



Food Security Assessment Unit
SOMALIA

NUTRITION UPDATE



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OVERVIEW

This month we present the preliminary results of the first stage of a study on the relationship between nutrition, dietary diversity and food security in Somalia. The study results have provided interesting material for further discussion and analysis.

While continuing to highlight a number of areas of concern throughout the country, a summary of a food security and nutrition project evaluation in Southern Somalia suggests some options for longer term interventions aimed at overcoming both longer term food insecurity and seasonal food deficits.

In Sool Plateau, reduced access has delayed the third round of sentinel site data collection. Meanwhile, a summary of existing information is provided in response to requests from partners. High malnutrition rates in areas of Ethiopia neighbouring Somalia are described in a separate article.

Meanwhile in Lower Juba, concern over the increasing vulnerability of marginalised groups is again being highlighted. In the coming weeks, MSF-Holland and FSAU plan to follow up on the identification of immediate and longer term needs of this group.

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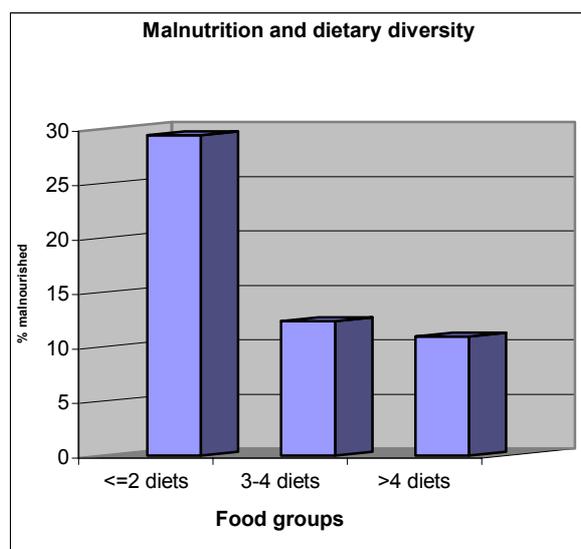
DIETARY DIVERSITY STUDY - preliminary results

As part of a series of seasonal dietary diversity assessments planned for Somalia, FSAU conducted a study in agro-pastoral areas of Dinsor District, Southern Somalia and pastoral areas of Dangorayo District in the North during January 2004. Preliminary findings indicate strong relationships at individual level between malnutrition, diversity of diet and frequency of consumption. It was also evident that malnutrition rates at population level can include a significant variation within that population in terms of access to adequate diet.

In the pastoral areas (Dangorayo Group), the assessment was conducted during a drought which was characterised by pasture shortage and mass out-migration of livestock to other areas and consequently, there was an acute shortage of animal products like milk and meat. On the other hand, the agro-pastoralists (Dinsor Group) had just experienced late 2003 Deyr rains making the areas relatively wet. The assessment coincided with a time for increased energy requirements for the agro-pastoral households, as weeding and other cropping activities were at peak. To their advantage, the agro-pastoral villages had had relatively good harvests in the 2003 Gu season and most households still had stocks of cereals. The animals were also in good condition with good productivity. Consequently foods were readily available for most of the households during the season.

A total of 420 households (265 agro-pastoral and 155 pure pastoral households) were randomly assessed for the assessment. A total of 412 (260 and 152 from agro-pastoral and pastoral households respectively) under-five children present in the surveyed households were also included in the assessment.

The preliminary findings of the study show that the Dinsor Group (agro-pastoral households) had a more diversified diet than the Dangorayo (pastoralist) group. While only about 4% of the agro-pastoral households consumed one or two food groups within 24 hours prior to the assessment, over 15% of pastoral households consumed only one or two food groups within the same period. Again while about 50% of agro-pastoral households had four or more food groups within the previous 24 hours, only 12% of pastoral households consumed four or more food groups within the same period. The main food groups consumed were cereals, sugar, milk and milk products, oil and fats, pulses and meats. Cereals remained the commonest food group consumed in the



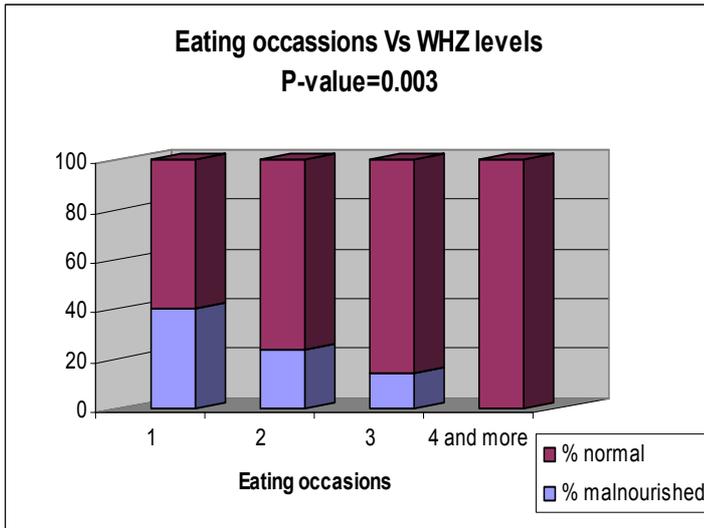
The Nutrition Surveillance Project is funded by USAID/OFDA and receives support from the EC

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

two groups. **As mentioned above, the results related to the specific conditions prevailing in each area and group at the time of the study.**

Overall, dietary diversity at household level was associated with the nutritional status of under-five year old children. As shown on the graph on page one, almost 30% of children from households consuming two or less food groups were malnourished compared to 10% global acute malnutrition amongst children from households consuming four or more food groups within the 24 hours prior to the assessment. Children from households consuming two or less food groups were at least 1.4 times more likely to be malnourished than children from households consuming four or more food groups.

The mean per capita caloric consumption was about 2600 kcal while the mean per capita caloric requirement for the individuals in the surveyed households was about 2100 kcal. However, there were significant variations both across and within the two study groups in terms of caloric intake. Whereas the Dinsor (agro-pastoral) group showed mean surplus energy consumption, there were still a number of households within that group that could not meet their energy requirements. As a whole, only about 71% of the studied households had sufficient energy consumption to meet their daily caloric requirements. While 14% of the agro-pastoral households had insufficient caloric consumption at the time of study, more than half of the pastoral households had inadequate caloric consumption within the same period. The differences in energy availability at household level across the food economy groups were statistically significant with the pastoral households being more energy inadequate.



The major predictors to caloric adequacy at household level were the number of eating occasions/food frequency. Food consumption frequency at household level was also highly associated with dietary diversity as measured with simple count of food groups. Malnutrition rates were also highly associated with number of meals consumed in a day as reflected in the graph.

The global acute malnutrition was relatively high at 11.9% (W/H Z-score <-2 or oedema) while the severe acute rate was 2.1% (W/H <-3 z-scores or oedema). There were no significant variations in the malnutrition levels between the two groups. While malnutrition was mainly influenced by

food insecurity among the pastoral households, childhood illnesses such as diarrhoea and respiratory infections were major risk factors amongst the agro-pastoral households.

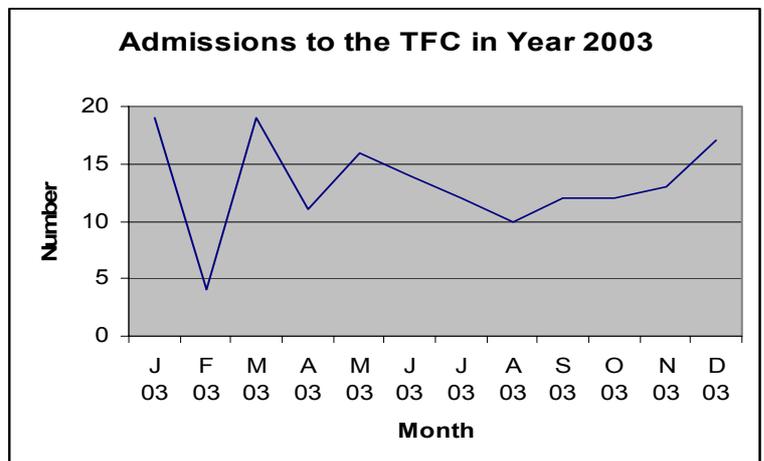
Analysis of these results is ongoing and further studies are planned in other areas in the coming months.

BAKOOL - humanitarian interventions aim to alleviate malnutrition in Huddur District

The nutrition situation in Huddur District remains one of concern despite the implementation of various interventions in the district. Since June 2000, MSF-B has managed a Primary Health Care programme in Bakool Region which consists of services for tuberculosis, kala'azar as well as paediatric clinics and a therapeutic feeding centre (TFC). Other interventions include primary health care provision by IMC and UNICEF, support to water programmes by ADRA, joint SFP/family ration programme by IMC, UNICEF and WFP; support to rural livelihoods and farming systems by GTZ and support to food security related programmes by FAO.

The population estimated at 60,000 is mainly within the southern agro-pastoral food economy group (75%) while the remaining 25% belong to the pastoral food economy group (mainly keeping camels and shoats). Food security in the district is therefore highly dependent on rain availability, which determines the crop performance; pasture conditions and the water situation. The district mainly produces sorghum and maize through rain-fed farming while camels and shoats are the main species kept. Following a 2003 Gu crop failure and inadequate 2003/4 Deyr rains, the food security situation in the district is of concern. Current household cereal stocks are very low, and are non-existent among the poor. Most of the livestock have moved to neighbouring regions.

A district nutrition survey by IMC, UNICEF and FSAU in September 2003 indicated a global acute malnutrition (w/h<-2 z-score or oedema) rate of 11.2% (CI: 8.3 - 14.1) and a severe acute malnutrition (w/h<-3 z-score or oedema) rate of 1.1% (CI: 0.2 - 2), rates that were similar to those reported



in the July 2000 survey. The graph shows data from the MSF-B managed therapeutic feeding centre which indicates an increasing trend in admissions since August 2003. Huddur MCH has persistently reported high proportions of over 35% malnourished children of the average of 350 children screened on a monthly basis in 2003.

In addition to food insecurity, poor child care practices and presence of disease have been identified as the main underlying causes of malnutrition in Huddur District. Current food insecurity is likely to have a negative impact on the nutrition situation.

BAKOOL - IDPs in Wajiid return to villages of origin

In response to the recommendations of the Wajiid multi-sectoral assessment in January 2004, World Vision visited Bakaar Yar and Bakaar Weyn IDP camps in early February, to provide primary health care services. However, World Vision found deserted IDP camps. The IDPs are reported to have returned to Baidoa after improvement of the security situation there and the fact that the land preparation period (Gu planting season in March/April) was approaching. Additionally, WFP has continued to closely monitor the situation in Baidoa vis-à-vis the IDP vulnerability for purposes of food security response. This seems to have hastened the return of the IDPs. WFP, World Vision and FSAU confirmed the return of the IDPs from the camps in Wajiid through a joint mission in March 2004. Meanwhile, WFP has initiated food for work programmes in the Wajiid IDPs villages of origin and it is expected to continue up to Gu 2004 harvesting time. FSAU and partners will continue to closely monitor the situation and a Baidoa District nutrition survey is scheduled for July 2004.

ETHIOPIA: High malnutrition in the pastoral destination of Somali Region, Ethiopia

With common livelihood patterns and recent experience of poor Deyr rains, pastoralists in Northern and Central Somalia and those of Somali Region of Ethiopia mutually shared the meagre resources in Somali Region in late 2003. Influx of livestock and population into Ethiopia took place leading to increased pressure on pasture and water in the zones of Warder, Degahabour, Afder and Korah (Nutrition Update, Dec 2003). With significant decline of pastures and the start of severe water shortage in areas like Warder some of the pastoralists have been moving back into Somalia since mid January 2004, particularly to Togdheer and parts of Sool following short late Deyr rains. On the other hand, some livestock from Bakool and Hiran Regions of Somalia arrived in Mustahil and Kelafo Districts of Gode in January 2004, leading to faster deterioration in pastures and water condition within Gode. Further depression of pastures is imminent with the onset of the Jilaal season and this may negatively affect the livestock body condition and production. The deteriorating water quality is also being associated with the increasing cases of diarrhoeal episodes (for example in Fiik Zone in February 2004).

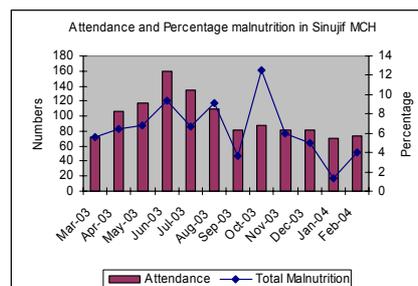
Nutrition survey reports from the Somali Region indicate a poor nutrition situation. As shown in the table, the malnutrition and mortality rates in Aware Woreda of Degabour Zone, Fafan and Harti Sheikh IDP camps in Jijiga Zone and in Gode District indicate persistence of the emergency in the region. The situation is worsened by the prevailing poor food security situation. The pastoral livelihood will obviously be further undermined by the current normal dry Jilaal season. This has the potential to further affect the nutritional condition of the Somali Region population and as well as the immigrant population. With the arrival of the herds from Hiran and Bakool Regions of Somalia, fast depletion of pasture and water within Gode is imminent and will affect the milk availability. Milk scarcity is already being experienced and is likely to persist to the end of Jilaal season.

Period	Surveyed area	Agency	GAM) ¹	SAM ²	Mortality rates (10,000/day)
Dec'03	Aware Woreda	UNICEF/RHB/OWDA	26.4% (CI: 22.6-30.3)	6.4% (CI: 4.2-8.6)	CMR: 0.95 U5MR: 3.51
Dec'03	Fafan IDP	UNICEF/RHB/MCDO	31.8% (CI: 27.7- 35.9)	5.2% (CI: 3.3-7.2)	CMR: 0.64 U5MR: 2.17
Dec'03	H/Sheikh IDP	UNICEF/RHB/MCDO	28.5% (CI: 24.6 – 32.7)	4.4% (CI: 2.8 – 6.7)	
Jan'04	Gode town	SC-USA	21% ³		

Humanitarian agencies are now extending coverage of assistance to areas not earlier covered, for instance supplementary feeding programmes, mobile health services, food aid distribution and water points maintenance in Warder and Degabour zones. Supplementary and therapeutic feeding programmes are continuing in Jijiga and Gode zones.

NUGAAL REGION - low levels of malnutrition and food insecurity

The food security challenges currently experienced in most parts of Northern Somalia is spreading southwards towards Nugaal Region. The affected areas include Sinujif, Kalaber, Hasbahalle Qarhis and Garowe. Pastoralists out migrated in November 2003 towards Somali Region of Ethiopia, Southern Nugaal, Galkayo and Goldogob. Pasture decline caused pastoral migration while the November and December 2003 light rains in Southern Nugal and parts of Mudug triggered pasture recovery, thus prompting unusual in-migration of pastoralists and livestock. Eastern Burtinle and Nugaal valley part of Nugaal Region in particular experienced harsh condition earlier than other parts in Nugaal. Deplorable livestock body condition, high livestock mortality rates (including pack animals) and absence of livestock conception was noted. However, water has been available in most parts of Nugaal.



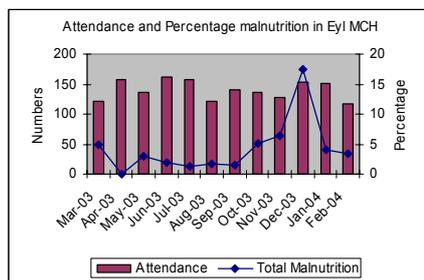
¹ GAM:w/h<-2 z-score or oedema

² SAM: w/h<-3 z-score or oedema

³ Gode Zone has been relatively food secure but the situation is fast deteriorating due to poor Deyr 2003/4 rains, influx of livestock from other zones and Somalia and clan conflict in Ferfer (border town) which has caused displacement and loss of property and life.

The current food security situation has plunged some families into destitution as reported in Garowe and Eyl in January and February 2004. The destitute families have mainly lost their livestock and the coping strategies employed (gifts and credit) are currently not reliable.

Nutrition data from the health facilities in the region reflect relatively low levels of malnutrition in the past one year (2003) compared to previous years. Majority of the health facilities persistently reported less than 10% malnutrition among the children screened monthly. In Sinujiif, an average of 100 children was screened monthly with a malnutrition rate of between 1.4% and 12.5% being reported. In Eyl MCH, an average of 140 children was screened monthly and the malnutrition rates were persistently below 7%, with the exception of December 2003 (17.5%).



In view of the food security conditions, the low levels of malnutrition rates observed at the MCH's suggests a level of coping although the actual extent to which affected populations have moved from these areas has not been captured. Plans are currently underway for a more detailed assessment in the area.

In February 2004, ACF has conducted a nutrition survey covering Garowe, Burtinle and Dangorayo. Analysis is in progress.

FAO: Improving nutrition and food security in Bakool and Gedo Regions of Southern Somalia

FAO launched a project aimed at improving nutrition and food security in Bakool and Gedo Regions of Southern Somalia in June 2002. The project used a participatory micro-planning process for the identification and implementation of rapid impact food security micro projects at community level and the promotion of better practices for improved nutrition. The project implemented activities in Bakool and Gedo Regions under the general headings of Agriculture, Income Generation and Nutrition Education.

A recent evaluation of the project undertaken by representatives of FAO Food and Nutrition Division and the Livelihood Support Programme was discussed with partners during a one day workshop held in Nairobi in March 2004. A number of nutrition and food security issues were highlighted for follow up.

- **Night blindness** was reported in some agro-pastoralist communities in Bakool and is likely to be related to limited consumption of milk or ghee due to insufficient access and sale of produce. Alleviating vitamin A deficiency should be addressed through increasing access to milk and dairy products, further promotion of vegetables production and preservation for household consumption out-of-season as well as promotion of appropriate food preparation and consumption.
- It is possible that the presence of **kwashiorkor** and **liver damage** could be linked to the consumption of mouldy sorghum, which is contaminated with **afatoxins** due to poor storage conditions. During times of food scarcity it is possible that people may eat food that they would not normally eat. The very poor and destitute are also likely to consume poorer quality foods. Three steps were recommended to identify and deal with the problem if it exists.
 - i. collaboration with ICRISAT to determine the presence of aflatoxins.
 - ii. discussion regarding the possibility to exchange contaminated food with safe food.
 - iii. a longer-term awareness raising campaign about the hazards of consuming contaminated cereals plus some quality control of storage and marketing.
- Loss of crop through pest damage was an issue frequently raised by farmers, local NGOs, and local authorities. A greater understanding of this problem is needed and recommendations for addressing it will ideally emphasise **integrated pest management** techniques.
- Storage of sorghum traditionally used underground pits called **bakars**. During the conflict, many of these have collapsed or been poorly reconstructed with resulting high post harvest losses reported. It is recommended that local knowledge be used to develop training resources to encourage construction of good quality **bakars** as well as to encourage appropriate alternative storage techniques.
- All the recommendations of the mission and the discussions of the workshop will be documented and made available in due course to all workshop participants and other interested parties. For further information, please contact Alison Maccoll, (amaccoll@faonairobi.or.ke) or Noreen Prendiville, (Noreen.Prendiville@fsau.or.ke).

TRAINING COURSES & ANNOUNCEMENTS

As part of its short course series, the Regional Centre for Quality of Health Care (RCQHC) is offering a course on **Quality of Health Care** in Uganda from 9 - 20 August 2002. The course aims at equipping health providers with knowledge and skills required for improving the quality of health care services in their settings. Deadline for applications is April 30th 2004. For more details contact the administrative assistant on email: rnauma@rcqhc.org or dtindybwa@rcqhc.org.

AMREF International Training Programme is offering courses on (i) **Management and Promotion of Sexual and Reproductive Health and Rights** from 12th – 23rd April 2004. The course targets managers of projects or institutions in reproductive health programs. (ii) **Management and Sustainability of Programmes/Projects** from 3rd to 13th May 2004 targeting Senior and Middle level managers of programs. (iii) **Community Based Health Care** from 3rd to 28th May 2004 targeting Senior and middle managers of community initiatives in health and health related professions. For more details contact African Medical and Research Foundation at Email: amreftraining@amref.org or website: <http://www.amref.org>

SOOL PLATEAU

The food security and nutrition situation in Sool plateau has been of increasing concern since mid 2003. The deteriorating food security situation has led to a decline in nutritional condition of the Sool population. Monitoring efforts by different agencies have consistently revealed a poor nutrition situation. Notable about the results, summarised below, is non comparability due to differences in assessment methodologies and areas assessed.

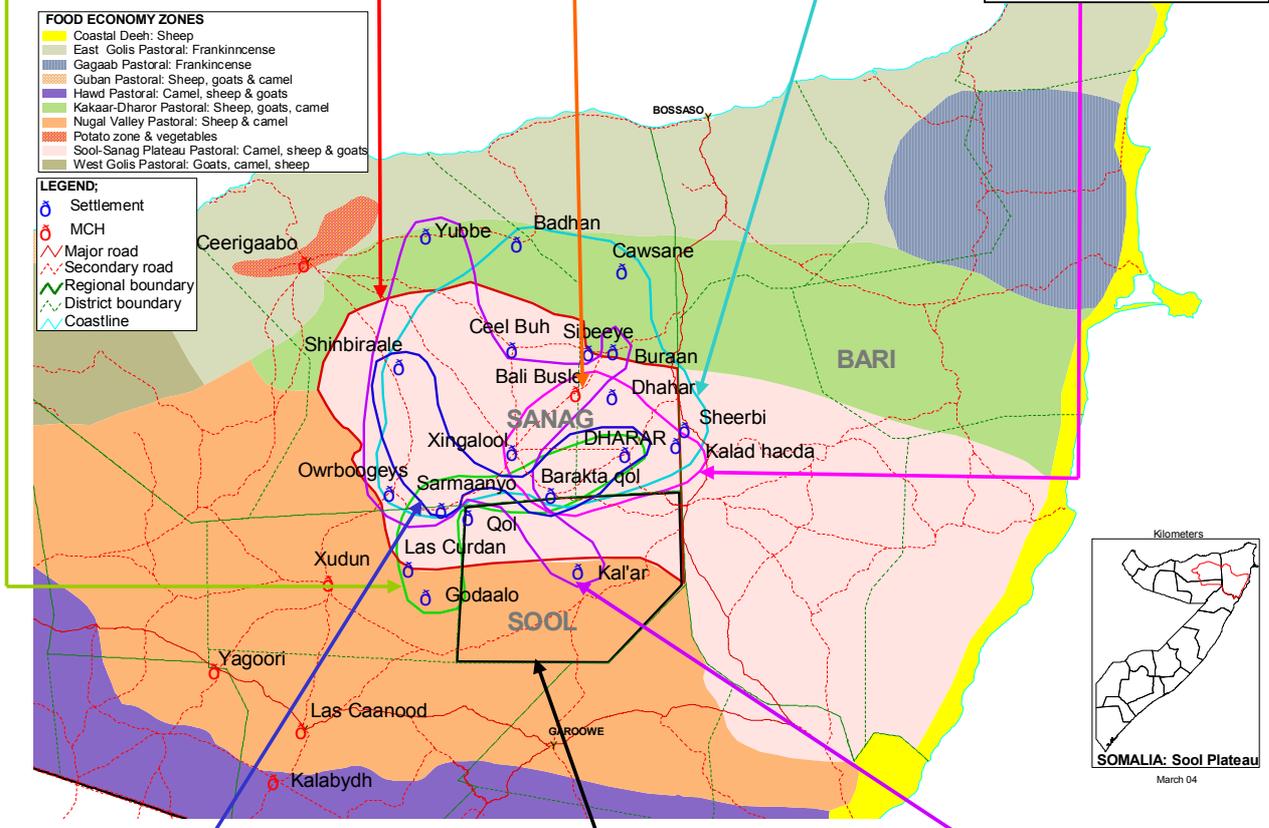
July 2002 FSAU, nutrition assessment in 5 villages done.
GAM 6.3% (MUAC<12.5cm or oedema)
SAM 0.4% (MUAC<11.0cm or oedema)
Deterioration of food security

May/June 2003 nutrition survey by FSAU, UNICEF, MOHL & SRCS
30x30 cluster sampling method in Sool & Sanaag plateau covered.
GAM 12.5% (C.I:10.5-14.9) based on w/h<-2 z-score or oedema
SAM 1.8% (CI: 1.1 - 3.0) based on w/h<-3 z score or oedema
Under 5 MR: 1.9/10,000/day

July 2003: FSAU routine monitoring of Central Lasanood and Huddun MCH.
Increase in malnutrition from 5% in April to 15% in July. Children screened ranged between 60 and 190 monthly.
Increased incidences of ARI and diarrhoea

Oct 2003: Interagency assessment (UNICEF, FSAU, WFP, OCHA, Horn Relief, NPA among others) in 12 villages
GAM 6% based on MUAC <12.5 cm or oedema
Vulnerable pockets identified
Increase in children in the supplementary feeding programme.
Water and pasture scarcity

Nov 2003: A rapid assessment by FSAU, MOHL & Horn Relief 540 children from 6 villages assessed using weight and height
GAM rate 13.7% and SAM rate 3.5% based on w/h<-2 z-score or oedema and w/h<-3 z-score or oedema respectively documented
Lack of water for animal on credit, water prices increased, declining purchasing power and death of livestock.
Out-migration into Ethiopia of most of the livestock taking place.



Dec 2003, UNICEF, WHO and MOH conducted 1st round of screening for supplementary feeding programme (SFP) 6890 children from 87 villages in Sool plateau (4841 from Sanaag and 2049 from Sool) screened.
18.9% of the children screened were malnourished based on w/h<80% or oedema
About 12.8% of the screened children in Sanaag were malnourished while 33.4% of the children screened in Sool were malnourished. About 0.6% and 9.1% of the screened children in Sanaag and Sool respectively were severely malnourished.
Increased cases of diseases particularly diarrhoea, anaemia, ARI and malaria in Dharar, Shinbiraale, Sarmanyano and Baragta-Qol recorded.
High water prices recorded (\$2/barrel).

February 2004, UNICEF and MOH conducted 2nd round of screening during the SFP
About 23.8% of the children screened were malnourished based on w/h<80% or oedema and about 2.1% of them were severely malnourished (w/h<70% or oedema)
Increased cases of diarrhoea (watery and bloody), malaria and ARI noted

Dec 2003, UNICEF, FSAU and WHO conducted a rapid assessment using MUAC in Taleex District.
GAM rate of 27% based on MUAC<12.5cm or oedema and SAM rate of 5.8% based on MUAC<11.0 cm or oedema recorded.
Adult women (15-49 years) acute malnutrition based on MUAC<21cm was 24%
Assessment confirmed spread of nutrition problems outside the Sool plateau

Nov/ Dec 2003: FSAU, 1st round of sentinel sites surveillance exercise
Surveillance revealed 18.9% GAM based on w/h<-2 z-score or oedema and 3.8% SAM based on w/h<-3 z-score or oedema
Adult women (15-49 years) acute malnutrition based on MUAC<21cm was 17.3%
Declining social support realized.
Jan 2004, FSAU, 2nd round of sentinel sites surveillance exercise
GAM rate 21% and SAM rate 5.7% based on w/h<-2 z-score or oedema and w/h<-3 z-score or oedema respectively recorded
CMR: 1.05/10,000/day and under 5 MR 1.92/10,000/day documented.
Diarrhoea and ARI of 14.4 and 13.9% respectively reported

NUTRITION SURVEYS UPDATE

Dates	Area	Organisations	Status 22 nd March 2004	
January 2004	South	Wajiid IDPs	UNICEF/ACF/FSAU/WFP/WVI	Report circulated
Feb/March 2004	Somaliland	Burtinle/Garowe/ Dangoroyo	ACF	Ongoing
March 2004	South	Elberde	UNICEF/FSAU/IMC	Ongoing
March 2004	Puntland	Galkayo	UNICEF/MOH/FSAU	Planned
April 2004	South	Buale District	WVI/FSAU	Planned
April 2004	South	Kismayo IDPs	UNICEF/FSAU	Planned
April 2004	South	Kismayo District	UNICEF/FSAU	Planned
May 2004	South	Wajiid District	WVI/FSAU/UNICEF	Planned
May 2004	Somaliland	Sool Plateau	FSAU/UNICEF	Planned
July 2004	South	Rabdure District	MSF- B/ UNICEF/ FSAU	Planned
July 2004	South	Baidoa	UNICEF/FSAU	Planned
June/July 2004	Puntland	Bossaso IDPs	UNICEF/MOH/FSAU	Planned
August 2004	South	Belet weyne	IMC/FSAU/UNICEF	Planned
July-Sept 2004	South	Haradheere	FSAU/CISP/UNICEF	Planned
Sept 2004	South	Dinsor	IMC/FSAU/UNICEF	Planned
Oct 2004	Puntland	Bari/ Ishkushuban/ Kandala	UNICEF/MOH/FSAU	Planned
2004	South	Jilib District	FSAU/MSF-H/SRCS	Re-planned
2004	South	Gedo – Belet Hawa/Luuq	GHC/FSAU/UNICEF/CARE	Planned
2004	South	Jowhar District	FSAU	Planned
2004	Somaliland	Awdal	FSAU/UNICEF/MOHL	Planned
2004	Somaliland	Togdheer	FSAU/MOHL/SCRS	Planned
2004	Somaliland	All regions (IDD)	UNICEF	Planned
2004	Somaliland	Sanaag	UNICEF/MOHL/FSAU	Planned
2004	Puntland	Jeriban & Galgodob	UNICEF/MOH/FSAU	Planned
2004	Puntland	Burtinile/Garowe	FSAU	Planned
2004	Puntland	Bander Bayla	FSAU	Proposed

** ACF plans to undertake a long term study in Mogadishu.

WEBSITES

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

UN Somalia Website. http://www.unsomalia.net/FSAU/nutrition_updates.htm

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

RECENT REPORTS

- ❑ **Monthly Food Security Report for Somalia**, FSAU.
- ❑ **Flash: Stress on Pastoralist livelihoods and alarming food insecurity in the northern and central regions of Somalia**. February 25, 2004. FSAU
- ❑ **Kenya Food Security Report**. March 5, 2004. FEWS NET/MALD/WFP/MOA
- ❑ **Kenya Vulnerability Update**. February 17, 2004. FEWS NET/MOA/WFP
- ❑ **Ethiopia Network on Food Security**. Issue No. 02/04. February 16, 2004. FEWS/NET/EU-LFSU
- ❑ **Greater Horn of Africa Food Security Bulletin**. Issue No. 20. February, 2004. FEWS NET/LEWS/RCMRD/USGS/DLCO/USAID
- ❑ **Regional Agricultural Trade Intelligence Network, Food Bulletin for East Africa**. Issue No. 9. March 1, 2004. FEWS NET



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