

Nutritional Surveillance Systems in Somalia

*A Review and Recommendation Report
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BACKGROUND

Africa's easternmost country, Somalia has a land area of 637,540 square kilometers. The terrain consists mainly of plateaus, plains, and highlands. The weather is hot throughout the year, except at the higher elevations in the north. Rainfall is sparse, and most of Somalia has a semiarid-to-arid environment suitable only for the nomadic pastoralism practiced by well over half the population. Agriculture practiced in limited areas of moderate rainfall in the northwest, and in the southwest where the country's two perennial rivers are found.

Somalia has suffered a turbulent and often violent history. During the colonial period (approximately 1891 to 1960), the Somalis were separated into five regions by their ruling colonial powers. In 1960 Italian Somaliland and British Somaliland were merged into a single independent state, the Somali Republic. In its first nine years the Somali state remained a model of democratic governance in Africa. However, in early 1969, Major General Mahammad Siad Barre seized power in a bloodless coup. Over the next twenty-one years Siad Barre established a military dictatorship that maintained control of the social system by playing off clan against clan until the country became rife with inter-clan strife. Siad Barre's regime came to an end in early 1991 with the collapse of the Somali state.

Although the major clans had been united in their opposition to Siad Barre, their leaders had no common political vision of Somalia's future. Consequently, civil strife continued at a reduced level after Siad Barre was deposed. The dominant faction in the north, the Somali National Movement (SNM), refused to accept the legitimacy of the provisional government established by the United Somali Congress (USC). Responding to widespread popular resentment of the central government, in June 1991 the SNM declared an independent Republic of Somaliland. By September of 1991, intense rivalry among leaders of the USC dominated interim government had degenerated into street fighting within the Mogadishu area. Because the different clans resorted to the use of armed force to buttress their claims for political power, government and civil society disintegrated, and essential services collapsed. Nature compounded the political disaster with a prolonged drought. In 1992 severe famine affected much of southern Somalia. International relief agencies mounted a food and medical aid campaign, but armed groups affiliated with various clans looted an estimated 80 percent of food shipments.

The collapse of the government in January 1991 led to further deterioration in Somalia's already poor health situation. A difficult environment, inadequate nutrition, and insufficient medical care resulted in high incidence of disease. In the years since the revolutionary regime had come to power, drought, flood, warfare (and the refugee problem resulting from the latter) had, if anything, left diets more inadequate than before.

The major illnesses prevalent in Somalia include malnutrition, pulmonary tuberculosis, malaria, and infectious and parasitic diseases. In addition, schistosomiasis (bilharzia), tetanus, venereal disease (especially in the port towns), leprosy, a high incidence of tuberculosis among young males, and a variety of skin and eye ailments severely impair health and productivity. Malnutrition, worsened by chronic drought, exacerbates Somali susceptibility to disease.

Until the collapse of the national government in 1991, the organization and administration of health services were the responsibility of the Ministry of Health, although regional medical officers had some authority. In the 1970s, an effort was made to increase the number of other health personnel and to foster the construction of health facilities. To that end, two nursing schools opened and several other health-related educational programs were instituted. Of equal importance was the countrywide distribution of medical personnel and facilities. Unfortunately, despite these efforts trained personnel are few and distribution of health care remains unsatisfactory¹.

Political conflicts in Somalia continue to today, preventing any official form of government from getting a foothold in the country. As a result, no national systems exist on which to develop any information systems, healthcare systems, or statistics systems. In response to this difficult and unusual situation, the UN and several NGO's have stepped in to fill the void left by the lack of government. Somalia is a very unusual case study as its governing body is in fact international organizations.

Nutrition response in Somalia is coordinated through a working group composed of the Somalia Aid Coordinating Body (SACB), UNICEF, FSAU, and multiple NGO partners. Together, they have developed a multi-faceted nutrition assessment system to monitor and respond to the variable conditions and resultant disease and malnutrition in Somalia's harsh climate and environment

REVIEW OF EXISTING INFORMATION SYSTEMS FOR NUTRITION, HEALTH, EARLY WARNING AND FOOD SECURITY

Nutrition Assessment systems in Somalia were standardized through a group effort between the Somalia Aid Coordinating Body, UNICEF, and FSAU in 1997. Since that time new developments to further improve the process of information gathering, analysis and dissemination have been initiated, including a peer review of assessments, which consists of monthly coordination meetings with all partners working in nutrition in Somalia. All data is presented for analysis to ensure quality control and to check for accuracy and correctness before publishing. This "peer review process" demonstrates a commitment to developing partnerships with local stakeholders by ensuring that assessments are undertaken with the involvement of all relevant partners in an area and with representation from all relevant sectors. This paper provides a brief overview of the major functioning bodies.

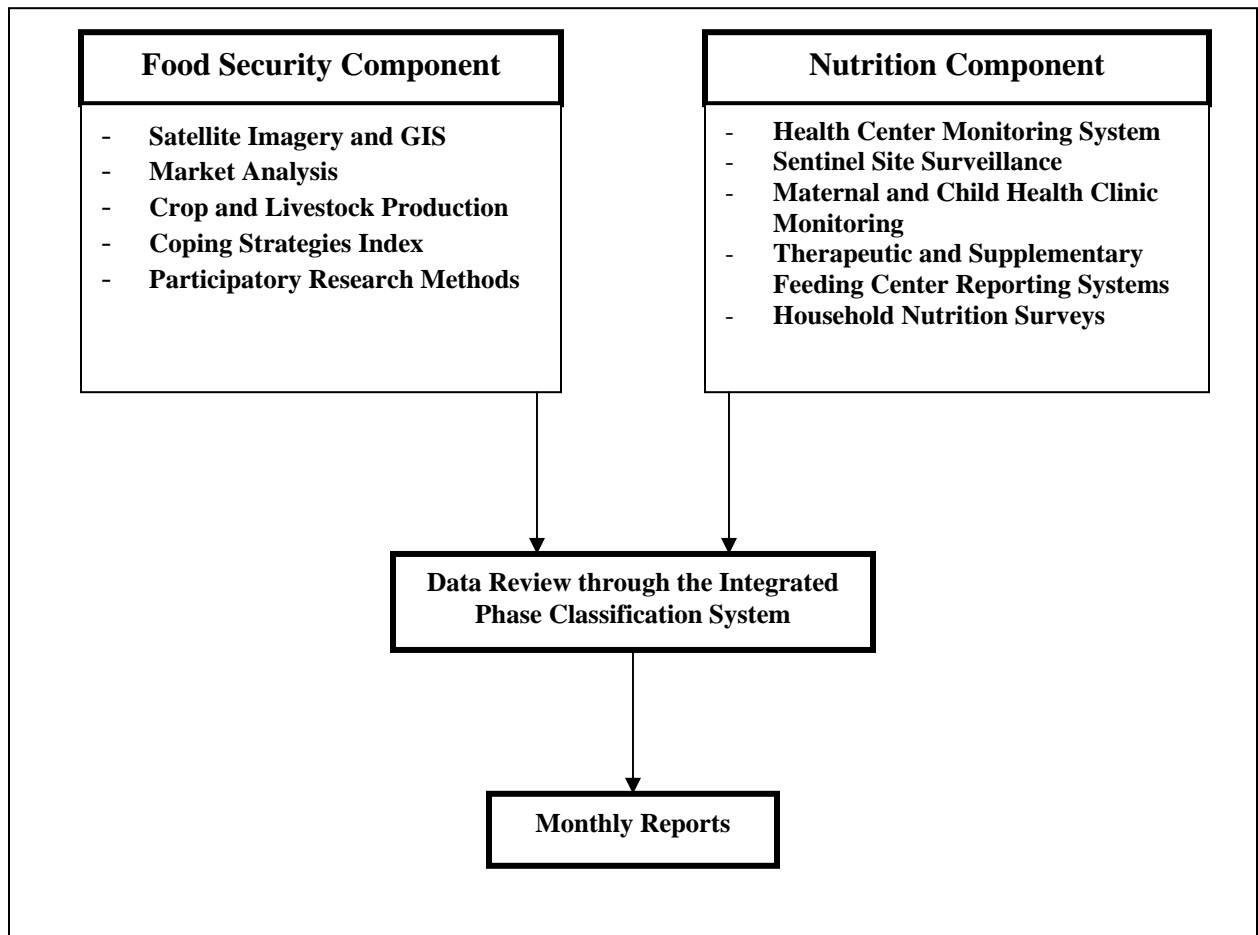
A. Food Security Analysis Unit (FSAU)

The most relevant system for Somalia is run by the Food Security Analysis Unit (FSAU), which integrates information for timely warning purposes. FSAU is funded by the European Commission and USAID, and implemented by the UN FAO, technical partners for FSAU include FEWSNET, WFP, SCF-UK, OCHA, UNICEF, and CARE. This wide array of partnerships encourages an inter-sectoral approach to improve needs assessment, intervention, gap analysis, and response. FSAU provides evidence-based analysis of Somalia's food, nutrition, and livelihood security to enable both short-term emergency responses and long-term strategic planning to promote food and livelihood security. The

¹ Information taken from the Library of Congress.

organizational structure is arranged into two separately funded and managed sectors, the food security component, and the nutrition component. Annexes 1 and 2 illustrate the organizational structure of the organization. Data inputs to this system range from satellite imagery to clinic and sample survey data on nutrition.

Table 1: Information Sources and Data Flow in FSAU



Comprehensive reports are published monthly on data collected from the previous month. An example of this can be found in annex 9. The Integrated Phase Classification System (IPC) can be seen in Annex 3a, together with a map (see annex 3b) illustrating how it is applied.

FOOD SECURITY COMPONENT

The Food Security Component collects regular data on livelihood strategies, and livelihood assets to provide a continual monitoring system that can advise on appropriate responses to food insecurity crises and develop policies and strategies to address longer-term food and livelihood security issues. It aims to reduce transient food insecurity and chronic livelihood insecurity through addressing underlying causes and providing effective emergency response. Selected indicators include household food consumption, food groups consumed, and main source of the dominant food item in each food group. Surveillance is done through the Food Security Analysis System (FSAS), which collects multiple forms of data to create a holistic picture of food security. Data sources include

satellite imagery and GIS, market analysis, household surveys, coping strategies index, crops and livestock production, and participatory research methods.

NUTRITION COMPONENT

The Nutrition Component collects regular data focusing on socio-economic status, political environment, food insecurity, care practices, and overall health and environment of populations. The nutrition component aims to improve nutritional status of vulnerable populations of Somalia through mitigation of deteriorating health and food security conditions. Data is collected through household surveys (Annex 3) and qualitative questionnaires with key informants (Annex 4). Key informant interviews are done to coincide with each survey that is completed. A different informant is selected at each interview to avoid bias and survey fatigue.

Table 2: Nutrition Component Data Sources

<i>Source</i>	<i>Description</i>
Sentinel Site Surveillance	100 different randomly selected sites where data is collected monthly through key informants, focus group discussions, and observation.
Health Center Monitoring System	200-240 UNICEF supported clinics reporting monthly averages of whz, weight for height by percentage of the median, and oedema, morbidity, EPI, and MCH data.
Maternal and Child Health Clinic Monitoring	Clinics run by NGOs report monthly averages of whz, weight for height by percentage of the median, oedema, morbidity, EPI, and antenatal care data.
Therapeutic Feeding Centers	TFC's run by NGOs report monthly averages of muac, whz, oedema, morbidity and mortality and treatment numbers.
Supplementary Feeding Centers	SFC's run by NGOs report monthly averages of muac, whz, oedema, morbidity and mortality and treatment numbers.
Household Surveys	Carried out using the 30x30 method in selected areas for achieving a relatively representative sample of an areas overall nutrition status at that point in time
Key Informant Interviews	Interviews and focus groups with key informants are done in conjunction with the household surveys to supplement information gathered.

HOUSEHOLD SURVEYS

Household surveys follow a standard set of guidelines published jointly by FSAU and partners. Sampling is done using the two-stage cluster sampling procedure and 30x30 clusters. A new sampling frame is constructed for each survey based on census data. No effort is made to sample the same population over time. In fact, it is avoided in an attempt to minimize survey fatigue. FSAU is considering changing their sampling selection to a mapping system, similar to the segmentation method. This process involves the mapping of each village prior to selecting the random sample of houses. This will allow surveyors to create their own sampling frame rather than rely on outdated census data, which in turn should produce more reliable and representative results.

Selected survey indicators in the household surveys include total number of people in household, number of children under 5, number of breastfeeding children, under fives age

in months, anthropometry, including presence of oedema, weight, height, and MUAC, and illness in the past 14 days. Data is also collected on women of childbearing age including age in years, MUAC, physiological status and illness in the past 14 days. An example of the survey tool used in household surveys can be seen in Annex 5a.

HEALTH CENTER MONITORING SYSTEM

The health center monitoring system is designed to gather health center level data on EPI coverage, morbidity, and nutrition (see Annex 5b). Data is collected from 200-240 UNICEF supported clinics, which comprise the majority of NGO clinics in Somalia. Private clinics are not included in surveillance. Discussions within FSAU are ongoing regarding access to data. Currently, reported data is limited to monthly averages for nutrition (weight for height by z-score and percent of the median, and oedema), morbidity, EPI, (BCG, OPV, TT, Measles), and MCH data. No monitoring of micronutrient status is currently being done. All health center data is triangulated with data from key informant interviews to ensure accuracy and reliability.

SENTINEL SITE SURVEILLANCE

FSAU's sentinel site surveillance system is designed to monitor nutrition indices and morbidity during periods of crisis. Sentinel site surveillance is intended to provide a closer and clearer level of monitoring of trends in vital indicators by clearing hurdles that nutrition surveys and other sources face, such as periodicity of data and limited coverage. "Sentinel site surveillance is introduced when populations are in need of close monitoring due to actual or expected changes in environment, security, food security, or health." (FSAU 2006) Over 100 different sites are randomly selected throughout Somalia. (see annex 6). Sites are selected taking the following criteria into consideration:

- Agro-pastoral zones and livelihood zones.
- Deteriorating food security
- Evidence of direct impact or crisis
- External data sources reporting a vulnerable area
- Presence of high risk groups
- Security issues
- Site size
- Accessibility
- Populations of special interest are purposively sampled

Targeted populations may be chosen for their representativeness of the surrounding population, or as a special interest population (e.g. Pastoralists) Sample sizes have been calculated to show that a sample size of fifty children less than 5 years old will give confidence of +or- 10 % and is recommended for sentinel site surveys, taking into consideration precision, and the design effect. Data is collected at household level and through key informants, focus group discussions, and observation.

Households are selected using systematic random sampling methods detailed in Annex 7. FSAU field staff undertake data collection in collaboration with key partners and community assistants in each location. Each month, houses are randomly selected and brief questionnaires collecting data on anthropometry (age, weight and height of children under 5, and MUAC of women of childbearing age), and food consumption are conducted. Key informant interviews are held at the same locations.

Focus group discussions are organized by community guides and consist of about 6 – 12 mothers of children under five. Tools for data collection are provided in Annex 8.

According to representatives at FSAU, sentinel sites were very useful during two crisis periods in 2005, but they are resource intensive, and so they require a significant level of scaling back in non-crisis times. Data from sentinel sites is collected monthly and reported in the FSAU bulletin.

In terms of early warning, FSAU utilizes a “phase classification system” to classify the severity of crisis. The Integrated Food Security and Humanitarian Phase Classification (IPC) is a multi-faceted method for classifying varying stages of food security and humanitarian situations based on data collected for nine different output components which include; crude mortality rate, acute malnutrition, stunting, food access and availability, dietary diversity, water access and availability, destitution and displacement, civil security, coping, and livelihood assets, The IPC is designed to facilitate linking information to action by providing “strategic, yet generic guidance” to react to impending crisis. This is combined with an early warning level system to indicate the likelihood of the situation worsening based on both the likelihood of certain hazards occurring and on the vulnerability of the population (FSAU 2006).

All nutrition, health, food security and early warning data is compiled and then reviewed by a steering committee that meets regularly to review project status and to provide strategic direction. Technical partners, composed of UN, donor, and NGO agencies provide on-going technical support and collaboration. FSAU staff ranges from fifty-five to sixty professionals in the fields of food security, nutrition, GIS, database development, and administration. Full time field presence includes 23 Food Security Analysts, and 12 Nutritionists. Outputs include:

1. Monthly Food Security and Nutrition Brief,
2. Monthly nutrition update,
3. Monthly market data update,
4. Monthly climate data update
5. Nutrition survey reports
6. Technical reports of assessment findings and applied research.
7. Dietary Studies
8. Nutrition Guides
9. Press Releases
10. Maps
11. Datasets to be available online by 2007
12. Baseline Data

Analysis is done by 6 masters level field nutritionists, and some ancillary staff. It should be noted that FSAU requires all clinic staff to participate in a rigorous training on standardization of measurements, and correct ways to measure and record them, as well as basic formulation of weight for height Z scores. Prevalence is determined by cutoffs of -2, or -3 Z scores as the standard anthropometric tools for measuring malnutrition. Higher-level analysis is done with EPI-INFO, and SPSS, and *Nutrisurvey* is used for mortality measurements and the development of charts.

Monthly nutrition updates include area analysis and reporting of results of all nutrition survey data completed for that month. Indicators reported include; GAM and SAM with

confidence intervals and trend analysis based on previous results, CMR and Under Five MR with confidence intervals and trend analysis, morbidity, dietary diversity, breastfeeding statistics, introduction to solid foods, immunization, Vitamin A supplementation, and water and sanitation data. Recommendations for each region are made based on findings. Additionally, sentinel site surveillance data is reported, as well as data collected from TFC's and SFC's, in and out of IDP camps, and information on training and additional publications are reported. An example of a monthly nutrition update can be seen in Annex 9. Monthly data from all therapeutic and supplementary feeding programs is collected from all NGO's to monitor cure rates and death rates. For examples of output data refer to Annexes 10a, 10b, and 10c.

All data collected is used to determine the severity of the crisis, to trigger a response, and to monitor program performance. Data collected using timely warning systems can also be integrated into long range monitoring programs to provide information for nutrition surveillance. In fact, timely warning systems are often included as a part of the structure of larger systems like FSAU and the SACB.

In Somalia, the majority of nutrition surveillance programs are run in collaboration with FSAU, often sharing source data for decision making, and partnering to interpret and disseminate results. Additionally, FSAU has been collecting and publishing monthly data since 2001, and are allowing their databanks to be used as a tool for monitoring and evaluation in the public domain. Data will be available on their website web as of March 2007.

B. Small Scale Nutrition Surveys

International Medical Corps, Action Against Hunger, Somali Red Crescent Society, MSF, World Food Program, World Concern, and Save the Children are all active in emergency food programming in Somalia. All programs have a component of monitoring and evaluation through the use of both ad-hoc and regularly planned cross-sectional surveys. A working group on emergency nutrition developed through UNICEF, FSAU and the SACB, brings together all stakeholders in nutrition surveillance in Somalia.

Currently survey data is collected using the standard EPI 30x30 survey methods. Surveys are planned according to the schedules and funding constraints of each organization. Regular meetings of the working group enable coordination for frequency and timing of surveys. A common seasonal calendar allows surveys to generally capture populations during the hunger or moderate periods. (Annex 11) Notice there is no region that is significantly over represented by nutrition surveys, in contrast to countries like Uganda where no coordination of NGO's and surveying is done. Indicators collected include GAM, and SAM by Z score and by percentage of the mean, and to a lesser degree, dependant on the organization gathering the data, MUAC, WHZ, HAZ, and BMI. These numbers can provide a useful picture of severity of malnutrition in an area, although they can't be used as an accurate representation of a whole region because of obvious problems with bias. A set of guidelines for small-scale surveys has been in use since 1997. This standardized set of guidelines has significantly increased the quality and

usefulness of nutrition assessments in Somalia. Guidelines have improved quality control, analysis and interpretation of information, and data sharing between organizations².

Epi Info, SPSS, Anthropac 2005, and nutrisurvey are all used to analyze data. All nutrition data is reported back to the SACB, and FSAU, and is analyzed and published according to the nutrition assessment guidelines to form an overall view of anthropometric status of the country. Individual NGO's also publish their reports independent of the FSAU reporting system³.

Recommendations are made in the reports and steps forward are illustrated. Often an intervention is identified, using the data from the report to apply for funding to respond to the recommendations. It is the responsibility of all stakeholders to act on the results of the survey.

Nutritional surveys often include the aim of planning project interventions based on results of a combination of quantitative and qualitative data collected. In some cases this is continued with secondary analysis in which attempts are made to determine the prevalence of malnutrition, along with its underlying causes. Unfortunately, causality is difficult to prove statistically, but all the same, collection and analysis of this sort of data can prove useful for monitoring program progress and for identifying intervention possibilities, and should be remembered as an important consideration prior to planning any intervention, and for monitoring the effectiveness of a project.

C. Famine and Early Warning System Network (FEWSNET)

USAID funded FEWSNET is another collaborating partner of FSAU and the SACB. Operating with the intention of food security monitoring and reporting to inform contingency, intervention and mitigation planning, assessments include vulnerability analysis and food security monitoring. All appraisals are carried out in the context of the livelihoods approach.

FEWSNETS "Livelihood Approach - Access, not Availability."

The livelihood approach is simply a framework for interpretation of routinely collected non-anthropometric monitoring data such as rainfall, vegetation, crop production and market prices, which have proven to be extremely useful in the prediction of early food crises.

A baseline livelihood zone map and coinciding livelihood profiles of the entire country of Somalia is compared to potential hazards, which are monitored on an ongoing basis through a series of indicators. These include:

- Agro-climatic conditions and ground data (rainfall, vegetation, start off season, water requirements and satisfaction index)
- Ground station data generated by satellite, and cereal crop performance
- Crop data from the SACB up to the sub-national level

² A copy of the Nutrition Assessment Guidelines for Somalia can be found at the following link; <http://www.Tulane.edu/~internut/New Folder/Somalia Case Study.doc>

³ An example of an independent NGO's small-scale survey report can be found at; <http://www.tulane.edu/~internut/erin/xNutrition%20assessment%20report%20Gulu%2004-2006%20final.pdf>

- Prices of 20 key commodities including maize and beans in 25 key markets
- Impact of very high or low prices
- Milk production
- Stock levels
- Terms of trade
- Child malnutrition data from UNICEF

Satellite data, and field trips on a monthly basis, both from national and district offices are also part of the surveillance. Which data is collected depends on the prevailing food security situation, and what information needs to be brought to the attention of decision makers.

Data is compiled and analyzed using one of the following programs as appropriate:

- Windisp for satellite imagery analysis
- Arcview and Atlas for mapping
- PriceMan for price analysis
- AGMAN for agricultural production data analysis
- Spaceman for satellite data analysis

Data analysis and compilation takes an average of 3 to 4 days, at which point it is reported through monthly food security bulletins available on the web and disseminated to interested parties. All partners of FSAU utilize this information to help determine appropriate reactions to food insecurity in vulnerable areas, as well as to assess improvements and make evaluation of intervention impacts. FEWSNET's outputs for Somalia include a national livelihood zone map and profiles, and scenario modeling used in all FSAU seasonal assessments. (Annex12).

D. Vulnerability Assessment Mapping/World Food Program (VAM/WFP)

In March of 2006, the United Nations World Food Program initiated the Vulnerability Assessment Mapping program in Somalia. VAM is a funded program that supports mapping and analysis, by the WFP regional program advisors to assist in informing WFP interventions. It is an analytical information tool for WFP, and a contributor to FIVIMS which focuses on developing sophisticated vulnerability mapping, basic data resources and effective partnerships, to provide high quality support to WFP programs and units.

The VAM unit utilizes both secondary data from other UN agencies such as UNICEF and NGO's, and primary food security information through monitoring and satellite imaging. Nutritional information is mainly obtained from UNICEF/NGO nutrition surveys. Analysis is done by primary agencies and compiled by the VAM into a monthly reports and is distributed to WFP programs and field offices. Data is used to provide effective services to the program units and logistics in all areas of targeting, vulnerability analysis and data management, to increase capacity for disaster management, and to inform the all interested partners and NGO's on disaster preparedness and early warning. A map created by VAM to show the impact of the October 2006 floods in Somalia can be seen in Annex 13.⁴

⁴ FSAU FIVIMS, and WFP/VAM work together to interpret and disseminate data. FIVIMS supports FSAU mapping projects, and VAM creates maps which are utilized by WFP for food aid planning and impact assessment, and are also published in the FSAU monthly newsletters. FEWSNET is the USAID monitoring

E. Food Insecurity and Vulnerability Information Mapping System (FIVIMS)

In collaboration with FAO, FSAU, and SACB, FIVIMS provides publications designed to assemble, analyze, and disseminate data on food insecurity and vulnerability, to raise awareness about food security issues, improve the quality of food security related data and analysis, facilitate integration of complimentary information, promote better understanding of users’ needs and better use of information, and to improve access to information through networking and sharing.

FIVIMS is made up of an Inter Agency Working Group (IAWG) of 31 members, and implemented through a network of information systems that gather and analyze data relevant to the measurement and monitoring of food insecurity and vulnerability. Reports are issue-specific and data collected is dependent upon interventions. No technical data analysis is done as indicators are collected from other, pre-analyzed sources. Publications include a quarterly newsletter, monitoring reports and situation assessments whose frequency depends on the level of need, and policy and program evaluations and feasibility studies. Information and reports are generated and distributed to policy makers and their advisors in government, government officials and technical staff at the national and sub-national levels, local government authorities, civil society, the donor community, researchers, and training institutions. Information is meant to inform policy makers and the development and research community. An example of a FIVIMS report, which references activities done in Somalia, can be seen in Annex 14.

F. Multiple Indicator Cluster Surveys (MICS)

The Multiple Indicator Cluster Surveys were developed by UNICEF, in partnership with WHO, UNESCO, UNAIDS, UNSD, CDC, MEASURE (USAID), and the ILO to assess progress for children at the end of the decade in relation to the goals produced at the World Summit for Children in 1990. MICS is composed of a series of question modules that can be adopted or omitted by each country carrying out the survey according to their data needs. Question modules are designed to obtain data that will allow analysis of the progress on 63 of the 75 end of decade indicators⁵. Previously a MICS2 End of Decade Report was published in 2000. The Somalia MICS report Examples of data produced by MICS can be seen in Tables 3 and 4 .

Table 3: Infant and under-five mortality rates, Somalia, 1999

	<i>Infant Mortality Rate</i>	<i>Under Five Mortality Rate</i>
<i>Male</i>	134	221
<i>Female</i>	130	227
<i>Central/South</i>	137	231
<i>North/East</i>	133	225
<i>North/West</i>	113	188

program which utilizes FSAU data for it’s own purposes, and also shares data collected through their extensive satellite systems.

⁵ MICS3 has done a recent survey in Somalia which can be seen in its entirety at; www.childinfo.org/MICS2/newreports/Somalia/somalitables.PDF.

<i>Urban</i>	129	218
<i>Rural</i>	144	244
<i>Nomadic</i>	119	200
<i>Mothers Education</i>		
<i>None</i>	135	229
<i>Primary</i>	136	230
<i>Secondary +</i>	-	-
<i>Total</i>	132	224

Source: MICS 1999. Reference is Per 1,000 Live Births

Table 4: Percentage of under-five children who are severely or moderately undernourished, Somalia 1999

	WAZ <- 2SD	WAZ <- 3SD	HAZ <- 2SD	HAZ <- 3SD	WHZ <- 2SD	WHZ <- 3SD	n
<i>Male</i>	26.3	6.3	23.9	13.3	18.0	4.2	2252
<i>Female</i>	25.2	7.7	22.8	10.9	16.3	2.6	2035
<i>Central/South</i>	27.5	9.5	25.7	12.5	21.2	4.6	2037
<i>North/East</i>	26.8	4.8	17.7	10.5	14.8	2.4	1213
<i>North/West</i>	21.0	2.8	22.6	12.5	10.1	2.0	1017
<i>Urban</i>	22.8	4.2	16.7	12.5	16.7	.0	1963
<i>Rural</i>	29.7	8.4	26.9	13.6	16.4	3.5	1443
<i>Nomadic</i>	27.8	6.1	20.8	11.6	17.1	3.8	743
<i>< 6 months</i>	14.8	4.6	18.6	8.8	19.6	3.6	492
<i>6-11 months</i>	31.9	3.7	21.5	10.5	12.7	2.9	409
<i>12-23 months</i>	25.2	9.5	22.2	9.4	13.0	3.7	559
<i>24-35 months</i>	23.4	7.3	28.1	16.6	15.6	1.7	987
<i>36-47 months</i>	27.1	5.1	25.2	13.2	16.1	2.8	886
<i>48-59 months</i>	21.5	7.5	18.2	8.3	20.5	5.7	934
<i>Mother's Education</i>							
<i>None</i>	25.0	7.6	24.2	12.7	17.9	3.9	3981
<i>Primary</i>	17.7	4.6	23.1	12.4	14.0	2.5	674
<i>Secondary +</i>	17.4	3.2	14.5	6.5	16.1	1.6	270
<i>Total</i>	25.8	6.9	23.3	12.1	17.2	3.5	4267

Source: MICS 1999.

G. Somalia Aid Coordination Body (SACB)

The SACB is a coordinating body, which provides a framework to develop a common approach for the allocation of international aid to Somalia. It is supported by several donors and advisory groups including multiple UN agencies, and international non-governmental organizations, the ICRC and IFRC, the Inter-Governmental Authority on Development (IGAD), World Bank, the Organization of African Unity (OAU) and the Arab League. The organization contains committees, which cover all areas of development in Somalia, including the Nutrition Working Group, responsible for the coordination of all nutrition related activities.

All organizations involved in nutrition activities in Somalia are required to participate in monthly meetings of the SACB. These meetings are meant to direct activities between organizations and monitor anthropometry morbidity and mortality throughout the country, to provide a coordinating body for nutrition data, and to harmonize nutrition

survey efforts between partners. Items discussed in these meetings include updates on all nutrition surveys and dissemination of results, disease outbreak surveillance, monitoring of food security issues, review of nutrition emergency responses, details on upcoming interventions, regional nutrition assessment updates, and monitoring the output and progress of therapeutic feeding centers (TFC's) and supplementary feeding centers (SFC's) and community based therapeutic feeding centers (CBTC's).

The SACB produces technical reports of assessment findings and applied research, which are then disseminated to partners and published on the web. These reports are then used as a tool for advocacy for vulnerable areas and for the determination on success of interventions, and to help inform decisions about the need to scale up additional interventions. For example, In June of 2006, reports came in from the TFC's and SFC's, in South Somalia, estimating that about 58,000 children under five were malnourished as calculated based on z-score results. The coverage by agencies through TFC's and SFC's was anticipated to be only 35% at full capacity, indicating a coverage gap of 65%. Gap areas were identified and interventions were coordinated with existing INGO's and LNGO's to expand activities to cover this gap. Interventions initiated in July of 2006 included the scaling up of CBTC and health center activities. (see Annex 15 SACB 2006). The SACB is also responsible for creating the nutrition surveillance guidelines being used in Somalia, which allow for all participating organizations to utilize standard survey methodology, producing comparable nutrition information throughout the country.

Table 5: Purposes of Different Nutrition Data Sources

Data Source/System	Main Purpose		
	Long Term Planning	Program Monitoring	Timely Warning of Food/Nutrition Crises
MICS	Yes	No	No
Small Scale Surveys	No	Yes	P
FSAU			
Sentinel Site Surveillance	No	N	Yes
Health Center Monitoring	No	P	Yes
MCH, TFC, SFC Monitoring	No	Yes	No
Household Surveys	No	Yes	P
Key Informant Interviews	No	P	P
SACB	Yes	No	Yes
EWS – prodn, climate, etc	P	No	Yes
EWS - prices	No	No	Yes

P= Potentially

OPTIONS FOR THE FUTURE

Overall the SACB/FSAU partnership has created an extensive system of early warning and monitoring and evaluation for both individual programs and for the nutrition situation in the country as a whole. Indeed, the very lack of an official government in Somalia has created a gap that has been filled by Non-Government Organizations to

create a substantive system of health monitoring and provision of health services. FSAU's commitment to capacity building within Somalia is also notable in that it provides hope for local empowerment and long-term sustainability in the event that Somalia should develop a sustainable government. The multi-organization collaboration supports and sustains a multi-lateral system of monitoring and reporting, a central repository for information, a coordinating body which helps to schedule surveys, encourages sharing of data, and prevents replication and unnecessary waste, and a variety of different systems for gathering data to achieve a well-rounded picture of livelihood which allows for timely prediction of severity and occurrence of famine. As a structure for comprehensive nutrition surveillance, the system in action in Somalia can be viewed as a model, albeit not an easily replicable one. The very large dependence on technology, advanced education, large staff, and expensive interventions, makes this a challenging model to replicate in other countries. At the very least however, FSAU has many valuable lessons and experiences to share that can be utilized by governments and organizations intending to implement a holistic and comprehensive NIS system in other countries, particularly in Africa.

1. Increase Trained Somali Field Staff

One perceived weakness of the Somalia system include a shortage of trained Somalis in data analysis and nutrition surveillance. This is a particularly difficult problem with the current political situation, because all staff allowed into the country presently must be a Somali national. This means that directions for operation come from the main offices in Nairobi, and the sparse Somali staffs are required to run all programs with no direct supervision. In addition, due to difficult conditions on the ground, both climatically and politically, many areas are very difficult to access and may be monitored irregularly, if at all. Because Somalia is operating at such a basic level, capacity building at the village level should be a major priority in all programming. Programs teaching skills such as food storage, alternate sources of nutrition, and re-hydration, breastfeeding and complementary feeding practices should be high priority and taught in a way that will be continued even without the presence of NGO's.

2. Modify Data Collection Methods to Reduce Community Fatigue

The inevitable community fatigue that is encountered when doing multiple repeated surveys in a community is a major hurdle to a surveillance program like the one in Somalia. The burden of over-surveilling populations can be reduced through regular clinic monitoring, at least in areas of low malnutrition. Nutrition surveys can then be used as point verification when clinic outputs indicate a rise in anthropometric indicators.

3. Add Micronutrient Surveillance

In areas where the surveillance system is functioning reliably and political and climactic environments are relatively stable, FSAU is thinking about adding micronutrient surveillance into their regular system of data collection.

4. Increase Quality of Data Analysis

The Somalia program, and in particular FSAU has come under considerable criticism for the accuracy and quality of the data presented in the monthly reports and maps produced by the IPC system of analysis. The empirical quality of analysis can be improved through

increasing the level of detail in data collection, particularly with regards to livestock, remittances and security data. Representatives of FSAU feel that Macro-level analysis should be carried out in greater detail to improve on accuracy and quality of results, and results should be transparent and displayed so that the reader can understand the logic behind the predictions.

5. Improvement in Long Term Planning

Gaps exist in long term planning and monitoring systems, primarily because of the country's chronic instability. These could possibly be addressed by the addition of country-representative surveys such as DHS. Additionally development of long-term goals linking analysis to long-term interventions should be a priority to help direct FSAU's goals in the future, and to help develop the program in Somalia beyond emergency relief only. This should include integrating plans for long-term development by all stakeholders and modifying data collection tools to represent issues addressed in long-term goals.

Major Points for Discussion

Based on informal conversations with stakeholders in Somalia, the following are needs that have been identified to improve the structure and effectiveness of NIS.

- Increase numbers of local field staff to facilitate collection and analysis of data.
- Increase capacity building on the ground particularly in nutrition, food storage, and dietary diversity.
- Link information gathered with surveys to action at a local level by training communities in food preservation, processing, and storage.
- Continued efforts at capacity building at a local level to ensure long-term sustainability.
- Receive more support for existing infrastructure from donors
- Enhance the organizations programs for capacity building in country
- Including (for example) through sponsorship of Somalis to come to Nairobi University for intensive training in Public Health, Nutrition, and all aspects of surveillance and in-depth analysis.
- Improve clinic coverage and data collection to reduce the need for interviews for data collection.
- Expand research to include micronutrient surveillance.
- Increase the empirical quality of analysis through increased level of detail, particularly with regards to livestock, remittances and security
- Increase macro-level analyses to improve on accuracy and quality of results.
- Develop more long-term goals to link analyses to long-term interventions.
- Develop relevant research initiatives to better incorporate Greater Somalia issues into programming and interventions, and improve links for delivering information to the Somali stakeholders.

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