vitamin A in 6 months prior to survey	427	26.0	521	57.8
Children immunised against measles (9-59 months)	217	26	857	73
Malnourished women MUAC< 21 cm)			429	11.2

## NUTRITION WORKING GROUP

The development of national strategy for anaemia in Somalia is in progress and aims at enhancing understanding the level of micronutrient deficiency, and iron deficiency in particular, as well as exploring both long and short term strategies to prevent and control the persistence of the deficiency. The micronutrients deficiency has been associated with both maternal and child mortality particularly in rural Somalia where the health service network has been inadequate.

Development of standard supplementary feeding guidelines for Somalia is still in progress with partners giving comments to UNICEF before its finalisation. Draft guidelines have been developed and piloted in the field particularly, Bakool Region and Belet Weyne District which were identified with increased vulnerability between 2001 and 2003.

## HEALTH INFORMATION SYSTEM

The third version of the health information system software is being tested at FSAU and will be shared with the partners during July. The HIS version 3 facilitates analysis of the three main components of the HIS, nutrition, morbidity and EPI. The software facilitates basic analysis of the data, generates trend graphs, exports the data to other computer programmes and links the analysis of the three components of the HIS.

## NUTRITION SURVEYS UPDATE 2004

Dates	Area	Area	Organisations	Status: 9th July 2004
January 2004	South	Wajiid IDPs	UNICEF/ACF/FSAU/WFP/WVI	Report circulated
Feb/March 04	Puntland	Burtinle/Garowe/ Dangoroyo	ACF/UNICEF	Report circulated
March 2004	South	Elberde	UNICEF/FSAU/IMC	Report circulated
April 2004	Puntland	Galkayo	UNICEF/MOH/FSAU	Report circulated
April 2004	Puntland	Golgodob	UNICEF/MOH/FSAU	Report circulated
May 2004	South	Jilib Riverine	FSAU/UNICEF/SRCS/UN-OCHA/AFREC	Final Report – mid July
May/June 2004	Somaliland	Sool Plateau	FSAU/UNICEF/MOHL/SRCS/WFP/WHO	Draft report – mid July
June 2004	South	Wajiid District	WVI/FSAU	Analysis ongoing
June 2004	South	Bualle	WVI	Analysis ongoing
July 2004	South	Rabdure District	MSF- B/ UNICEF/ FSAU	Proposed
July 2004	South	Baidoa	UNICEF/FSAU	Proposed
July 2004	Puntland	Bossaso IDPs	UNICEF/MOH/FSAU	Proposed
August 2004	South	Belet Weyne	IMC/FSAU/UNICEF	Proposed
August 2004	Puntland	Gardo	UNICEF/FSAU/MOH	Proposed
Sept 2004	South	Haradheere	FSAU/CISP/UNICEF	Proposed
Sept 2004	South	Dinsor	IMC/FSAU/UNICEF	Proposed

## TRAINING COURSES & ANNOUNCEMENTS

Behaviour change communication for HIV/AIDS, 19<sup>th</sup> July – 6<sup>th</sup> Aug 2004. Email: [courses@cafs.org](mailto:courses@cafs.org) . [www.cafs.org](http://www.cafs.org)

Managing reproductive health programmes, 2-27 Aug 2004 Email: [courses@cafs.org](mailto:courses@cafs.org) . website [www.cafs.org](http://www.cafs.org)

Training of trainers in HIV/AIDS community based care and support, Oct 2004 Email: [courses@cafs.org](mailto:courses@cafs.org) . [www.cafs.org](http://www.cafs.org)

Promoting gender in reproductive health and rights, 25<sup>th</sup> Oct- 12<sup>th</sup> Nov 2004 Email: [courses@cafs.org](mailto:courses@cafs.org) . [www.cafs.org](http://www.cafs.org)

Managing HIV/AIDS programmes, 15<sup>th</sup> Nov – 10<sup>th</sup> Dec 2004 Email: [courses@cafs.org](mailto:courses@cafs.org) . website [www.cafs.org](http://www.cafs.org)

Post graduate diploma in quality of health care; Regional Centre for Quality of Health Care, Oct 2004 – March 2005.

Contacts: P.O. Box 29140, Kampala, Uganda, Tel: 00256-41-530888/533768

## WEBSITES

*This 'Nutrition Update', along with other relevant materials, is available on:*

UN Somalia Website. [http://www.unsomalia.net/FSAU/nutrition\\_updates.htm](http://www.unsomalia.net/FSAU/nutrition_updates.htm)

ReliefWeb. <http://www.reliefweb.int/w/Rwb.nsf/vLCE/Somalia?OpenDocument&StartKey=Somalia&Expandview>

SACB Website: <http://www.sacb.info/committees/health>

## RECENT REPORTS

- Monthly Food Security Report for Somalia**, July 2004, FSAU.
- Ethiopia Network on Food Security**, Issue no. 6/04, June 18, 2004 FEWS-NET
- Kenya Food Security Report**, June 4<sup>th</sup> 2004, FEWS NET/GOK/WFP/OP-ALRMP
- Kenya Vulnerability Update**, June 9<sup>th</sup> 2004, FEWS NET/GOK/WFP
- Djibouti Food Security Update**, June 2004, FEWS NET Djibouti



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