SANAAG REGION NUTRITION SURVEY REPORT

Revised version September 2002



Table of Contents

TAI	BLE OF CONTENTS	2
ACI	KNOWLEDGEMENTS	3
1	EXECUTIVE SUMMARY	4
2	SUMMARY OF FINDINGS	5
3	BACKGROUND INFORMATION	6
3.1 3.3	HEALTH CONTEXTFOOD SECURITY CHARACTERISTICS	
4	SURVEY OBJECTIVES	8
5	METHODOLOGY	8
5.1 5.2 5.3 5.4	SAMPLING METHODOLOGY SAMPLE SIZE TRAINING OF ENUMERATORS AND PRE-TESTING DATA COLLECTION AND ANALYSIS	9 9
6	PRESENTATION OF THE SURVEY RESULTS	9
6.1 6.2 6.3 6.5 6.6 6.7	DEMOGRAPHIC CHARACTERISTICS OF STUDY HOUSEHOLDS DISTRIBUTION OF CHILDREN BY AGE AND SEX DISTRIBUTION ACCORDING TO WEIGHT/HEIGHT INDEX IN Z-SCORE OR OEDEMA INDICATORS INTERPRETIVE ANALYSIS ANALYSIS OF RISK FACTORS	11 11 12
7	ANALYSIS OF FINDINGS	13
8	RECOMMENDATIONS	14
REI	FERENCES	14
ANI	NEX 1: POPULATION ESTIMATES	15
ANI	NEX 2: LOCAL CALENDAR	19

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data are acknowledged.

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3

1 Executive Summary

UNICEF, in collaboration with FSAU and the Sanaag Regional Health Office of MOHL conducted a nutrition survey in Sanaag region in May 2002. The main objective of the survey was to determine the nutritional status of children aged 6-59 months in Sanaag region. Moreover, the study aimed at understanding the factors influencing the nutritional status of children in these areas.

Using the two-stage random cluster sampling methodology, a total of 900 children between ages 6-59 months were examined. Nutritional status assessments were based on weight and height measurements. Information relating to diarrhoea and ARI incidence two weeks prior to the survey, vitamin A supplementation and measles vaccination status of the children were also collected.

1.1 Nutrition

Data analysed in EPI Info for nutritional status suggests a global acute malnutrition rate of 13.7 per cent (using <-2 z score and/or oedema) and a severe malnutrition rate of 5.0 per cent (<-3 z score and/or oedema) while oedema alone was 3.3 per cent.

1.2 Immunization

Information collected on immunization during the survey indicates that only about 19 per cent of the children had been immunized against measles, out of which only about 4 per cent had been vaccinated within the six months prior to the survey. An overwhelming 81 per cent had not been immunized at all against measles. Vitamin A supplementation during the past six months stood at just under 46 per cent.

1.3 Child diseases

About 18 per cent of the children had diarrhoea while close to 38 per cent suffered from acute respiratory infections during the two weeks prior to the survey. When asked if they seek assistance when a child is sick, the majority of households (more than 92 per cent) replied in the affirmative. While the majority of these (44.5 per cent) reported that they seek assistance from private clinics/pharmacies, an equally significant number (38.2) reported use of traditional healer when a child falls ill.

1.4 Household characteristics

It appears that 26 per cent of the households interviewed are female headed. Just over 66 per cent reported purchases as their main source of food, while sales of animals and animal products was the main cited source of income with about 37 per cent of households.

1.5 Water and environmental sanitation

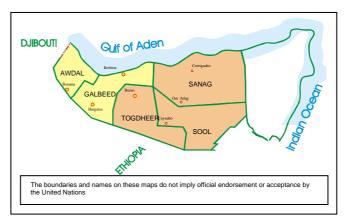
The main source of drinking water for the surveyed households was open wells (about 42 per cent). About 37 per cent of interviewed households reported the pit latrine as their sanitation facility, whereas slightly more than 62 per cent were reported as not having one.

2 Summary of findings

Indicator	Percentage
Number of boys in the sample	52.6
Number of girls in the sample	47.4
Global acute malnutrition according to Weight For Height Index in Z-Score or presence of oedema	13.7
Severe acute malnutrition according to Weight For Height Index in Z-Score or presence of oedema	5.0
Severe malnutrition according to oedema only	3.3
Proportion of children with diarrhoea in two weeks prior to the survey	18.2
Proportion of children with ARI in two weeks prior to the survey	37.7
Proportion of children supplemented with Vitamin A in six months prior to the survey	45.6
Proportion of children immunised against Measles	19.2
Proportion of female-headed households	26.0
Proportion of households with open wells as the main source of drinking water	44.2
Proportion of households with pit latrines as sanitation facility	37.1
Proportion of households seeking assistance when child is sick	92.5
Proportion of households seeking assistance from private clinic/pharmacay	44.5
Proportion of households seeking assistance from traditional healer	38.2

3 Background information

Sanaag region shares borders with Puntland (Northeast Somalia) on the east and the Red Sea on the north. The region's approximately population is 210,000 persons. Of this population, approximately percent are rural-sedentary and 58 percent rural-nomadic. Most people in the region engage in animal husbandry, with only a



limited number involved in small-scale subsistence farming, fishery, frankincense production and urban-based commercial activities. The region has a land mass that makes up about 35 percent of total land area of Somaliland, making it the broadest region.

Geographically, Sanaag has four zones: the coastal area, the mountain range, the gypsumlkarst deposit plateau and the Sool Haud plateau. The latter is rich in pasture and has better quality of water. Except for the elevated area of Erigavo district, where rainfall records indicate an annual average of up to 500 mm, most areas in Sanaag have rains that generally do not exceeded 150 mm.

Recently, the region has received a large number of displaced people fleeing from the instability in Puntland. The majority of the displaced settled in Dhahar and Badhan districts, while a significant number also settled inside Erigavo town.

3.1 Health context

Sanaag region has got one regional hospital, five mother/child health centers and 25 health posts. In collaboration with MOHL, UNICEF supports with the provision of drugs/medical supplies and staff training to all health facilities in the region. IFRC/SRCS supports and manages the Kulmiye mother/child health center inside Erigavo town. Also, IFRCS/SRCS trains first aid volunteers who can assist in emergencies and the implementation of mass immunization campaigns.

The regional hospital, unlike other regional hospitals is not supported regularly by international organizations. The Erigavo regional hospital is staffed with two doctors, eight midwives and nurses, 30 auxiliary nurses and 22 subordinate staff. The hospital has 70 beds. Recently, the hospital received a donation of drugs and medical supplies from the Erigavo community in the Diaspora.

Outbreaks of diarrhea, measles and malaria were reported from various parts of Sanaag region more recently. Cases of suspected cholera were also reported from Dhahar town. Up to 30 cases were treated for suspected cholera, while seven deaths were reported for the same reason. Most of the suspected cholera cases identified were linked to people fleeing the conflict in Puntland, therefore, the cholera situation in the region is believed to have originated from Bossaso.

Apart from polio eradication campaigns and the fixed immunization services provided at the health centers, no mass immunization campaigns against the six killer diseases were conducted in the rural areas of the region for the past one and half years.

3.2 Water and sanitation

The frequency of drought in Sanaag is an all-important factor compounding the problem of water in the region. There have been serious droughts in the last few years, obliging considerable efforts to intervene in the water shortages in the region during the Jillaal/dry season.

The majority of people draw their drinking water from the same sources as their animals, i.e., ponds, rivers or unprotected shallow wells. However, the fact that about 52 percent of the safe drinking water sources in the region are considered non-permanent, means that a much larger population of Sanaag region, at some point in the year, drinks from these unsafe sources.

Out of 36 deep wells (UNICEF/MOWMR Inventory of Bore wells), nine are functional, 21 non-functioning and six abandoned. Frequent break downs of the bore wells are reported due to poor maintenance and over-pumping to meet intense demand. Moreover, unlike other regions of Somaliland, Sanaag does not have Berkads in rural areas. Berkads play a big role in sustaining people during dry periods.

3.3 Food Security characteristics

There are generally two main livelihood groups in Sanaag region: (1) the pastoral food economies, which represent the largest proportion of the community. They are further divided into those that occupy the mountainous areas who mainly keep goats; and those occupying the plains and keep mainly keep sheep and camels. The pastoral population groups are therefore, concentrated in the Gebi valley (keep mainly sheep and goats), the Hadeed plain (sheep keepers), the Sool plateau (keep camels, sheep and goats), and the Nugal valley (keep camels and sheep); (2) the agro-pastoralists engaged in both rainfed and irrigated horticulture farming. Agro-pastoralists mainly live around "Golis" mountains. A typical example of agro-pastoralists is the Hared and Dayaxa farmers.

There are also the urban people who constitute the minority as there are no major towns in Sanaag, as well as the fishing communities within the villages of the sparsely populated coastal belt of the Gulf of Aden.

Sanaag region has undergone successive poor rainy seasons with both the 2001 Gu and Deyr rains considered poor. This culminated into acute water and pasture shortage with resultant deaths of animals of all species in early 2002. Severely affected geographical zones have been Sool plateau, Hadeed, Banadde and Gebi Valley. Some key pastoral livelihood indicators e.g. pasture, livestock production and reproduction rate reduced to abnormally low levels and the herd size of pastoral households reduced significantly, many to unsustainable levels. The Gu 2002 rains were not significantly better and remained scattered and intermittent throughout the

region. Consequently, there has been early drying up of pasture and water points. Sporadic insecurity incidences in Sanaag region have also curtailed humanitarian operations.

Coping strategies of this population are now stretched owing to cumulative effects of the 'livestock ban', rainfall failures, decline in social support and the ever increasing environmental degradation. Consequently, the food security situation of the Sanaag population has been very fragile and close monitoring continues.

4 Survey Objectives

The objectives of the survey were as follows:

- To determine the nutritional status of children aged 6–59 months living in Sanaag region.
- To determine the incidence of diarrhoea, measles and ARI among study children.
- To determine factors associated with the nutritional status of children aged less than five in Sanaag region.
- To measure measles vaccination and vitamin A supplementation coverage in the study areas.

5 Methodology

5.1 Sampling methodology

The two-stage cluster sampling methodology was used. A list of villages with population estimates for all villages along the three districts was obtained from the NIDs Secretariat in NWZ. A table of cumulative population and attributed numbers was developed, and clusters selected based on population proportional to size. The sampling interval was determined by dividing the total population by 30. The calculated cluster interval was 6881. A random number selected within the cluster interval was used to determine the location of the first cluster. The next and subsequent clusters were determined by adding the cluster interval to the preceding random number selected.

The second stage of sampling was carried out in the cluster to select the first and subsequent households. Each team went to the middle of the assigned cluster location, guided by survey guides selected from the community, and determined a random direction by spinning a pencil. All households along the direction selected to the border of the cluster were counted and assigned numbers on a piece of paper. The survey guide randomly selected the first household to be visited from among those numbers. Subsequent households were selected on the basis of proximity following the nearest entrance. All eligible children in each household visited were measured and weighed. If a caregiver or child was absent an appointment was made and the household revisited until the child was examined.

A total of 900 children were examined for weight for height. Their caregivers were interviewed as to whether the children had received vitamin A or measles vaccination

in the past 6 months, or had suffered from diarrhoea or ARI incidents two weeks prior to the survey.

5.2 Sample size

The target population was children 6-59 months (or heights between 65 - 110 cm) as children in this age group are considered to be particularly vulnerable to malnutrition. In order to provide valid estimates of the prevalence of malnutrition in children with a 95% confidence, a minimum of 900 children were to be examined, 30 children to be randomly selected from each of 30 clusters.

5.3 Training of enumerators and pre-testing

Enumerators were trained for three days on objectives of the survey; study population, sampling procedures, accurate ways of collecting anthropometric data and interviewing procedures. To enable enumerators and supervisors refine interviewing techniques as well as measuring children pre-testing of the questionnaires was carried out in parts of Erigavo town that would not be covered by the actual survey.

5.4 Data collection and analysis

The trained enumerators administered the questionnaire to mothers or primary caregivers of selected households. If a mother or caregiver was absent an appointment was made and the household revisited until the interview was completed.

Six teams were used to collect the data. Each team consisted of two enumerators and one supervisor. Data collection lasted six days. During the data collection phase, each questionnaire was thoroughly checked by the field supervisors for omissions and inappropriate responses.

Data entry and analysis was done in EPI INFO.

6 Presentation of the Survey Results

6.1 Demographic Characteristics of Study Households

The demographic characteristics of the households that were surveyed is provided in the table below. Of the total households surveyed 26 per cent are female headed. Over a third of households (37.1 per cent) cited the sale of animals and animal products as their income source; while purchases was reported by the majority (66.1 per cent) as the main food source. The main coping strategies reported are borrowing (43.9) and sale of more livestock (24.1). In terms of sanitation facilities only 37.1 of surveyed households reported owning one, in the form of a pit latrine. The main source of drinking water reported was open wells (44.2 per cent), followed by 22.2 per cent of households reporting berkads.

Characteristic	%	n
Household Head's Sex		
Female	26.0	122
Male	74.0	347
Income Sources		
Small business	18.8	88
Casual work	25.4	119
Salaried employment	3.8	18
Sale of crops	4.5	21
Sales of animals and animal products	37.1	174
Remittances/Gifts	7.7	36
Others (specify)	2.8	13
Food sources		
Animal products from own production	19.4	91
Household crop production	4.7	22
Purchases	66.1	310
Remittances/Gifts	2.1	10
Begging	1.1	5
Wild foods collection		
Others (specify)	6.6	31
Coping strategies during food shortages		
Remittances/Gifts	13.2	62
Sale of more livestock	24.1	113
Splitting of family	9.6	45
Begging	0.9	4
Borrowing	43.9	206
Food aid	0.9	4
Purchases	0.9	4
Wild foods collection		
Others (specify)	6.6	31
Sanitation facility		
Pit latrine	37.1	174
Flush toilet	0.2	1
Bush/open ground	62.7	294
	32.7	_, .
Source of drinking water		
Bore hole	0.2	1
Open wells	44.2	207
Protected wells	0.9	4
Berkads	22.2	104
Catchment/pond	1.5	7
Stream/river	9.0	42
Tap/piped water	13.2	62
Tanker/truck vendor	7.5	35

Characteristic	%	n
Others (specify)	1.3	6
Do you seek assistance when child is sick		
Yes	92.5	434
No	7.5	35
If yes, where		
Traditional healer	38.2	166
Private clinic/pharmacy	44.5	193
Public health facility	13.8	60
Others (specify)	3.5	15

6.2 Distribution of children by age and sex

The analysis shows that 47.4 per cent (427) of the study children were girls, while 52.6 per cent (473) are boys.

Age in months	Girls		Boys		Total	
	n	%	n	%	n	%
6 – 11	57	47.9	62	52.1	119	13.2
12 - 23	89	43.8	114	56.2	203	22.6
24 - 35	83	45.6	99	54.4	182	20.2
36 – 47	90	50.3	89	49.7	179	19.9
48 – 59	108	49.8	109	50.2	217	24.1
Total	427	47.4	473	52.6	900	100

6.3 Distribution according to weight/height index in z-score or oedema

Age in months	<-3 Z	-Scores	≥-3 a	nd < -2	≥-2 Z·	-Scores	Oede	ema
	n	%	n	%	n	%	n	%
6 – 11	3	2.5	4	3.4	109	91.6	3	2.5
12 - 23	2	1.0	14	6.9	180	88.7	7	3.4
24 - 35	2	1.1	19	10.4	154	84.6	7	3.8
36 – 47	4	2.2	22	12.3	146	81.6	7	3.9
48 – 59	4	1.8	20	9.2	187	86.2	6	2.8
Total	15	1.7	79	8.8	776	86.2	30	3.3

6.4 Distribution by sex according to weigh/height index in z-score or oedema

The results show that more girls are malnourished than boys, especially so for severe malnutrition where the rate for girls is almost double that of boys.

Child sex	Oed	lema	<-3	Z-Scores	<u>>-</u> .	3 and < -2	≥-2 [′]	Z-Scores	T	otal
	n	%	n	%	n	%	n	%	n	%
Female	19	4.4	10	2.3	32	7.5	366	85.7	427	47.4
Male	11	2.3	5	1.1	47	9.9	410	86.6	473	52.6
Total	30	3.3	15	1.7	79	8.8	776	86.2	900	100

6.5 Indicators

	Proportion (%)	95% Confidence Interval (%)
Oedema	3.3	(3.3) + -1.7
Severe acute malnutrition	1.7	1.0 - 2.8
(<-3 z excluding oedema)		
Severe acute malnutrition	5.0	3.0 - 7.0
(<-3 z + oedema		
Global acute malnutrition	10.4	8.6 – 12.7
excluding oedema		
Total/Global acute malnutrition	13.7	10.5 – 16.9
(<-2 z score + oedema)		

6.6 Interpretive analysis

Distribution according to nutritional status and age

The analysis of global acute malnutrition by age group shows that more children in the older age group of 24 - 59 months are malnourished than the younger age group of 6 - 23 months.

Global acute malnutrition excluding oedema

Age in months	Proportion (%) (z-scores indicator only	95% Confidence Interval (%)
6-23 months (<2 yrs)	7.1	4.7 - 10.7
24-59 months (≥2 yrs)	12.3	9.8 – 15.3

Severe acute malnutrition (<-3 z scores and oedema)

Age in months	Proportion (%)	95% Confidence Interval (%)
<-3 Z scores (6-23 months)	1.6	0.6 - 3.8
<-3 Z scores (24-59 months)	1.7	0.9 - 3.3
Oedema (6-23 months)	3.1	(3.1) + -2.7
Oedema (24-59 months)	3.5	(3.5) +-2.1

There was no statistically significant difference in severe malnutrition rates between the younger children (less than tow years) and the older ones. Again, although the greater than two years old children appeared more oedemic than the less than twos there was still no significant difference.

6.7 Analysis of Risk factors

Morbidity prevalence, measles vaccination and vitamin A coverage rates

Diseases	n	%
Diarrhoea (n=900)	164	18.2
ARI (n=900)	339	37.7
Measles (n=900)	173	19.2
Vitamin A (n=900)	410	45.6

The overall incidence of diarrhoea (during the two weeks prior to the study) among the study children was just over 18 per cent. Over a third of the study children, 37.7 per cent were reported to have suffered from ARI during the two weeks prior to the study. Measles vaccination coverage was reported low at 19.2, while 45.6 per cent of the study children received vitamin A supplementation during the six months prior to the survey.

7 Analysis of findings

The level of global malnutrition rate identified by the survey isn't so severe when compared to the situation in the other regions of Somaliland. The major concern is the high level of the severe malnutrition, i.e. the combination of the severe wasting plus the oedema. The incidence of oedema, in particular is very high (3.3 per cent). The total severe malnutrition identified by the survey is up to five percent. This rate of severe malnutrition is (with the exception of the Hargeisa resettlement areas survey of June last year) double of that identified by other surveys. The analysis shows that most of oedema cases are confined to areas which did not receive enough rains and lost more livestock.

As revealed by the analysis the majority of the survey population (37.1 per cent) depends on the sale of animals and animal products. Therefore, the live stock ban could be a generalized factor, which caused economic recession for the communities in the region, particularly the pastorals. Moreover, there are certain locations in the region, which suffered more from drought. Those specific locations did not receive sufficient rains yet. By the time of the survey fieldwork, Gu' rains have started in the region but they were few and scattered. The data obtained shows that the severely malnourished children are from locations, which did not receive enough rains and lost more livestock.

Coping strategies could also have eroded in light of the drought and continuing ban on livestock importation. More than 43 per cent and 24 per cent of survey households reported borrowing and sale of more live stock as coping mechanisms. During the

fieldwork the survey teams reported that the condition of livestock in some areas as very poor.

The increased prevalence of epidemic diseases in the region such as measles, whooping cough, diarrhea and malaria might also be a contributing factor to the high prevalence of severe malnutrition. As disease and malnutrition are always related, the malnutrition might have reduced the immunity of the children against diseases and therefore, out breaks of communicable diseases in the area increased. Moreover, exclusive breastfeeding practices were very poor with over 93 per cent of the study children receiving food other than breast milk (mostly sweetened water at birth) at age one month.

The fact that more girls than boys are malnourished is a new pattern as previous surveys in other regions revealed no significant differences between boys and girls in terms of the presence of malnutrition. This finding could just well be a coincidence as it is widely believed that there is no discrimination between boys and girls in the feeding and care practices of young children.

8 Recommendations

From the analysis of the data it seems that there are issues of access to health care services, especially immunization services; access to safe drinking water; and care/feeding practices of young children, which are all, linked to nutritional status. The high prevalence of oedema amongst study children is another major concern that requires follow up.

The following recommendations are proposed in light of the study findings:

- To undertake further investigation of the oedema cases. The Sanaag Regional Health Office can be supported to verify the situation. Further recommendations can then be formulated depending on the outcome of this mission.
- To establish four health center and community based mobile teams to provide child immunization services against vaccine preventable diseases and to monitor/control the outbreak of major communicable diseases in the area;
- To administer selective feeding of BP-5 for the malnourished children and to conduct nutrition promotion activities to the most affected locations in the region.
- To monitor the nutritional trends of under five children in the area through active nutritional screening by the health center based mobile teams.
- To lobby with WFP in enhancing their projects in the area and to provide food for work, in order to create income generating opportunities for the most vulnerable groups in the region.

REFERENCES

Annex	1:	P	opul	lation	estimates
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Fstimated por	oulation	Cumulative	Assign	ed
Louinatoa pop	diation		clusters	
	10,000	• •	10,000	1,2
	6,000		16,000	3,
			17,000	
	300		17,300	
	4,000		21,300	4
	1000		23,300	
	1000		24,300	
	900		25,200	
	1000		26,200	
	500		26,700	
	1,000		27,700	
	2,000		29,700	5
	500		30,200	
	500		30,700	
	1,000		31,700	
	1,500		33,200	
	1,000		34,200	
	300		34,500	
	6,000		40,500	6
			42,500	7
			43,500	
	500		43,700	
			44,000	
			44,600	
	500		45,100	
	2,000			
	2000			8
	400		•	
	300		50,600	
	700		51,300	
			54,500	
			56,500	9
	1,000		58,400	
			59,000	
	300		59,550	
		Estimated population 10,000 6,000 1,000 300 4,000 1000 900 1000 500 1,000 2,000 1,000 1,500 1,000 2,000 1,000 2,000 1,000 2,000 1,000 2,000 1,0	Estimated population Cumulative population 10,000 6,000 1,000 300 4,000 1000 1000 1000 900 1000 500 1,000 2,000 500 1,000 1,500 1,000 300 6,000 2,000 1,000 500 300 600 500 2,000 2,000 2,000 400 300	Estimated population Cumulative population 10,000 10,000 16,000 16,000 17,000 300 17,300 4,000 23,300 1000 24,300 900 25,200 1000 26,200 500 26,700 1,000 30,200 500 30,200 500 30,700 1,000 31,700 1,500 33,200 1,000 22,000 42,500 1,000 42,500 1,000 43,500 500 43,700 300 44,600 500 43,700 300 44,600 500 45,100 2,000 49,100 400 50,300 300 50,600 700 51,300 1,200 52,500 1,500 54,500 1,000 55,500 1,000 55,500 1,000 56,500 500 54,500 1,000 56,500 600 57,700 1,000 56,500 600 57,700 1,000 58,400 600 57,700 1,000 58,400 600 57,700 1,000 58,400 600 57,700 1,000 58,400 600 57,700 1,000 58,400 600 57,700 1,000 58,400 600 57,700 1,000 58,400 600 59,000 59,250 59,250

Mirsi	250	59,800	
Markat	700	60,500	
Eilayo	1,000	61,500	
Hidiid	200	61,700	
Birsije	300	62,000	
Hamadhka	200	62,200	
Durdary	500	62,700	10
Urux	100	62,800	
Bankudhaba	200	63,300	
Daadan	300	63,5000	
Barure	200	63,700	
Xaaf	300	64,000	
Fadhigaab	3,000	67,000	
Erigavo	10,000	77,800	11,12
Biyo Guduud	1,000	78,800	
Kulmiye	500	79,300	
Figisa	500	79,800	
Ardaa	500	80,300	
Dib qarax	500	80,800	
Durdur	500	81,300	
Goof	500	81,800	
God aanood	1,000	82,800	
Jiidali	1,000	83,800	13
Ceeryaan	1,000	84,800	
Masagan	500	85,300	
Xamaas	500	85,800	
Dhaabecda	1,000	86,800	
Midhasho	1,000	87,800	
Karin	500	88,200	
Hareed	1,500	89,700	
Shidalaha	1,000	90,700	14
Gaacidh	1,000	91,.700	
Xidh-xidh	500	92,200	
Maidh	5,000	97,200	15
Rugey	2,000	99,200	
Xaadh	2,000	101,200	
Dayaxa	3,800	105,000	16
Xiis	4,000	109,000	
Eiafwein	6,000	115,000	17
Raqas	2,000	117,000	
Huluul	3,000	120,000	18
Shakow	500	120.500	
Gudmo biyo cas	2,000	122,500	
Daray yare	1,500	124,000	
Gamnocad	1,000	125,000	19
Yufleh	5,000	130,000	
Dagaar	500	130,500	
Midhcanyo	1,000	131,500	20
Gudmo safaaf	700	132,200	_3
Buq	1,000	133,200	
· 1	-,	· 1—	

Kalmac	1000	134,200	
Raqcabbeeye	1,000	135,200	
Dhaban dhige	1,000	136,200	
Sodonlay	1,000	137,200	
Aadan Kudhun	1,500	138,700	21
Cirshiida	1,000	139,700	
Dabableh	1,000	140,700	
Bir xamar	700	141,400	
Dhocomac	700	142,100	
Marawade	1,000	143,100	
Ceel Dhaliile	1,000	144,100	
Hubeeera	1000	145,100	22
Laanqaciye	1,000	146,100	22
Goob	1,000	147,100	
Shumux-		148.100	
	1,000	146.100	
shumux	4.000	140.100	
Xero moli	1,000	149,100	
Ceel dibir	1000	150,100	
Xarshow	1,000	151,100	
Wader mogleh	1,000	152,100	23
Ceel-Qudhac	500	152,600	
Saaqiyad	700	153,300	
Illad Dubgax	1,500	154,800	
Sureydh	1,500	156,300	
Dhabardalool	1,000	157,300	
Dhoomo	500	157,800	
Ceel midgaan	500	158,300	
Dhidinka	1,000	159,300	
Dhaabeeda	1,000	160,300	24
Karamaan	500	160,800	
Danweyn	1,500	162,300	
Kalbooca	1,500	163,800	
Kal daray	1,000	164,800	
Cadduur	1,000	165,800	25
Suuf dheere	1,000	166,800	
Higloballeysin	1,000	167,800	
Cadey musbaax	1,000	168,800	
Hayeesa	1,000	169,800	
Daaradda	500	170,300	
Qudhaclay	1000	171,800	
Siraadalay	1,000	172,800	26
Godbiyoole	500	173,200	20
Congor	1,000	174,200	
Gudmohaadle	1,000	175,200	
Cillaamo	1,000	176,200	
Laas xumbaale	200	176,400	
Ceel cadde	1300	177,700	
Eexo	500		
Kaladhac		178,200 179,700	27
	1,500 5,000	179,700	۷1
Dararweyne	5,000	184,700	

Balanbaal	1,000	185,700	
Durdur jiidali	1,000	186,700	28
Lasdomarre	1,000	187,700	
Dhuurcillaan	2000	189,700	
Garabcad	1000	190,700	
Beeroweyso	1,500	192,200	
Kulaal	2,000	194,200	29
Xamilka	1,000	195,200	
Bohol	2,000	197,200	
Sabowanaag	1,000	198,200	
Sincarro	1,000	199,200	
Ceel la helay	1,000	200,200	30
Bixn	500	200,700	
Galrubleh	1,000	201,700	
Kalshiikh	650	202,350	
llad	500	202,850	
Dhadhin yaxye	1,000	203,850	
Dogobleh	1,000	204,350	
Berkadda	1,000	205,850	
Bancadde	600	206,450	

Annex 2: Local Calendar

	1997	1998	1999	2000	2001	2002
Jan	59 Ramadan	52 Ramadan	40	28	16	4
Feb	58	51	39	27	15	3 Xajkii ugu dambeeyey
March	57	50 Rift falley	38 Xajkii afraad	26 Xajkii sadexaad	14 Xajkii kal hore	2
April	56Arrafo	49 Xaji Arafo	37	25	13	1
May	55	48	36	24	12	
June	54	47	35 Mawliid	23	11 Mawliid ugu dambeeyey Qixii Badhan	
July	53 Mawliid	46 Mawliid	34	22	10	
August	52	45	33	21	9	
Sept	56	44	32	20	8	
Oct	55	43	31	19	7	
Nov	54	42 Deyrtii Biyo Badani	30	18	6	
Dec	53	41	29	17	5 Ciiddii ramadaan ee ugu dambeysay	