



NUTRITION SURVEILLANCE SYSTEM IN KARAMOJA REGION

Final report number 001, December 2009

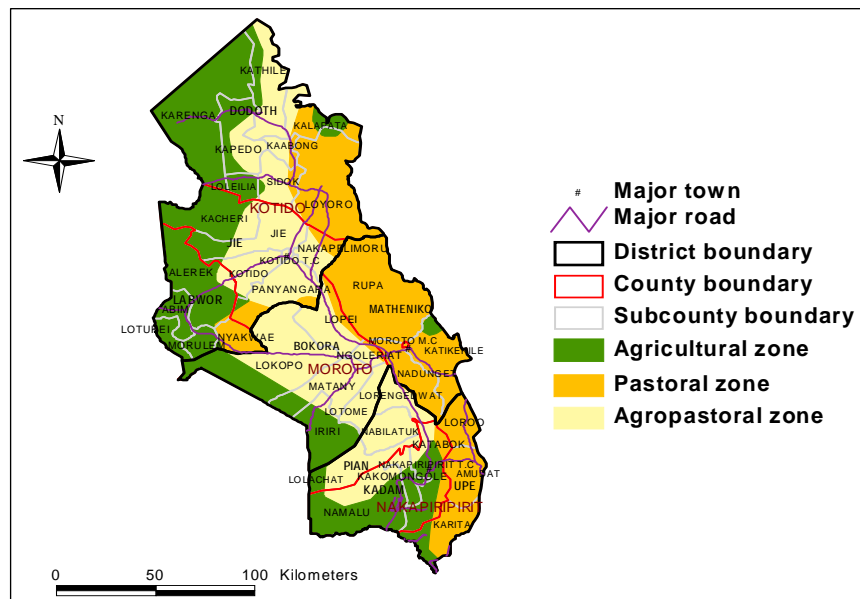
Summary of Key findings:

- Nutrition status results from the first round of surveillance (December 2009) indicated an overall GAM of 9.5% (7.8%-11.2%).
- Measles vaccination coverage and vitamin A supplementation rates were above 90% achieving MOH target of greater than 85% based on verification by card and recall.
- High childhood disease prevalence: Malaria (43.3%), Acute Respiratory Infection (34.4%) and diarrhea (29.5%).
- The main sources of food were buying (44.3%) followed by food aid (33.6%) across the region.
- The mean Household Dietary Diversity Score was 4.3 with low consumption of animal products.
- Bush (74.2%) was the main means of human waste disposal while 80% and above of the households use water from boreholes. Time to reach the borehole was not assessed.

1. Introduction

Karamoja region is located in northeastern Uganda covering a total land area of over 27,900 square kilometers with a population of 1,062,000¹ and population density of 48 people per square kilometer². The region's five administrative districts and inhabitants are: Abim (54,900), Kaabong (316,600), Kotido (188,100), Moroto (276,000) and Nakapiripirit (226,700). The complex livelihood zones in Karamoja make it difficult to clearly delineate them at parish and village level. However, figure 1 below shows the three main livelihood zones: agricultural, agro-pastoral and pastoral that cut across the districts and are generally used.

Figure 1: Karamoja region livelihood map



The region is mostly a semi-arid plain, largely savannah, covered with seasonal grasses, thorny plants, and shrubs. Karamoja has a harsh climate, low annual rainfall and has been experiencing drought in the last 3 years.

Source: FAO and Office of Prime Minister Uganda, 2009.

Although security in the region has relatively improved, cattle raiding within and

¹ Uganda Bureau of Statistics, August 2009

² IMU, UN OCHA Uganda, <http://WWW.Ugandaclusters> and <http://ochaonline.un.org>

across the borders with Kenya and Southern Sudan have caused disruption of livelihoods, loss of life and general feeling of insecurity.

Global Acute Malnutrition (GAM) in the region was measured at 9.6% compared to the national figure of 6%³. Starting July 2009, Action Against Hunger (ACF), UNICEF, Ministry of Health (MOH) and District Health Offices (DHOs) initiated discussions on design and implementation of an integrated nutrition surveillance system in Karamoja region. A community based nutrition surveillance system run by the DHOs and that provides timely information was found to be relevant in addressing the complex nature of malnutrition in Karamoja and serve as an early warning system. Possible seasonal malnutrition trends for Karamoja are not known yet due to different timings of surveys, transition to new WHO standards and delays in reporting by other early warning systems.

The system is designed to collect data at three intervals: beginning of the hunger gap (April, beginning of rainy season), during the hunger season and peak of malnutrition (end of August), and after the harvest (December). The first round of data collection was conducted between 30th November and 14th December 2009. Five teams each comprising of four health workers collected data in their district for a period of 5 days. Training of health workers and supervision of data collection was achieved by district nutrition surveillance focal points supported by ACF.

Objectives

- To assess the nutritional status of children aged between 6 and 59 months.
- To determine factors linked to malnutrition such as measles immunization and Vitamin A coverage, morbidity, food security and Water, Sanitation and Hygiene (WASH).

Methodology

A small scale survey based on three stage cluster sampling methodology was used to select clusters, households and children. The methodology is able to provide a representative picture of malnutrition in the districts as well as detect a variation of 5% in GAM with 85% precision in the livelihood zones.

Stage one: each district was divided into segments in respect with three livelihood zones. In the livelihood segments per district, 25 clusters of 12 children (sample of 300) were randomly selected, in respect with the segments' population sizes.

Stage two: selection of parishes and villages was done using ENA Beta for SMART software.

Stage three: selected villages or manyatta were disaggregated into units with children below 5 years not exceeding 20, a segment was randomly selected and all children 6 - 59 months assessed and nutrition security questionnaire administered with the household accordingly.

The data from various livelihood zones was weighted and analyzed using complex sample frequency statistic in Epi Info 3.5 while district based anthropometric data was analyzed with ENA Beta for SMART software.

³ MOH, WFP, IBFAN, Health and Nutrition Assessment Karamoja, April 2009 report

2. Anthropometric results

The actual sample size of children assessed in each district was: Moroto (345), Kotido (351), Kaabong (350), Nakapiripirit (313) and Abim (416). The Global Acute Malnutrition and Severe Acute Malnutrition (SAM) results in Table 1 below were calculated using ENA for SMART, November 2008 and upon exclusion of SMART flags. The GAM results are below 15% emergency level.

Table 1: Nutrition status results by district

INDEX	INDICATOR	Moroto	Kotido	Kaabong	Nakapiripirit	Abim
WHO (2006)	Global Acute Malnutrition W/H < -2 z and/or oedema	11.1% (7.9%-15.5%)	9.5% (6.7%-13.2%)	6.0% (4.1%-8.8%)	11.6% (7.6%-17.4%)	5.4% (3.2%-8.8%)
	Severe Acute Malnutrition W/H < -3 z and/or oedema	1.5% (0.5%-4.0%)	2.6% (1.2%-5.3%)	0.6% (0.1%-2.4%)	1.3% (0.4%-4.3%)	0.2% (0.0%-1.9%)
	Stunting W/H < -2 z	52.7% (47.5%-57.8%)	38.1% (30.3%-46.6%)	36.1% (27.2%-46.0%)	30.1% (24.4%-36.5%)	33.4% (28.1%-39.2%)
	Underweight W/H < -2 z	32.2% (26.3%-38.6%)	21.6% (16.2%-28.1%)	20.0% (14.6%-26.7%)	22.3% (17.8%-27.6%)	16.0% (12.4%-20.4%)
NCHS (1977)	Global Acute Malnutrition W/H < -2 z and/or oedema	9.3% (6.4%-13.2%)	8.0% (5.4%-11.7%)	7.1% (4.7%-10.7%)	11.9% (8.4%-16.5%)	6.0% (3.6%-9.9%)
	Severe Acute Malnutrition W/H < -3 z and/or oedema	0.6% (0.1%-4.4%)	0.6% (0.1%-2.4%)	0.3% (0.0%-2.2%)	0.6% (0.2%-2.6%)	0.7% (0.2%-2.2%)
	Global Acute Malnutrition W/H < 80% and/or oedema	5.2% (2.7%-9.8%)	6.0% (4.2%-8.6%)	4.0% (2.3%-7.0%)	7.0% (4.4%-11.3%)	4.1% (1.9%-8.9%)
	Severe Acute Malnutrition W/H < 70% and/or oedema	0.3% (0.0%-2.2%)	0.6% (0.1% - 2.4%)	0.0% (0.0%-0.0%)	1.0% (0.2%-4.3%)	0.7% (0.2%-3.3%)
MUAC Height >65 cm	Global Acute Malnutrition (<125 mm)	10.2% (7.0%-13.5%)	7.3% (4.5%-10.0%)	5.2% (2.9%-7.6%)	9.9% (6.5%-13.3%)	3.0% (1.3%-4.6%)
	Severe Acute Malnutrition (<115 mm)	2.7% (1.0%-4.4%)	1.5% (0.2%-2.7%)	0.6% (0.0%-1.4%)	1.3% (0.0%-2.6%)	1.2% (0.2%-2.3%)

The results in brackets are expressed with 95% confidence.

Although comparison to previous survey results is limited by timing and methodology, the overall GAM rate 9.5% (7.8%-11.2%) shown in table 2 below is not significantly different from the 9.6% and 9% reported by MOH, IBFAN and WFP in August/ September 2008 and April 2009 respectively. The overall SAM rate in December 2009 was 1.8%.

The data from various livelihood zones was weighted and analyzed using complex sample frequency statistic in Epi Info 3.5. The results are shown in table 2 below.

Table 2: Nutrition status by livelihood zone (WHO standards)

Agricultural (709)	Global Acute Malnutrition W/H < -2 z and/or edema	10.3% (6.9%-13.7%)
	Severe Acute Malnutrition W/H < -3 z and/or edema	1.5% (0.0%-3.1%)
	Mean ± SD	-0.68 ± 1.08
	DEFF	2.20
Agro-pastoral (416)	Global Acute Malnutrition W/H < -2 z and/or edema	8.8% (5.4%-12.1%)
	Severe Acute Malnutrition W/H < -3 z and/or edema	1.4% (0.1%-2.7%)
	Mean ± SD	-0.66 ± 0.99
	DEFF	1.4
Pastoral (650)	Global Acute Malnutrition W/H < -2 z and/or edema	9.4% (7.0%-11.8%)
	Severe Acute Malnutrition W/H < -3 z and/or edema	2.1% (0.8%-3.5%)
	Mean ± SD	-0.65 ± 1.08
	DEFF	1.10
Global (1775)	Global Acute Malnutrition W/H < -2 z and/or edema	9.5% (7.8%-11.2%)
	Severe Acute Malnutrition W/H < -3 z and/or edema	1.8% (0.9%-2.6%)
	Mean ± SD	-0.66 ± 1.06
	DEFF	1.50

The overall GAM was 9.5% (7.8%-11.2%) and SAM 1.8% (0.9%-2.6%). The agricultural zone was the most affected, which may be due to the rain failure experienced over the last three years, resulting in crop failure and less cushioning through food aid.

There is a need for more data over time to be able to determine significant changes in malnutrition rates and causal relationships. According to WHO 2006 classification, the nutrition situation in Nakapiripirit and Moroto is serious while in the other districts, the situation is poor.

In support of the findings of acute malnutrition rates, stunting rates and vulnerability in terms of food access, utilization and disease prevalence factors, the eastern side of Kaabong, Kotido, Abim, Nakapiripirit and almost the whole of Moroto district are in Phase 3: Acute Food and Livelihood Crisis, whereas the western side of Abim, southwest Moroto (Irimi) and southwest Nakapiripirit (Namalu) are in Phase 2: Moderate/Borderline Food Insecure⁴ as defined by the IPC.

⁴ SCN TF/AME, Review of Nutrition and Mortality Indicators for the Integrated Food Security Phase Classification (IPC): Reference Levels and Decision Making, September 2009.

3. Health Indicators

Immunization and Illness

Immunization coverage results showed that over 90% of the assessed children in the region had been immunized against measles and had received vitamin A supplementation; such results meet the Ministry of Health (MoH) target of more than 85%. This includes both answers verified with card and based on caretakers recall.

In December 2009, a high proportion of the assessed children were reported to have suffered from communicable childhood illnesses within the two weeks prior to the assessment. Malaria prevalence was the highest across four districts: Nakapiripirit (26.5%), Moroto (49.0%), Kotido (49.3%), and Abim (53.6%) while Kaabong registered the highest Acute Respiratory Infection (ARI) at 45.1% as illustrated in figure 1 below.

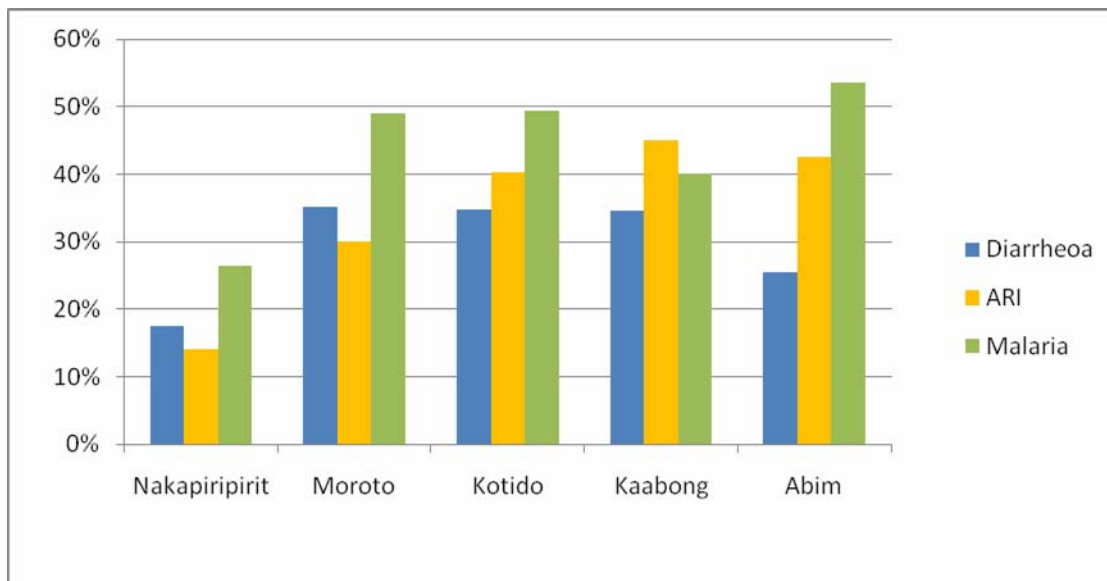


Figure 2: Childhood illnesses, 2 weeks retrospective assessment

Mosquito net ownership and usage

Generally, the percentage of households owning mosquito nets was high in the region with Kotido registering the highest ownership of 90.3% and Nakapiripirit being the lowest with 72.0% as shown in figure 2 below. The greater proportion of the population that used the mosquito nets was reported to be mothers and children by the surveyed households.

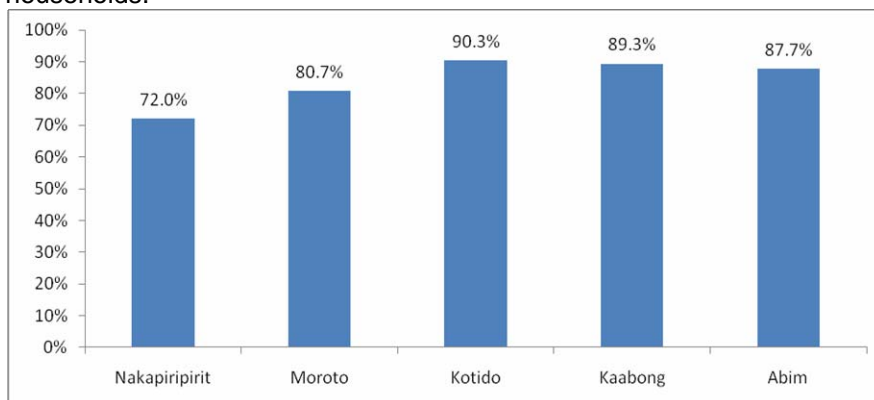


Figure 3: Mosquito net ownership

Despite the fact that there is a high mosquito net ownership, the prevalence of malaria among children of ages under five remained high. Limited attention to children, poor sanitation and improper use of mosquito nets (squeezing local brew, used as curtains and filtering) are contributing factors towards the high prevalence of malaria in the region.

4. Food Security and Livelihood Indicators

Food security is a state when all people at all times have both physical and economic access to sufficient food to meet their dietary needs for a productive and healthy life. Attainment of food security requires food availability, accessibility, and utilization⁵.

Main food sources

The results show that 55.0% and 86.0% of the households in Kotido and Nakapiripirit respectively depend on buying as their main source of food, while 46.6% and 60.7% of those in Moroto and Kaabong depend mainly on food aid. Abim being agricultural, 58.7% entirely depend on cultivation. The results in Kaabong were similar to the FAO 2009 report, which showed that food aid (53%) was the main source of food while own production was 20% and market was 16%⁶. Kaabong District has been a major target for food and nutrition interventions by various partners as a result of its high Global Acute Malnutrition (GAM) rates of 14.4% in 2006 which reduced to 9.1% in 2008. Figure 4 below illustrates the above results.

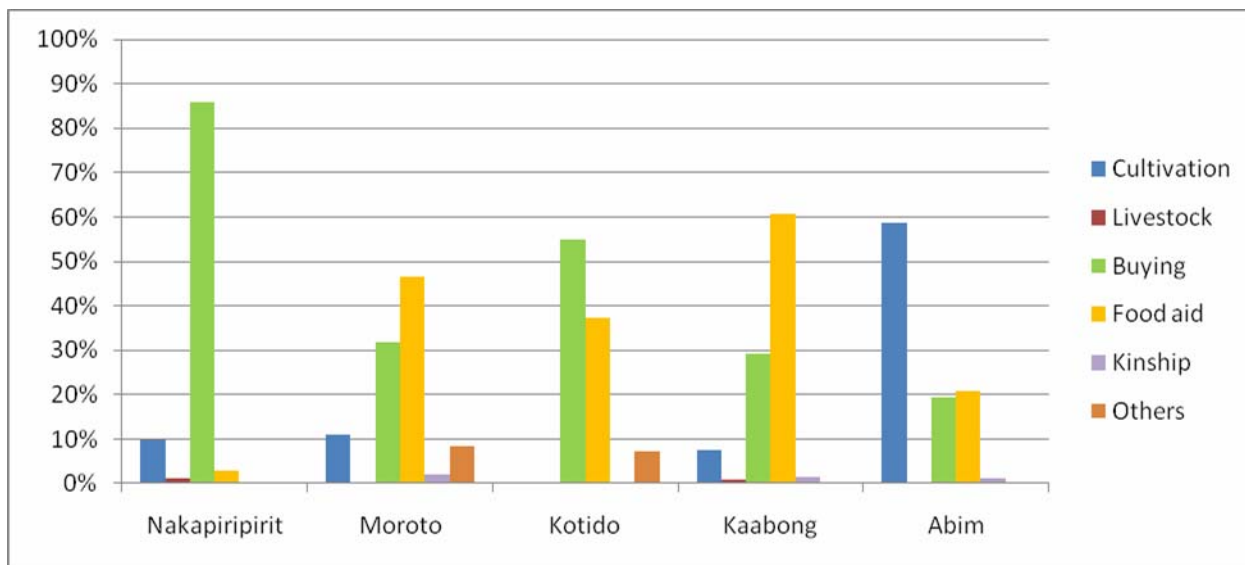


Figure 4: Main food sources

Food groups

A 24 hour food recall at household level was used to assess the foods consumed by individuals in their own homes. The Household Dietary Diversity Score (HDDS) was used as an indicator of access to diversified foods. The findings are reflected in Figure 5 and Table 3 below.

⁵ FAO, Rome Declaration on World Food Security and World Food Summit Plan of Action. World Food Summit 13-17 November 1996. Rome.

⁶ FAO, Mid Season Food Security Assessment Report Karamoja Sub Region, August 2009

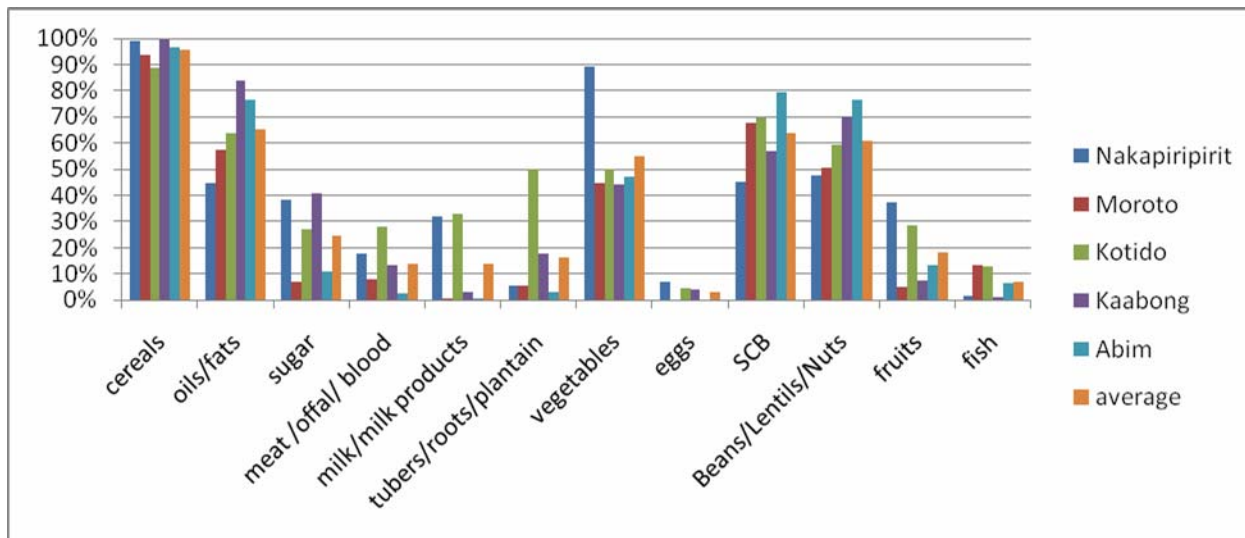


Figure 5: Food groups consumed

The results per district presented below will not be a sum of 100% as each food group was calculated based on the total number of respondents.

Nakapiripirit:

From the assessed households, cereals (99.2%), vegetables (89.4%) and beans (47.5%) were the most consumed food groups as shown in Figure 5 above. The percentage of households that consumed other foods were as follows; oils/fats (44.9%), sugar/honey (38.1%), meat/blood/offal⁷ (17.8%), milk/milk products (31.8%), tubers/roots/plantains (5.5%), eggs (6.8%), spices/condiments/beverages (45.3%), fruits (37.3%) and fish 1.7%. The inadequate intake of nutritious food groups like meat, milk and fish makes children prone to malnutrition.

Majority of the respondents (81.7%) fed their infants (6-11 months) on less than three meals a day: one meal (22.5%) and two meals (59.2%). Only 18.3% fed infants on the recommended three meals per day⁸.

Moroto:

The food groups consumed by households were: cereals (93.6%); spices, condiments and beverages (67.8%); oils and fats (57.6%); beans, lentils and nuts (50.4%); vegetables (44.7%); fish (13.3%); meat, offal and blood (8.0%); sugar and honey (6.8%); tubers, roots and plantains (5.3%); fruits (4.9%); and milk and milk products (0.8%).

The number of meals fed to children of ages 6 - 11 months was one (50.0%), two (27.1%), three (16.7%) and four (6.3%) per day.

Kotido:

The highly consumed food groups were: cereals (88.8%), oils and fats (63.6%) and lentils/ beans/nuts (69.9%) spices, condiments and beverages (70%). Other groups of foods consumed included eggs (4.5%), fish (12.6%), meat/ offal / blood (27.9), milk/ milk products (32.7%) and fruits (28.6).

The number of meals fed to children of ages 6 - 11 months was one (41.7%), two (44.4%), three (13.9%) and four (6.3%) per day.

Livestock which is an integral part of food security was affected by disease resulting in animal death and reduction in milk production. Households own large herds of cattle for prestige, dowry and slaughter the animals on special occasions which affects the frequency of meat consumption

Kaabong:

The food groups consumed by the respondents were: cereals (99.7%), oils and fats (84.1%), pulses (70.3%), spices, condiments and beverages (56.9%), vegetables (44.1%), sugar and honey (40.7%), tubers, roots and plantains (17.6%), and meat, offal and blood (13.4%).

⁷ Edible internal parts of an animal, such as the heart, liver, and tongue

⁸ MOH Uganda, Infant and Young Child Feeding with a Special Focus on HIV / AIDS, January 2009

Most children between 6 - 11 months (86.2%) were fed on less than three meals a day. The frequencies were: one (48.3%), two (37.9%), three (12.6%) and four (1.1%). In another study it was revealed that most people (59%) ate one meal a day⁶.

Abim:

Cereals, especially, maize and millet were the most consumed food group (96.7%). The consumption of other food groups was as follows: 79.3% spices condiments and beverages, 47.0% vegetables, 13.3% fruits, 10.7% sugar and honey, 6.3% fish; 3.0% tubers, 2.7% meat and offal, and 0.3% milk. The low consumption of milk and milk products in Abim is attributed to low ownership of cattle.

The results indicate that only 40.9% of the assessed households with infants 6 - 11 months had met the recommended number of meals per day: One (22.7%), two (36.4%), three meals (36.4 %) and four meals and above (4.5%).

Table 3: Household Dietary Diversity Score

District	Nakapiripirit	Moroto	Kotido	Kaabong	Abim
HDDS	4.7	3.6	4.7	4.4	4.1

The HDDS in all of the five districts was less than half on a scale of 12. The food groups that were consumed by most of the households interviewed were: cereals (maize, sorghum and residue from local alcohol brewed from maize), oil, vegetables, legumes and spices. The maize, oil and legumes consumed in Moroto, Kaabong and Kotido districts was mostly food aid which was also supplemented through buying.

5. Water Sanitation and Hygiene (WASH) Indicators

The main source of drinking water was borehole: Nakapiripirit (83.1%), Moroto (99.2%), Kotido (90.3%), Kaabong (88.6%) and Abim (94.0%). The number of functional boreholes in the districts were: Nakapiripirit (160), Moroto (634), Kotido (311), Kaabong (248) and Abim (169). The non functional boreholes were: Nakapiripirit (61), Moroto (84) and Kaabong (133)⁹. A small percentage of the population used water from swamps, seasonal streams and pans. The ratio of borehole to person was Nakapiripirit (1416), Moroto (435), Kotido (604) Kaabong (1276) and Abim (319) which falls below the ratio of 1:300¹⁰.

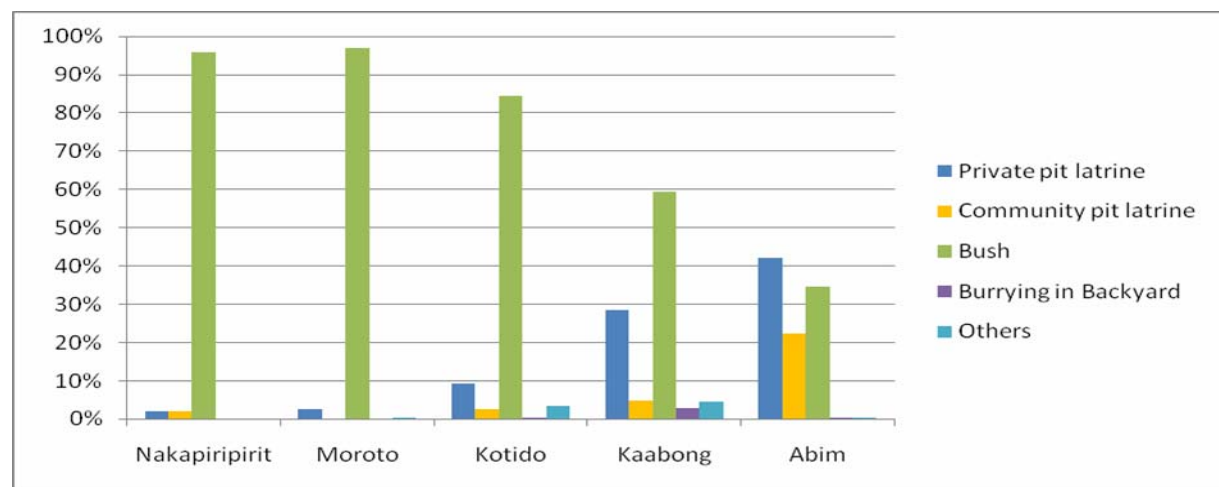


Figure 6: Human waste disposal

Human waste was mainly disposed in the bush: Nakapiripirit (95.8%), Moroto (97%), Kotido (84.4%), Kaabong (59.3%) and Abim (34.7%). Private pit latrine usage stood at: Nakapiripirit (2.1%), Moroto (2.7%), Kotido (9.3%), Kaabong (28%) and Abim (41.8%). A Health and Nutrition Assessment by MOH, IBFAN and WFP in April 2009 indicated that the population in the region disposed human waste in the bush (90.8%). The outbreak of Hepatitis E is linked to the poor

⁹ Karamoja districts: Water sources by operational status, population density and accessibility, OCHA December 2009, www.Ugandaclusters.org

¹⁰ Government of Uganda, Ministry of Water and Environment, Water and Environment Sector Performance Report, October 2009

sanitary conditions. The high use of bushes despite the WASH interventions such as latrine construction could be attributed to cultural reasons among the population which require integrated health education.

6. Recommendations

KAABONG DISTRICT

- District Health Educator to link Village Health Teams (VHT) to the Local Council 1 to review birth records and ensure new registration are accurate to minimize difficulties in determining ages and accurate calculation of stunting and underweight.
- The Food Security Working Group to lobby for support of food crop production in green belt areas like Karenga, which have a higher potential of crop performance and consequently contribute to food availability in the whole district.
- Efforts of WASH office are recommended to focus on repairing the non-functional boreholes throughout the district in order to reduce the number of persons sharing a borehole to less than 300 and decreased queuing time. The current non-functional boreholes in the district are in the following parishes: Kawalakol (2), Kapedo (6), Nariamaoi (4), Kamacharikol (3), Lotim (2), Morukori (1), Kalapata (4), Lokolia (2), Losongolo (3), Lomeris (1), Lokerui (2), Sangar (6), Lokial (1), Lokori (1), Loyoro Napore (3), Karenga (4), Lobalangit (5), Kakamar (2), Lobongia (1), Kaabong (3), Toroi (2), Kathimeri (4) and Longaro (7).

ABIM DISTRICT

- The nutrition focal person pointed out that there is need to find transport to facilitate timely delivery of Plumpy Nut to health centers. Lack of transport has delayed availability of supplies and support supervision. It is therefore recommended that partners support with transport as the DHO finds a long term solution.
- Support provision of hand washing facilities and water treatment tabs, and improvement of protected springs that exist in Kalakala, Kiru, Orwamuge, Awach and Rogom parishes.
- Repairing of 8 broken boreholes in Abim Sub County: Alerek (4), Lotukei (2), Morulem (13), Nyakwae (8) and Abim trading center (4).

NAKAPIRIPIT DISTRICT

- The Village Health Teams to be continuously facilitated so as to conduct their duties of identification and referral of severely malnourished children especially in the following parishes: Kokuwam, Napiananya, Lokalis, Karita.
- Support agricultural production in the green belt such as Namalu so as to increase on agricultural food availability and access to the community.

KOTIDO DISTRICT

- Training of more personnel on management of severe acute malnutrition so as to increase the number of staffs with skills in Kotido Health centre IV and allow for rollout to other centers.
- Active case finding of severely acute malnourished children by Village Health Team in the following parishes: Narikapat, Losilang, Kotido East, Kotido North, Watakau, Kanawat, Kacheri and Kamoru.
- Support agriculture in the green belt area of Lobanya so as to increase on agricultural food availability and access by the community.
- The water and sanitation sector should embark on repair of the non functional boreholes in the following sub counties: Kacheri (16), Kotido (28), and Kotido Town council (13), Nakapelimoru (23), Panyangara (28) and Rengen (23). This would reduce on incidences of long queuing time at bore holes.

MOROTO DISTRICT

- Reinforce community outreach and active case finding in Lomuno, Kalokongel, Lokali, Lorengechora and Loputuk parishes.
- Repair and construction of water points in the following sub counties: Irriiri (20), Katikekile (8), Lokopo (19), Lopeei (12), Lotome (6), Matany (27), Nadunget (44), Ngoleriet (20), Northern division (9), Rupa (18) and Southern division (7).

- Support small scale agricultural extension activities through formation of village farmer groups which could be assisted with seeds, hoes, rakes, pangas and extension services.

GENERAL RECOMMENDATIONS

- Support on job trainings of TFP health workers on treatment of severely malnourished children through community approach while adhering to IMAM guidelines.
- Promotion of small scale businesses such as tailoring, bee keeping and brick making to increase income of the households and hence access to food.
- Given the structure of manyattas and local culture, it recommended to define latrine construction and use through community participation as a means ensuring acceptance and adoption.
- The input of 1 vehicle per district by DHO's, use of local health workers to collect data, reporting by surveillance focal persons and decision making and dissemination of reports by DHOs at all health sector levels should be promoted and sustained as pillars of sustainability.

CONCLUSION

The surveillance system was designed and set up in collaboration with DHO and other partners. Training of 5 surveillance focal persons and 100 health workers (enumerators) was achieved in the second quarter of the project. The first round of data collection in December 2009 produced valid results which can be used in nutrition program interventions. A regional coordination meeting was held in January 2010 to discuss the results and sustainability aspects of the project. However, time was not adequate to exhaustively discuss issues such as frequency of data collection and financing of the system by the districts.

It is recommended to collect data thrice per year in the first two years to better understand the seasonal changes in malnutrition before reducing to twice per year. Issues such as coordination of data collection, dissemination of reports and financing of the system will need to be discussed in future meetings in the view of the full integration of the system to the DHO activities. The next round of data collection will be in April 2010.

Annex 1: List of interventions in the nutrition sector by December 2009

The DHO collaborates with partners in the running of Maternal Child Health and Nutrition (MCHN) program in all health center II through IV and hospitals for all districts, In Patient Therapeutic Care (ITC), Out Patient Therapeutic Care (OTC) and Supplementary Feeding Programs (SFPs) in the specific districts.

- **Abim: DHO and Community Action For Health (CAFH)** implement facility based a Supplementary Feeding Program (SFP) in five sites namely: Alerek, Nyakwa, Abim, Orwamuge, Morulem with 698 beneficiaries admitted (December 2009)
- **Moroto:** two implementers:
 - **Moroto DHO and ACF-USA** manage 1 ITC integrated in the pediatric ward of Moroto Hospital and 13 OTC in Kangole, Lopeei, Lorengechora, Amedek, Iriiri, Matany, Nadunget, Rupa, Lokopo, Moroto Municipality, Morulinga, Lotome and Loputuk. Moderate cases are managed through targeted SFP using Plumpy Doz, a Lipid Nutrient based Supplement (LNS) and a food security approach in 8 sites namely: Morulinga HC II, Iriiri, Loputuk, Lopeei, Nadunget, Lokopo, Lotome and Lorengechora.
 - **Samaritan's Purse:** General food distribution to 153,448 beneficiaries in Rupa, Iriiri, Lopei, Matany, Ngoleriet and Katikekile and it treats extremely vulnerable individuals in Kangole, Iriiri, Matany T/C and Moroto Municipality with 457 beneficiaries. Currently food distribution is on hold and a new strategy will be put in place.
- **Kotido:**
 - **Kotido DHO and CAFH** manages moderate malnutrition in 13 sites: Losakucha Primary School (P/S), Lomukura P/S, Lokitelaebu P/S, Panyangara P/S, Lopuyo P/S, Lokukum P/S, Lookorok P/S, Lokiding P/S, Rengen P/S, Rikitae P/S, Nakapelimoru P/S, Nakwakwa P/S and Kacheri P/S with 1461 beneficiaries (December 2009).
 - **Karamoja Diocese Development Services (KDDS):** Runs a therapeutic feeding program at Kotido HC IV.
- **Nakapiripirit:**
 - **Nakapiripirit DHO and Concern Worldwide** run community management of acute malnutrition in 10 sites namely Nakapiripirit HC III, Tokora HC IV, Nakale HC II, Nabulenge HC II, Namalu HC III, Amaler HC III, Lolachat HC III, Nabilatuk HC IV, Lorengeduat HC III and Amudat HC IV. The organization also has 2 ITC in Tokora HC IV, Nabilatuk HC IV.
 - **Andre Food Consultants (AFC)** has SFP in 5 sites namely: Tokora HC IV, Namalu HC III, Lolachat HC III, Nabilatuk HC IV and Lorengeduat III.
- **Kaabong:**
 - **Kaabong DHO and ACF** has 1 ITC in Kaabong hospital and 9 OTC in Kaabong town council, Lokolia HC III, Kalapata HC III, Kamion HC II, Kathile HC III, Kapedo HC III, Lochom HC II, Lolelia HC II and Karenga HC IV with 45 beneficiaries.
 - **World Vision International (WVI)** has 10 SFP in Kaabong Hospital, Kaabong town council, Lokolia HC III, Kalapata HC III, Kamion HC II, Kathile HC III, Kapedo HC III, Lochom HC II, Lolelia HC II and Karenga HC IV in which it provides corn-soy blend, sugar and cooking oil.
 - **MSF-Spain** provides OTC for SAM cases in 6 mobile clinics in Timu HC II, Loyoro HC II, Toroi HC II, Narianamoi HC II, Kawalakol HC II and Lobalangit HC II.