

# NUTRITION ASSESSMENT

## INTERNALLY DISPLACED PERSONS SETTLEMENTS WAJID TOWN BAKOOL REGION SOMALIA

January 2006



## TABLE OF CONTENTS

TABLE OF CONTENTS.....	2
ACKNOWLEDGEMENT .....	3
EXECUTIVE SUMMARY .....	4
SUMMARY OF FINDING.....	5
1.0 INTRODUCTION .....	6
2.0 ASSESSMENT METHODOLOGY .....	7
3.0 ASSESSMENT RESULTS.....	10
4.0 DISCUSSIONS.....	14
5.0 CONCLUSIONS AND RECOMMENDATIONS .....	15
APPENDICES .....	16

## **ACKNOWLEDGEMENT**

The collaborative efforts of FSAU, ACF, WFP and UNICEF made this assessment possible. FSAU provided technical support and overall management, the entire assessment process, ACF provided committed assessment enumerators and supervisors, UNICEF provided assessment vehicles and equipment and WFP supported the exercise during qualitative data collection and supervision.

Much gratitude is extended to the key informants, mothers, fathers and caregivers whose co-operation and support helped the assessment team achieve its objective.

## EXECUTIVE SUMMARY

The southern part of Somalia has experienced food security crisis in the past two seasons as well as impact of the persisting civil insecurity prevailing in parts of the Southern Somalia. The loss of assets due to drought and destruction during conflict, crop failure and insecurity has compelled some households to abandon their residence and their livelihoods to move to areas with safety and where humanitarian assistance can be accessed. Such areas have been Wajid District and Wajid town in particular. About 120 IDP households existed in Wajid in October 2005 and had received humanitarian assistance from some agencies (FSAU Nutrition Update, December 2005). The impact of the drought in the recent past has led to increase in IDPs in Wajid and exacerbation of drought may lead to increased expansion of the IDP camps. So far there are three IDP camps within Wajid town. In addition, there is increased vulnerability of the Wajid town population especially the poor who are also seeking humanitarian assistance, especially food. (See, Wajid District assessment).

In an effort to establish the nutrition wellbeing of the internally displaced population in Wajid as well as documenting some influencing factors to the nutrition wellbeing, an interagency assessment was conducted in two IDP camps in Wajid town using a population assessment methodology. The third camp declined to be assessed. The assessment team visited every "occupied" structure and assessed all children aged 6-59 months or with length/height of 65.0-109.9cm found. MUAC measurement of all women present, aged 15-49 years, was taken.

A total of 142 children from 111 households were assessed. A global acute malnutrition (W/H<-2 Z score or oedema) of 27.1% and severe acute malnutrition (W/H<-3 Z score or oedema) of 8.6% was recorded (N=140). About 3.5% of the children assessed had oedema. All the severely malnourished and severely sick children encountered by the team were referred to the nearest health facility in Wajid. Disease prevalence and coverage of some health programmes are as shown in the table. The relatively high measles vaccination (76%) and vitamin supplementation (76%) coverage was associated with the recently conducted measles campaign. There was a statistically significant relationship between malnutrition and diarrhea prevalence ( $p=0.002$ ), acute respiratory infection ( $p=0.02$ ) and frequency of feeding ( $p=0.0003$ ). Two out of the eight pregnant women were severely malnourished (MUAC<20.7cm) and three were at moderate risk of malnutrition (20.7<MUAC<23.0cm). There was one death, an under five, from the 209 households assessed for mortality.

The dietary diversity consumed was very poor with almost all households consuming three or less food groups (99.1%)<sup>1</sup> and all households consuming four or less food types. Sorghum and sugar, which is obtained through purchasing are the main food groups consumed.

The IDPs mainly came from within Wajid district (50.5%), Belet Hawa (18%), Rabdure (12.6%), Elberde (9.9%), Luuq (3.6%). Other areas of origin were Huddur, Baidoa, Tayeglow, Berdaale and Bardera<sup>2</sup>. The main reasons for movement were lack of food (51.8%), water shortage (18.2%); civil insecurity (9.1), lack of job opportunity (9.1%) and combinations of lack of food and water (7.3%) and insecurity and lack of food (4.5%).

The nutrition situation among the IDPs is critical, according to WHO categorization, and urgent interventions targeting IDPs and their places of origin are necessary. Diarrhoea, ARI, frequency of feeding, dietary diversity and poor sanitation situation are among the factors contributing to the critical nutrition situation. The ongoing drought situation continues to be an underlying cause to malnutrition. There is need to act now if lives have to be saved.

---

<sup>1</sup> Food groups are based on the FAO food group classification.

<sup>2</sup> Specific villages of origin in the respective districts are available in the report at FSAU.

Following presentation and discussion of assessment findings with partners, the following recommendations were made:

**Short term recommendations:**

- i) As food security continues to deteriorate, interventions that improve household access to food are indicated.
- ii) Continuation and intensification of health, water and sanitation interventions especially immunization programs, rehabilitation and protection of water points and provision of sanitary facilities
- iii) The observation of many oedematous and malnourished cases among the Wajid IDPs calls for an establishment of a system to manage severe malnutrition cases in the area. Establishment of this should take into account the findings of the Wajid district assessment undertaken concurrently.

**Long-term Recommendations**

- i) As high levels of malnutrition have been seen throughout the camps, it is highly recommended that the local MCHs / local health personnel are equipped with the knowledge and skills to manage severe malnutrition both during and outside periods of crisis.
- ii) Improve access to quality for medical care through establishment of a clinic or hospital in Wajid town with a doctor who could provide the increasingly demanded medical services.
- iii) Health/nutrition education for the population focusing especially on appropriate child feeding practices and management of diarrhoeal diseases.
- iv) Establish projects that creates or helps the IDPs regain their means of livelihood

## SUMMARY OF FINDINGS

Indicator	No.	%
Children assessed	142	100
Global acute malnutrition (W/H<-2 score or oedema) (n=140)	38	27.1
Severe acute malnutrition (W/H<-3 z score or oedema) (n=140)	12	8.6
Oedema	5	3.5
Children with diarrhoea, 2 weeks prior to the assessment (n=139)	23	16.5
Children with ARI, 2 weeks prior to the assessment (n=139)	35	25.2
Children with malaria, 2 weeks prior to assessment (n=138)	5	3.6
Children with measles, 1 month prior to the assessment (n=139)	6	4.3
Measles immunisation coverage (n=126, aged 9-59 months)	96	76.2
Vitamin A supplementation, last 6 months (n=134)	102	76.1
Children feeding frequency in a day: 2 or less	47	44.3
3-4 times in a day	47	44.3

## **1.0 INTRODUCTION**

### **1.1 Background Information**

The southern part of Somalia has experienced food security crisis in the past two consecutive seasons and has well been negatively affected by the persisting civil insecurity that has characterized parts of Central and South Somalia. The loss of assets due to drought and destruction during conflict, crop failure and insecurity has compelled some households to abandon their residence and their livelihoods to move to areas with safety and where humanitarian assistance can be accessed, essentially turning these families into IDPs.

Wajid District and Wajid town in particular, is one of the places hosting internally displaced population who started arriving in March 2005. About 120 IDP households existed in Wajid in October 2005 and had received some humanitarian assistance from some agencies. The impact of the drought in the recent past has led to concentration of IDPs in Wajid and worsening of drought may lead to increased expansion of the IDP camps and populations. So far there are three IDP camps within Wajid town. In addition, there is increased vulnerability of the Wajid town population especially the poor who are also seeking humanitarian assistance, especially food, and tending to associate themselves with the IDP community.

### **1.2 Humanitarian response**

With the concentration of the IDPs in Wajid and the appreciation of their poor state by the humanitarian agencies, WFP has been distributing relief food to the registered IDP households. By November 2005, WFP had distributed two rations of maize, oil and pulses to about 120 households. Additional ration was distributed to three camps in January 2006. UNICEF distributed non food items to the 120 households in Oct 2005 while efforts are being made to improve the sanitation conditions in one of the camps within Wajid.

Since the arrival of the IDPs in Wajid, little was known on their places of origin, reason for movement, what services are accessible to them and the living conditions in the camp. This led to the need for a nutrition assessment targeting the IDPs only.

### **1.3 Assessment objectives**

1. To determine the prevalence of acute malnutrition among the internally displaced population in Wajid District through the anthropometrical measurement and identification of oedema in children aged 6-59 months or measuring 65-109.9 cm.
2. To determine the dietary patterns among the IDPs
3. To determine the coverage of Vitamin A supplementation, measles and polio immunization among the IDP community
4. To determine the incidence of some common diseases two weeks prior to the assessment

## **2.0 ASSESSMENT METHODOLOGY**

### **2.1 Assessment design**

The study was cross-sectional and involved the collection of both descriptive and quantitative information. The descriptive information as well as data collected in this assessment was obtained using standard questionnaires (see appendix 2). Two types of questionnaires were used, one with household details, food security questions, adult anthropometry and child's anthropometrical and health details; and the other, a mortality questionnaire. Additional qualitative data were collected through focus group sessions and key informant interviews as well as observations between 31<sup>st</sup> January 2006 and 1<sup>st</sup> February 2006.

### **2.2 Sampling procedure**

A population (exhaustive) assessment methodology was used to assess all children aged 6-59 months and/or measuring 65-109.9cm for height/length, present at the camp at the time of the assessment. All occupied structures were visited and data on the household, the anthropometric data on the children and the women of child bearing age as well as mortality were collected.

A visit to the IDP camps was made very early in the morning before 6.00 am and the assessment commenced immediately. This enabled identification of the genuine IDPs who stay and spend their nights in the simple structures made of plastic sheeting and/or tree branches. One camp declined the assessment for having not been notified that the IDP assessment was being done<sup>3</sup>.

### **2.3 Study population and sampling criteria**

The study population consisted of people living in the three IDP camps in Wajid town and comprised all the children aged 6-59 months and/or measuring 65-109.9 cm for height/length as well as women aged 15-49 years. Since only the population found at the camp by the assessment team was assumed to be the genuine IDPs, the structures found empty were taken to be fake IDP structures.

Same method of house to house visit was followed to assess for mortality situation until all houses/occupied structures were visited.

### **2.4 Data collection**

#### **Anthropometrical measurements**

The anthropometrical data were collected using the procedure stipulated by the WHO (1995) for taking anthropometrical measurements. Adherence to this procedure was ensured. The protocol used was as follows:

*Weight:* Salter scale with calibrations of 100g-unit was used. This was adjusted before weighing every child by setting it to zero when the weighing pant was on. The female children would be lightly dressed before having the weight taken while clothes for the male children were removed. Two readings were taken for each child and the average recorded on the questionnaire. The measurements were taken to the nearest 0.1kg.

*Height:* For height, a vertical measuring board reading a maximum of 132cm and capable of measuring to 0.1cm was used to take the height or length of a child. The child would stand on the measuring board barefooted; have hands hanging loosely with feet parallel to the body, and heels, buttocks, shoulders and back of the head touching the board. The head would be held comfortably erect with the lower border of the orbit of the eye being in the same horizontal plane as the external canal of the ear. The headpiece of the measuring board was then pushed gently, crushing the hair and making contact with the top of the head. Height was then read to the nearest 0.1cm. Two readings were recorded and the computed average used in the analysis.

---

<sup>3</sup> Notice was not given to the IDP camp residents to avoid some Wajid residents rushing to the camps and pretending to be IDPs.

**Length:** For children aged 6 to 24 months or between 65cm to 84.9cm length instead of height was taken using a horizontal measuring board. The child was made to lie flat on the length board. The sliding piece was placed at the edge of the bare feet as the head (with crushing of the hair) touched the other end of the measuring device. Then two readings were taken and the average computed. The measurements were taken to the nearest 0.1cm

**Oedema:** Defined as bilateral oedema on the lower limbs detected by gently pressing the feet to check if a depression is left after at least three seconds of pressing. All children were checked for oedema first before being taken their height or weight. The oedema condition was verified by all members of the team and later follows up and confirmation was done by the assessment coordinator.

Children identified to be in critical condition (2 oedema cases) were advised to visit the World Vision-Somalia sponsored clinic in Wajid town for medical assistance

#### *Child age determination*

Difficulties were encountered in determining the exact ages of children. Useful documents like growth monitoring/clinic attendance cards, or any other viable formal card were used when available. Wajid District calendar of events (see appendix 4) was also used as a proxy to accurate age determination. Though not entirely accurate, ages were still regarded as important indicators and were used in the analysis of stunting and underweight rates. The nutrition indicator that was emphasised on was weight for height as interest was in the wasting status (acute malnutrition), though stunting and underweight rates were analysed.

#### *Morbidity terminologies*

**Diarrhoea:** Diarrhoea was defined for a child having three or more loose or watery stools per day.

**Measles:** A child with more than three signs of the following was considered having measles: fever, and skin rash, runny nose or red eyes, and/or mouth infection, or chest infection

**Acute Respiratory Infection (ARI):** Asked as *oof wareen or wareento*. The signs asked included cough, rapid breathing, pneumonia, bronchitis and fever or any other respiratory illness.

**Suspected malaria:** The signs to be looked for are periodic chills, fever, sweating and sometimes a coma.

## 2.5 Description of assessment activities

**Table 1: Chronology of activities for the Wajid IDP Assessment**

Major Activity	Period
Preparation of tools, methodology & review of secondary data (Wajid/Nairobi)	Jan 25 <sup>th</sup> - Jan 26 <sup>th</sup>
Training of enumerators and pre-testing of questionnaire (same team that conducted Wajid District Nutrition assessment a few days earlier)	Jan 23 <sup>rd</sup> – Jan 25 <sup>th</sup>
Collection of data and entry	Jan 31 <sup>st</sup> –Feb 2 <sup>nd</sup>
Data cleaning and analysis using EPI-Info 6 and draft report presentation	Feb 2 <sup>nd</sup> – Feb 17 <sup>th</sup>
Circulation and comments on the draft report	Feb 20 –Feb 28th
Circulation of final report	Mar 3 <sup>rd</sup> 2006

Eight teams consisting of two enumerators and one supervisor conducted the assessment with all the team combining effort for an exhaustive assessment in the three camps. This is the same team that had undertaken the Wajid District nutrition assessment that was completed on 30<sup>th</sup> Jan 2006.

## 2.6 Quality control procedures

A comprehensive training of enumerators and supervisors was conducted covering interviewing techniques, sampling procedure, inclusion and exclusion criteria, sources of errors when taking measurements, standardizing the questions in the questionnaire, levels of precision required in measurements, diagnosis of oedema, handling of equipment and the general courtesy during the assessment. A standardization test was conducted among four children during the training.

The assessment teams were also taken to the field to familiarize with administration of the questionnaire, correct taking of measurements and documentation. After the field exercise, views were exchanged to

address the difficulties identified; appropriateness of the questions reviewed and necessary changes were made.

Quality of data was also ensured through (i) crosschecking of filled questionnaires on daily basis (ii) daily review undertaken with the enumerators to address any difficulties encountered, (iii) progress evaluation was carried out according to the time schedule and progress reports shared with partners on regular basis, (iv) continuous data cleaning after entry in the field that made it easy to detect any mistakes and to replace or repeat households depending on magnitude of error and (v) monitoring accuracy of equipment (weighing scales) by regularly measuring objects of known weights. Further checking was also done with the data entry and analysis being conducted using the EPI-Info 6.04.

## **2.7 Data analysis**

### *Entry, cleaning, processing and analysis*

Data was entered and analyzed using EPIINFO 6.04. Running and tabulating all variable frequencies was carried out as part of data cleaning. The EPINUT programme was used to convert the measurements (weight and height) into nutritional indicators and comparison made with the National Centre for Health Statistics (NCHS) references as designed by WHO (1983).

### *General characteristics of study population*

Frequencies and cross-tabulations were used to give percentages, means and standard deviations in the descriptive analysis and presentation of general household and child characteristics.

### *Creation of nutritional status indices*

The anthropometrical measurement of weight and height were used to compute the nutritional status indicators of the studied children. Weight for Height (W/H) expressed the weight of the child as a percentage of the expected weight for the standard child of that height as given by NCHS. WFH measures acute malnutrition or wasting. Using EPINUT, Z-scores were generated and the anthropometrical indicator, WFH, was used to classify children into categories of nutritional status as follows:

- < -3 Z-Scores or oedema = Severe acute malnutrition
- 3 Z-Scores ≤ WFH < -2 Z-Scores = Moderate acute malnutrition
- < -2 Z-score or oedema = Global/total acute malnutrition
- ≥ -2 Z-Scores = Normal

Other nutrition status indicators used were the stunting (height for age) and underweight (weight for age) which were compared to the National Centre for Health Statistics (NCHS) references as designed by WHO (1983) were used

### 3.0 ASSESSMENT RESULTS

#### 3.1 Characteristics of the study population

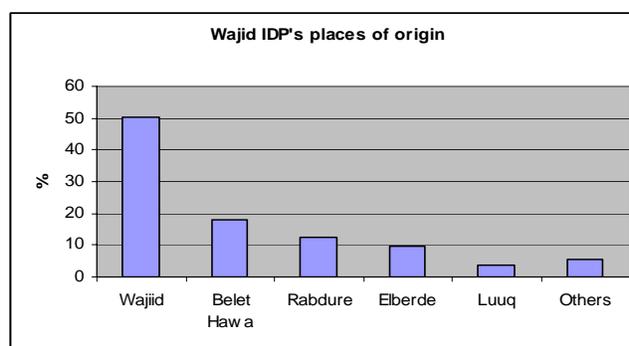
A total of 142 children (aged 6-59 months) were assessed from 111 households. The mean household size was 3.6 (sd=1.5). About 45% of the children assessed were boys while 55% were girls with a sex ratio of 0.82: 1 (boys: girls).

The households had stayed in the camp for a period ranging from two to nine months. The IDP community owned no assets with them in the camps and only a few reported owning some land at their place of origin where they had two consecutive seasons of crop failure.

The main reasons for movement were lack of food (51.8%), water shortage (18.2%), civil insecurity (9.1), lack of job opportunity (9.1%) and combinations of lack of food and water (7.3%) and insecurity and lack of food (4.5%). Majority came from villages within Wajid District (50.5%) while other places of origin were mainly Belet Hawa (18%), Rabdure (12.6%), Elberde (9.9%) and Luuq (3.6%). The other few remaining households had come from Huddur, Baidoa, Berdaale, Tayeglow, Somaliland and Berdera districts. See Appendix 2 for details on the villages of origin.

*Table 2: Distribution of the sample population by sex and age groups*

Age categories	Males	Females	Total	Ratio
6-17	18 (47.4%)	20 (52.6%)	38 (26.8%)	0.9
18-29	23 (39.7%)	35 (60.3%)	58 (40.8%)	0.66
30-41	13 (52.0%)	12 (48.0%)	25 (17.6%)	1.08
42-53	6 (42.9%)	8 (57.1%)	14 (9.9%)	0.75
54-59	4 (57.1%)	3 (42.9%)	7 (4.9%)	1.33
Total	64 (45.1%)	78 (54.9%)	142 (100%)	0.82



#### 3.2 Children's nutritional status

*Table 5: Prevalence of acute malnutrition based on W/H Z-score and/or oedema in Wajid IDP (N=140)*

	Males		Females		Total	
	%	No	%	No	%	No
Global acute malnutrition (W/H<-2 z score + oedema)	31.7	20	23.4	18	27.1	38
Severe acute malnutrition (W/H<-3 z score + oedema)	11.1	7	6.5	5	8.6	12
Oedema	3.1	2	3.8	3	3.5	5

The prevalence of global acute malnutrition defined as W/H<-2 Z score or oedema was 27.1% while the prevalence of severe acute malnutrition, defined as W/H<-3 Z score or oedema, was 8.6%<sup>4</sup>. There was 3.5% of oedema.

<sup>4</sup>Note that no confidence intervals are indicated since a population assessment was conducted in the camps.

Table 6: Prevalence of acute malnutrition based on W/H % of median and/or oedema in Wajid IDP

	Males		Females		Total	
	%	No	%	No	%	No
Global acute malnutrition (W/H<80% of median/oedema)	28.5	18	16.9	13	22.1	31
Severe acute malnutrition (W/H<70% of median/oedema)	6.3	4	3.9	3	5.0	7
Oedema	3.1	2	3.8	3	3.5	5

The prevalence of global acute malnutrition defined as W/H<80% or oedema was 22.1% while the prevalence of severe acute malnutrition, defined as W/H<70% or oedema, was 5.0%.

Table 7: Distribution of global acute malnutrition prevalence (based on Z-score or oedema) by sex

	Severe (W/H<-3 z-scores+ oedema)	Moderate (-3 Z-Sc. ≤WFH< -2 Z-Score.)	GAM (W/H<-2 z-sc. + oedema.)	Normal (W/H≥ -2Z-Score.)
Males	7 (11.1%)	13 (20.6%)	20 (31.7%)	43 (68.3%)
Females	5 (6.5%)	13 (16.9%)	18 (23.4%)	59 (76.6%)
Total	12 (8.6%)	26(18.6%)	38 (27.1%)	102 (72.9%)

The difference in malnutrition between sexes was not statistically significant, though more males were malnourished than females.

Table 8: Prevalence of acute malnutrition by age categories, based on W/H z-score or oedema

Age category	Severe (W/H<-3 z-scores+ oedema)	Moderate (-3 Z-Sc. ≤WFH< -2 Z-Scores.)	GAM (W/H<-2 z-scores+ oedema)	Normal (W/H>=-2 z-scores)
6-17 months	2 (5.3%)	4 (10.5%)	6 (15.8%)	32 (84.2%)
18-29 months	8 (14.0%)	14 (24.6%)	22 (38.6%)	35 (61.4%)
30-41 months	1 (4.2%)	5 (20.8%)	6 (25.0%)	18 (75.0%)
42-53 months	1 (7.1%)	0 (0%)	1 (7.1%)	13 (92.9%)
54-59 months	0 (0%)	3 (42.9%)	3 (42.9%)	4 (57.1%)
Total	12 (8.6%)	26 (18.6%)	38 (27.1%)	102 (72.1%)

The relationship between malnutrition and age categories was statistically significant with most of the malnourished children in the less than 30 months categories ( $X^2=10.02$ ,  $df=4$ ,  $p=0.04009$ ).

### 3.5 Risk for malnutrition among adult women in Wajid IDP Camps

There was no malnutrition (MUAC<18.5 cm) reported among the non pregnant women. Two out of the eight pregnant women were severely malnourished (MUAC<20.7cm) while three were at moderate risk of malnutrition (20.7<MUAC<23.0cm).

### 3.6 Health, Feeding practices and Immunisation coverage

The prevalence of ARI (25.2%) and diarrhoea (16.5%) were high and the cases of measles identified were cause for concern considering that the measles campaign had been conducted about a month prior to the assessment, even in areas of origin. The coverage of Vitamin A supplementation (76.1%) and the measles vaccination (76.2%) was high due to the recent campaigns conducted in the area.

Table 10: Disease prevalence, immunisation and childcare issues in Wajid IDP

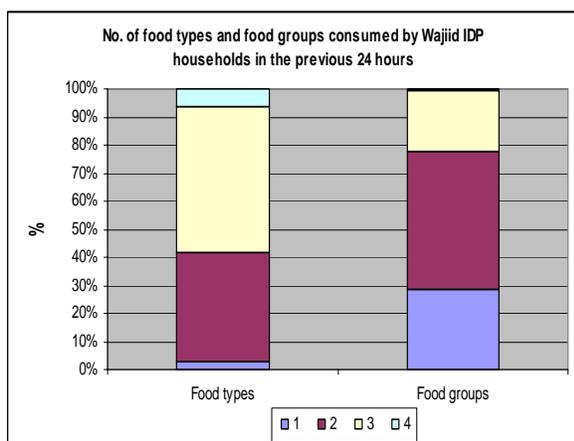
Characteristics	Proportion	No
<b>Disease prevalence &amp; immunisation</b>		
Children with acute respiratory infection two weeks prior to assessment (N=139)	25.2	35
Children with diarrhoea two weeks prior to assessment (N=139)	16.5	23
Suspected malaria cases two weeks prior to assessment (N=138)	3.6	5
Suspected measles cases one month prior to assessment (N=139)	4.3	6
<b>Coverage of Health Programmes</b>		
Vitamin A supplementation 6 months prior to assessment (N=134)	76.1	102
Measles immunisation (N=126, aged 9-59 months)	76.2	96
Children who have ever received polio vaccine in life (N=122)	82	100
<b>Child feeding</b>		
Frequency of feeding in a day(N=106):		
➤ Once	5.7	6
➤ Twice	38.7	41
➤ 3-4 times	44.3	47
➤ Five and above	11.3	12

### 3.7 Health services

Majority of the assessed children (85.1%) were taken for health care assistance when sick. About 94.8% of these were taken to a public health facility while about 5.2% were attended at private medical clinics or pharmacies. The public clinic available is managed by World Vision Somalia and it is in close proximity to the camps.

### 3.8 Dietary diversity

The FAO food group classification<sup>5</sup> was adopted to establish the level of food diversification in the study group in the previous 24 hours;



The dietary data indicate a very poor diet in terms of quality with almost all (99.1%; (N=139))<sup>6</sup> households consuming 3 or less food groups (as shown in the graph). Four or more food groups were consumed by a minority 0.9% indicating that dietary diversity was poor. The number of individual food items were also very few with cereals (especially sorghum) and sugar dominating the diet. The food was obtained mainly through purchasing.

<sup>5</sup> The food groups used were: 1) Cereals, 2) Beans and other pulses 3) Meat and meat products, 4) Roots and tubers, 5) Vegetables, 6) Fruits, 7) Fats and oil, 8) Dairy products, 9) Sugars and honey, 10) beverages, spices & other products. 11-Fish, sea foods and 12 Eggs

<sup>6</sup> Food groups are based on the FAO food group classification.

### **3.9 Relationship between malnutrition and other factors**

The relationship between malnutrition and frequency of feeding was statistically significant with the children fed less frequently being at higher risk of malnutrition than those feeding more frequently. ( $X^2 = 13.45$ ,  $df=3$ ,  $p=0.004$ ). Malnutrition was significantly associated with measles immunization with those children not vaccinated and those vaccinated past 6 months being malnourished than those recently vaccinated (before 6 months) ( $X^2 = 10.39$ ,  $df=4$ ;  $p=0.03$ ).

Malnutrition showed significant associations with acute respiratory infection ( $X^2 = 7.44$ ,  $df=2$ ;  $p=0.02$ ) and diarrhoea (RR=2.58;  $p=0.00177$ ) with the diarrhoea cases being about 2.5 times more likely to be malnourished than children without diarrhoea. The relationship between malnutrition and age categories was statistically significant with most of the malnourished coming from less than 30 months of age categories ( $X^2=10.02$ ,  $df=4$ ,  $p=0.04$ ). Further analysis showed that there was no significant relationship between malnutrition and malaria, polio coverage, age of introduction of weaning foods, child sex, measles prevalence, food types and number food groups.

### **3.10 Mortality**

All 209 households were assessed for mortality with a recall period of 90 days prior to the assessment being used. There was one death of an under five child reported from the households.

### **3.11 Qualitative information**

Through observations and discussions with key informants, information on poor sanitation within the camps and lack of toilets was recorded. The water consumed is obtained from the open wells and the boiling of water before consumption was not taking place. There was no external support in the form of remittances to the IDPs and some household members collected bush product for sale in Wajid usually earning them about half a dollar per day. This was used in the purchasing of sorghum and sugar for tea.

## **4.0 DISCUSSIONS**

### ***Nutritional status***

The nutrition situation of this small population is critical and the prevailing aggravating factors are equally critical. According to WHO, acute malnutrition rates of more than 15% are critical and signify an emergency situation. The assessment indicated a global acute malnutrition (weight for height <-2 Z scores or oedema) of 27.1% and a high (8.6%) level of severe acute malnutrition. Comparison of these assessment findings to past studies among Wajid IDPs is limited as these were newly formed camps with different inhabitants from those studied in the past.

### ***Child care related issues***

Both boys and girls were equally vulnerable to malnutrition ( $p>0.05$ ). However, there was a statistically significant difference between children's nutritional status and agegroup. Children less than 30 months were more likely to be malnourished than their older counterparts. In the early months of life, good child care practices are key. A significant proportion (about 45%) of the children were fed two or less times in day which is not optimal for underfive children. The frequency of child feeding in a day was significantly associated with children's nutritional status. The relatively high measles immunisation and vitamin A supplementation serves as good mitigating factor to a poor nutrition situation. The high coverage was associated with a recent measles immunisation campaigns.

### ***Morbidity***

Diseases and children's nutritional status exhibit a vicious cycle relationship. Sick children will usually suffer anorexia reducing food intake while food absorption is also compromised ultimately predisposing the children to poor nutrition. Likewise, malnourished children are more prone to diseases as their body's immune system is low. The prevalence of diarrhoea and ARI two weeks prior to the assessment was high. Both diseases were significantly associated with children's' nutritional status and hence among the causal factors of malnutrition in the population.

### ***Dietary diversity***

Majority of the IDPs accessed food through purchases yet access to income was very minimal with no viable income sources. Following the drought, the IDPs had already lost their means of livelihood making it difficult to meet their daily basic needs. Among the key reasons the IDPs cited for moving from their places of origin were lack of food (51.8%) and water shortage (18.2%). In the camps, with no livelihood means left little option than for the majority to rely on external support. The assessment indicated that virtually all (99.1%) households were consuming three or less food groups. Only a negligible 0.9% consumed a diversified diet indicating that the population's diet was very poor. More so, sorghum and sugar were the main food types eaten.

### ***Mortality***

One case of an underfive death was recorded though there is likelihood for more cases if the situation persists.

### ***Humanitarian assistance and food security***

The number of IDPs currently in Wajid seems unclear and the arrival of new ones seems to continue. The host community is also affected by the current drought hence limited social support to the IDPs is expected. The humanitarian assistance to the IDPs seems limited and the impact of the assistance already received is likely to be limited. No consumption of relief food from the humanitarian agencies was reported, an indication of the exhaustion of the relief stocks provided in December 2005. The situation calls for urgent humanitarian support to save life and avert the situation from deterioration.

Food insecurity and severe water shortage are common in most parts of Southern Somalia, especially the areas encountering livelihood and humanitarian crisis (FSAU, Food security and nutrition brief, Jan 2006). The increasing cereal and milk prices and the limited livelihood opportunities for the IDPs creates potential for further deterioration of their wellbeing. Further, since the population wellbeing is poor at this early stage of the Jilaal (dry) season, the situation is not likely to improve in the end of Gu rains expected in the next 3-4 months.

## 5.0 CONCLUSIONS AND RECOMMENDATIONS

The global acute malnutrition (weight for height <-2 Z scores or oedema) of 27.1% depicts a critical nutrition situation among the Wajid IDPs. Diarrhoea, ARI, frequency of feeding, dietary diversity and poor sanitation situation are among the factors contributing to the critical nutrition situation. The ongoing drought situation continues to be an underlying cause to malnutrition. There is need to act now if lives have to be saved.

Following presentation and discussion of assessment findings with partners, the following recommendations were made:

### **Short term recommendations:**

- i) As food security continues to deteriorate, interventions that improve household access to food are indicated.
- ii) Continuation and intensification of health, water and sanitation interventions especially immunization programs, rehabilitation and protection of water points and provision of sanitary facilities
- iii) The observation of many oedematous and malnourished cases among the Wajid IDPs calls for an establishment of a system to manage severe malnutrition cases in the area. Establishment of this should take into account the findings of the wajid district assessment undertaken concurrently.

### **Long-term Recommendations**

- i) As high levels of malnutrition have been seen throughout the camps, it is highly recommended that the local MCHs / local health personnel are equipped with the knowledge and skills to manage severe malnutrition both during and outside periods of crisis.
- ii) Improve access to quality for medical care through establishment of a clinic or hospital in Wajid town with a doctor who could provide the increasingly demanded medical services.
- iii) Health/nutrition education for the population focusing especially on appropriate child feeding practices and management of diarrhoeal diseases.
- iv) Establish projects that creates or helps the IDPs regain their means of livelihood

# APPENDICES

## Appendix 1a: Wajid IDPs Nutrition Assessment Questionnaire

Date \_\_\_\_\_ Team Number \_\_\_\_\_ Cluster Number \_\_\_\_\_ Name of Supervisor \_\_\_\_\_  
 Name of Village/Town \_\_\_\_\_ Name of section \_\_\_\_\_ Household Number \_\_\_\_\_ Name of the household head \_\_\_\_\_

### Q1-12 Characteristics of Household

Q1 Sex of the household head? 1=M, 2=F

Q2 Household size \_\_\_\_\_

Q3 Number of < 5 years \_\_\_\_\_

Q4 Household residence status: 1= Residents 2= Internally displaced 3=Returnees 4=Other (specify) \_\_\_\_\_

*If answer to the above is 1, then move to Question 8.*

Q5 Place of origin \_\_\_\_\_

Q6 Duration of stay \_\_\_\_\_

Q7 Reason for movement: 1= Insecurity 2=Lack of jobs 3= Food shortage 4=Water shortage 5=Others; specify \_\_\_\_\_

Q8 What is the livelihood systems used by this household? 1= Pastoral 2=Agro- pastoral 3= Business 6=Other (specify) \_\_\_\_\_

Q9 What is the total size of the land cultivated (ha) \_\_\_\_\_

Q10 How many cattle does household own (ha) \_\_\_\_\_

Q11 How many shoats does the household own (number) \_\_\_\_\_

Q12a: When your child is sick , do you seek assistance 1= Yes 2= No

Q12b: If yes in Q12a, where do you seek assistance: 1= traditional healer 2= private clinic/ Pharmacy 3= Public health facility

### Q13-18 Anthropometry for children aged 6 – 59 months (or 65 – 110cm) in the household

Serial No	Name	Q13 Sex (F/M)	Q14 Age in months	Q15 Oedema (Yes/No)	Q16 Height (cm)	Q17 Weight (kg)	Q18 MUAC (cm)
1							
2							
3							

### 18b: Anthropometry (MUAC) for adult women of childbearing age (15-49 years) present at the household

Sno	Name	Age in years	MUAC	Physiological status 1- Pregnant 2- Lactating 3- Not pregnant & not lactating	Illness in last 14 days? If yes, what?
1					
2					
3					

### 18c: Anthropometry (MUAC) for adult men in the households at the time of the assessment (over 18 year of age)

Sno	Name	Age in years	MUAC	Illness in last 14 days? If yes, what?
1				
2				
3				

**Q19- 28 Morbidity, feeding and immunization status of children aged 6 – 59 months (or 65 – 110cm) in the household.**

Sno	Name	Q19	Q20	Q21	Q22	Q23	Q24	Q25	Q26	Q27	Q28	Q29
		Diarrhoea in last two weeks  1= Yes 2= No	ARI in the last two weeks  1=Yes 2=No	Malaria in the last two weeks  1=Yes 2=No	Measles in last one month  1=Yes 2=No	Vaccinated against measles  1=In past six months (by card) 2=In past six months (Recall) 3=Before six months (by card) 4=Before six months (Recall) 5= None	Vitamin A provided in the last 6 months  1=Yes 2=No	Are you breast feeding the child?  1=Yes 2=No	If not breast feeding, how old was the child when you stopped breast-feeding?  <b>1= Less than 6 months</b> 2= 6 – 11 months  3=12 – 18 months 4=18 months or more  5= Never breastfed	At what age was child given water/ foods other than breast milk  1=0-3 months 2=4-6 months 3=7 months or more.	How many times do you feed the child in a day?  1= Once 2= Twice  3= 3-4 times 4= 5 or more times	How many times has the child ever been given polio vaccine orally  1=1-2 times 2=3 and above 3=Never
1												
2												
3												

**Q30a:** Does any member of the household have difficult seeing at night or in the evening while other people do not? 1=Yes 2=No

**Q30 b:** If yes in **Q30a**, specify the member: 1= <5 years 2= ≥ 5 years

**Q 31 Consumption Diversity**

Twenty four-hour recall for food consumption in the households: The interviewers should establish whether the previous day was usual or normal for the households. If unusual- feasts, funerals or most members absent, then another day should be selected or alternatively choose on another household.

Food consumption and source of food, frequency and food sources  What foods did the members of this household consume in the past 24 hours?	Codes for frequency of consumption 0=none 1= once 2= twice 3=3 times 4=4 times 5=5 or more times		Sources of foods consumed
	Frequency (<5yrs)	Frequency-adults	
1			
2			
3			
4			
5			
6			
7			
8			
9			

**Q32-37 Access to water (quality and quantity)**

Q32 Main source of drinking water 1 = piped 2 = public tap 3 = Tube well/borehole 4= protected well or spring 5 = Rain water 6= unprotect spring and well 7= river 8= other

Wajid IDP Settlements. Nutrition Assessment. January 2006.

- Q33 Main source of water for cooking and personal hygiene 1 = piped 2 = public tap 3 = Tube well/borehole 4= protected well or spring 5 = Rain water 6= unprotect spring and well 7= river 8= other  
 Q34 Average household water use per day per person for drinking, cooking and personal hygiene is 1= 0-2 litres 2 = 3 – 5 litres 3 = 6-10 litres 4= 11-15 litres 5= more than 15 litres  
 Q35 Distance to the nearest water point 1= 0-250 metres 2 = 251 – 500 metres 3= 501 – 750 metres 4 = 751 – 1000 metres 5 = more than 1000 metres  
 Q36 Water and systems are maintained such that quantities of water are available 1 = never 2 = sometimes 3 = almost always 4= always  
 Q37 Number of clean water collecting containers of 10-20 litres 1= 1-2 containers 2 = 3-4 containers 3 = 4-5 containers 4= more than 5 containers

**Q38-42 Sanitation and Hygiene (access and quality)**

- Q38 Type of toilet used by most members of the household: 1=Improved pit latrine 2 = Traditional pit latrine 3 =Open pit 4 = Bucket 5= Bush 6= Others (specify) \_\_\_\_\_  
 Q39 Number of people who use the same toilet 1= 1-5 people 2= 6-10 people 3 = 11-15 4= 16 – 20 people 5= more than 20 people  
 Q40 Household members wash their hands after defecation 1= always 2= often 3=sometimes 4= hardly rarely  
 Q41 Household members wash their hands before eating or food preparation 1= always 2= often 3=sometimes 4= hardly rarely  
 Q42 Distance between toilet and water source 1 = 0 – 5 metres 2= 6 – 10 metres 3= 11- 20 metres 4= 21 - 29 metres 5= 30 metres or more

**Q43 - 44 Formal and Informal Support or Assistance in last three months (circle all options that apply)**

**Q43** Informal support received in last three months *1= Yes 2=No*

**Q43a** Amount and Frequency of each

Type of support	Frequency	Amount (Where applicable)
1=Zakat from better-off households		
2=Remittances from Abroad		
3=Remittances from within Somalia		
4=Gifts		
5=loans		
9=Other (Specify) _____		

**Q44** Formal international or national aid support received in last three months

*1= Yes 2=No*

**Q44a** Amount and Frequency of each

Type of support	Frequency	Amount (Where applicable)
1= Free cash		
2=free food		
3=cash for work		
4=food for work		
5=supplementary food		
6=water subsidy		
7 transportation of animals subsidy		
8=veterinary care		
9=Other (Specify) _____		

## Appendix 1b: Wajid Nutrition Assessment Questionnaire (Somali Version)

Taariikh \_\_\_\_\_ Nambarka kooxda \_\_\_\_\_ Nambarka goobta \_\_\_\_\_ Magaca Kormeeraha \_\_\_\_\_ Magaca tuulada/magaalada \_\_\_\_\_  
 Magaca xaafadda \_\_\_\_\_ Nambarka qoyska \_\_\_\_\_ Magaca madaxa qoyska \_\_\_\_\_

**S1-12** Astaamaha Qoyska

**S1** Jinsiga madaxa qoyska 1= Lab 2= Dhedig

**S2** Tirada Qoyska \_\_\_\_\_

**S3** Tirada caruurta ka yar shan sano \_\_\_\_\_

**S4** Xaalada deegaan ee qoyska (Goobo geli Jawaab keliya) 1= Deegaan 2 = Soo Barakacay 3 =Dib u soo noqday 4 = Jawaab kale \_\_\_\_\_

**Haddii Jawaabta su'aasha 4aad ay noqoto (1), u gudub su'aasha 8aad.**

**S5** Meesha uu markii hore ka yimid \_\_\_\_\_

**S6** Mudada uu halkan Joogay (Bil ahaan u qor) \_\_\_\_\_

**S7** Sababta uu u soo guuray 1= Nabadgelyo xumo 2 = Shaqo la'aan 3 = Cunto yaraan 4 = Biyo yaraan 5 = Jawaab kale \_\_\_\_\_

**S8** Waa Maxay qaab nololeedka ugu badan ee qoskani: 1= Reer Guuraa 2= Reer Guuraa iyo Beeraleey 3= ganacsi 6= Jawaab kale

**S9** waa immisa baaxadda dhulka aad beerato \_\_\_\_\_

**S10** waa immisa tirade lo' da aad' haysato

**S11** waa immisa tirada ariga (Ido iyo Riyo) ee qoyskani leeyahay

**S12. a:** Ma raadsataa kaalmo caafimaad markuu cunug kaa jiran yahay 1= Haa 2= Maya

12b hadii ay haa tahay Xaggee: 1= dhaqatar dhaqameed 2= rug caafimaad gaar ah/farmashiye 3= Rug caafimaad dadweyne

**S13-18** Miisaamidda iyo dhererinta ilmaha da'dooda u dhexeyso 6 – 59 bilood (ama 65 – 110cm) ee qoyska

Tirada Taxan	Magac	S13 Jinsi (L/Dh)	S14 Da'da oo bilo ah	S15 Barar (Haa/Maya)	S16 Dherer (cm)	S17 Miisaan (kg)	S18 Cudud Cabir (cm)
1							
2							
3							

18b: Qiyaasta jidhka ee dumarka ku jira da'da dhalikarta (15-49 sano) ee jooga qoyska

Sno	Magaca	Da' oo sanado ah	MUAC	Xaaladda qofka 4- Uur leh 5- Nuujinaysa 6- Uur ma leh, mana nuujinayso	Cudur ma jiray 14kii maalmood ee u dambeeyey? Hadday jawaabtu haa tahay muxuu ahaa ?
1					
2					
3					
4					

18c: Qiyaasta jidhka ee raga jooga qoyska xilliga la sameeyey qiimaynta (ka weyn 18 sano)

Sno	Magaca	da' oo sanado ah	MUAC	Cudur ma jiray 14kii maalmood ee u dambeeyey? Hadday jawaabtu haa tahay muxuu ahaa ?

Wajid IDP Settlements. Nutrition Assessment. January 2006.

1				
2				
3				
4				

**S19-29: cudurada, quudinta iyo Tallaalka ee caruurta 6 – 59 bilood (ama 65 – 110cm).**

NR	Magac	S19:	S20	S21	S22	S23	S24	S25	S26	S27	S28	S29
		Shuban labadii sitimaan ee la soo dhaafay 1= Haa 2= Maya	Oofwareen (burukiito) labadii sitimaan ee la soo dhaafay 1= Haa 2= Maya	Duumo labadii sitimaan ee la soo dhaafay 1= Haa 2= Maya	Jadeeco Bishii la soo dhaafay 1= Haa 2= Maya	Laga tallaalay jadeecada 1=lixdii bilood ee la soo dhaafay gudahood (Kaar) 2=lixdii bilood ee la soo dhaafay gudahood (Xusuus) 3=Lix bilood ka hor (Kaar) 4=Lix bilood ka hor (Xusuus) 5=Lama tallaalin	Lixdii bilood ee la soo dhaafay gudahood 1= Haa 2= Maya	Cunuga ma nuujineysaa hadda 1= Haa 2= Maya	Haddii hadda aadan naaska nuujin, imisa jir buu ahaa marka aad ka joojisay 1=lix bilood ka yar 2= 6 – 11 bilood 3= 12 – 18 bilood 4= 18 bilood ama ka badan 5= Lama naasnuujin	Imisa jir buu ahaa cunuga markii la siiyay biyo/cuntadii ugu horeysay ee aan ahayn caanaha naaska 1= 0-3 bil 2= 4-6 bil 3= 7 bil ama ka badan	Imisa jeer baad quudisaa cunuga maalintii 1= hal jeer 2 = laba jeer 3 = 3 – 4 jeer 4 = 5 jeer ama in ka badan	Imisa jeer ayaa afka laga siyey Talalka dabeysha weligiis. 1= 1-2 jer 2 = 3& ka badan 3 = Lama siin weligiis.
1												
2												
3												

**S30 a)** Ma jiraa xubin (xubno) qoyska ka mid ah dhibaato xagga aragtida ah qaba habeenkii ama fiidkii, taas oo xubnaha kale aysan la wadaagin?

1= Haa

2= Maya

**S30b** Hadday **S30a** haa tahay, Caddee

1= < 5 Sano

2 = > 5 ano

**Q31b. Food consumption patterns assessment**

Waraysiyadu waa inay caddeeyaan in maallintii hore ay ahayd mid caadi u ah qaysaskaas. Haddii aanay caadi ahayn- haddii jirtay xaflad, tacsii ama badi xubanaha qoysku haddii ay maqanyihiint, Markaas maalin kale waa in la doorto, haddii kale waa in qoys kale la xusho.

Cuntada la cunay iyo isha ka soo jeeddo, isha dakhliga cuntada lagu soo gadday ka timaado? Maxay xubnaha qoyskan cuneen 24 kii saac ee la soo dhaafay	Code: 0=waxba 1= hal mar 2= laba goor 3=3 goor 4=4 goor 5=5 goor iyo ka badan		Halka laga helo cuntada la isticmaalo
Noocyada Cuntada	Frequency (<5yrs)	Frequency-adults	
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			

**S32-37 Helitaanka Biyaha (Tayada iyo Tirada)**

**S32** Isha ugu badan ee laga helo Biyaha la cabo 1) pipe lagu keenay 2) Tubo 3) Ceel riig ah (mator leh) 4) Ceel daboolan 5) Biyaha roobka 6) war iyo ceel aan daboolnayn 7) Webi 8) meelo kale ,Caddee, \_\_\_\_

**S33** halka ugu badan ay ka yimaadaan biyaha wax lagu karsado ama la isku nadifiyo 1) pipe lagu keenay 2) Tubo 3) Ceel riig ah 4) Ceel daboolan 5) Biyaha roobka 6) war iyo ceel aan daboolnayn 7) Webi 8) meelo kale ,Caddee, \_\_\_\_\_

**S34** Celceliska biyaha xubin qoyska ah uu u isticmaalo Karin iyo nadaafadda jirka waa 1= 0-2 litir 2 = 3 – 5 litir 3 = 6-10 litir 4= 11-15 litir 5= Ka badan 15 litir

**S35** Fogaanta isha biyo ee ugu dhaw 1= 0-250 mitir 2= 251-500 mitir 3= 501-750 mitir 4= 751-1000 mitir 5= ka badan 1000 mitir

**S36** Biyaha iyo habka lagu helaba waa la ilaaliyey sidaa darteed cadadkii loo baahnaa waa diyaar 1= Marnaba 2= Marmar 3= ugu dhawaan had iyo goor 4= Had iyo goor

**S37** Tirada Caagaga biyaha lagu aroorto (10-20 litres) ee qoyskan waa 1=1-2 2= 3-4 3= 4-5 5= ka badan 5 caag

**S38- 42: Nadaafadda iyo Fayadhawrka**

**S38** Nooca musqusha ay inta badan xubnaha qoysku isticmaalaan waa 1= Nooca biyaha la raaciyey 2= Musqusha godka ah oo la sii hagaajiyey 3= Musqusha Godka ah 4= Musqul God oo dusha ka furan 5= Noocyo kale, Caddee

**S39** Tirada dadka isticmaala isku hal musqul 1= 1-5 qof 2= 6-10 qof 3= 11-15 qof 4= 16-20 qof 5= ka badan 20 qof

**S40** sidee bay xubnaha qoysku gacmaha u dhaqdaan Musqusha ka dib 1= Had iyo goor 2= Badanaa 3= Marmar 4= Si dhifdhif ah

**S41** Sidee bay xubnaha qoysku u dhaqdaan gacmaha cuntada ka hor ama markay diyaarinayaan cuntada 1= Had iyo goor 2= Badanaa 3= Marmar 4= Si dhifdhif ah

**S42** Fogaanta u dhaxeysa Musqusha iyo Isha Biyaha 1= 0-5 mitir 2= 6-10 mitir 3= 11-20 mitir 4= 21-29 mitir 5= 30 mitir iyo ka badan

**Q43 -44 Taageerada toosan iyo midda dadban ee qoysku helay 3dii bilood ee la soo dhaafey (goobo geli dhamaan doorashooyinka ku habboon)**

**Q43** Kaalmo dadban (aan rasmi ahayn) ma helay qoyskan 3dii bilood ee la soo dhaafey? *1= Haa 2=Maya*

**Q43a** Cadadka iyo Inta jeer

Nooca kaalmada	Inta goor	Caadka (xaddiga) (Markey ku haboon tahay )
1=Zako ka timaado qoysaska ladan		
2=Xawaalad dibadda ka timaadda		
3=Xawaalad ka timaadda wadanka gudahiisa		
4=Deeq		
5=Amaah		
9=Wax kale, _____		

**Q44** Kaalmo rasmi ah oo caalami ah ama waddaniyadeed 3dii bilood ee u dambeeyey *1= Haa 2=Maya*

**Q44a** Caddadka iyo inta goor mid walba.

Nooca Kaalmada	Inta goor	Caadka (Xaddiga)
1= Lacag bilaash aad ku heshay		
2=Cunto bilaash lagugu siiyey		
3=Lacag aad shaqo ku badalatey (Cash for work)		
4=Cunto aad shaqo ku badalatey (food for work)		
5=Cunto kabiid ahaan lagu siiyey (suppl.Food)		
6=Biyo lagu siiyey kabiid ahaan (subsidy water)		
7= xoolo lagu siiyey gaadiid ceshi		
8=Kaalmo xanaanada xoolaha (veterinary) aad heshay		
9=Kale, caddee _____		





**Appendix 3: Traditional Calendar of Events for Wajid People**

Month	Events	2001	2002	2003	2004	2005	2006
Jan.	Beginning of Jiilal		49 Siditaal	37 Siditaal	25 Siditaal Safari park retreat	13 Siditaal	1 Siditaal
Feb.	Mid of Jiilaal		48 Arafo/Dul-Xaj	36 Arafo/Dul-Xaj	24 Arafo/Dulxaj	12 Arafo/Dulxaj Sheikh Indhocaadde-Baidoa attack	
Mar.	End of Jiilaal	59 Sako	47 Sako	35 Sako	23 Sako	11 Sako	
Apr.	Beginning of Gu'	58 Safar	46 Safar	34 Safar	22 Safar	10 Safar	
May	Mid of Gu'	57 Mawlid	45 Mawlid	33 Mawlid	21 Mawlid	9 Mawlid	
Jun.	End of Gu'	56 Malmadoone/Milihore	44 Malmadoone/Milihore	32 Malmadoone/Milihore	20 Malmadoone/Milihore	8 Malmadoone/Milihore	
July	Beginning of Xagaa	55 Jamadul-Awal/ Mili dhexe	43 Jamadul-Awal/ Mili dhexe	31 Jamadul-Awal/ Mili dhexe	19 Jamadul-Awal/ Mili dhexe	7 Jamadul-Awal/ Mili dhexe	
Aug.	Mid of Xagaa	54 Jamadul-Akhir/ Milidambe	42 Jamadul-Akhir/ Milidambe	30 Jamadul-Akhir/ Milidambe	18 Jamadul-Akhir/ Milidambe	6 Jamadul-Akhir/ Milidambe	
Sep.	End of Xagaa	53 Rajab/Shacbaan Hore	41 Rajab/Shacbaan Hore	29 Rajab/Shacbaan Hore	17 Rajab/Shacbaan Hore	5 Rajab/Shacbaan Hore	
Oct.	Beginning of Deyr	52 Shacbaan Dambe	40 Shacbaan Dambe Start of Edoret reconciliation meeting, Kenya	28 Shacbaan Dambe	16 Shacbaan Dambe	4 Shacbaan Dambe	
Nov.	Mid of Deyr	51 Soon (Ramadhan)	39 Soon (Ramadhan)	27 Soon (Ramadhan)	15 Soon (Ramadhan)	3 Soon (Ramadhan)	
Dec.	End of Deyr	50 Soonfur/ Furun	38 Soonfur/ Furun	26 Soonfur/ Furun	14 Soonfur/ Furun	2 Soonfur/ Furun	

Jiilaal

GU'

Xagaa

Deyr

**Issues to add**

- Carta meeting – The Djibouti meeting which culminated to the election of TNG
- TFG election

**Appendix 4 Prevalence of stunting among children based on height for age Z-score**

	<i>Males (n=64)</i>		<i>Females (n=78)</i>		<i>Total (N=142)</i>	
	<i>%</i>	<i>No</i>	<i>%</i>	<i>No</i>	<i>%</i>	<i>No</i>
<b>Total chronic malnutrition (HFA&lt;-2 z score)</b>	<b>53.1</b> (CI: 40.2-65.7)	<b>34</b>	<b>44.8</b> (CI:33.5-56.5)	<b>35</b>	<b>48.5</b> (CI: 40.1-57.1)	<b>69</b>
<b>Severe chronic malnutrition (HFA&lt;-3 z score)</b>	<b>31.2</b> (CI: 20.2-44.0)	<b>20</b>	<b>28.2</b> (CI:18.5-39.5)	<b>22</b>	<b>29.6</b> (CI: 22.2-37.8)	<b>42</b>

The prevalence of chronic malnutrition defined as height for age <-2 Z score was 48.5%(CI: 40.1-57.1) and severe chronic malnutrition, defined as height for age <-3 Z score, was 29.6%(CI: 22.2-37.8).

**Appendix 5: Prevalence of Underweight among children based on weight for age Z-score**

	<i>Males (n=64)</i>		<i>Females (n=78)</i>		<i>Total (N=142)</i>	
	<i>%</i>	<i>No</i>	<i>%</i>	<i>No</i>	<i>%</i>	<i>No</i>
<b>Total Underweight Malnutrition (W/A&lt;-2 z score)</b>	<b>65.6</b> (CI: 52.7-77.0)	<b>42</b>	<b>55.1</b> (CI: 43.4-66.4)	<b>43</b>	<b>59.8</b> (CI: 51.3-67.9)	<b>85</b>
<b>Severe Underweight Malnutrition (W/A&lt;-3 z score)</b>	<b>31.2</b> (CI: 20.2-44.1)	<b>20</b>	<b>25.6</b> (CI:16.4-36.8 )	<b>20</b>	<b>28.1</b> (CI: 20.9-36.3)	<b>40</b>

The prevalence of underweight malnutrition defined as weight for age <-2 Z score was 59.8%(CI: 51.3-67.9) while the prevalence of severe underweight malnutrition, defined as weight for age <-3 Z score, was 28.1%(CI: 20.9-36.3).

**Appendix 6: Child Referral Form for malnourished children**

Name of the village: \_\_\_\_\_ Date: \_\_\_\_\_

Name of the child: \_\_\_\_\_ Sex of child: \_\_\_\_\_

Age of child: \_\_\_\_\_ Name of caretaker: \_\_\_\_\_

Child diagnosed with (state the condition): \_\_\_\_\_

Child referred to: \_\_\_\_\_

Child referred by: \_\_\_\_\_

**Appendix 7:: Villages of origin for the Wajid IDPs.**

The villages/districts of origin of the IDPs were as follows:

Madyato/Wajid (5.4%)	Elberde (9.9%),	Rabdure (2.7%)
Warholole/ Rabdure (1.8%)	Burdhuhunle/Wajid (0.9%)	Lahelow/Rabdure (7.2%)
Gubey/Wajid (5.4%)	Malmal/Wajid (4.5%)	Wargaras/ Wajid (1.8%),
Warbarbar/Rabdure (0.9%)	Dabodhuriqo/Wajid (0.9%)	Abal/Huddur (0.9%),
Kurto/Wajid (0.9%)	Gubato/Wajid (8.1%)	Gurunlow (0.9%),
Meykorebi/Wajid (0.9%)	Belet Hawa (18.0%)	Burbosle/Wajid (0.9%),
Elbo/Luuq (1.8%)	Biyoooley/Tiyeglow (0.9%)	Dheeto/Wajid (3.6%)
Dhurshenkus/Wajid (1.8%)	Shishibow/Wajid (0.9%)	Luuq town (1.8%)
Hargeisa/Somaliland (0.9%)	Burbakaaro/Wajid (5.4%)	Eljeedow/Wajid (0.9%),
Adin/Wajid (0.9%)	Doongoondhaale/Wajid (0.9%)	Garow/Wajid (1.8%),
Waheley/Wajid (1.8%)	Sarmaan/Berdaale (0.9%)	Eljaregoy/ Wajid (0.9%),
Wargarison/Wajid (1.8%)	Bardera (0.9%).	