FOOD SECURITY & NUTRITION ASSESSMENT

Karamoja Region

UGANDA - June 2015

Analysis conducted by the ANALYSIS, MONITORING AND EVALUATION UNIT
WFP | Uganda

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ACRONYMS

ARI – Acute Respiratory Infection

DDS – Dietary Diversity Score

EVH – Extremely Vulnerable Household

FCS – Food Consumption Score

FES – Food Expenditure Share

GAM – Global Acute Malnutrition

MAD – Minimum Acceptable Diet

MAM – Moderate Acute Malnutrition

MCHN – Maternal Child Health and Nutrition

NUSAF – Northern Uganda Social Action Fund

ProMIS – WFP Programme Management Information System

RCSI – Reduced (or 'Food Consumption) Coping Strategy Index

SAM – Severe Acute Malnutrition

SMART – Standardized Monitoring and Assessment of Relief and Transitions

TLU – Total Livestock Units

WASH – Water, Sanitation and Health

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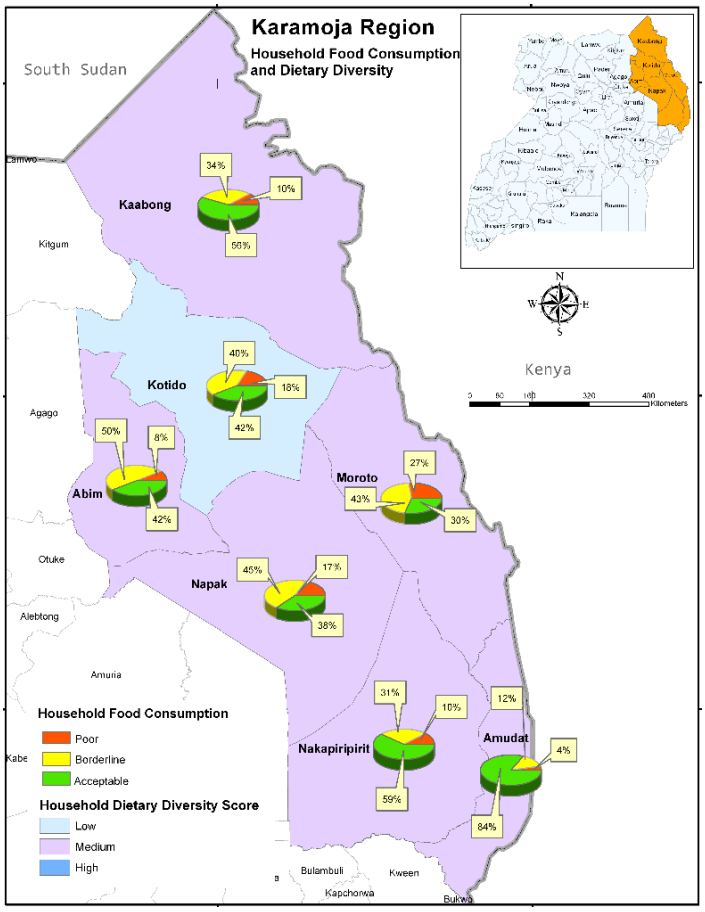
1 EXECUTIVE SUMMARY

Nearly half of households are currently food insecure with either borderline or poor Food Consumption Score, mainly due to the lean season that has seen a decline in food stocks at household level and contributed to food price rises (therefore reducing economic ability to purchase food).

While food security status has marginally improved since June 2014, Global Acute Malnutrition (GAM) levels have deteriorated and are at highest levels since 2010.



1.1 Food Security

Up to 45% of households in the region are currently food insecure (moderately or severely), with poor performance on key food security indicators:

- Half (50%) of the households have either borderline or Poor Food Consumption Score (marginal improvement from 66% in June 2014) underlining the low ability for most of the population to meet their daily energy and nutrient requirements;
- Up to 34% of the households spend proportionately more on food leaving little for essential non-food expenditures;
- More than half (52%) of households were found to be engaging in negative coping strategies that endanger their life, affect their dignity and, above all, affect their productivity in the future due to steady depletion of productive assets.

Domain		Indicator	Food Secure	Marginally Food Secure	Moderately Food Insecure	Severely Food Insecure
Current status	Food Consumption	Food Consumption Group	50%	-	37%	13%
Coping Capacity	Economic vulnerability	Food Expenditure Share	49%	17%	10%	24%
	Asset depletion	Livelihood Coping Strategy Categories	32%	16%	11%	41%
Food Security Index			**14%**	**41%**	**37%**	**8%**

Table 1-1: Food Security situation in Karamoja

Compared to the IPC analysis[1] in June 2015, the food security situation has deteriorated with the percent of moderately food insecure households (IPC Phase 3) increasing from 24% to 37%, and severely food insecure households (IPC Phase 4) from 6% to 8%. This is mainly due to the time lag between the two analyses with the current analysis based on data collected at the peak of the lean season.

The following areas depict the highest levels of food insecurity and vulnerability:

- **Moroto**, particularly Katikekile and Tapac sub-counties where over 70% of households are food insecure
- **Kotido**, particularly Kacheri and Panyangara subcounties where approximately 60% of households are food insecure

1.2 Nutrition

Prevalence of Global Acute Malnutrition (GAM) is at critical levels in 4 of the 7 Karamoja districts, while Severe Acute Malnutrition is at critical levels in all 7 districts. Analysis shows that GAM rate has steadily increased every lean season since 2012 and is at the highest levels since 2010 (see following section).

The following areas depict the highest levels of Global Acute Malnutrition:

- **Napak**, particularly Lotome & Lokopo sub-counties
- **Moroto**, particularly Tapac and Nadunget sub-counties

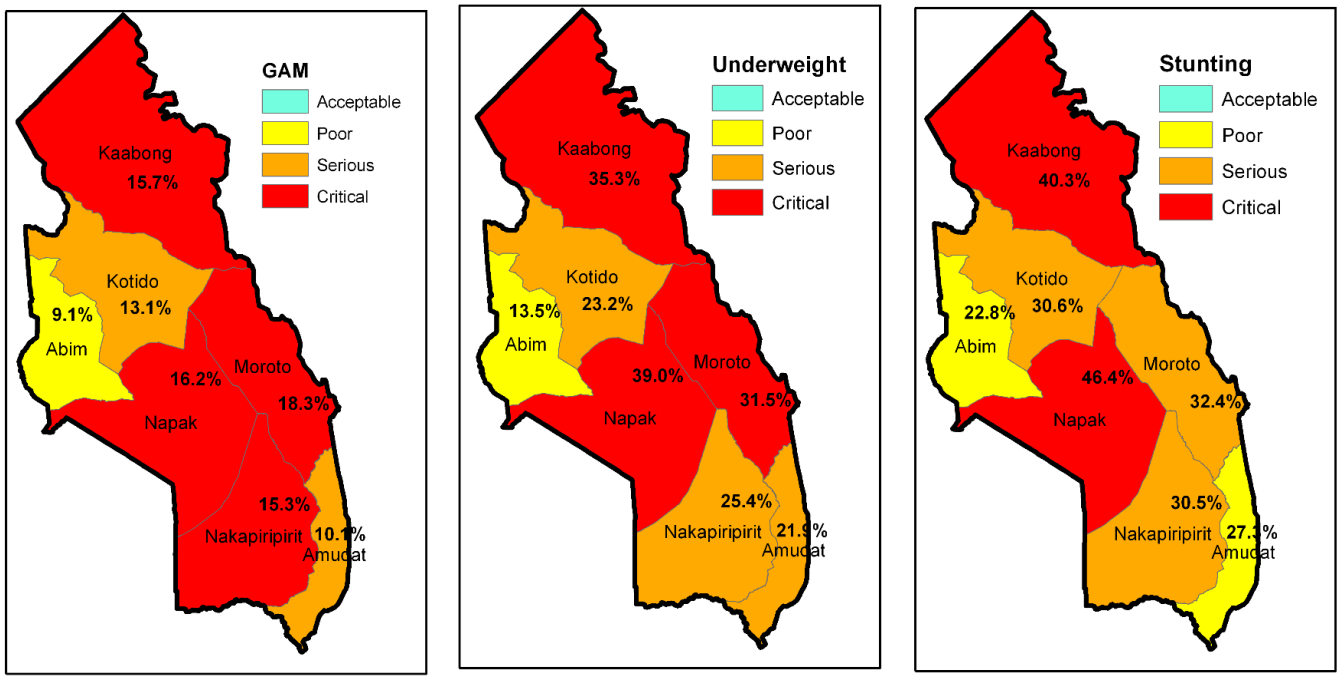


Figure 1-1: Prevalence of malnutrition in Karamoja

[1] See IPC Karamoja Acute Food Insecurity Situation Overview (July 2015).

1.3 Main drivers of food insecurity/malnutrition

1.3.1 Reduced food availability at household and region level

Two-thirds (67%) of households had no food stocks. The remaining 33% that had food stocks expected them to last an average of 4-5 weeks from the time of the assessment. Moreover, more than half of households do not own any livestock and are therefore increasingly dependent on external sources, including markets, for all their food needs.

Two-thirds (67%) of households have no food stocks

1.3.2 Diminished ability to purchase food from the markets

Most households dedicate more than half of total expenditure on food

While up to 70% of households have at least one income earner, their main sources of income are either seasonal (agricultural wage labour/food crop sales) or unsustainable to the environment (sale of firewood/ charcoal). Above all, the level of income earned from these sources is inadequate; a situation exacerbated by high and/or increasing food prices[2].

1.3.3 Reduced ability to cope with shocks among households

The majority (93%) of households had suffered at least one shock in the 30 days before the assessment, most commonly sickness of household members and high food prices. These findings are similar to those of previous assessments. The repeated occurrence of these shocks has led to high and/or increasing application of unsustainable coping strategies that affect both immediate food consumption and future ability to cope.

In 69% of households, it has become necessary to reduce number of meals per day

1.3.4 Poor Infant and Young Child Feeding (IYCF) practices

Only 14% of children meet the minimum acceptable diet

- Whereas nearly three-quarters of women practice exclusive breast feeding, less than 20% across the region start breast feeding within the first hour of birth as recommended
- The majority of women (64%) introduce complementary foods at the recommended age of 6 months. However, the remaining 36% mostly do so before 6 months (22%) or after (14%).
- The diversity in children's diet is very low and across Karamoja, only 14% of children meet the Minimum Acceptable Diet for children.
- The above factors are the leading perpetuators for poor nutrition indicators, including stunting that is at serious levels in the region.

[2] See WFP Uganda Monthly market monitor May/June 2015

1.3.5 *Poor sanitation and hygiene*

Marked efforts have been made in improving access to safe water, with up to 81% of households reporting use of borehole water. However, 11% of the population – and especially so in Amudat (30%) – are still using surface water for domestic use. Furthermore, households are not adequately utilizing available water sources with only 19% using water at the recommended levels (as per recommended standards) for adequate sanitation and personal hygiene (15 litres per person per day)

Only 19% of households use water at recommended rate of 15 litres pppd despite 89% accessing safe water sources

Latrine coverage too remains exceptionally low in the region with two-thirds of households reporting open defecation, a risk factor for water borne diseases and general well-being.

1.4 Trends

Overall trends analysis shows that households in the region have been unable to significantly their food security situation over the past 5 years with evidently low resilience to recurrent shocks such as during the lean seasons. Consequently, child nutrition status has deteriorated every lean season since 2012.

Figure 1-2: Prevalence of GAM in Karamoja (2010-2015)

A trends analysis of Food Consumption Score and Global Acute Malnutrition[3] in Karamoja shows that:

- The proportion of households having poor FCS has increased since 2012, while those with borderline FCS in the lean seasons has remained the same since May 2013. Thus over the past 3 years we can see households gradually moving from Acceptable/Borderline to Poor food security status.
- The GAM rate has steadily increased every lean season since May 2012 and is at the highest levels recorded in the past five years. The rise in GAM rate since 2012 corresponds with the decline in FCS up to June 2014.

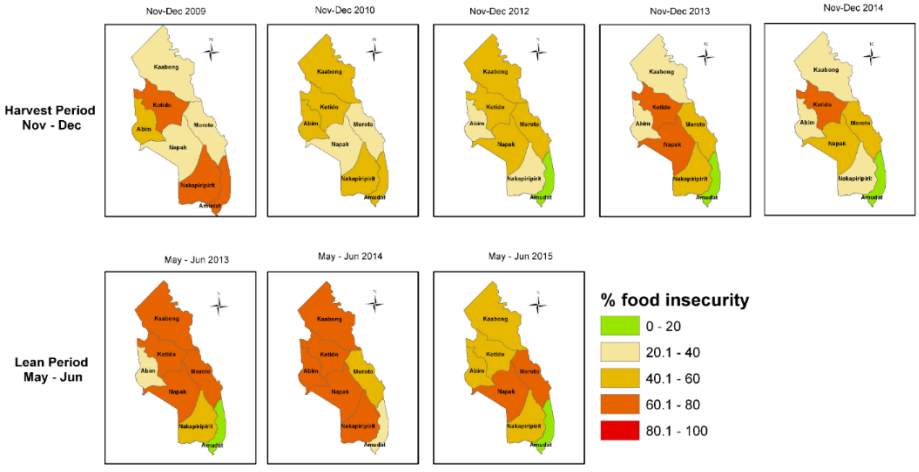


Figure 1-3: Karamoja Region. Trends in Food Security from 2010 to 2015

[3] See *FSNA Karamoja 2015 - Trends analysis* – for detailed analysis

Recommendation

Given the extent to which other contextual factors (notably the low level of education, prevalence of sickness and disease, poor sanitation, poor IYCF practices, and general food insecurity) have been found to influence nutrition outcomes, renewed emphasis on a multi-sectoral approach to address malnutrition is required to ensure causal factors for malnutrition are simultaneously addressed.

1.5 Gender dimensions of Food Security

A comparison of key bearing points for food security outcomes by gender of household head is as presented in **Table 1-2**.

Table 1-2: Gender comparison food security indicators & influencing factors

Domain	Indicator	Female Headed	Male Headed
Demography	No formal education - %	79	66
	Programme participation - %	62	56
Availability	Own livestock - %	38	48
	Have access to land - %	84	88
	Have food stocks	32	33
Access	Atleast one income earner - %	71	70
	Monthly food exp. - av. (UgX)	47,000	57,000
	Households with FES <65% - %	64	68
	Have debt - %	31	38
	Borrowed to buy food	51	51
Utilization	Acceptabe FCS - %	48	52
	Low DDS - %	42	39
	Use surface water - %	10	12
	Use atleast 15L pppd - %	21	18
Stability	RCSI - average	15	16
	Alcohol consumption - %	25	26
	No livelihood coping - %	38	26
Overall Food Security Classification	Food Secure - %	15	14
	Marginally Food Secure - %	38	42
	Moderately Food Insecure - %	39	36
	Severely Food Insecure - %	8	8

Food availability: While access to land was similar, it was seen that that more male headed households own livestock. Households with livestock are typically more resilient to shocks and enjoy better dietary diversity.

Food access: Female headed households earn less money than male headed households. While there was no difference in the percentage of households with at least one income earner, further analysis showed that male headed households were more likely to have two or more income earners (37%) compared to female headed households (27%). It is also seen that female headed households spend UgX 10,000 less than male headed households on food. Above findings underline their vulnerability to economic shocks.

Stability: Female headed households are less likely to adopt various forms of coping strategies enumerated. This is similar to findings from the Food Security and Nutrition Assessment (Dec 2014) and needs to be further investigated. The most likely reason for this is that female headed households often do not have as many options – for example ability to sell livestock or land; ability to move to another village and source incomes etc.

Overall food security classification: Despite the above, a multi-indicator analysis depicts marginal differences in the food security outcomes between male and female headed households with 56% and 53% classified as food secure respectively. The main reason for this is the continuous targeting of female headed households by government and development partners, also indicated by the higher participation of female headed households in development programmes. This underlines the impact of targeted assistance programmes as well as the need to ensure that assistance programmes expand the current coverage of female headed households.

Influence of household head gender on nutrition outcomes

Findings show no significant difference in child nutrition indicators (meal frequency, diet diversity/adequacy and anthropometric indices) between children in male vs. female headed households. This is in line with the above finding of marginal differences in overall food security outcomes.

Recommendations

i) Continued main streaming of gender into development programmes is encouraged to ensure that gains made are sustainably preserved.
ii) Promotion of a) vocational education and b) business incubation among women with the view to increase opportunities for better paying income generating activities (agriculture-based and otherwise) is recommended to allow female headed households earn higher incomes.
iii) Emphasis on longer term development opportunities with regard to access to education are encouraged in light of the higher prevalence of female household heads with no formal education. Increasing school attendance for girls in the region necessarily requires a grounded approach that enables households to value education over domestic chores.

1.6 Impact of development assistance

Upon analyzing the districts or groups depicting the poorest food consumption levels, it is seen that there is a direct correlation with a lack of participation in development programmes[4]. Moroto which has 27 % of households with Poor Food Consumption (highest in Karamoja) also has over 50% of households not participating in any development or assistance programme. A similar pattern is seen in Napak and amongst female headed households; where poor food consumption prevalence is seen in areas with below average rate of participation in assistance programmes.

Indeed, across Karamoja it is seen that households that were benefitting from at least one development programme were generally found to have better food consumption and diet diversity compared to those not benefitting.

Based on the above findings, it is recommended that a more specific impact study be carried out at the district level, starting with Moroto and Napak, in the immediate future.

[4] Development programs enumerated included Food aid rations, NUSAF, MCHN, Farmer field schools, school feeding, adult literacy programmes etc. See questionnaire in Annex 4.

1.7 Programmatic recommendations

1.7.1 Kaabong

Key figures
42% Food Insecure
16% GAM *(3rd highest)*
35% Underweight *(2nd highest)*
40% Stunting *(2nd highest)*
84% part of at least one development programme

Key factors limiting food security and nutrition in the district are:

i) **Inadequate food access**: A significant percentage of households borrow money to buy food amidst increasing food prices. This increase in food prices is itself attributed to declining food stocks at household level. Thus incomes earned by household bread winners seem insufficient to cover household food needs.

ii) **Poor utilization:** Poor infant feeding practices coupled with poor sanitation (poor access to safe water and the practice of open defecation) contribute to poor nutrition outcomes in the district.

Recommendations

i) WFP Pilot Post-Harvest storage related interventions in Karenga, Lobalangit, and Kamion sub-counties.

ii) WFP expand or implement Food for Work and/or Food for Assets interventions in Kaabong East, Kaabong West, and Lodiko sub-counties.

iii) Scale up WASH projects in the district to ensure adequate safe water coverage for all households and to improve availability and use of pit latrines for fecal disposal.

1.7.2 Kotido

Key figures
53% Food Insecure *(2nd highest)*
13% GAM
23% Underweight
31% Stunting

The key driving factors for food insecurity and malnutrition in the district are:

i) **Low food availability:** Majority of households report depleted food stocks. There is equally limited availability at district level as reports indicate scarcity of maize in the month of May[5]. Consequently, households are finding difficulty in sourcing adequate quantity of food as well as ensuring adequate dietary diversity.

ii) **Inadequate food access:** Some sections of the Kotido population are greatly limited by reduced economic access to food with 32% having food expenditure share >75%; and with the majority of those that borrow money doing so to buy food.

Recommendations

i) Introduce post-harvest management and storage handling programmes that WFP has piloted in other parts of the country.

ii) Targeted WFP Food for Work and Food for assets programmes are recommended for those households lacking the ability to practice agriculture; approximately 18 % of households in Kotido lack access to agricultural land.

[5] See WFP Uganda monthly market monitor (May Issue)

1.7.3 Moroto

Key figures
62% Food Insecure *(highest)*
18% GAM (highest)
31% Underweight
32% Stunting

The high prevalence of food and nutrition insecurity in Moroto is due to a combination of factors;

i) **Limited availability** of food with low production at household level and limited ability to store the little that is produced.

ii) **Low economic access** to food with the majority of households having no income earner. Some households have resorted to borrowing mainly to buy food for consumption.

iii) **Poor infant and young child feeding** practices with untimely initiation of breast feeding and poor diets for children.

iv) **Poor sanitation** with low safe water usage (despite availability) and high rate of open defecation.

v) **Unstable availability, access and utilization conditions** of above factors with exhaustion of coping strategies and/or adoption of hazardous ones like consumption of alcohol.

Recommendations

i) A multi-sectoral food security/nutrition strategy and/or implementation plan is urgently required in order to synergistically address the key drivers of food insecurity in this district.

ii) Interventions related to income generation or livelihood must necessarily begin in Moroto; in particular the sub-counties of Tapac and Nadunget.

iii) WFP expand or implement Food for Work and/or Food for Assets programmes across this district to improve access to food.

iv) Introduce post-harvest management and storage handling programmes that WFP has piloted in other parts of the country.

v) Mass screening of all children under 5 years is recommended to identify those with SAM/MAM.

vi) Nutrition education on IYCF practices and sensitization campaigns on personal hygiene are recommended.

1.7.4 Abim

Key figures
44% Food Insecure
9% GAM *(lowest)*
13% Underweight *(lowest)*
23% Stunting *(lowest)*

The overall food security situation in Abim is relatively favorable but there remain some gaps that are contributing to food insecurity in the district:

i) **Inadequate utilization**, with Poor IYCF practices. Exclusive breast feeding is low and children's diets are inadequate with low percentage meeting minimum acceptable diet.

ii) There are **gaps in food consumption** at household level, with sub optimal diversity of diets.

iii) Seemingly **high level of morbidity** (sickness was most common shock mentioned) among household members further exacerbates the likelihood of poor nutrition outcomes.

Recommendations

i) Intensify nutrition education campaigns in the district with the view to encourage diet diversity and promote appropriate infant and young child feeding practices.

ii) Review regular disease surveillance reports and implement preventive measures to curb the most common diseases for both adults and children.

1.7.5 Amudat

Key figures
26% Food Insecure *(lowest)*
10% GAM *(2nd lowest)*
22% Underweight *(2nd lowest)*
23% Stunting *(2nd lowest)*

While this district depicts markedly lower food insecurity and malnutrition levels, child nutrition and sanitation are a cause for concern as below:

i) **Inadequate utilization**, with Poor IYCF practices. Exclusive breast feeding is low and the children's diets are inadequate with low percentage meeting minimum acceptable diet.

ii) **Poor water, sanitation and health conditions**, with very low latrine usage and high use of surface water sources. Moreover, this water is not treated before its use.

Recommendations

i) UNICEF and WFP intensify nutrition education campaigns in the district with the view to encourage diet diversity and promote appropriate infant and young child feeding practices.
ii) Introduce and/or scale up WASH interventions that should necessarily be accompanied by awareness raising campaigns on personal hygiene.

1.7.6 Napak

Key figures
48% Food Insecure
16% GAM *(2nd highest)*
39% Underweight *(highest)*
46% Stunting *(highest)*
19% disabled household heads

While Food availability has decreased in the district as a result of the lean season, the key drivers of food insecurity in the district are;

i) **Inadequate access to food,** with majority of households spending the greater part of their expenditures (>65%) on food and many report borrowing money in order to buy food.

ii) **Poor diets** household level with 62% of households having either borderline or poor FCS and over half of households (56%) having low diet diversity.

iii) **Poor IYCF practices** with low percentage of children that meet minimum meal frequency, minimum diet diversity and minimum acceptable diet.

iv) **Poor sanitary practices,** with 80% of households practicing open defecation and only 10% of households with members using water at recommended levels.

v) The **high prevalence of disabled household heads** (vis-à-vis Karamoja average of 8%), especially in Matany and Lokopo sub counties, is a predisposing factor for food insecurity.

Recommendations

i) Interventions related to income generation or livelihoods must after Moroto, be introduced here.
ii) WFP expand or implement Food for Work and/or Food for Assets programmes across this district.
iii) Mass screening of all children under 5 years is recommended to identify those with SAM/MAM.

iv) Unicef and WFP to explore the possibility of blanket supplementary feeding; particularly in Lotome and Lokopo sub-counties.
v) Intensify nutrition education campaigns in the district with the view to encourage diet diversity and promote appropriate infant and young child feeding practices.
vi) Introduce and/or scale up WASH interventions that should necessarily be accompanied by awareness raising campaigns on personal hygiene.

1.7.7 Nakapiripirit

Key figures

39% Food Insecure

15% GAM

25% Underweight

30% Stunting

Unlike other districts, food insecurity in Nakapiripirit is not generalized. The drivers of food insecurity are applicable to pockets of the population and include:

i) **Inadequate access to food**, with some 31% of the population having FES > 75% (i.e. spend more than 75% of total household expenditure on food) and 35% of the households in debt with majority (56%) doing so to buy food amidst the rising food prices.
ii) **Poor IYCF practices** with 44% of children not meeting minimum meal frequency. Only 36% of children had minimum diet diversity and 22% met minimum acceptable diet.
iii) **Poor WASH situation** with pockets of the population using surface water, more than half (56%) practicing open defecation, and above average prevalence of diarrhea (15%) among children.

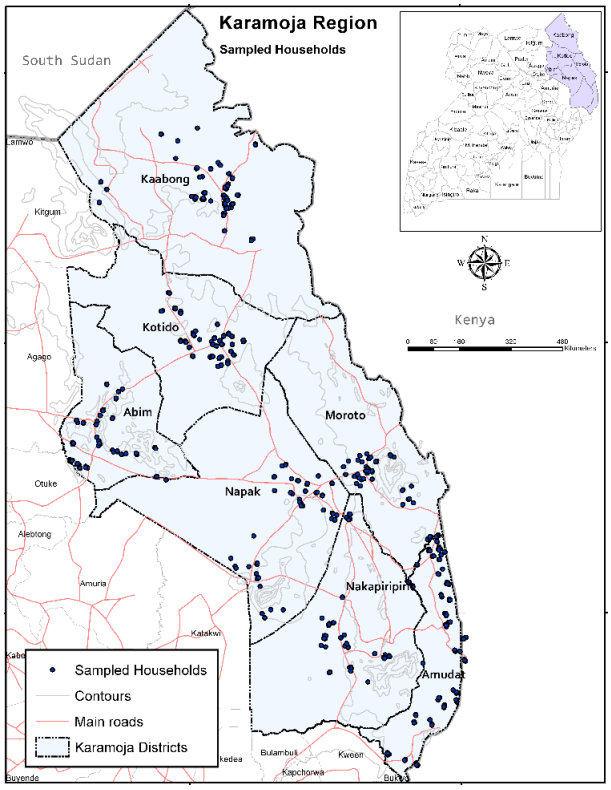
Recommendations

i) Targeted interventions that introduce or scale up income generating activities and/or use of food for assets interventions are recommended, particularly in Lolachat, Lorengedwat and Kakomongole sub-counties.
ii) Intensify nutrition education campaigns in the district with the view to encourage diet diversity and promote appropriate infant and young child feeding practices.
iii) Introduce and/or scale up WASH interventions that should necessarily be accompanied by awareness raising campaigns on personal hygiene.

2 METHODOLOGY

Scope

The assessment covered all 7 districts of Karamoja viz. Napak, Moroto, Kaabong, Nakapiripirit, Kotido, Abim, & Amudat. A two stage cross-sectional cluster sampling methodology[6] was used, with the village as the geographical unit, based on the SMART methodology and Sampling guidelines.



Sampling

At the first stage a probability sample of clusters was selected using an updated list of parishes that constitute a district (probability proportional to population size approach); at the second stage, households were selected using systematic random sampling methodology. Representative samples of households were therefore selected at district level.

Data collection

Quantitative data was collected using a standardized questionnaire uploaded on mobile tablets (ODK). The Food Security module was administered to all household heads (or adult person present at time of interview) through face-to-face interviews while the Nutrition module was administered to mothers/caregivers of children under 5 years.

Note:

i) Age determination of children was done preferentially using child health cards. However, in their absence, discussions with the mothers/caregivers using a local events calendar were used.

ii) Children with physical disabilities were assessed but findings on anthropometry excluded.

Quality assurance

i) **Pre-coded skip patterns** were pre-programmed into ODK to prevent the need for removing irrelevant fields at the analysis stage

ii) **Pre-coded ranges and restrictions** were also used, tailored to the assessment, in order to reduce errors during data collection.

iii) Seamless integration with excel: Data from the tablets converts easily to an Excel file and can then be exported to analysis software, eliminating data entry errors.

Data analysis

Data was exported from ODK to excel and subsequently to ENA for SMART (Nutrition analysis) and SPSS (Food Security analysis).

[6] Methodology used was consistent with previous Food Security and Nutrition Assessments in the region

3 HOUSEHOLD CHARACTERISTICS

3.1 Female headed households

Forty four percent (44%) of households across Karamoja are female headed, with the highest percentages recorded in Kotido/Napak districts, and among EVHs (**Figure 3-1**). This is considerably high given findings of poorer food security and nutrition outcomes among these households.

Further analysis indicated that there were marginal differences in food security and nutrition outcomes between male and female headed households. This is likely due to the continuous targeting of female headed households by government and development partners. This effort should be sustained to ensure gains made are sustained.

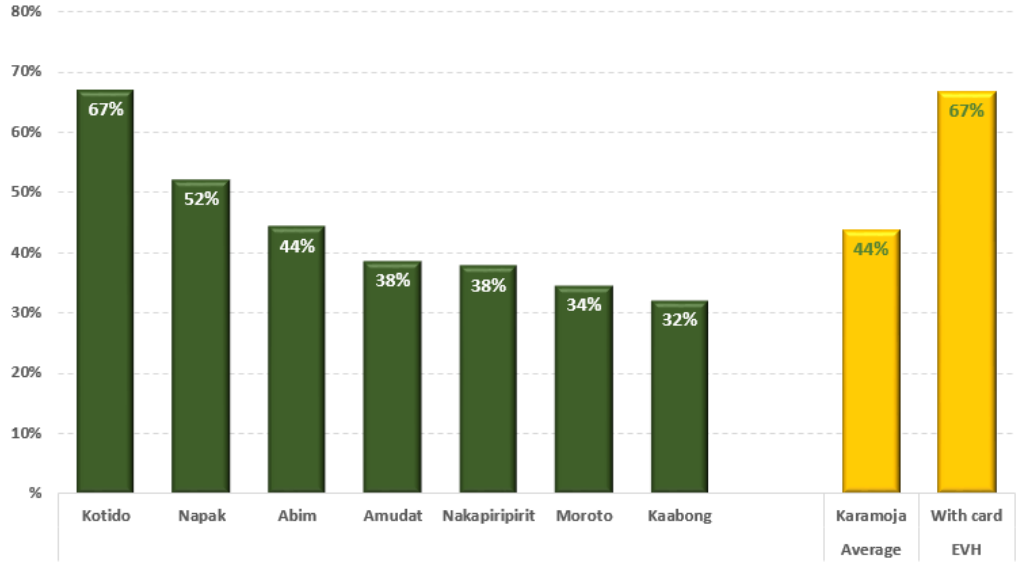


Figure 3-1: Female headed households

3.2 Physical condition of the household head

The majority (89%) of household heads were able bodied, indicating the ability to fend for their families through engagement in income generating activities, therefore promoting household food security. However, some 11% were either disabled or chronically ill, highest in Napak (22%) and lowest in Amudat (5%).

Majority of households where heads were disabled or chronically ill also had either borderline or poor Food Consumption Score (61% and 74% respectively) compared to those with able bodied household heads (48%), evidencing their vulnerability to food insecurity.

Continued food assistance is therefore required to help achieve and/or maintain optimal food security outcomes.

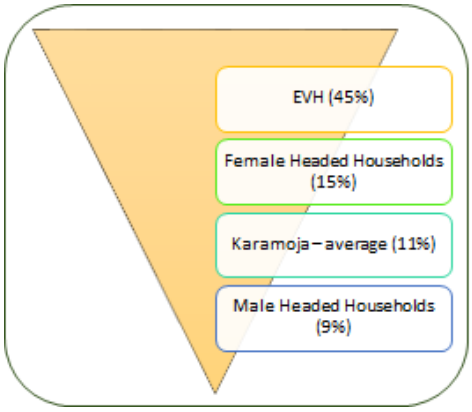


Figure 3-2: Prevalence of Chronically ill and disabled household heads by group

The fact that Napak depicts double the average prevalence of disabled household heads is a serious cause of concern. It is recommended that the responsible WFP Sub-office, in collaboration with government and other

partners, carry out a follow up field visit especially in Matany (34%) and Lokopo (21%) sub-counties to ascertain the driving factors and suitable assistance.

3.3 Education

Nearly three-quarters (71%) of household heads across Karamoja have never attended school, with Kotido, Napak and Amudat as the worst off (**Figure 3-3**). This has negative implications on child care practices and on job/self-employment prospects that translates into limited ability to earn sufficient income for household sustenance. This is grounded in the finding that the higher the level of education of the household head, the more likely it is for households to be food secure (see **Section 10**).

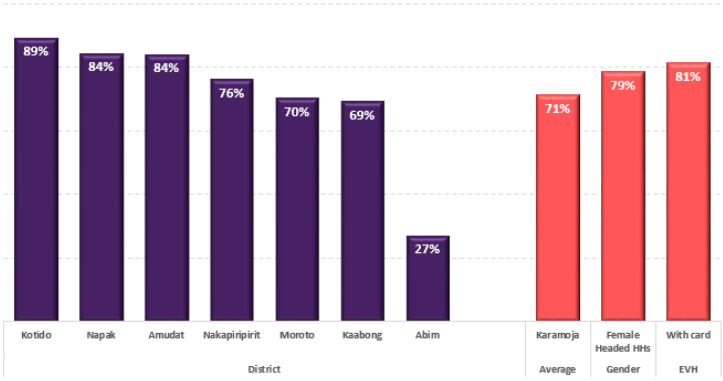


Figure 3-3: Household heads never attended formal school

Findings further suggest that there are disparities in access to education, with higher likelihood to attend School in Abim than in any other district.

Assessment findings showed a number of contextual restraining factors to the achievement of 'Education for all' in the region; primary school aged children were found to have irregularly attended school in the last academic term among 17% (girls) and 18% (boys) of households (**Figure 3-4**).

The most common reasons for irregular school attendance were i) Inability to meet related costs (46% for boys, 37% for girls) and ii) Domestic chores (16% for boys, 33% for girls). Thus it is seen that the main obstacles to primary school education across Karamoja are the direct and opportunity costs rather than a lack of interest or a perception that education is not important.

Note: In Abim, Illness was cited as a key reason among 14% of households while in Moroto, early marriage was cited as a reason by 13% of households.

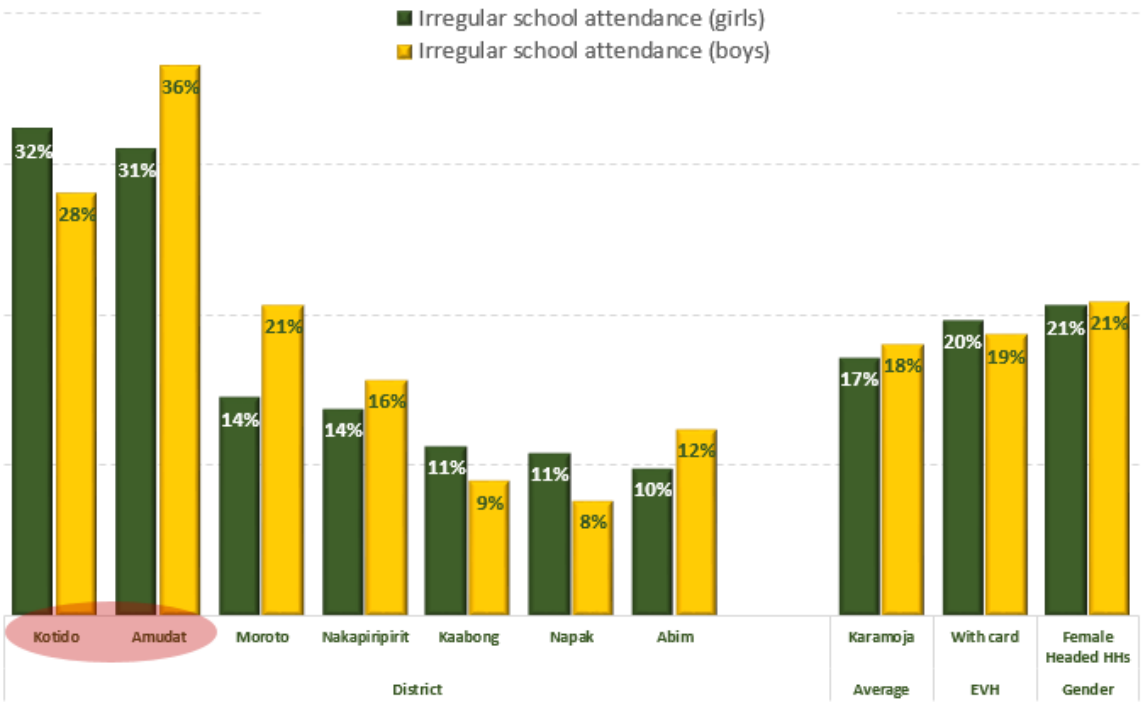


Figure 3-4: Households where at least one primary school child did not regularly attend school the previous term.

Efforts to improve sustainable access to education, in line with the Sustainable Development Goals (SDGs), are therefore required to ensure future productivity and food security of the population. Such efforts should necessarily address deterrents to regular school attendance among children, giving priority to Kotido and Amudat districts.

3.4 Participation in development programmes

Approximately 58% of the households visited across Karamoja reported participating in at least one development programme[4]. The highest percentage of this was in Kaabong where 84% of the households were beneficiaries of at least one programme, and the lowest was in Napak (42%). Findings also showed that there were about 18% of households that were participating in two or more development programmes, particularly in Kaabong district (46%).

A higher percentage of female headed households was benefitting from development programmes (62%) compared to male headed households (56%). This might be attributable to government and development partners' efforts to reduce vulnerabilities faced by female headed households.

Upon analyzing the districts or groups depicting the poorest food consumption levels, it is seen that there is a direct correlation with a lack of participation in development programmes. Moroto which has 27 % of households with Poor Food Consumption (highest in Karamoja) also has over 50% of households not participating in any development or assistance programme. A similar pattern is seen in Napak and amongst female headed households where poor food consumption prevalence is seen in areas with below rate of participation in assistance programmes.

Indeed, across Karamoja, it is seen that households that were benefitting from at least one development programme were generally found to have better food consumption and diet diversity compared to those not benefitting (**Figure 3-5**).

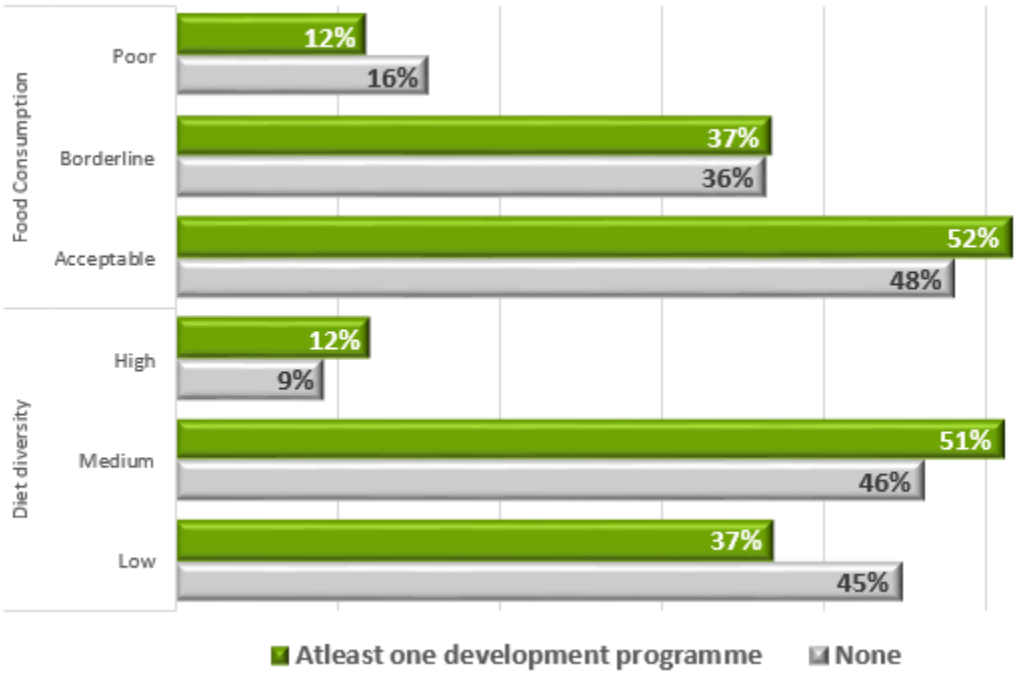


Figure 3-5: Food consumption and diet diversity among beneficiaries of development assistance

Based on the above findings, it is recommended that a more specific impact study be carried out at the district level, starting with Moroto and Napak, in the immediate future.

Also, the high percentage of households participating in two or more programmes (particularly in Kaabong) calls for a review of beneficiary targeting criteria in the region to afford opportunities to those that aren't currently involved.

4 FOOD AVAILABILITY

4.1 Livestock production

Approximately 44% of households in Karamoja own some livestock, with the highest level being in Amudat (77%) and the lowest in Moroto (28%). As shown in **Figure 4-1**, the most commonly owned livestock were goats (31%), cattle (29%) and poultry (27%). With the exception of Amudat and Kaabong districts, the level of livestock holding at household level was however low among households that owned livestock with majority having less than 1 TLU[7].

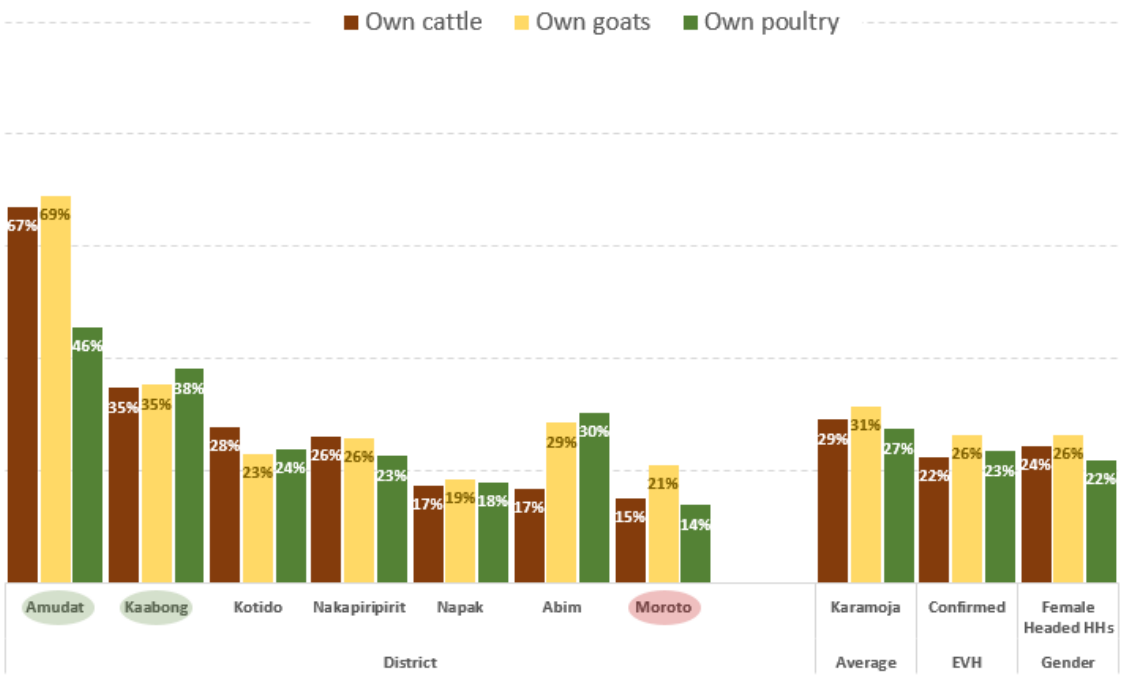


Figure 4-1: Ownership of cattle, goats and poultry in Karamoja

Findings showed that the more livestock a household had, the higher the Food consumption score of the household and the more likely for the household to be categorized as food secure (See **section 10**). This lends credence to re-stocking efforts in the region and calls for scale up of these programmes.

Parasites/diseases remain the leading constraint to livestock production among 71% of households that own livestock. This is particularly more pronounced in Amudat with 88% of households citing parasites as a constraint. Thus restocking efforts should necessarily be accompanied by veterinary extension services and basic skills training in livestock management for optimal food security outcomes.

4.2 Access to agricultural land

Access to agricultural land was high across the districts with up to 86% of households reporting access, highest in Napak (95%) and Kaabong (94%) and lowest in Moroto (75%). Access to land was slightly lower among female headed households (84%) than male headed households (88%).

[7] 1 TLU is equivalent to a household owning 10 sheep or goats or pigs

The average land size accessed by the households was 2.4 acres, but considerably higher in Abim (4.2 acres) and much lower in Amudat (1.5 acres) (**Table 4-1**).

Table 4-1: Average size of agricultural land accessed by households

	District							Average	Gender	EVH
	Napak	Kaabong	Abim	Nakapiripirit	Kotido	Amudat	Moroto	Karamoja	Female headed households	With card
Average Land size (Acres)	2.3	2.3	4.2	1.7	2.3	1.5	2.6	**2.4**	**2.2**	**2.5**

It is crucial to note that the high access to land and the relatively high size of land holdings reported does not translate into improved food availability for the household. Indeed, there is a negligible difference in the prevalence of food insecurity among households with access to land (44%) and those without access to agricultural land (49%). This is due to a combination of factors including; - low levels of agricultural productivity, lack of improved seeds and inputs, and the fact that at time of survey most households were depending on market purchases. Main constraints raised by households are as shown in **Figure 4-2.**

Sustainable solutions such as use of low cost irrigation technologies and climate sensitive technologies are required to support households practice agriculture.

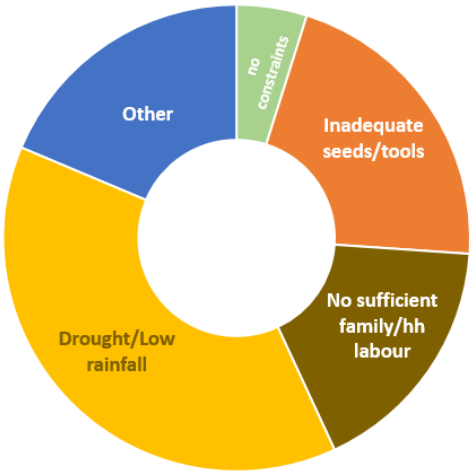


Figure 4-2: Leading constraints to crop production

4.3 Food stocks

Two-thirds (67%) of the households reported having no food stocks at the time of the assessment in June 2015 (**Figure 4-3**). Among households that had food stocks, own production and markets were the main sources, cited by 66% and 28% of households respectively. Markets were especially important for Moroto and Nakapiripirit with 60% of households reporting complete dependence on markets for food.

The expected duration of stocks for households was an average of 4-5 weeks at the time of the assessment. The expected duration was however shorter in Kotido, and among EVH households (3 weeks). This implies that by Mid July, these stocks will be depleted necessitating application of coping strategies to meet food needs. This situation needs to be closely monitored to prevent further deterioration of the food security situation.

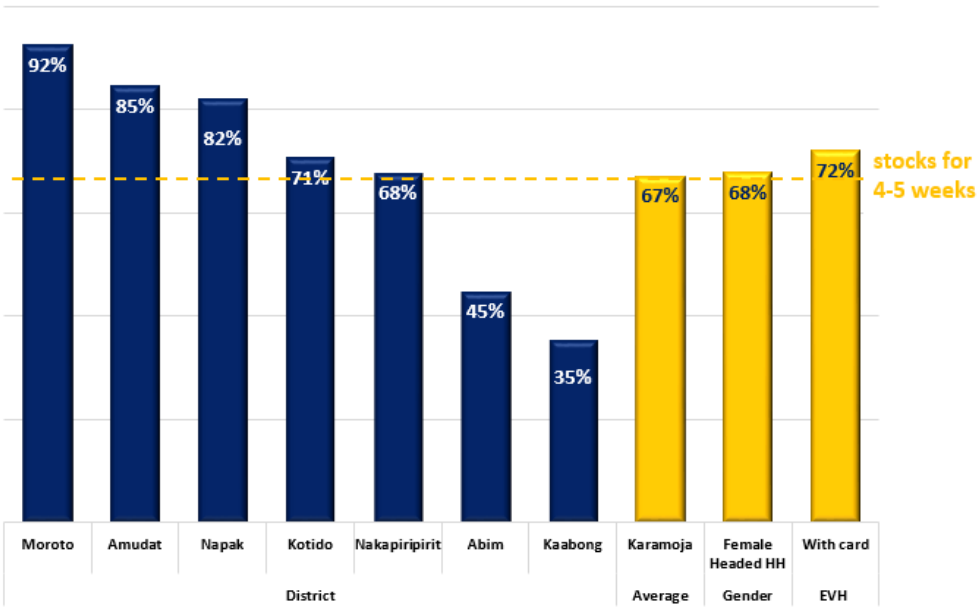


Figure 4-3: Households that reported having no food stocks

5 FOOD ACCESS

5.1 Household income earners

On the whole, up to 70% of households had at least one income earner. The highest percentage of households with at least one income earner was found in Kotido (90%) and Kaabong (82%), while the lowest was in Moroto (41%) (**Figure 5-1**).

While similar proportions of male and female headed households had at least one income earner, male headed households tended to have two or more income earners (37% vs. 27%), suggesting lower income levels for female headed households.

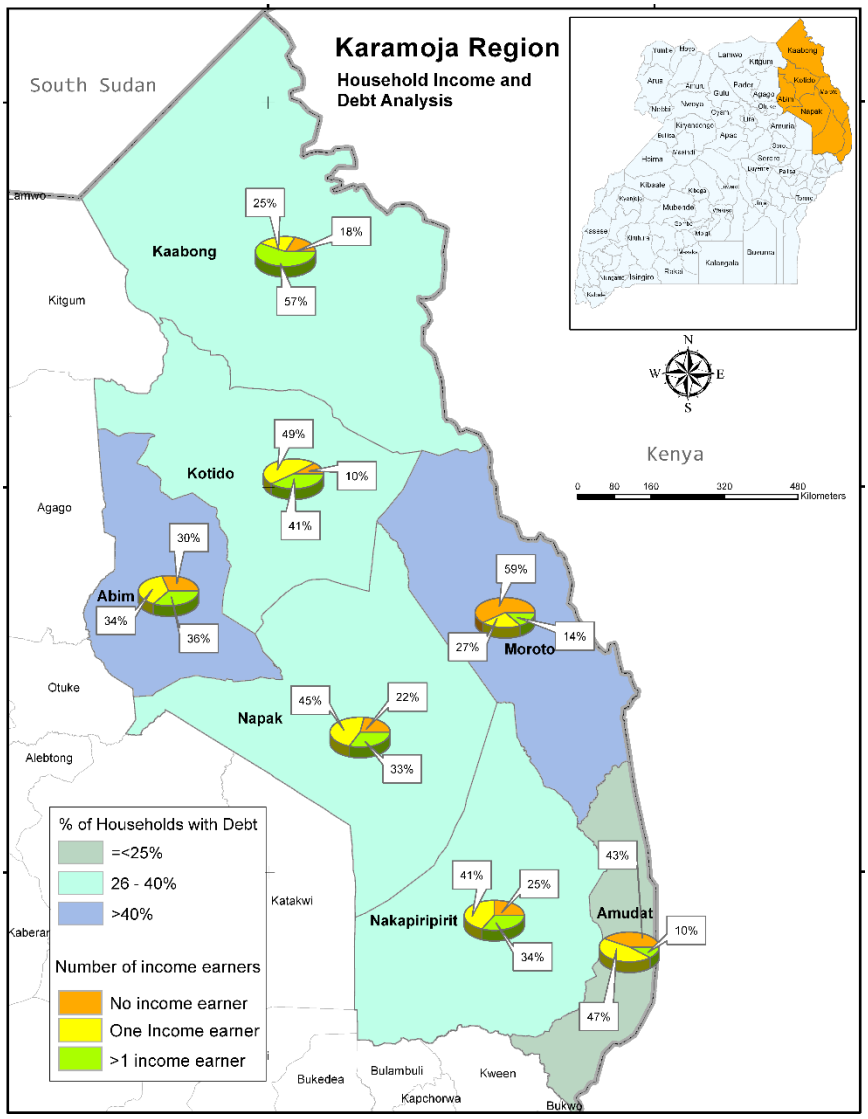


Figure 5-1: Debt incidence and households with at least one income earner

Presence of income earners in a household reflects on the ability to purchase food from markets through the incomes earned. As further discussed in **Section 10**, findings showed that;

- ✓ the higher the number of income earners in a household, the lower the prevalence of food insecurity;

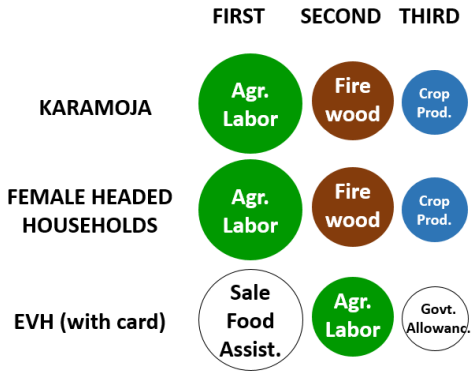
- ✓ more than half (52%) of households without an income earner were food insecure, compared to 46% among households with one income earner and 39% among households with two or more income earners.

Given the low level of formal education in the region, there is need to implement vocational education programmes in the region to enable household heads acquire skills that they can use/sell for income.

5.2 Main income sources

The most important income sources across Karamoja were Agricultural wage labour (24%), firewood/charcoal burning (18%), and food crop production/sales (16%) as shown in **Table 5-1**. The main income sources were noted as contributing to about 78% of total household income.

Table 5-1: Main income sources



While it is clear that agriculture across Karamoja needs to improve, food availability per se is not the main obstacle to household food security. While agriculture is largely subsistence, a small proportion of households are able to derive some income from agriculture. Rather it is poor food access and consumption that are the main obstacles (see following sections).

5.3 Household Expenditures

Households were asked to list their food and non-food expenditures, total expenditures calculated, and the share of food on total household expenditure (or Food Expenditure Share, FES[8]) was calculated. Nearly half (49%) of households spend <50% of total expenditure on food, suggesting that they are Food Secure. However, some 24% of households in the region had FES >75% suggesting severe food insecurity. The highest percentage of these households was found in Napak (36%) and Kotido (32%) districts (**Figure 5-2**).

[8] The Food Expenditure Share, FES, is the percentage of total household expenditure that is allocated to food. The higher the percentage of total expenditure that is allocated to food by a household, the more food insecure the household. Thus, households that spend *less than 50%* of total household expenditure on food are regarded as food secure; *50-<65%* as marginally food secure; *65-<75%* as moderately food insecure; and *>75%* as severely food insecure.

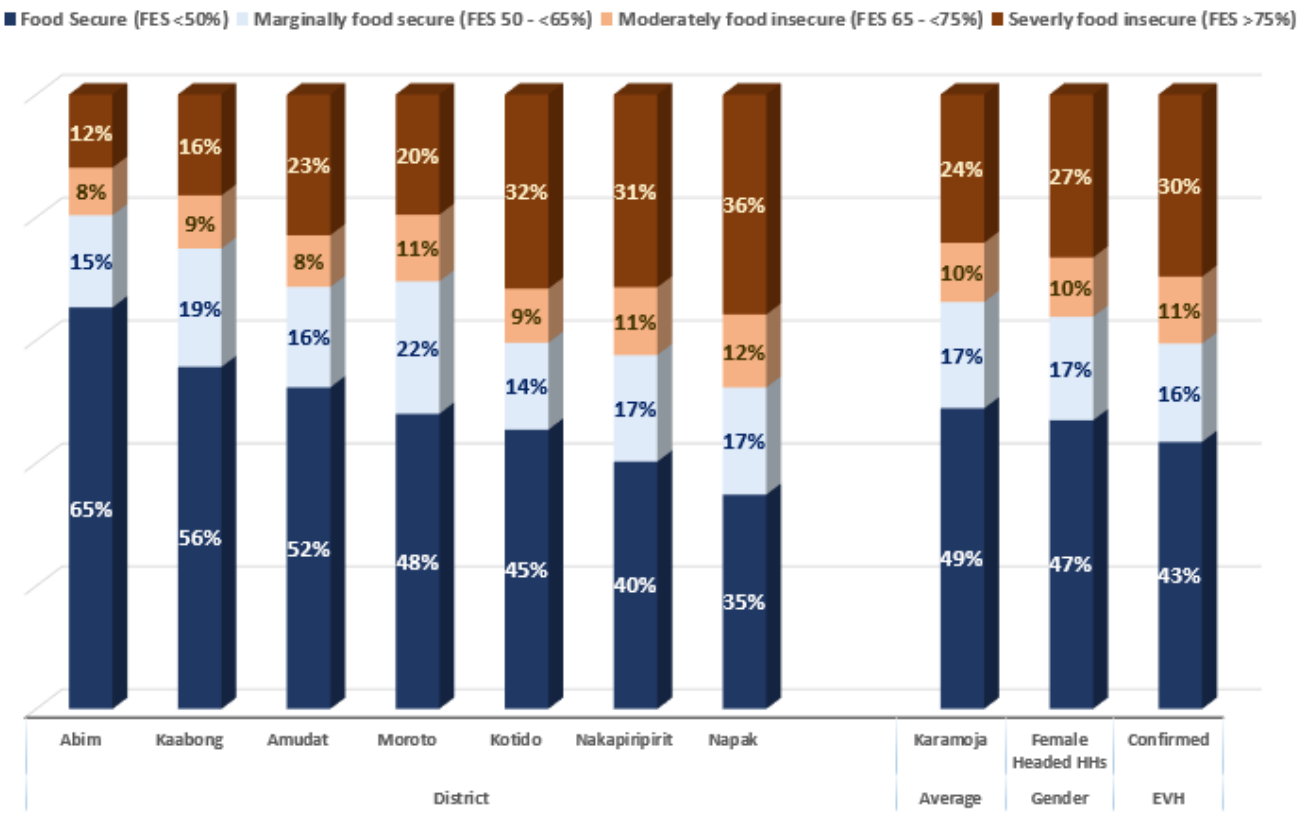


Figure 5-2: Food Expenditure Share Categories

Findings show that a significant percentage (34%) of households are food insecure with FES >65% which indicates that households are spending most of their income on food related expenses, leaving little for essential non-food expenditure. Given that the survey was conducted in the lean season during which households are mostly dependent on markets for food, this is expected, but nonetheless shows high vulnerability to food insecurity particularly in the event of food price hikes and/or loss of income generating activities.

5.4 Household debt

Approximately 35% of households in the sample were indebted. This percentage was highest in Abim (52%) and lowest in Amudat (17%). The average amount of debt undertaken by households was UgX 99,000. This was however much higher in Kaabong (UgX 255,000) and Abim (UgX 120,000) (**Table 5-2**).

Table 5-2: Prevalence and extent of debt in Karamoja

		Have debt	Av. amt of current debt (UgX)	Have to pay interest on debt	Av. amt of interest on debt (UgX)	Borrowed money to buy food
District	Moroto	41%	50,700	23%	19,429	72%
	Kaabong	37%	255,500	24%	38,712	62%
	Kotido	28%	38,800	23%	20,670	60%
	Nakapiripirit	35%	79,800	45%	31,855	56%
	Napak	34%	40,300	45%	8,085	50%
	Abim	52%	120,200	77%	17,111	27%
	Amudat	16%	70,700	14%	14,180	26%
Average	**Karamoja**	35%	99,200	40%	20,488	**51%**
Gender	**Female Headed HHs**	31%	99,000	41%	26,228	**51%**
EVH	**With Card**	27%	169,700	37%	22,527	**55%**

The main reasons for debt were to; i) buy food (51%), ii) cover health expenses (17%) and iii) pay school/educational costs (12%). To a less extent, households in Amudat and Abim borrowed money to buy agricultural inputs (18% and 15% respectively). The percentage of households that borrowed money to buy food is as shown in **Table 5-2** above.

Households that have income earners are more likely to have debt; only 28% of households without an income earner had debt, compared to 32% among those with one income earner and 45% among those with two or more income earners. This is probably because having an income earner increases credit worthiness of a household. However, it also shows high vulnerability among households that have debt and lack the means to repay. Analysis showed that overall, 8% of households had debt but with no income earner in the household. This was especially high in Moroto (24%) and Abim (15%). Expectedly, more than half of such households (59%) borrowed to buy food. This suggests issues with access to food in these districts.

Above findings suggest stress among households, indicating nascent food insecurity, probably even among households with acceptable food consumption score or categorized as food secure. This is because the cost of debt repayment negatively impacts on current household income which is expectedly low, thus reducing household access to food and/or trapping the households in the debt cycle.

With exception of Abim where banks were the source of credit for 62% of indebted households, and of Amudat where traders/shopkeepers were the sources of credit for 47% of households, relatives remain the leading providers of credit for 46% of households in Karamoja.

6 FOOD UTILIZATION

6.1 Food sources and consumption

Half (50%) of the households had acceptable FCS[9], while 37% had borderline FCS and 13% had poor FCS, suggesting that nearly half of the population is food insecure (**Figure 6-1).**

- ✓ Amudat district had the best food consumption scores, with 84%, 13%, and 3% having acceptable, borderline and poor FCS respectively. This is mainly due to the high ownership levels of livestock (see **section 3**) and consumption of products thereof.
- ✓ On the other hand, Moroto was worst off with only 30% having acceptable FCS while 43% had borderline and 27% poor FCS. This is mainly due to reduced ability to purchase food by households given the low percentage of households with at least one income earner (see **section 4**).

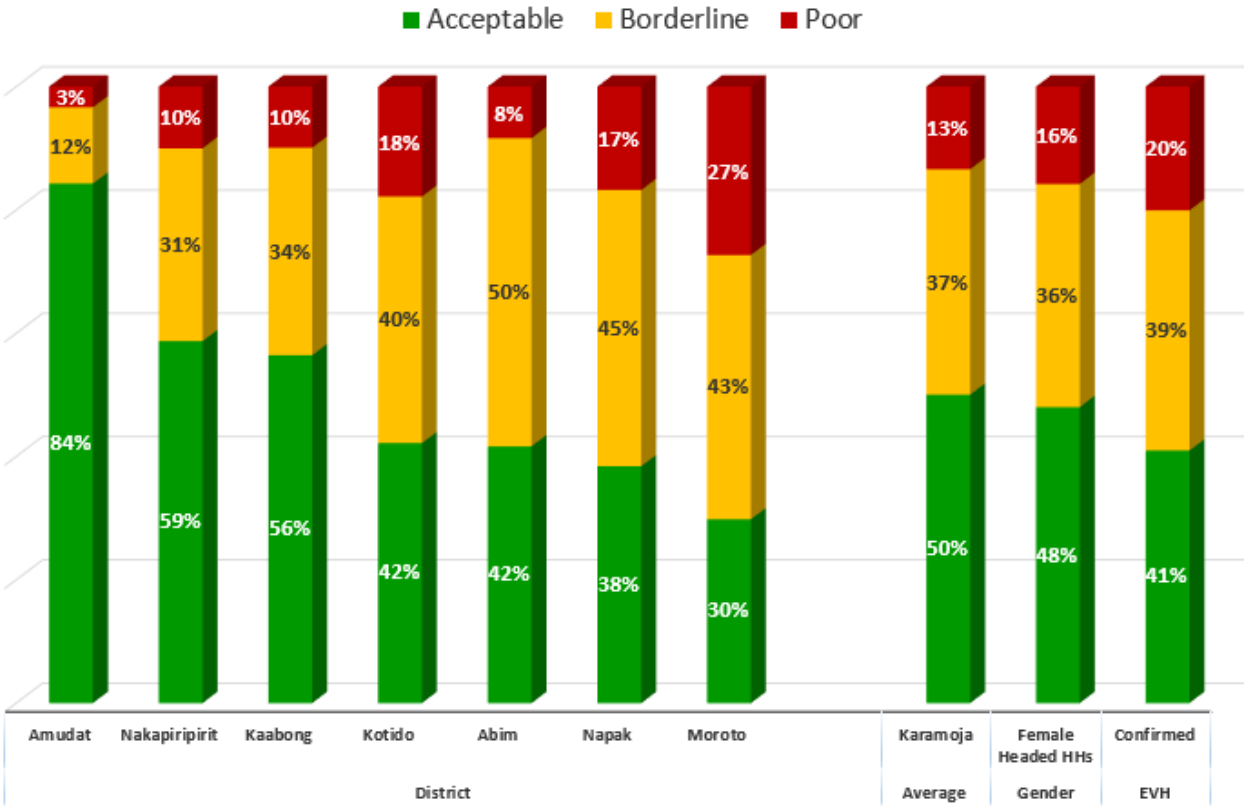


Figure 6-1: Food Consumption Score

Findings show that despite the lean season, households have been able to maintain food consumption at levels not so different from December probably due to the availability of stocks and application of various coping strategies such as borrowing to buy food.

[9] The Food Consumption Score is a composite score based on dietary diversity, food frequency and relative nutrition importance of different food groups.

6.2 Diet diversity

On the other hand, about two in every five households (40%) had low DDS (i.e. had DDS less than 4.5), particularly so in Napak district (56%) (**Figure 6-2**). This suggests low dietary quality among households with predominant consumption of staples that are typically low in protein and micronutrients. This could therefore lead to high levels of protein energy malnutrition among children[10], as well as micronutrient deficiencies.

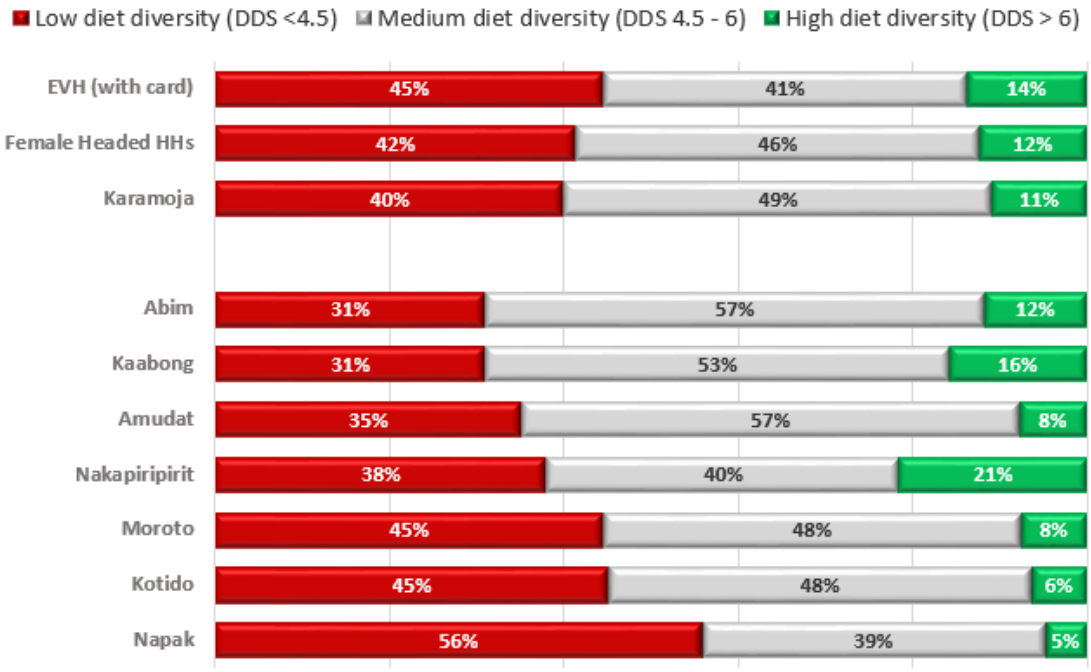


Figure 6-2: Dietary diversity in Karamoja

For the majority of households across the region (and food groups), two main food sources were identified viz. market purchases and own production as shown in **Table 6-1**. Diminishing household stocks have led to market purchases becoming the predominant food source for households, also indicated by the high prevalence of households that borrowed money to buy food.

Table 6-1: Main sources of food consumed by households

Food group	Main sources
Cereals*	*Market purchase, Own production*
Roots/tubers	*Market purchase, Own production*
Pulses	*Market purchase, Own production*
Vegetables	*Gathering, Market purchase, Own production*
Fruits	*Market purchase, Gathering, Own production*
Meat	*Market purchase, Own production***
Fish	*Market purchase*
Eggs	*Market purchase, Own production*
Milk	*Market purchase, Own production***
Oil*	*Market purchase*
Sugar	*Market purchase*

*Food assistance was a key source among EVH; **Particularly important in Amudat

[10] See **section 9** for detailed nutrition analysis

7 STABILITY

7.1 Main difficulties/shocks faced by households

On average, only 7% of households across Karamoja reported not having experienced any shock/difficulty in the 30 days prior to the survey (**Table 7-1**). Among the remaining 93%, the most commonly reported difficulties/shocks were sickness of a household member (37%), high food prices (30%) and harsh weather (13%). This trend was similar among male and female headed households, and EVH households.

Table 7-1: Main difficulties/shocks faced by households

		Faced no difficulty	First	Second
District	Kotido	14%	*Sickness/disease (39%)*	*High food prices (26%)*
	Abim	9%	*Sickness/disease (45%)*	*High food prices (34%)*
	Nakapiripirit	7%	*High food prices (43%)*	*Sickness/disease (43%)*
	Kaabong	6%	*Sickness/disease (47%)*	*Harsh weather (25%)*
	Amudat	4%	*High food prices (40%)*	*Sickness/disease (28%)*
	Napak	4%	*Sickness/disease (37%)*	*High food prices (19%)*
	Moroto	2%	*High food prices (32%)*	*Sickness/disease (41%)*
Average	Karamoja	7%	*Sickness/disease (37%)*	*High food prices (24%)*
Gender	Female Headed Households	8%	*Sickness/disease (38%)*	*High food prices (26%)*
EVH	With card	5%	*Sickness/disease (44%)*	*High food prices (28%)*

It is noteworthy that nearly half of households that had experienced a shock in Abim (45%) and Kaabong (47%) cited sickness/disease as the main shock. Findings in the Food Security and Nutrition Assessment, FSNA (June 2014), showed that sickness/disease was the main shock in Napak and Moroto, similar to findings this year. This suggests high morbidity in these districts and necessitates further investigation to establish root causes and corrective measures.

7.2 Food consumption coping

The average Food Consumption (or reduced) Coping Strategy Index (RCSI)[11] was 16 for Karamoja, and was highest in Kaabong (22) and Moroto (20) but lowest in Napak (9) and Amudat (11) (**Table 7-2**). This level is relatively higher than that observed in December 2014 and is attributable to the lean season. It indicates that households are facing difficulty in obtaining food for consumption.

[11] Reduced Coping Strategy Index (RCSI) measures the behaviors adopted by households when they have difficulties covering their food needs. It is calculated using standard food consumption-based strategies (reliance on less preferred, less expensive food; borrowing food or relying on help from friends/relatives; reduction in the number of meals eaten per day; reduction in portion size of meals; and reduction in the quantities of food consumed by adults/mothers for young children) and severity weighting.

Table 7-2: Food consumption (Reduced) coping strategy index

		Reduced CSI
District	Kaabong	22
	Moroto	20
	Nakapiripirit	19
	Abim	14
	Kotido	13
	Amudat	11
	Napak	9
Average	Karamoja	16
Gender	Female Headed HHs	15
EVH	With Card	17

On further analysis, it was found that the enumerated food consumption coping strategies were mostly applied by the moderately food insecure and severely food insecure households.

As illustrated in **Figure 7-1, t**he most common form of coping among these households was consumption of less preferred food and reduction in the number of meals per day.

It is however noteworthy that consumption of less preferred food was applied by majority (> 70%) of households across food security groups. This suggests that households are only able to acquire relatively cheaper food stuff from the market or other preserved foods in the household.

Figure 7-1: Most common food consumption coping strategies by food security category

7.3 Livelihoods coping

Findings show that up to 32% of households did not adopt any of the livelihood coping strategies[12] enumerated. This percentage was highest in Napak (52%), Moroto (41%) and Kotido (40%) and lowest in Kaabong (11%) and Amudat (13%) (**Figure 7-2**).

[12] Livelihoods-based coping strategies reflect longer term coping capacity of households. The various strategies applied by households can be categorized as stress, crisis or emergency coping strategies depending on the severity weights.

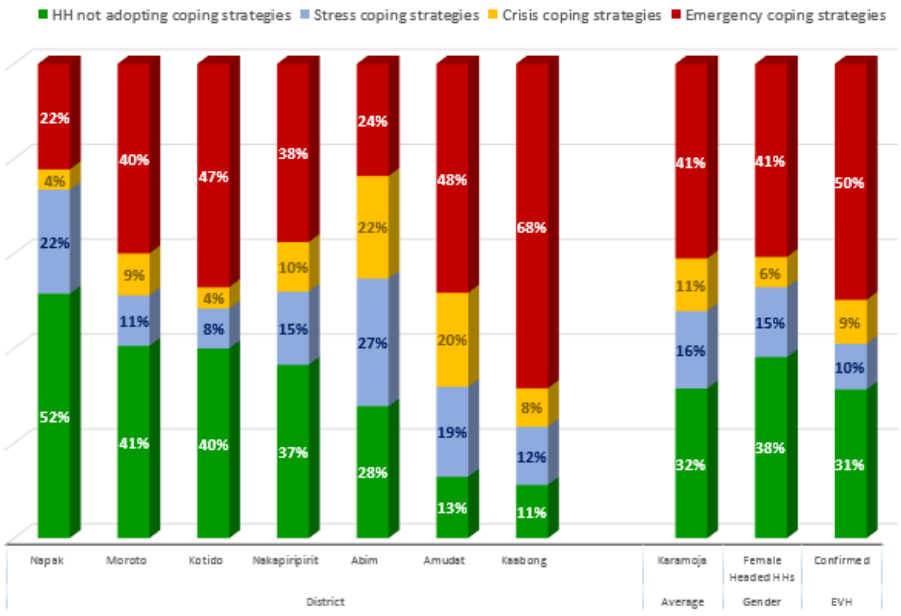


Figure 7-2: Summary of livelihood coping strategies

Overall, the most commonly applied coping strategies were emergency[13] (41%) and stress[14] (16%) coping strategies. Across the Karamoja, borrowing money (40%) was the most commonly applied stress coping strategy; consumption of seed stock the most common crisis[15] coping strategy (23%) and begging the most common emergency coping strategy (40%) (**Figure 7-3**).

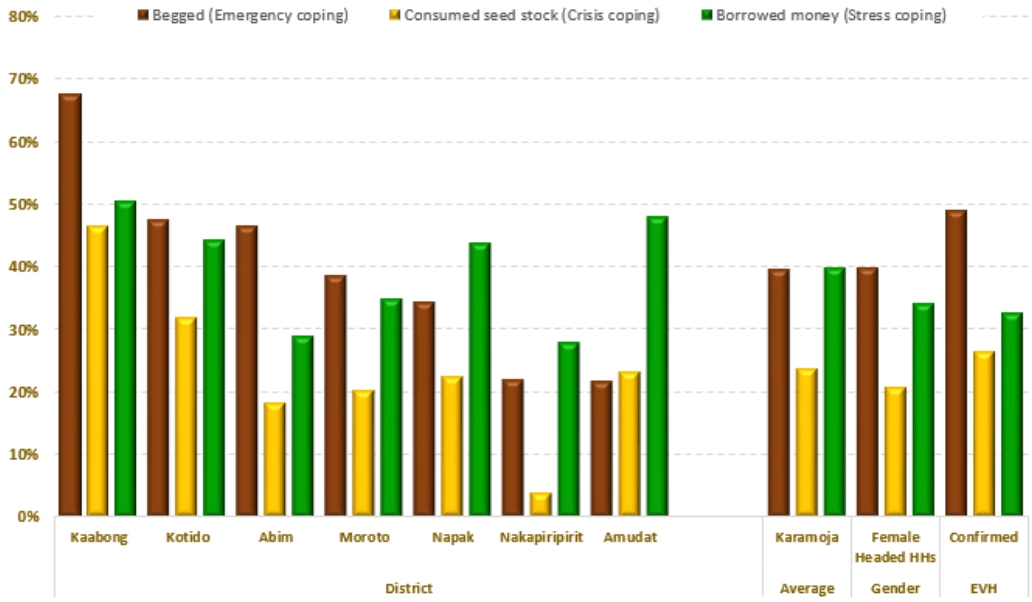


Figure 7-3: Most common Stress, Crisis and Emergency coping strategies

[13] Emergency coping strategies, such as selling one's house or land, engaging in illegal income activities, and begging also affect future productivity, but are more difficult to reverse or more dramatic in nature.

[14] Stress coping strategies indicate reduced ability to deal with future shocks due to a current reduction in resources or increase in debts. They include borrowing money, spending savings, selling household goods or animals.

[15] Crisis coping strategies, such as selling productive assets, reduction of essential non-food expenditure, and consumption of seed stock directly reduce future productivity, including human capital formation

8 HOUSEHOLD FOOD SECURITY CLASSIFICATION

8.1 The Food Security Index

A Food Security Index was calculated at household level, based on findings from i) The Food Expenditure Share, ii) The Food Consumption Score, iii) Livelihoods coping. According to the food security index value, households were classified into four food security levels as shown in **Table 8-1**. The methodology for computation and classification of the food security index is explained in **Annex 1**.

The consolidated analysis shows that across Karamoja, more than half (55%) of households are food secure (14% food secure + 41% marginally food secure). The highest percentage of households that are food insecure was found in Moroto (62%) and Kotido (53%), and the lowest in Amudat (26%). Increased food security monitoring is required in the districts of Kotido, Moroto and Kaabong especially in the period between July and the first harvests to ensure that timely measures are implemented to prevent any eventualities such as death due to hunger.

Table 8-1: Summary of Food security situation in Karamoja

		Food Secure	Marginally Food Secure	Moderately Food Insecure	Severely Food Insecure
District	Abim	21%	36%	39%	5%
	Amudat	19%	55%	23%	3%
	Nakapiripirit	15%	46%	34%	6%
	Napak	15%	37%	39%	9%
	Kotido	11%	36%	42%	11%
	Moroto	11%	27%	51%	11%
	Kaabong	9%	49%	31%	11%
Average	Karamoja	14%	41%	37%	8%
Gender	Female Headed Households	15%	38%	39%	8%
EVH	With card	7%	36%	44%	13%

9 NUTRITION

9.1 Education status of mothers/care givers

Except for Abim district, more than three-quarters (76%) of mothers in the region have not received any formal education (**Figure 9-1**). Various studies and assessments have found a close relationship between Education level of mothers/care givers, child care practices and child nutrition status. The high percentage of illiterate mothers and caregivers across the region suggests the likelihood of poor child care and high malnutrition with low response to malnutrition reduction initiatives. Upscaling MCHN programmes will therefore remain fundamental to improving child nutrition in the short and medium term, while simultaneous efforts are required to promote girl child education in the region.

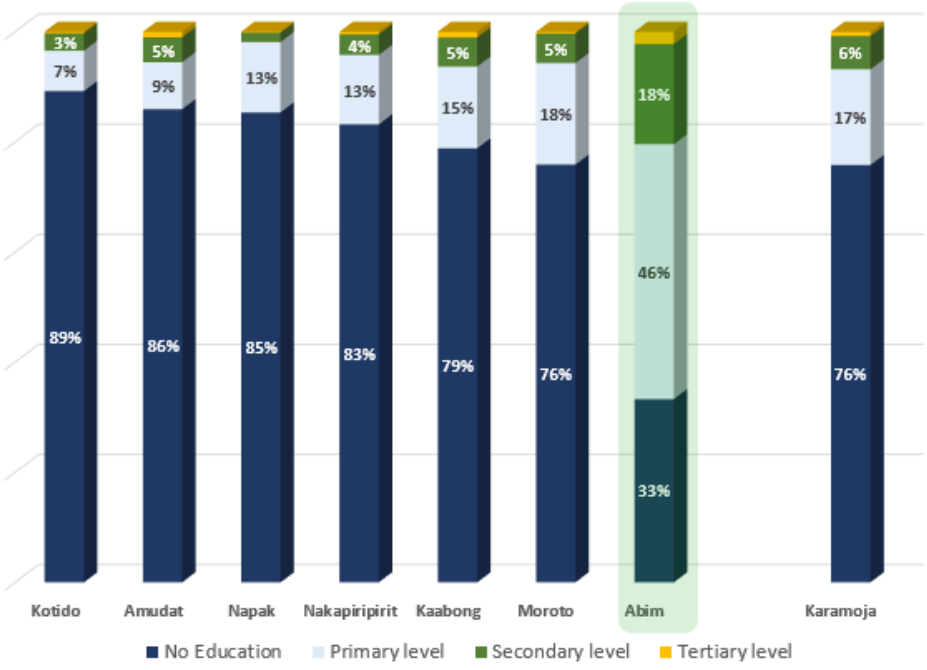


Figure 9-1: Education level of mothers/care givers

9.2 Nutrition status of mothers/caregivers

The nutrition status of women of child bearing age was assessed using the Body Mass Index (BMI). Findings reveal that 32% of women are underweight in Karamoja, with the highest prevalence noted in Moroto district (**Figure 9-2**).

The fact that nearly half of women in Moroto are underweight is a cause for concern because of the intimate relationship between mother and child nutrition status. These findings indicate that any interventions to address child nutrition, especially child stunting and birthweight, do need to elaborately target the women for optimal results.

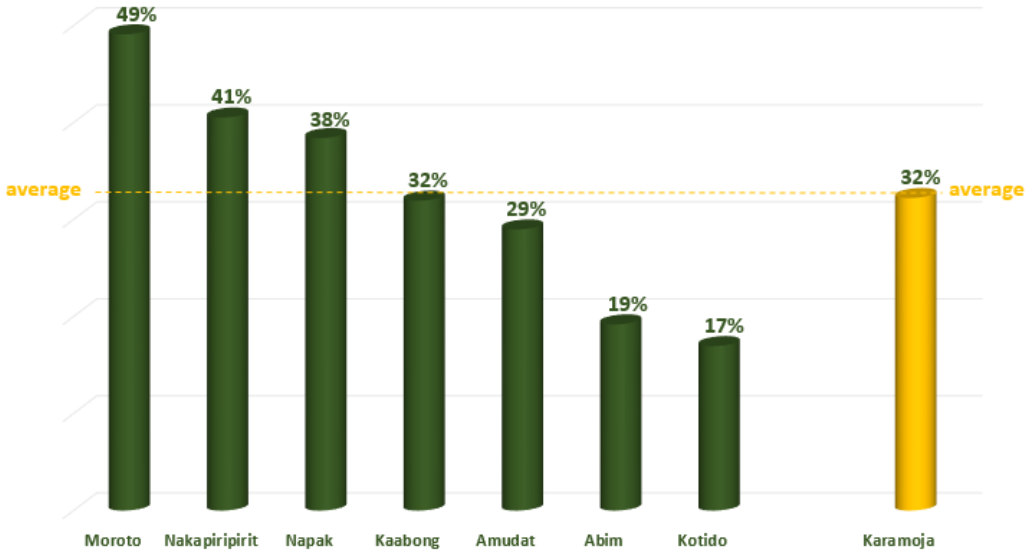


Figure 9-2: Prevalence of underweight among non-pregnant women with children 0-59 months

9.3 Prevalence of stunting, wasting and underweight

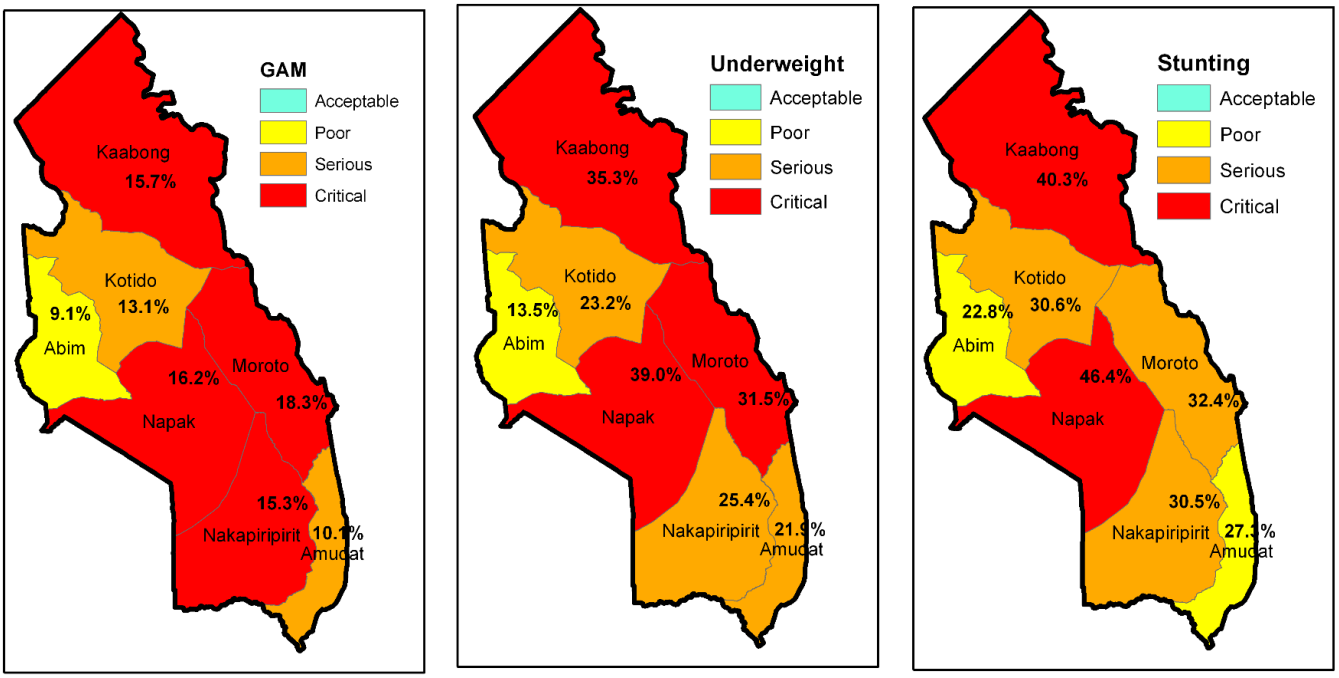


Figure 9-3: Prevalence of malnutrition in Karamoja

The survey included up to 5027 children of 6-59 months distributed as shown in **Annex 2**. Overall, the sex ratio of sampled children was 1.0 indicating no biases in the sampling of children across the districts and livelihood zones.

Prevalence of wasting among children is high in the region with all districts (except Abim) showing serious or critical levels (**Table 9-1**). The highest GAM prevalence was found in Moroto (18%), Napak (16%), and Nakapiripirit (15%). These districts also have the highest prevalence of SAM (6%, 5% and 4% respectively).

These findings are not surprising as the survey was conducted at the peak of the lean season and, as observed in **Section 8**, the prevalence of food insecurity is high with up to 62% of households classified as food insecure in districts like Moroto.

There is need to intensify nutrition surveillance in the months between July and the next harvest so as to identify areas where short term relief is required. Implementation of blanket supplementary feeding programmes is recommended for Moroto, Nakapiripirit and Napak districts.

Table 9-1: Prevalence of malnutrition

	N	GAM% (95% CI)	MAM% (95% CI)	SAM% (95% CI)	Underweight (95% CI)	Stunting (95% CI)
Karamoja	5075	14.1 (12.9 - 15.3)	10.4 (9.5 - 11.3)	3.7 (3.1 - 4.4)	27.0 (25.8 - 28.2)	32.7 (31.3 - 34.2)
Abim	713	9.1 (7.5 - 11.0)	6.9 (5.5 - 8.6)	2.2 (1.4 - 3.6)	13.5 (11.3 - 15.9)	22.8 (19.0 - 27.0)
Amudat	616	10.1 (7.4 - 13.5)	8.0 (5.6 - 11.2)	2.1 (1.1 - 4.1)	21.9 (18.0 - 26.3)	27.3 (23.5 - 31.4)
Kaabong	725	15.7 (12.1 - 20.2)	12.4 (9.5 - 16.0)	3.3 (2.2 - 5.1)	35.3 (31.3 - 39.6)	40.3 (36.3 - 44.4)
Kotido	801	13.1 (10.8 - 15.9)	10.9 (8.7 - 13.4)	2.2 (1.4 - 3.6)	23.2 (20.1 - 26.7)	30.6 (27.1 - 34.4)
Moroto	766	18.3 (14.6 - 22.7)	12.3 (9.8 - 15.3)	6.0 (4.2 - 8.5)	31.5 (26.6 - 36.8)	32.4 (28.3 - 36.7)
Nakapiriprit	813	15.3 (12.6 - 18.4)	10.8 (9.2 - 12.8)	4.4 (2.8 - 6.9)	25.4 (22.0 - 29.2)	30.5 (26.8 - 34.4)
Napak	641	16.2 (13.7 - 19.2)	10.8 (8.5 - 13.5)	5.5 (4.0 - 7.4)	39.0 (34.6 - 43.6)	46.4 (42.0 - 50.9)

The prevalence of stunting remains high in all districts, largely due to chronic food insecurity in the region that has led to poor diets that lack essential micronutrients for child development and/or high morbidity that compromises uptake of such micronutrients by the body. Long term efforts are required to address this problem, ranging from mother/caregiver, and child specific interventions – notably on infant and young child feeding practices as well as disease control initiatives.

9.3.1 Mean Z-scores

An analysis of the Z-scores for all three anthropometric indices shows a distribution shifted to the left of the reference population (**Figure 9-4**), indicating that there is generally poor child nutrition status across the region.

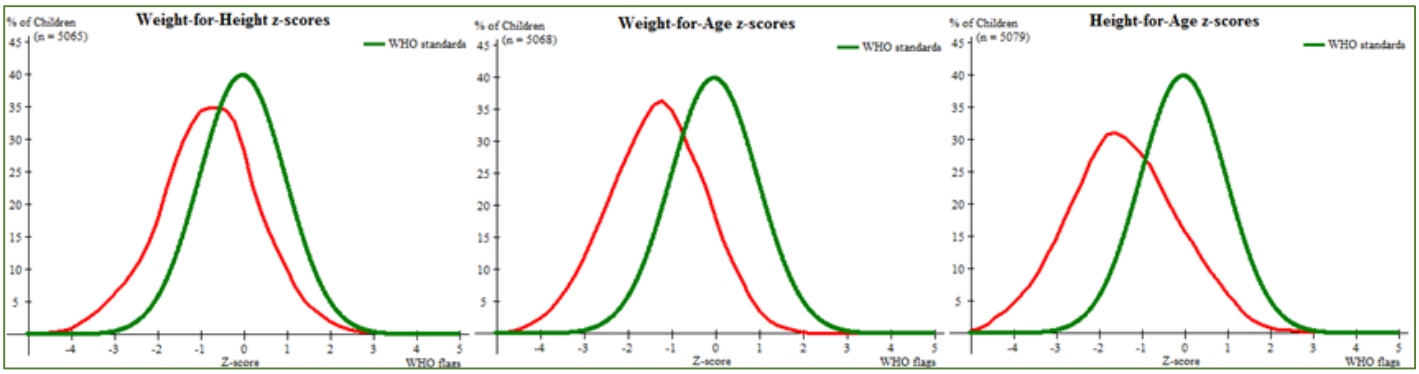


Figure 9-4: Distribution of WHZ, WAZ and HAZ scores compared to reference population

9.4 Infant and Young Child Feeding (IYCF) practices

9.4.1 Breast feeding practices

Exclusive breast feeding rate remains high across Karamoja, practiced by nearly three-quarters (74%) of mothers interviewed. As shown in **Figure 9-5**, exclusive breast feeding rate was highest in Kaabong and Kotido districts, and lowest in Abim. The low level of exclusive breast feeding in Abim needs to be further investigated as it could ultimately affect the nutrition outcomes that are currently better off in the region.

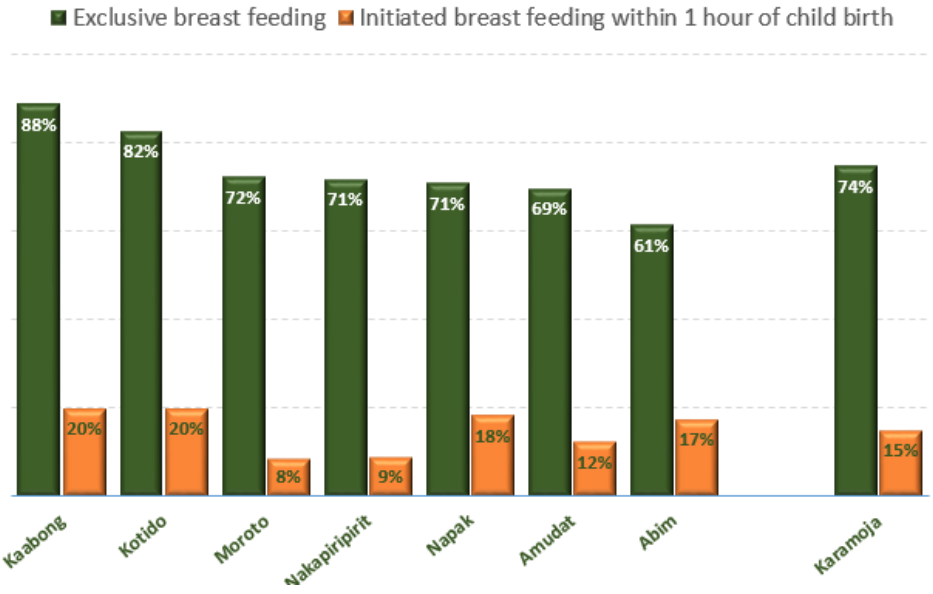


Figure 9-5: Breast feeding practices

While exclusive breastfeeding rate is high, findings show that less than 20% of mothers initiated breast feeding within one hour of birth as recommended. This implies that a vast majority of children are missing out on the protective factors in colostrum "first milk" and are thus prone to common child hood illnesses. There is need to scale up interventions to promote appropriate IYCF practices with emphasis on early initiation of breast feeding.

9.4.2 Timing of introduction of complementary foods

While majority of mothers (64%) indicated having introduced complementary foods at the recommended age (6 months), some 22% started complementary feeding too early and 14% too late (**Figure 9-6**). Early introduction of complementary food was particularly prevalent in Moroto and Kotido, while late introduction was most common in Kaabong.

Given the significance of IYCF practices to overall child nutrition status, it is recommended to continue efforts in nutrition education and to closely monitor uptake of knowledge and skills transferred among beneficiaries.

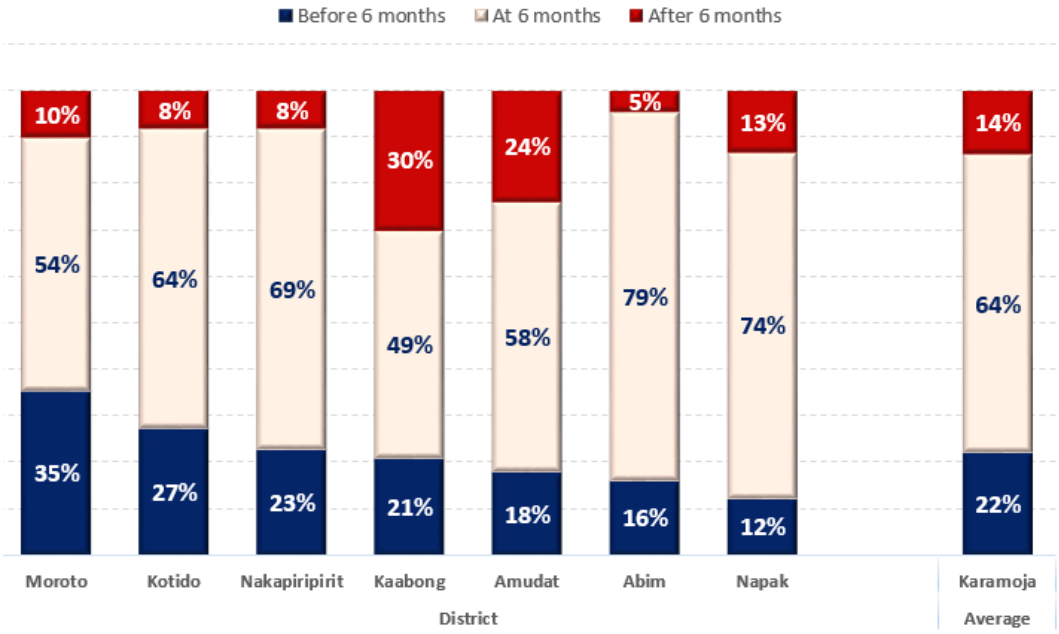


Figure 9-6: Introduction of complementary foods

9.4.3 Minimum Meal Frequency/Minimum Dietary Diversity/Minimum Acceptable Diet

Just over half (52%) of children received the 4 recommended number of meals per day (Minimum Meal Frequency[16]) i.e. 3 meals and a snack, going as low as 40% and 36% in Kotido and Napak districts respectively (**Figure 9-7**). Dietary diversity was even poorer across the board with only 22% of children having adequate diet diversity (Minimum Diet Diversity[17]). Thus, while nearly half of children eat food with an acceptable frequency, findings show that the quality of the diet is poor.

Consequently, the overall percentage of children receiving minimum acceptable diet was low across Karamoja (14%), but particularly so in Napak (6%), Amudat (8%) and Moroto (11%).

[16] **Minimum Meal Frequency** measures the proportion of breastfed and non-breastfed children 6-24 months of age who receive solid, semi-solid, or soft foods (but also including milk feeds for non-breastfed children) the minimum number of times or more based on the child's age.

[17] **Minimum Diet Diversity** measures the proportion of children 6-24 months of age who receive foods from 4 or more food groups, including grains, roots, and tubers; legumes and nuts; dairy products; flesh foods; eggs; vitamin-A rich fruits and vegetables; other fruits and vegetables; and fortified foods.

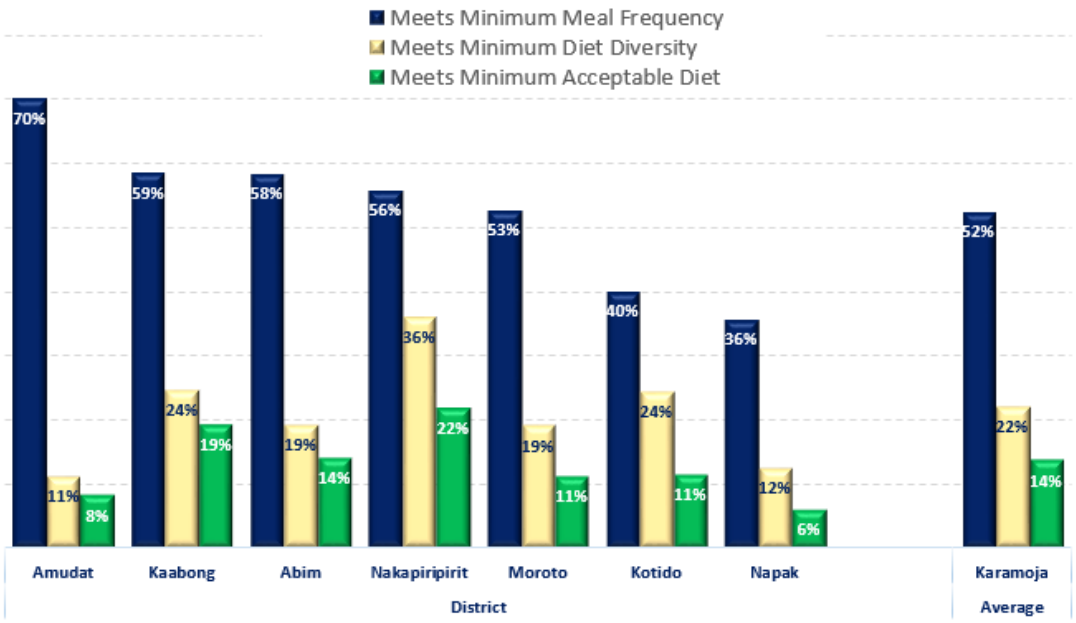


Figure 9-7: Children that meet minimum meal frequency, minimum diet diversity and minimum acceptable diet[18]

Moreover, among non-breastfed children, only a negligible percentage (3%) had received at least 2 milk feeds in the recall period of 24 hours (**Table 9-2**). These findings show that children are missing out on essential animal source proteins and other nutrients from milk.

Table 9-2: Non breast feeding children who received at least 2 milk feeds

		At least 2 milk feeds
District	Amudat	8%
	Nakapiripirit	5%
	Kaabong	3%
	Kotido	3%
	Moroto	2%
	Abim	2%
	Napak	1%
Average	Karamoja	3%

[18] **Minimum Acceptable Diet (MAD)** is an indicator used to identify the proportion of children (aged 6-24 months) who consumed a minimum acceptable diet (outside of the consumption of breast milk). MAD is the combination of both the minimum diet diversity and minimum meal frequency indicators.

9.5 Enrollment in MCHN programme

Only half of the children aged 6-23 months were found to be enrolled in the MCHN programme (**Figure 9-8**). The enrollment rate is particularly low in Moroto (31%) and Napak (30%) which, coincidentally, had very poor GAM rates.

The most commonly given reason for no participation was lack of Knowledge about the programme, particularly so in Kotido (53%), Abim (55%), Moroto (42%) and Amudat (54%).

There is need to increase awareness of the programme through complementary community based MCHN related initiatives including sensitization. Scale up of MCHN interventions is also recommended in districts with low coverage, particularly in Napak and Moroto.

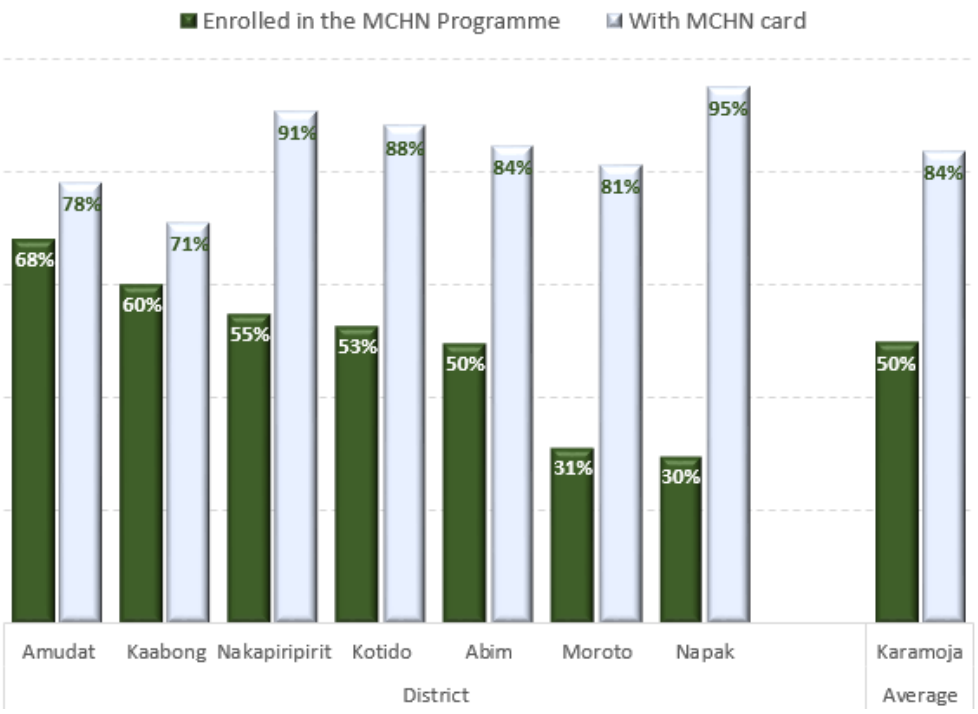


Figure 9-8: Percentage of children 6-23 months enrolled in MCHN programmes

9.5.1 Immunization coverage

The coverage of immunization for Measles and DPT3, as well as deworming and Vit A supplementation among children were high across the districts, often 90% and above as shown in **Table 9-3**. These efforts need to be sustained as they are fundamental for child health which in itself is a determinant of child nutrition status.

Table 9-3: Immunization, Vit A supplementation, and deworming

		Measles vaccination				DPT3 vaccination				Deworming				Vitamin A supplementation			
		Yes with card	Yes without card	No with card	No without card	Yes with card	Yes without card	No with card	No without card	Yes with card	Yes without card	No with card	No without card	Yes with card	Yes without card	No with card	No without card
Average	Karamoja	55%	35%	8%	2%	72%	26%	2%	1%	63%	26%	9%	2%	70%	26%	3%	1%
District	Kaabong	47%	34%	17%	2%	58%	36%	5%	1%	47%	36%	15%	3%	58%	37%	5%	1%
	Kotido	84%	9%	7%	1%	88%	9%	2%	1%	78%	10%	11%	1%	86%	10%	3%	1%
	Abim	-	100%	-	-	76%	23%	1%	-	71%	22%	4%	2%	75%	20%	2%	3%
	Moroto	55%	37%	6%	3%	58%	39%	1%	1%	48%	42%	8%	2%	52%	44%	3%	1%
	Napak	76%	14%	8%	2%	84%	15%	1%	%	79%	14%	6%	1%	83%	15%	2%	%
	Nakapiripirit	73%	17%	9%	1%	79%	18%	2%	1%	72%	18%	9%	1%	79%	18%	2%	1%
	Amudat	48%	40%	8%	4%	53%	43%	2%	1%	45%	41%	9%	5%	50%	44%	3%	3%

9.5.2 Prevalence of common child hood illnesses

Despite the high levels of immunization coverage in the districts, the most common illness reported to have affected children in the two weeks prior to the survey was Measles (39%). This was closely followed by Fever/Malaria (25%) and ARI/Cough (14%) as shown in **Figure 9-9**. Given that measles vaccination rate was high, and the rate reported by households was also high, more investigation may be necessary to ascertain the true diagnosis of these diseases e.g. through the Village Health Teams (VHTs) and health centres.

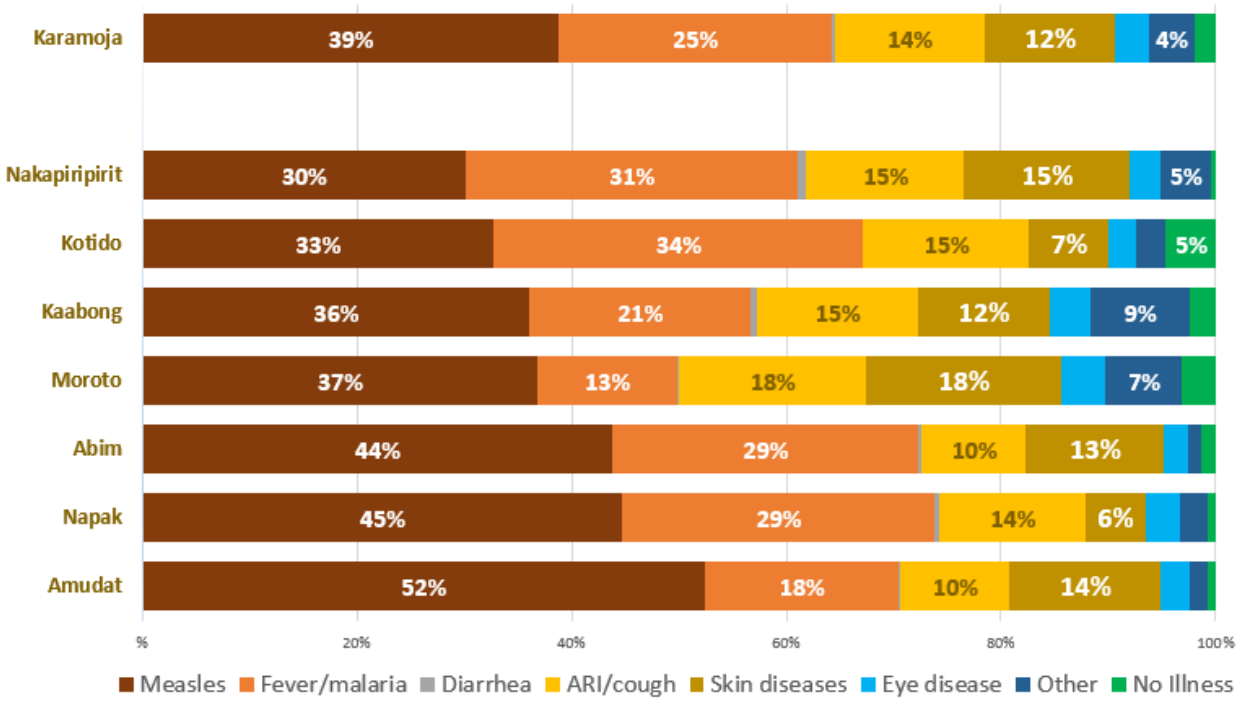


Figure 9-9: Two week prevalence of childhood illnesses

9.5.3 Mosquito net coverage

While mosquito net coverage was at an average of 83% and exceeding 75% in most districts (**Figure 9-10**), it remains considerably low in Amudat at 60%. This calls for up scaling in initiatives to eradicate malaria in the district

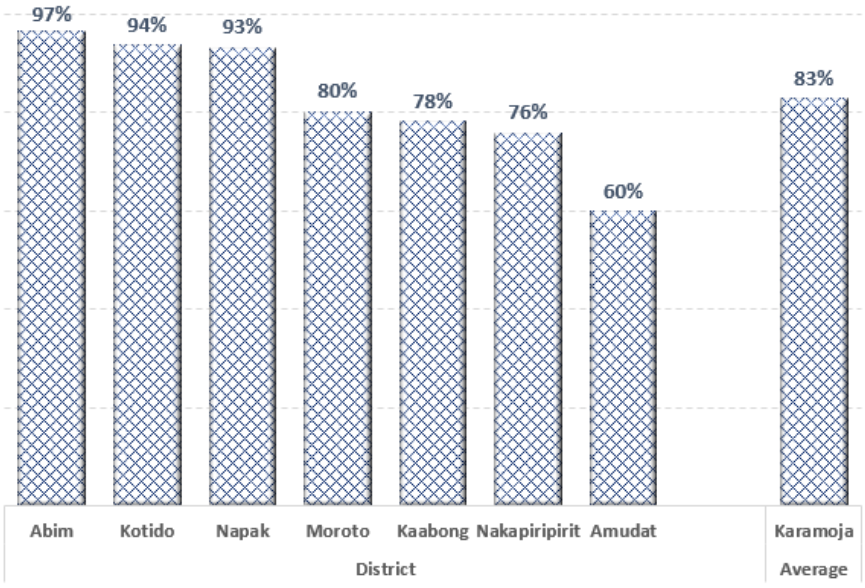


Figure 9-10: Percentage of children who slept under mosquito nets

9.6 Water and Sanitation

9.6.1 Water sources

While use of water from safe water sources is prevalent across the region, with 81% reporting use of water from boreholes, some 11% percent of households were using surface water (river, dam, run off). As shown in **Table 9-4**, the highest percentage of households reporting use of surface water was in Amudat (30%), Kaabong (22%), and Nakapiripirit (11%).

Table 9-4: Main water sources for households

		Borehole	Surface water *(river, dam, run off)*	Piped water through a tap	Open well/spring	Protected well/spring
District	Amudat	66%	30%	1%	2%	1%
	Kaabong	69%	22%	8%	1%	1%
	Nakapiripirit	73%	11%	10%	5%	-
	Napak	86%	7%	-	6%	2%
	Moroto	89%	6%	-	4%	1%
	Kotido	88%	3%	7%	-	2%
	Abim	92%	-	4%	3%	1%
Average	Karamoja	**81%**	**11%**	**4%**	**3%**	**1%**
Gender	Female Headed HHs	**82%**	**10%**	**4%**	**3%**	**1%**
EVH	With card	**82%**	**9%**	**5%**	**3%**	**1%**

Findings also showed that majority of households do not treat their water before use (95%), highest in Kotido and lowest in Abim (88%). In the three districts where use of surface water is prevalent (Kaabong, Nakapiripirit and Amudat), a high percentage of households do not treat their water, at 88%, 97%, and 96% respectively. Among the few households that treat their water (5%), the most common method is by boiling (80%), while 20% do so by chlorination. The chlorination method was most common in Napak (74%) and Abim (32%), while boiling was the only method in Moroto and Nakapiripirit (100%).

Moreover, the quantity of water used per person per day is well below the recommended SPHERE standard of 15 litres per person per day (**Figure 9-11**. The per capita water usage was found to be 11 litres pppd, highest in Abim (15 litres pppd) and lowest in Amudat (8 litres pppd).

This has direct implications on the ability to maintain adequate personal hygiene which is in itself essential for good nutrition.

These findings suggest poor quality of drinking water for these households that could potentially lead to poor health and nutrition outcomes. Urgent WASH interventions are required for households in these districts to enable access to safe drinking water.

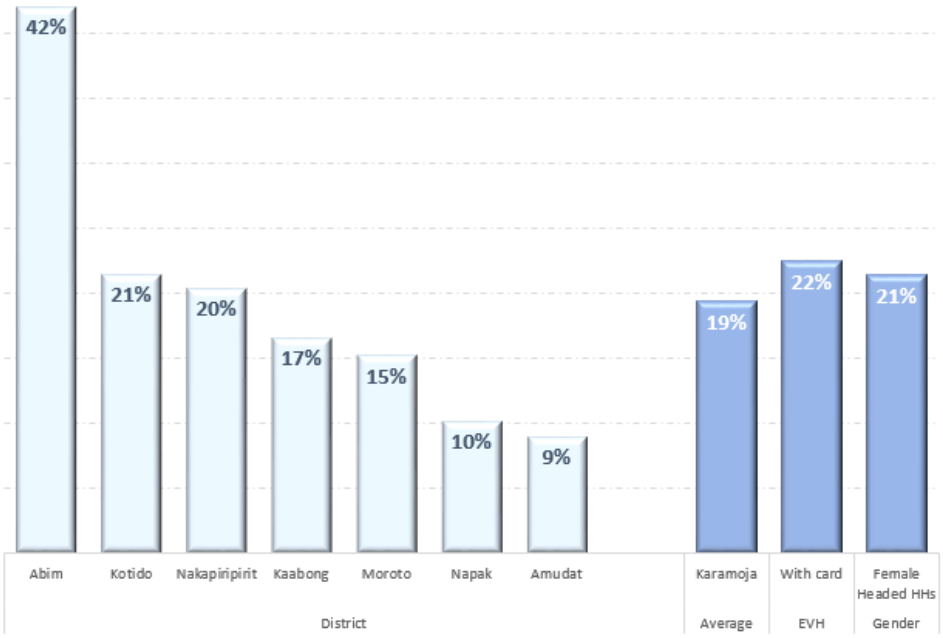


Figure 9-11: Percentage of households meeting the recommended 15 litres per person per day

9.6.2 Latrine coverage

Open defecation remains a threat to household health with nearly two-thirds (66%) of households reporting it as the main method of fecal disposal (**Table 9-5**). This proportion is particularly high in Amudat (92%), Kotido (89%) and Napak (80%), but is to a less extent in Abim (20%).

This issue needs to be treated with urgency as it could potentially lead to fatal disease outbreaks, especially given that a significant number of households use surface water and the majority do not treat drinking water.

Table 9-5: Open defecation in Karamoja

Open defecation rate		
District	Amudat	92%
	Kotido	89%
	Napak	80%
	Moroto	77%
	Nakapiripirit	56%
	Kaabong	49%
	Abim	20%
Average	**Karamoja**	**66%**
Gender	**Female**	**68%**
EVH	**With card**	**65%**

10 FACTORS ASSOCIATED WITH FOOD SECURITY & NUTRITION

Gender of the household head

- There was no significant difference in child nutrition indicators between male and female headed households (**Figure 10-1**). This is in line with findings that over all food security outcomes were marginally different between male and female headed households. This might be a result of continued targeting of female headed households by development interventions that has enabled them achieve similar food security outcomes despite the fact that female headed households were found to have reduced food access.

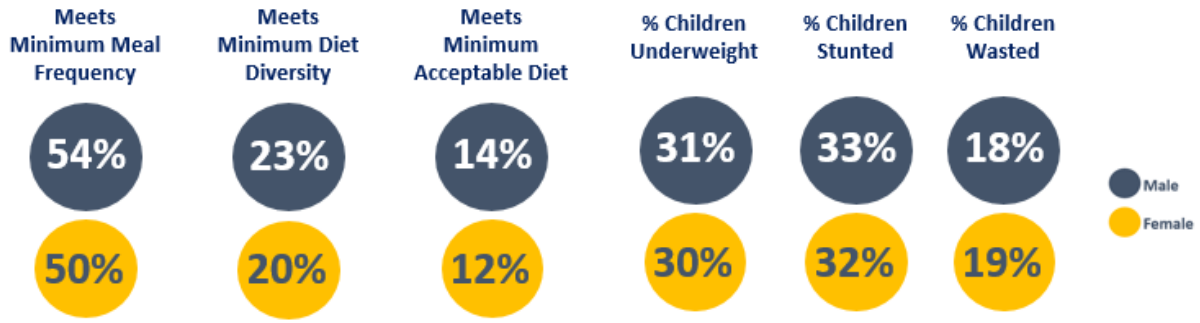


Figure 10-1: Child feeding practices and nutrition status by gender of household head

Education level of household head

- Analysis showed that the higher the level of education, the more likely it was for households to be food secure (**Figure 10-2**). Also, the higher the level of education of the household head, the higher the likelihood that children meet minimum meal frequency, minimum diet diversity, and minimum acceptable diet.
- Analysis also showed that the higher the level of education of the household head, the less likely for children to be stunted. This is also the case for underweight and wasting, but only up to secondary level.
- Findings further underline the importance of interventions to encourage school enrollment and retention among children.

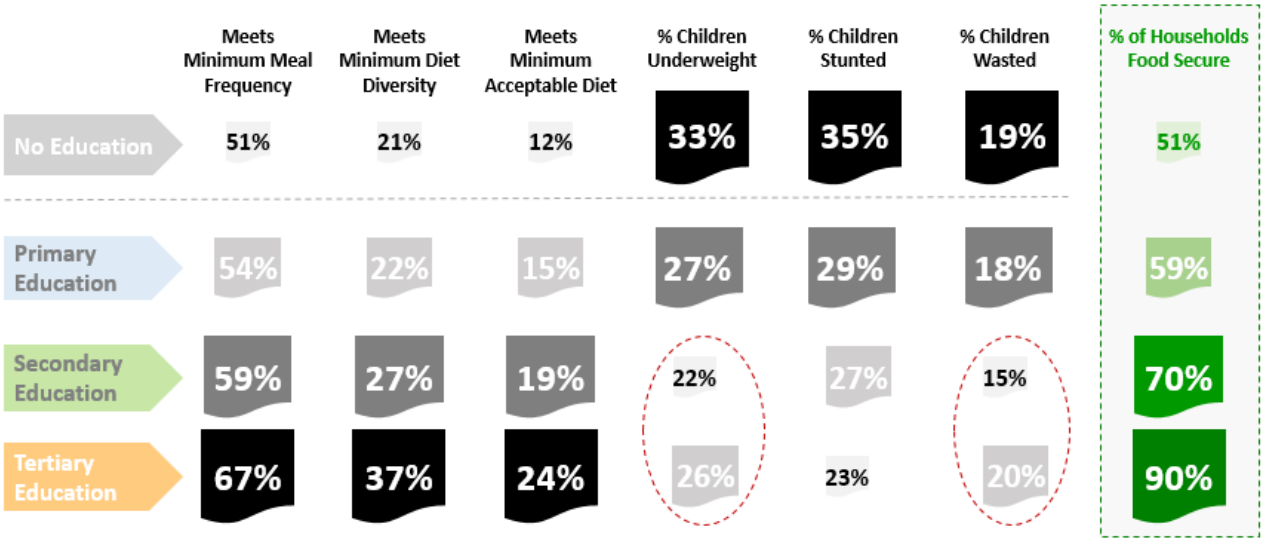


Figure 10-2: Influence of household head education on Food security and Nutrition outcomes

Physical status of the household head

- Analysis showed that among households with disabled and chronically ill household heads, 56% and 64% were food insecure, compared to households with able bodied household heads where 44% were food insecure.
- Children in homes headed by disabled or chronically ill men and women are more likely to be underweight or stunted; 41% of children homes where the head was disabled were underweight compared to 37% for the chronically ill household heads and 30% for the able bodied household heads. Similarly, 41%, 37% and 32% of children in households where the head was disabled, chronically ill or abled bodied, respectively, were stunted.
- Continued assistance is therefore required for households headed by disabled or chronically ill members in order to assure their food & nutrition security

Livestock ownership

- An inverse relationship was found between livestock ownership and the prevalence of food insecurity; the higher the level of livestock ownership (TLU), the lower the prevalence of food insecurity (**Figure 10-3**).
- Similarly, ownership of livestock seems to have a positive impact on children's diets; the higher the level of livestock ownership, the higher the likelihood that children will have higher meal frequencies, higher diet diversity, and meet the minimum acceptable diet. This is however less true at the highest level of livestock holding probably because households that own more livestock (> 5 TLU) are more commercially oriented which negatively affects intra-household consumption.
- Findings also showed no significant correlation between anthropometric indicators (weight-for-age, weight-for-height & height-for-age) and livestock ownership.
- Findings are indicative of the relevance of re-stocking programmes to improving household food security

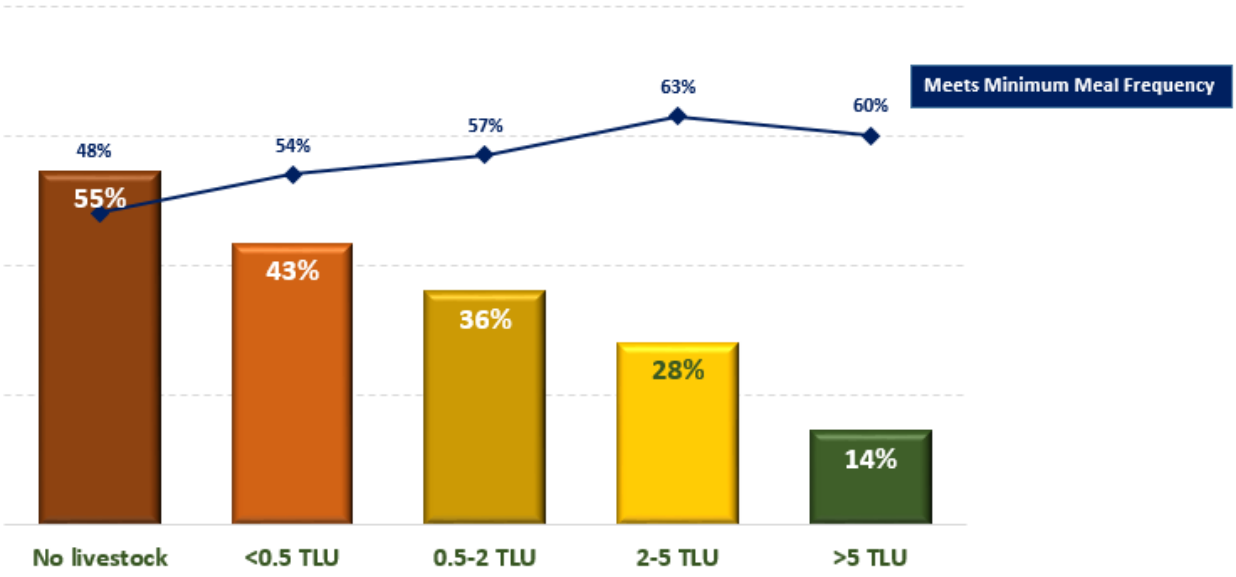


Figure 10-3: Relationship between prevalence of food insecurity, child feeding, and level of livestock ownership

Access to land

- There was a slight difference in the prevalence of food insecurity among households with access to land (44%) and those without access to agricultural land (49%). This is probably because, not being an agricultural season and seed stocks having been depleted, most households are currently depending on market purchases.

Household income earners

- Expectedly, the higher the number of income earners in a household, the lower the prevalence of food insecurity; more than half (52%) of households without an income earner were categorized as food insecure, compared to 46% among households with one income earner and 39% among households with two or more income earners.
- Also, findings show that diet diversity and overall adequacy of children's diets increases with number of income earners (**Figure 10-4**).
- However, meal frequency for children reduces with the number of income earners, probably because the care givers are then engaged with the income generating activities, thus devoting less time to child feeding.
- Consequently, there was no significant correlation between stunting and underweight indicators and the number of income earners, but analysis showed that the higher the number of income earners in the household, the less likely it was for children to be wasted.

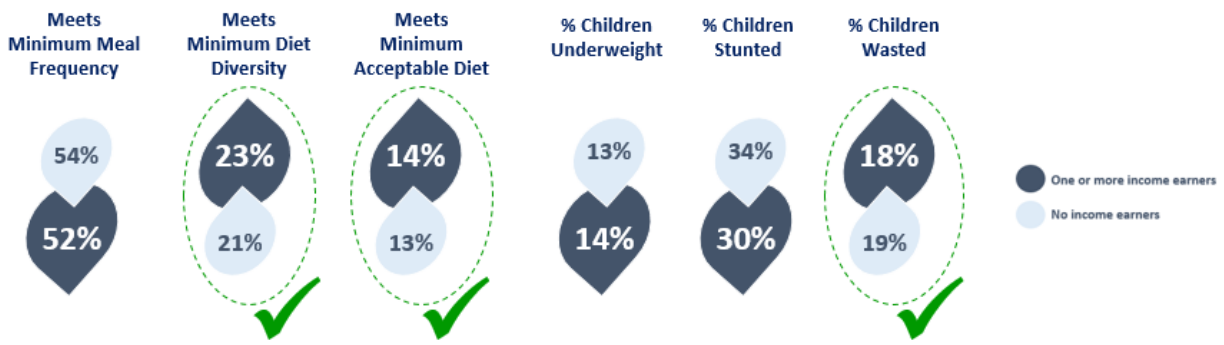


Figure 10-4: Impact of having household income earners on child feeding and nutrition status

Debt

- Prevalence of food insecurity was slightly higher among households without debt (47%) than among households with debt. This is probably because majority of households borrowed to buy food, thus temporarily improving their food consumption compared to households without debt and probably without the means to improve their access to food.

Overall food security status

- Majority of households categorized as food insecure had low diet diversity (71%), while 31% had medium diet diversity and only 13% had high diet diversity (**Figure 10-5**). Moreover, severely food insecure households had either low diet diversity (16%) or medium diet diversity (3%).

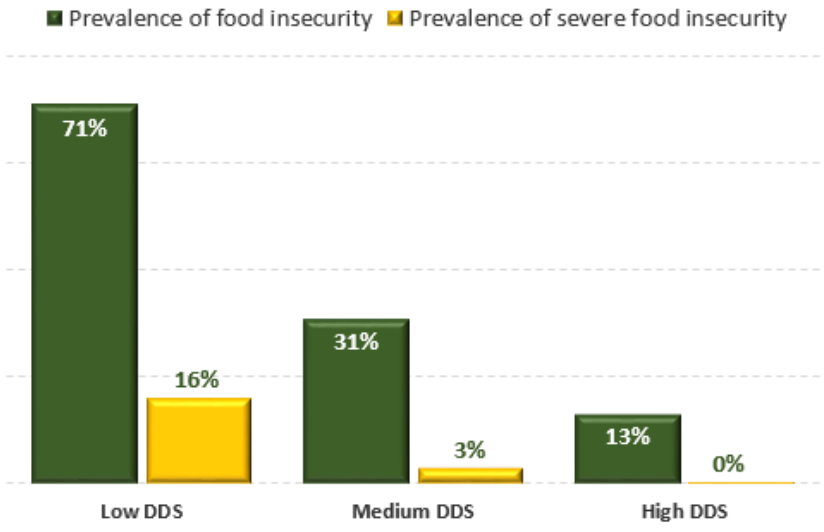


Figure 10-5: Prevalence of food insecurity and diet diversity in households

- The higher the degree of food insecurity among households, the higher the degree of food consumption coping by households (**Table 10-1**).

Table 10-1: Food consumption coping by food security class

Food Security classification	Reduced Coping Stragey Index
Food Secure	10
Marginally Food Secure	15
Karamoja average	16
Moderately Food Insecure	17
Severely Food Insecure	22

- Not surprisingly, among households that were severely food insecure, all spent more than half of their expenditures on food. In fact, up to 76% of them spent more than three-quarters of their expenditure on food. Moderately food insecure households had dissimilar patterns, with 42% spending less than half of total expenditure on food, while 32% spent more than three-quarters of total expenditure on food.
- Up to 94% of severely food insecure households had used emergency coping strategies while negligible percentages used stress coping (4%) and crisis coping (2%) strategies. The trend was however different among the moderately food insecure households among which 30% did not adopt any of the enumerated livelihood coping strategies and nearly half (48%) used emergency coping strategies.
- The higher the degree of food insecurity in a household, the less likely it is for children therein to have meals at the recommended frequency or to meet minimum diet diversity requirements (**Figure 10-6**). Similarly, non-breastfed children in food insecure households are less likely to consume at least two milk feeds in a day. Consequently, findings show strong correlation between overall food security status and child feeding indicators.
- Expectedly, anthropometric indicators were found to worsen with worsening food insecurity situation at household level; children in households classified as food insecure were more likely to be underweight, stunted, or wasted

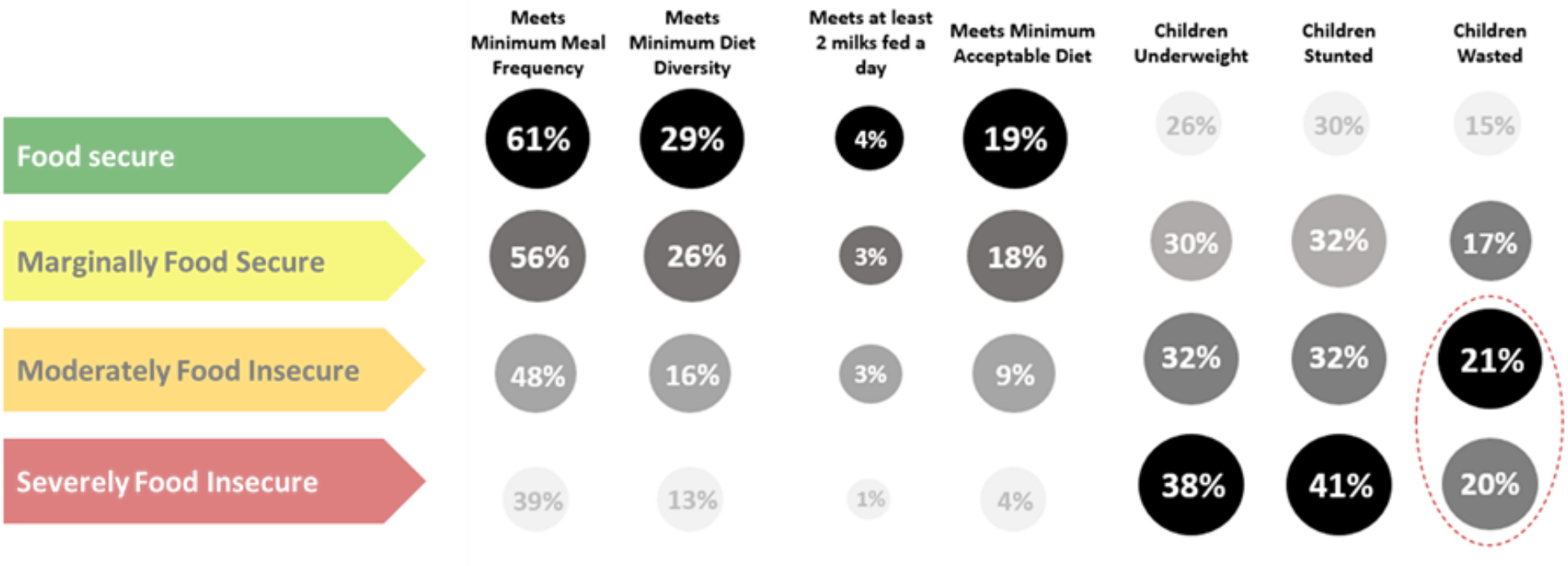


Figure 10-6: Child nutrition indicators vs. overall household food security status

11 SUMMARY OF KEY FINDINGS FOR EVHs

Overall findings show that EVHs were worse off on food security indicators compared to their non EVH counterparts (**Table 11-1**). Their situation is further compounded by the finding that nearly half (45%) were either disabled or chronically ill compared to 7% among non EVHs.

Table 11-1: Comparison between EVHs and Non-EVHs

Domain	Indicator	EVH (With card)	Non EVH
Household characteristics	Female Headed Households	67%	40%
	Disabled or chronically ill	45%	7%
	Never attended school	81%	70%
	At least one boy irregularly attending school	19%	18%
	At least one girl irregularly attending school	20%	17%
Availability	Own livestock	36%	45%
	Have access to land	79%	87%
	Average land size	2.49	2.39
	Have food stocks	28%	34%
	Stock duration (weeks)	3	5
Access	Have debt	27%	36%
	Amount of current debt (UgX)	169,700	91,800
	Borrowed to buy food	55%	51%
	Have atleast one earner	63%	72%
	FES > 65%	41%	33%
Utilization	Use surface water	9%	11%
	Open defecation	65%	66%
	Use at least 15 ltrs pppd	22%	19%
	Acceptable FCS	41%	51%
	Low DDS	45%	40%
Stability	RCSI	16.6	15.5
	Consumed alcohol due to lack of food	31%	25%
	Households not adopting livelihood coping	31%	32%
Overall food security classification	Food Secure	7%	15%
	Marginally Food Secure	36%	41%
	Moderately Food Insecure	44%	36%
	Severely Food Insecure	13%	7%

Food availability is relatively lower among EVH households, which suggests strain on the households. Further, ability to produce food is lower given the lower access to land and often reduced physical ability of the household heads.

Food access among EVH households is limited compared to non-EVH counterparts. Moreover, while a small percentage of EVH households borrow money, the average amounts of money borrowed were significantly higher, and more than half borrowed to buy food. This implies some households may get trapped in debt that further compounds poverty.

Food consumption and diet diversity are considerably lower among EVHs. However, EVHs were found to have better access to safe water and use more water per capita, a strength that could help in the improvement of the nutrition status of household members.

Short term coping among households was higher among EVHs with higher food consumption coping strategy index. This adds to the high level of debt and suggests increasing vulnerability to food insecurity.

Overall, majority (57%) of EVH households were found to be food insecure, with 13% severely food insecure, compared to non EVHs where 43% were food insecure. Continued assistance to EVH households will be necessary to support the attainment and maintenance of optimal food security outcomes.

12 TRENDS ANALYSIS

Overall trends analysis shows that households in the region have been unable to significantly improve their food security situation over the past 5 years with evidently low resilience to recurrent shocks such as during the lean seasons. Consequently, child nutrition status has deteriorated every lean season since 2012.

12.1 Trends in Food Availability

12.1.1 Livestock ownership (2012 – 2015)

According to findings from assessments conducted since 2012, the percentage of households that own no livestock has generally declined, from 72% in 2012 to 55% in 2015. Given the positive relationship between household livestock ownership and food security outcomes, this might be a good precursor to improved food security. However, the percentage of households without livestock has remained near 60%, showing a not so great improvement since 2012, and hinting on the low impact the increase in livestock ownership is likely to have on the overall Karamoja Food Security and Nutrition situation.

While the percentage of households that own livestock has generally increased, from 28% in 2012 to 45% in 2015, levels of livestock holding remain low among most households (< 0.5 TLU[19])

Amudat district, with the highest livestock holding at household level has experienced a decline in stock levels since 2013 as households reportedly sell more livestock than usual during stress.

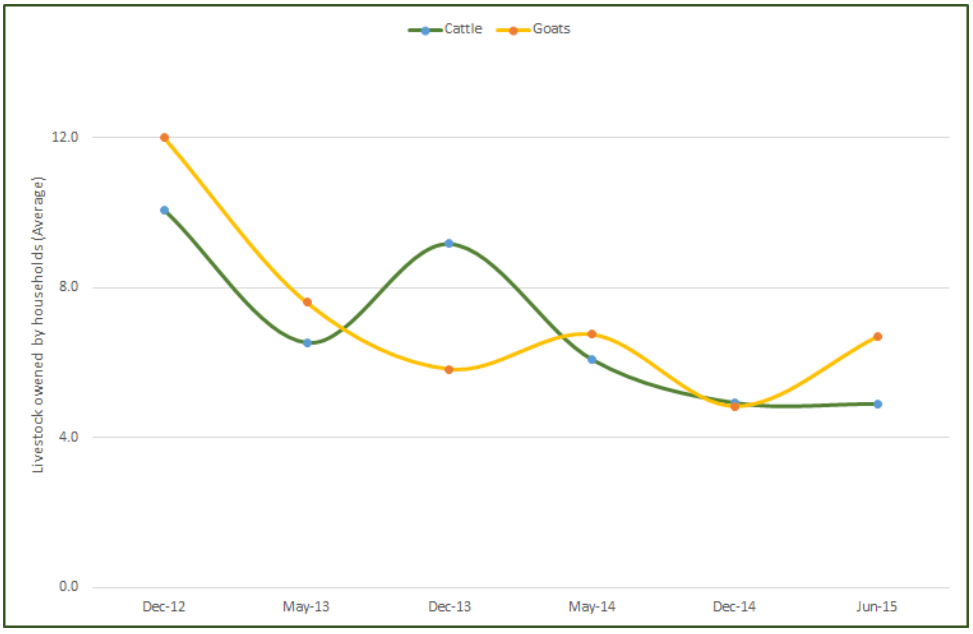


Figure 12-1: Cattle and goat ownership in Amudat district

[19] The TLU is a weighted sum of different livestock (cattle, sheep, goats, poultry etc.) available in a household. 1 TLU is equivalent to a household owning a cow or 10 sheep/goats/pigs.

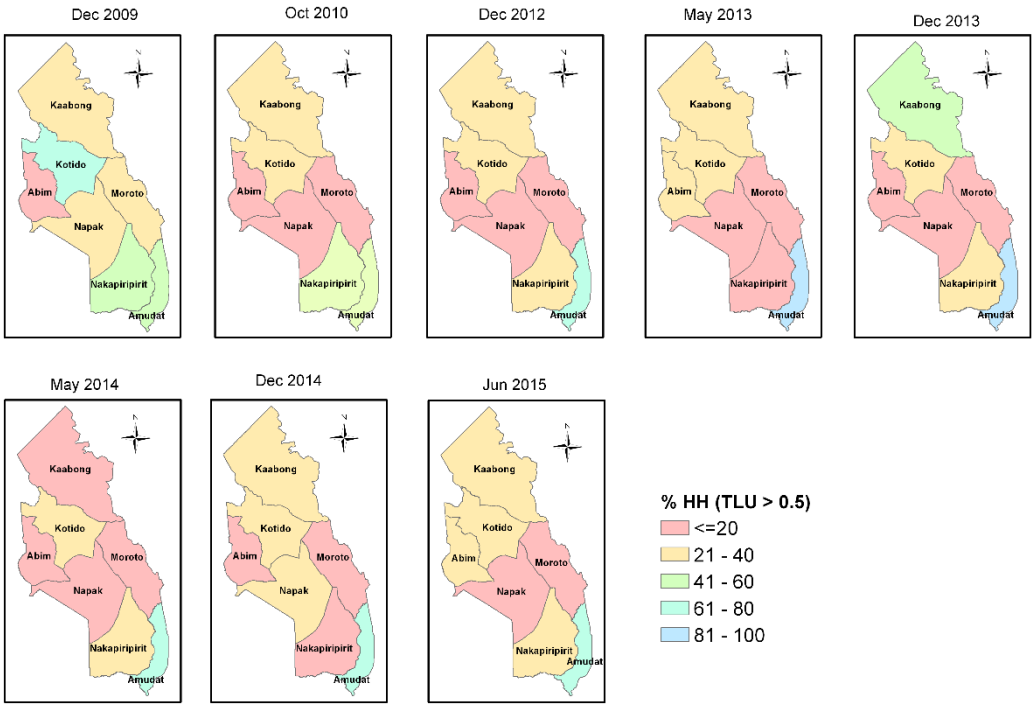


Figure 12-2: Livestock (TLU > 0.5) Trends 2009-2015

12.2 Trends in Food Access

12.2.1 Debt prevalence (2014 – 2015)

Over a period of one year (since June 2014), the prevalence of debt across Karamoja has reduced significantly across districts from 49% to the current 35%. The most drastic reduction was in Moroto from 73% to 41%. The trend was the same in all districts except Nakapiripirit where prevalence of debt increased from 28% to 35%, suggesting increasing stress (**Figure 12-3**)

Further analysis indicates that the percentage of households borrowing primarily to buy food has also reduced from 68% to 51%, with a similar trend across districts except in Kotido where a higher percentage borrowed to buy food (**Figure 12-4**).

It remains clear however that except in Amudat and Abim, more than half of households that borrow do so to buy food.

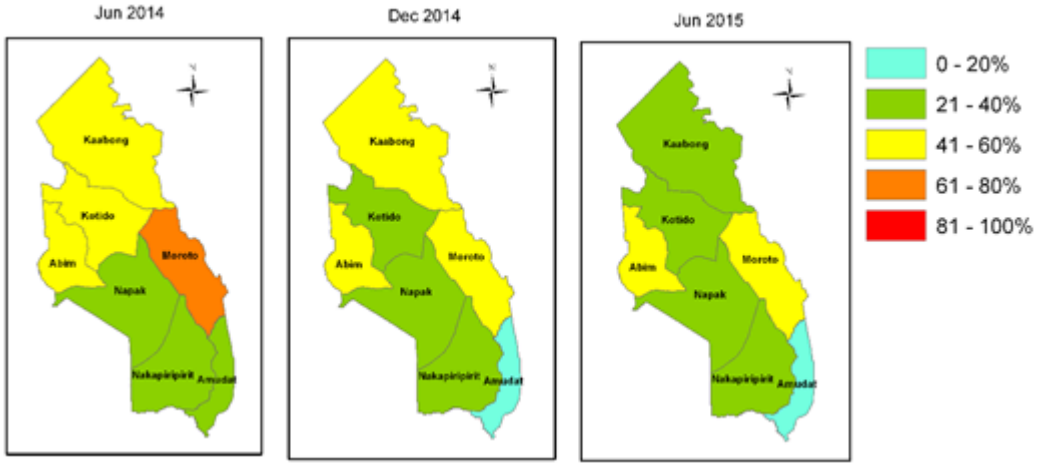


Figure 12-3: Households with debt 2014-2015

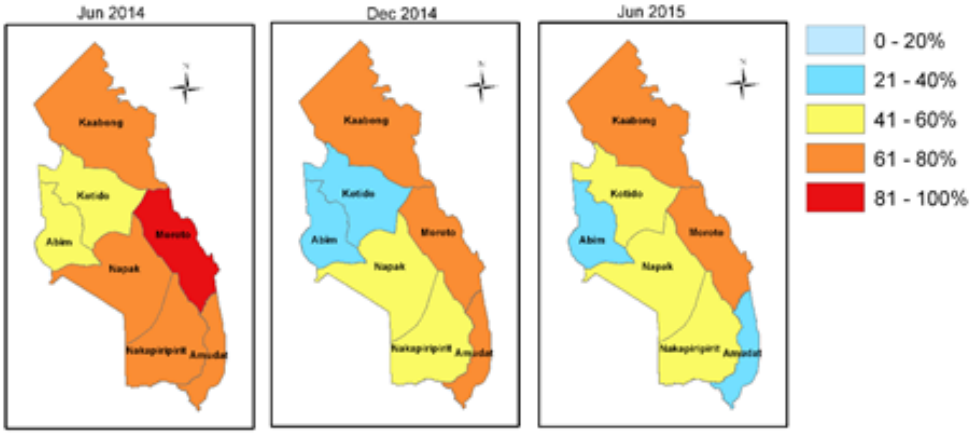


Figure 12-4: Proportion of Debt Spent on Food 2014-2015

12.2.1 Staple Food Prices (2009-2015))

Staple food prices are expectedly high due to the lean season and are generally at the same level as other lean seasons. However, beans prices increased sharply during this lean season to the highest levels over the last two years due to generally low market supply country wide. This indicates possible problems with access to protein food sources especially in non-livestock rearing communities and could see a rise in protein energy malnutrition.

Analysis also shows that **goat prices** are at the highest levels compared to the last two lean seasons. This indicates that predominantly livestock dependent communities especially in Amudat are better off with better terms of trade (i.e. can obtain comparatively more staple food items in exchange for one goat) compared to the others

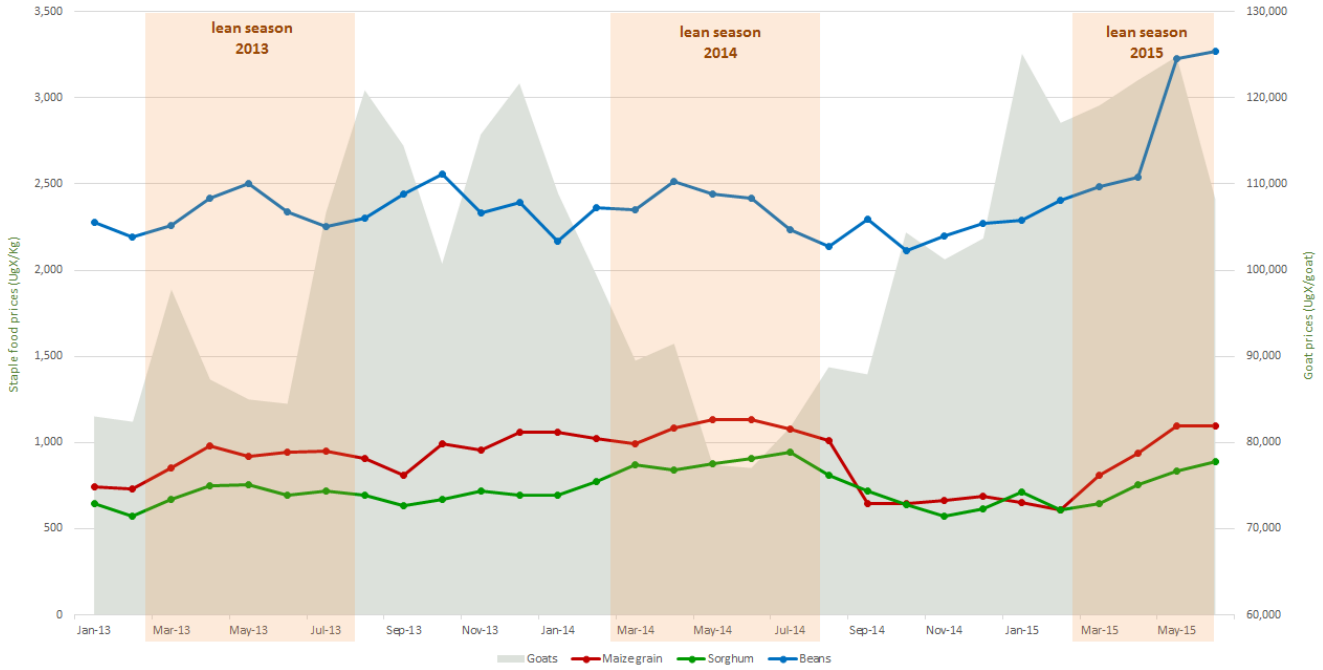


Figure 12-5: Staple food prices from 2009 to 2015: Maize, Sorghum, Beans and Goats (shadowed)

12.3 Trends in Utilization/Nutrition

12.3.1 Global Acute Malnutrition rate in Karamoja (2010 – 2015)

Malnutrition has been increasing every lean season since May 2012 and is at the highest levels recorded in the past five years. Further analysis of GAM rates over a period of 6 years (2009 – 2015) is very telling;

- Since 2009, the GAM rates have never fallen below 5% in any district in Karamoja.
- On average GAM rates across districts in June 2015 are at the highest levels than any other time since 2009.
- Moroto district has always had the highest GAM rates followed by Napak.
- Abim district has historically had the lowest prevalence of GAM in the region. However, the current prevalence of 9.1% is amongst the highest rates recorded for the district since 2009.
- Kaabong and Nakapiripirit have shown a clear and steady deterioration in GAM rates since 2012.

Figure 12-6: Prevalence of GAM during the lean and harvest seasons Karamoja (2010 – 2015)

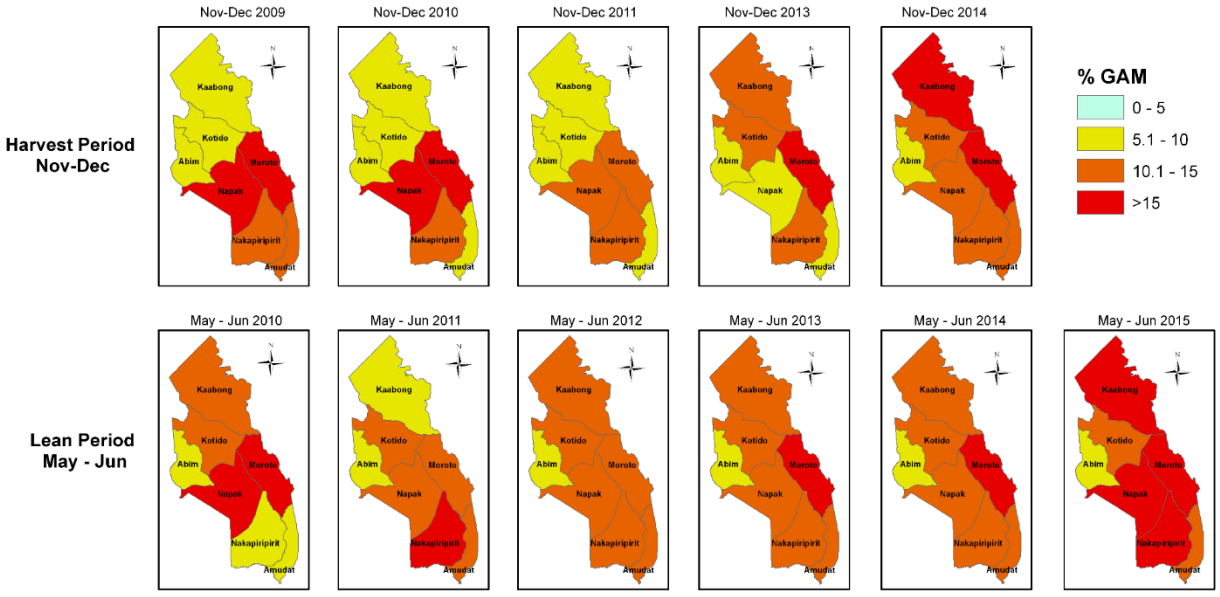


Figure 12-7: *Lean and Harvest season prevalence of GAM (2010 – 2015)*

Efforts to reduce acute malnutrition in the region need to be scaled up, with a multi-sectoral approach, to ensure causal factors for malnutrition in the region are simultaneously addressed for better results.

12.3.2 Chronic Malnutrition and Stunting

Overall for Karamoja, Stunting levels have remained at serious levels (30-40%) since 2011, also reflected in the current status at district level. The highest levels have consistently been observed in Moroto and the lowest in Amudat districts over the past 6 years.

Long term, multi-sectoral initiatives are necessary to address the levels of malnutrition and improve future productivity of the population.

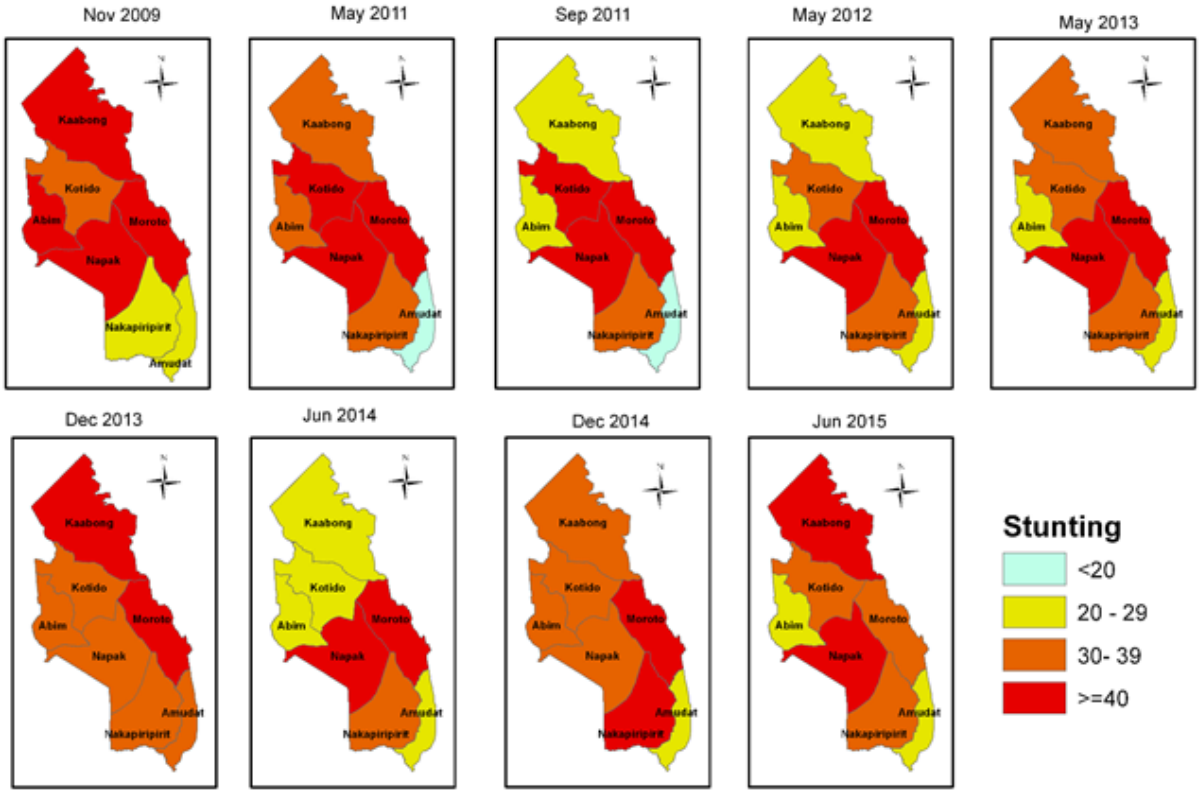


Figure 12-8: Chronic Malnutrition and Stunting (2010 – 2015)

12.3.3 Admissions to the supplementary Feeding Programme (2010 – 2015)

Consistent with the GAM trends, data shows that the number of admissions to supplementary feeding centres has generally increased since 2010 with notable peaks in the lean seasons. The increases in admission correspond to observed increases in the number of children found with acute malnutrition (**Figure 12-4**). The observed fluctuation is due to the responsiveness of children to food shortages that could see the number of those diagnosed with GAM increase greatly over short periods of time.

It also noted that the cure rate for children admitted with moderate acute malnutrition has been above the target level of 75% since 2010. This is illustrative of the importance of supplementary feeding programmes to short term containment of GAM rates in the region. Expansion of these particularly during the lean seasons is recommended as more sustainable solutions are introduced and/or implemented to scale.

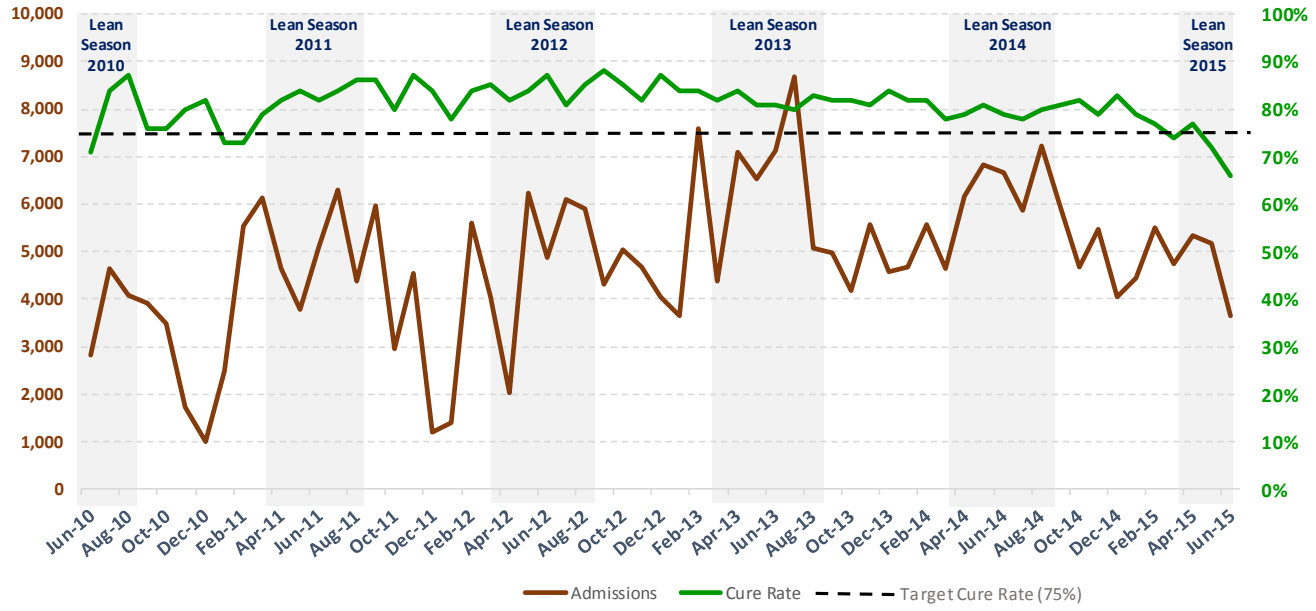


Figure 12-9: Monthly admissions to the Supplementary Feeding Programme (WFP, ProMIS)

12.3.4 Food Consumption (2012 – 2015)

Findings show that the proportion of households having poor FCS has increased since 2012 and that the proportion of households with borderline FCS in the lean seasons has remained the same since May 2013 (**Figure 12-10**). This suggests that a more or less similar percentage of households moves from Acceptable and Borderline FCS status to poor FCS during the lean season.

- Only in one district, Amudat, has the percentage of food insecure households fallen below 20% since 2010. Indeed, since 2010, Amudat has shown a clear and steady improvement in food security with better household dietary diversity. This is mainly due to greater access to animal proteins and animal products owing to high livestock ownership.

- In the past 3 years, since 2013, Moroto and Napak depict gradually worsening food security levels. This is related to the poor nutrition levels reported for the same period.

- The percentage of food secure and food insecure households tends to differ significantly between seasons, depending on household income levels, food stocks and food prices. This is particularly the case in Kaabong, Abim and Nakapiririt districts.

- The constant fluctuation in household food security levels underlines the fact that households are unable to significantly improve their food security situation over time. Rather many households see short term gains following which there is a deterioration as food stocks and incomes dwindle.

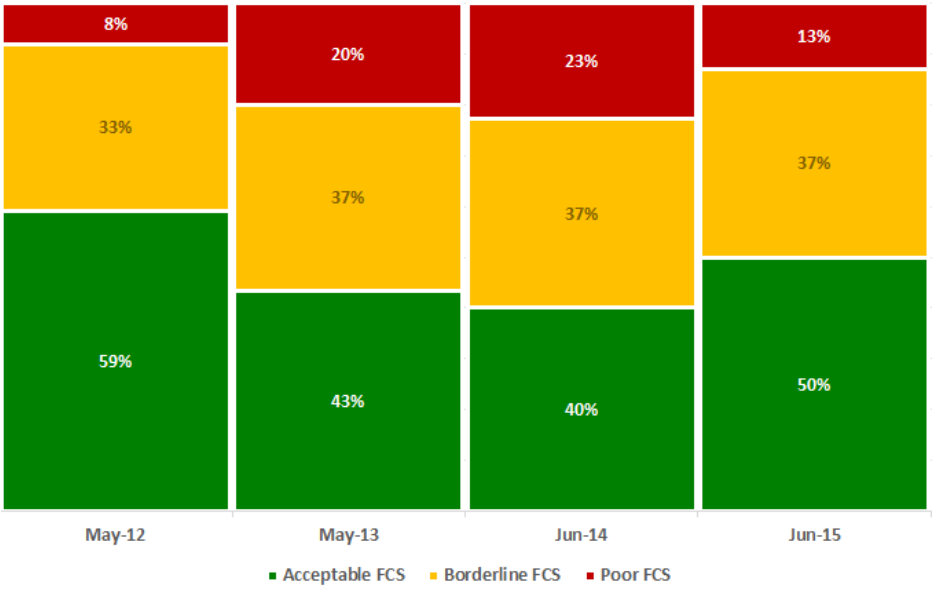


Figure 12-10: Classification of households according to lean season Food Consumption (2012-2015)

Findings further illustrate the necessity for a multi-sectoral approach to nutrition and food security interventions

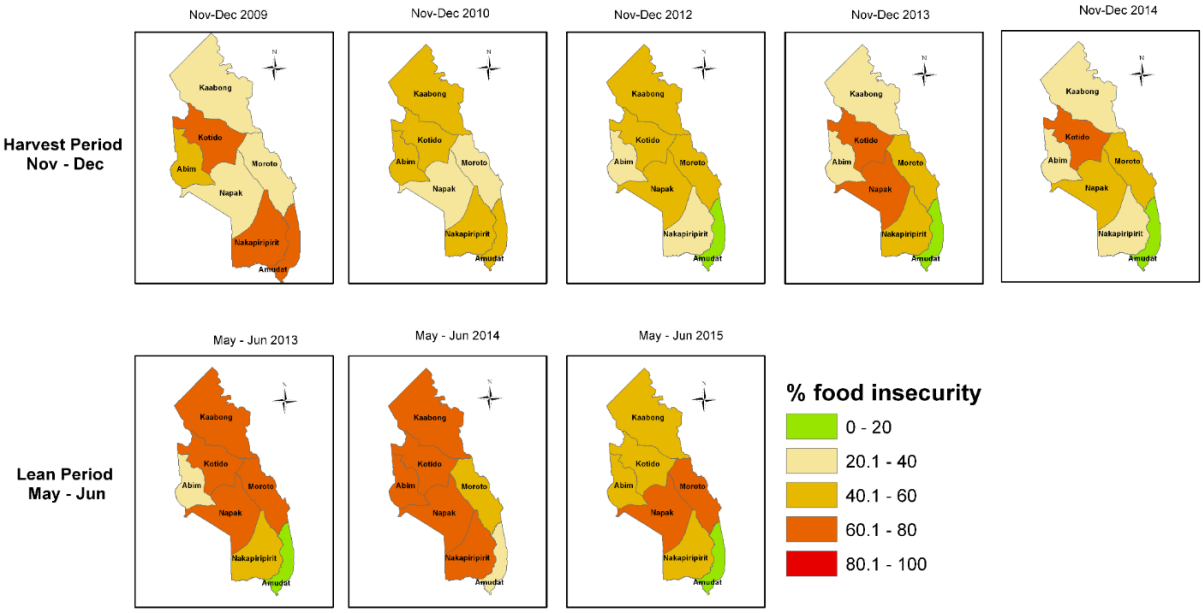


Figure 12-11: Karamoja Region. Trends in Food Security from 2010 to 2015

12.3.5 Diet Diversity (2009-2015)

The Household Dietary Diversity Score is defined as the number of unique foods consumed (i.e. of different food groups) by household members over a given period (typically 7 days) and has been validated as a useful approach for measuring household food access. Households typically depend on own production during the harvest seasons (Nov/Dec) but due to perpetually poor harvests over the years, and low diversity of production at household level, the household dietary diversity is noted as poor in

these periods. Food assistance interventions during the lean seasons have helped to improve dietary diversity in the lean season to levels higher than those in the harvest season.

There's need for initiatives promoting agricultural production to emphasize the importance of on-farm diversity to as this is related to dietary diversity.

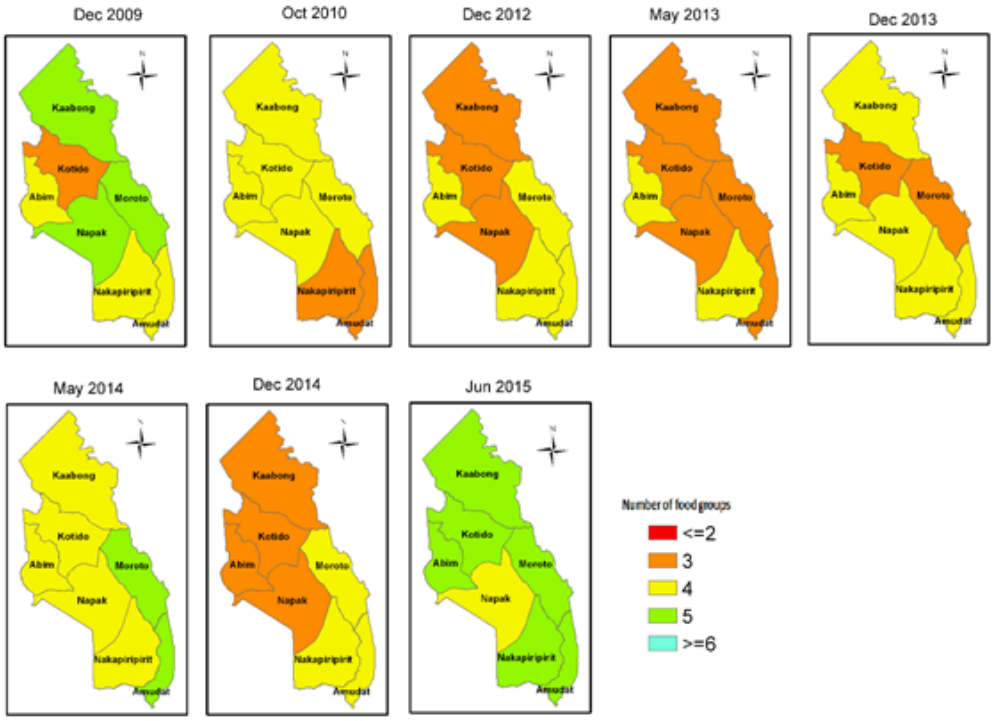


Figure 12-12: Diet Diversity in Karamoja from 2009 to 2015.

12.4 Trends in stability of food security

12.4.1 Food consumption coping (2013 – 2015)

The level of food consumption coping strategy index for Karamoja is currently at 15.7, near the all-time high of 16.2 reached in May 2013 (**Figure 12-13**). Expectedly, the index is always higher during the lean season. This further confirms that households have increased difficulty in acquiring food. It further illustrates reduced availability of, and access to food in the region.

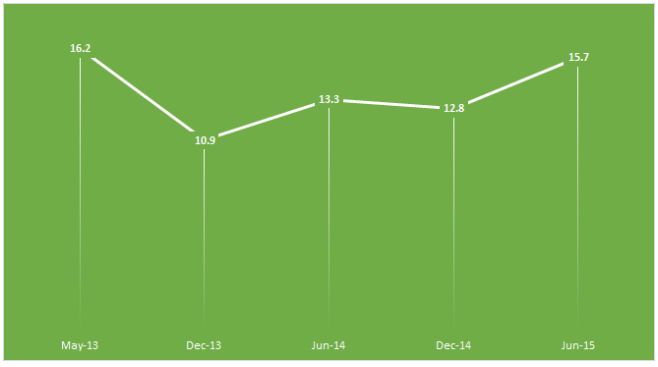


Figure 12-13: Food Consumption Coping Strategy Index (2013 – 2015)

13 RECOMENDATIONS

13.1 Kaabong

Key figures
42% Food Insecure
16% GAM *(3rd highest)*
35% Underweight *(2nd highest)*
40% Stunting *(2nd highest)*
84% part of at least one development programme

Key factors limiting food security and nutrition in the district are:

i) **Inadequate food access**: A significant percentage of households borrowing to buy food amidst increasing food prices. This increase in food prices is itself attributed to declining food stocks at household level. Thus incomes earned by household bread winners seem insufficient to cover household food needs.

ii) **Poor utilization:** Poor infant feeding practices coupled with poor sanitation (poor access to safe water and the practice of open defecation) contribute to poor nutrition outcomes in the district.

Recommendations

i) WFP Pilot Post-Harvest storage related interventions in Karenga, Lobalangit, and Kamion sub-counties.

ii) WFP expand or implement Food for Work and/or Food for Assets interventions in Kaabong East, Kaabong West, and Lodiko sub-counties.

iii) Scale up WASH projects in the district to ensure adequate safe water coverage for all households and to improve availability and use of pit latrines for fecal disposal.

13.2 Kotido

Key figures
53% Food Insecure *(2nd highest)*
13% GAM
23% Underweight
31% Stunting

The key driving factors for food security and malnutrition in the district are:

i) **Low food availability:** Majority of households report depleted food stocks. There is equally limited availability at district level as reports indicate scarcity of maize in the month of May[20]. Consequently, households are finding difficulty in sourcing adequate quantity of food as well as ensuring adequate dietary diversity.

ii) **Inadequate food access:** Some sections of the Kotido population are greatly limited by reduced economic access to food with 32% having food expenditure share >75%; and with the majority of those that borrow money doing so to buy food.

[20] See WFP Uganda monthly market monitor (May Issue)

Recommendations

i) Introduce post-harvest management and storage handling programmes that WFP has piloted in other parts of the country.
ii) Targeted WFP Food for Work and Food for assets programmes are recommended for those households lacking the ability to practice agriculture; approximately 18 % of households in Kotido lack access to agricultural land.

13.3 Moroto

Key figures

62% Food Insecure *(highest)*

18% GAM (highest)

31% Underweight

32% Stunting

The high prevalence of food and nutrition insecurity in Moroto is due to a combination of factors;

i) **Limited availability** of food with low production at household level and limited ability to store the little that is produced.
ii) **Low economic access** to food with the majority of households having no income earner. Some households have resorted to borrowing mainly to buy food for consumption.
iii) **Poor infant and young child feeding** practices with untimely initiation of breast feeding and poor diets for children.
iv) **Poor sanitation** with low safe water usage (despite availability) and high rate of open defecation.
v) **Unstable availability, access and utilization conditions** of above factors with exhaustion of coping strategies and/or adoption of hazardous ones like consumption of alcohol.

Recommendations

A multi-sectoral food security/nutrition strategy and/or implementation plan is urgently required in order to synergistically address the key drivers of food insecurity in this district.

i) Interventions related to income generation or livelihood must necessarily begin in Moroto; in particular the sub counties of Tapac and Nadunget.
ii) WFP expand or implement Food for Work and/or Food for Assets programmes across this district to improve access to food.
iii) Introduce post-harvest management and storage handling programmes that WFP has piloted in other parts of the country.
iv) Mass screening of all children under 5 years is recommended to identify those with SAM/MAM.
v) Nutrition education on IYCF practices and sensitization campaigns on personal hygiene are recommended.

13.4 Abim

Key figures
44% Food Insecure
9% GAM *(lowest)*
13% Underweight *(lowest)*
23% Stunting *(lowest)*

The overall food security situation in Abim is relatively favourable but there remain some gaps that are contributing to food insecurity in the district:

i) **Inadequate utilization**, with Poor IYCF practices. Exclusive breast feeding is low and the childrens diets are inadequate with low percentage meeting minimum acceptable diet.

ii) There are **gaps in food consumption** at household level, with sub optimal diversity of diets.

iii) Seemingly **high level of morbidity** (sickness was most common shock faced by households) by household members further exacerbates the likelihood of poor nutrition outcomes.

Recommendations

i) Intensify nutrition education campaigns in the district with the view to encourage diet diversity and promote appropriate infant and young child feeding practices.

ii) Review regular disease surveillance reports and implement preventive measures to curb the most common diseases for both adults and children.

13.5 Amudat

Key figures
26% Food Insecure *(lowest)*
10% GAM *(2nd lowest)*
22% Underweight *(2nd lowest)*
23% Stunting *(2nd lowest)*

While this district depicts markedly lower food insecurity and malnutrition levels, child nutrition and sanitation are a cause for concern. The main drivers of food insecurity are;

i) **Inadequate utilization**, with Poor IYCF practices. Exclusive breast feeding is low and the children's diets are inadequate with low percentage meeting minimum acceptable diet.

ii) **Poor water, sanitation and health conditions**, with very low latrine usage and high use of surface water sources. Moreover, this water is not treated before its use.

Recommendations

i) UNICEF and WFP intensify nutrition education campaigns in the district with the view to encourage diet diversity and promote appropriate infant and young child feeding practices.

ii) Introduce and/or scale up WASH interventions that should necessarily be accompanied by awareness raising campaigns on personal hygiene.

13.6 Napak

Key figures
48% Food Insecure
16% GAM *(2nd highest)*
39% Underweight *(highest)*
46% Stunting *(highest)*
19% disabled household heads

While Food availability has decreased in the district as a result of the lean season, the key drivers of food insecurity in the district are;

i) **Inadequate access to food,** with majority of households spending the greater part of their expenditures (>65%) on food and many report borrowing money in order to buy food.

ii) **Poor diets** household level with 62% of households having either borderline or poor FCS and over half of households (56%) having low diet diversity.

iii) **Poor IYCF practices** with low percentage of children that meet minimum meal frequency, minimum diet diversity and minimum acceptable diet.

iv) **Poor sanitary practices,** with 80% of households practicing open defecation and only 10% of households with members using water at recommended levels.

v) The **high prevalence of disabled household heads** (vis-à-vis Karamoja average of 8%), especially in Matany and Lokopo sub counties, is a predisposing factor for food insecurity.

Recommendations

i) Interventions related to income generation or livelihoods must after Moroto, be introduced here.
ii) WFP expand or implement Food for Work and/or Food for Assets programmes across this district.
iii) Mass screening of all children under 5 years is recommended to identify those with SAM/MAM.
iv) Unicef and WFP to explore the possibility of blanket supplementary feeding; particularly in Lotome and Lokopo sub-counties.
v) Intensify nutrition education campaigns in the district with the view to encourage diet diversity and promote appropriate infant and young child feeding practices.
vi) Introduce and/or scale up WASH interventions that should necessarily be accompanied by awareness raising campaigns on personal hygiene.

13.7 Nakapiripirit

Key figures
39% Food Insecure
15% GAM
25% Underweight
30% Stunting

Unlike other districts, food insecurity in Nakapiripirit is not generalized. The drivers of food insecurity are applicable to pockets of the population and include:

i) **Inadequate access to food**, with some 31% of the population having FES > 75% (i.e. spend more than 75% of total household expenditure on food) and 35% of the households in debt with majority (56%) doing so to buy food amidst the rising food prices.

ii) **Poor IYCF practices** with 44% of children not meeting minimum meal frequency. Only 36% of children had minimum diet diversity and 22% met minimum acceptable diet.
iii) **Poor WASH situation** with pockets of the population using surface water, more than half (56%) practicing open defecation, and above average prevalence of diarrhea (15%) among children.

Recommendations

i) Targeted interventions that introduce or scale up income generating activities and/or use of food for assets interventions are recommended, particularly in Lolachat, Lorengedwat and Kakomongole sub-counties.
ii) Intensify nutrition education campaigns in the district with the view to encourage diet diversity and promote appropriate infant and young child feeding practices.
iii) Introduce and/or scale up WASH interventions that should necessarily be accompanied by awareness raising campaigns on personal hygiene.

14 ANNEX

14.1 Annex 1: Explaining the Food Security index

A food security index was calculated, at household level, as an average of the scores obtained from the Food Consumption, Food Expenditure, and livelihood coping indicators. Each household was then assigned to a Food Security Index group viz. Food Secure, Marginally Food Secure, Moderately Food Insecure, and Severely Food Insecure.

The food security index is based on an algorithm which combines, at the household level, the results for each of the reported food security indicators (Food Consumption Score, Food Expenditure Share, and Livelihood Coping Strategies).

14.1.1 Converting food security indicators into a 4-point scale

A central stage of the methodology involves converting the outcomes of each of the 3 indicators into a standard 4-point classification scale. The 4-point scale assigns a score (1-4) to each category. Once all the indicators have been converted to the 4-point scale, the **overall food security classification** for a household can be calculated as below and as shown in **Table 14-1**:

1. The *'summary indicator of Current Status' was taken to be the equivalent of the Food Consumption Score* (i.e. the 4-point scale scores) in the **Current Status** domain (CS).
2. Calculate the *'summary indicator of Coping Capacity*' by averaging the household's scores (i.e. the 4-point scale scores) for the Food Expenditure Share and the Livelihood Coping Strategy Index in the **Coping Capacity** domain (CC).
3. Average these results together: (CS+CC)/2.
4. Round to the nearest whole number (this will always fall between 1 and 4). This number represents the household's overall food security outcome.
5. The resulting Food Security Index is categorized as shown in **Table 14-2**.

Table 144-1: Calculation of the Food Security Index

	Current status (CS)	**Coping Capacity (CC)**				
	Household Food consumption group*	Food Expenditure Share category**	Livelihood Coping Strategy Categories ***	Formula	**Final Food security outcome for household**	**Overall food security classification**
Example indicator score	3	1	4	CS = 3 CC = (1+4)/2 = 2.5	(3+2.5)/2 = 2.75; ***Round off to 3***	Moderately Food Insecure

*Acceptable, Borderline or Poor; ** Food Secure, Marginally Food Secure, Moderately Food Insecure or Severely Food Insecure; *** No coping, Stress coping, crisis coping or Emergency coping.

Table 144-2: Overall Food Security Classification categories

	Food Secure	Marginally Food Secure	Moderately Food Insecure	Severely Food Insecure
Food Security Index	Able to meet essential food and non-food needs without engaging in atypical coping strategies	Has minimally adequate food consumption without engaging in irreversible coping strategies; unable to afford some essential non-food expenditures	Has significant food consumption gaps, OR marginally able to meet minimum food needs only with irreversible coping strategies	Has extreme food consumption gaps, OR has extreme loss of livelihood assets that will lead to food consumption gaps, or worse.

14.2 Annex 2: Age and Sex distribution of sampled children

Table 144-3: Sex Ratio and Child Age distribution

		Sex ratio			Child age distribution					
		Boys	Girls	Boys:Girls	6-17 months	18-29 months	30-41 months	42-53 months	54-59 months	Total
Average	Karamoja	2479	2548	1.0	1571	1071	1372	763	250	5027
District	Kaabong	346	383	0.9	242	130	222	113	22	729
	Kotido	374	427	0.9	249	177	234	108	33	801
	Abim	360	348	1.0	211	152	170	122	53	708
	Moroto	332	369	0.9	209	135	216	101	40	701
	Napak	321	321	1.0	193	137	178	106	28	642
	Nakapiripirit	424	413	1.0	274	230	167	134	32	837
	Amudat	322	287	1.1	193	110	185	79	42	609
Predominant Livelihood zone	CSL	1170	1225	1.0	747	486	690	370	102	2395
	MSMC	152	155	1.0	104	80	75	38	10	307
	SECM	322	287	1.1	193	110	185	79	42	609
	WMCF	626	651	1.0	395	304	284	208	86	1277
	Other	82	91	0.9	48	38	54	30	3	173
	Urban	127	139	0.9	84	53	84	38	7	266

14.3 Annex 3: Plausibility checks

Abim

Standard/Reference used for z-score calculation: WHO standards 2006

Overall data quality

Criteria	Flags*	Unit	Excel.	Good	Accept	Problematic	**Score**
Flagged data	Incl	%	0-2.5	>2.5-5.0	>5.0-7.5	>7.5	
(% of out of range subjects)			0	5	10	20	**0** (1.8 %)
Overall Sex ratio	Incl	p	>0.1	>0.05	>0.001	<=0.001	
(Significant chi square)			0	2	4	10	**0** (p=0.709)
Age ratio(6-29 vs 30-59)	Incl	p	>0.1	>0.05	>0.001	<=0.001	
(Significant chi square)			0	2	4	10	**4** (p=0.004)
Dig pref score - weight	Incl	#	0-7	8-12	13-20	> 20	
			0	2	4	10	**0** (6)
Dig pref score - height	Incl	#	0-7	8-12	13-20	> 20	
			0	2	4	10	**0** (5)
Dig pref score - MUAC	Incl	#	0-7	8-12	13-20	> 20	
			0	2	4	10	**0** (6)
Standard Dev WHZ	Excl	SD	<1.1	<1.15	<1.20	>=1.20	
.			and	and	and	or	
.	Excl	SD	>0.9	>0.85	>0.80	<=0.80	
			0	5	10	20	**0** (1.09)
Skewness WHZ	Excl	#	<±0.2	<±0.4	<±0.6	>=±0.6	
			0	1	3	5	**0** (-0.03)
Kurtosis WHZ	Excl	#	<±0.2	<±0.4	<±0.6	>=±0.6	
			0	1	3	5	**1** (-0.29)
Poisson dist WHZ-2	Excl	p	>0.05	>0.01	>0.001	<=0.001	
			0	1	3	5	**0** (p=0.913)
OVERALL SCORE WHZ =			0-9	10-14	15-24	>25	**5** %

The overall score of this survey is 5 %, this is excellent.

There were no duplicate entries detected.

Standard/Reference used for z-score calculation: WHO standards 2006

Overall data quality

Criteria	Flags*	Unit	Excel.	Good	Accept	Problematic	**Score**
Flagged data	Incl	%	0-2.5	>2.5-5.0	>5.0-7.5	>7.5	
(% of out of range subjects)			0	5	10	20	**0** (1.0 %)
Overall Sex ratio	Incl	p	>0.1	>0.05	>0.001	<=0.001	
(Significant chi square)			0	2	4	10	**0** (p=0.172)
Age ratio(6-29 vs 30-59)	Incl	p	>0.1	>0.05	>0.001	<=0.001	
(Significant chi square)			0	2	4	10	**2** (p=0.062)
Dig pref score - weight	Incl	#	0-7	8-12	13-20	> 20	
			0	2	4	10	**0** (3)
Dig pref score - height	Incl	#	0-7	8-12	13-20	> 20	
			0	2	4	10	**0** (6)
Dig pref score - MUAC	Incl	#	0-7	8-12	13-20	> 20	
			0	2	4	10	**0** (6)
Standard Dev WHZ	Excl	SD	<1.1	<1.15	<1.20	>=1.20	
.			and	and	and	or	
.	Excl	SD	>0.9	>0.85	>0.80	<=0.80	
			0	5	10	20	**0** (1.01)
Skewness WHZ	Excl	#	<±0.2	<±0.4	<±0.6	>=±0.6	
			0	1	3	5	**0** (-0.10)
Kurtosis WHZ	Excl	#	<±0.2	<±0.4	<±0.6	>=±0.6	
			0	1	3	5	**0** (0.06)
Poisson dist WHZ-2	Excl	p	>0.05	>0.01	>0.001	<=0.001	
			0	1	3	5	**3** (p=0.002)
OVERALL SCORE WHZ =			0-9	10-14	15-24	>25	**5** %

The overall score of this survey is 5 %, this is excellent.

There were no duplicate entries detected.

Standard/Reference used for z-score calculation: WHO standards 2006

Overall data quality

Criteria	Flags*	Unit	Excel.	Good	Accept	Problematic	**Score**
Flagged data	Incl	%	0-2.5	>2.5-5.0	>5.0-7.5	>7.5	
(% of out of range subjects)			0	5	10	20	**0** (0.4 %)
Overall Sex ratio	Incl	p	>0.1	>0.05	>0.001	<=0.001	
(Significant chi square)			0	2	4	10	**2** (p=0.061)
Age ratio(6-29 vs 30-59)	Incl	p	>0.1	>0.05	>0.001	<=0.001	
(Significant chi square)			0	2	4	10	**10** (p=0.000)
Dig pref score - weight	Incl	#	0-7	8-12	13-20	> 20	
			0	2	4	10	**0** (3)
Dig pref score - height	Incl	#	0-7	8-12	13-20	> 20	
			0	2	4	10	**0** (4)
Dig pref score - MUAC	Incl	#	0-7	8-12	13-20	> 20	
			0	2	4	10	**0** (7)
Standard Dev WHZ	Excl	SD	<1.1	<1.15	<1.20	>=1.20	
.			and	and	and	or	
.	Excl	SD	>0.9	>0.85	>0.80	<=0.80	
			0	5	10	20	**5** (1.11)
Skewness WHZ	Excl	#	<±0.2	<±0.4	<±0.6	>=±0.6	
			0	1	3	5	**0** (-0.11)
Kurtosis WHZ	Excl	#	<±0.2	<±0.4	<±0.6	>=±0.6	
			0	1	3	5	**0** (-0.17)
Poisson dist WHZ-2	Excl	p	>0.05	>0.01	>0.001	<=0.001	
			0	1	3	5	**0** (p=0.210)
OVERALL SCORE WHZ =			0-9	10-14	15-24	>25	**17** %

The overall score of this survey is 17 %, this is acceptable.

There were no duplicate entries detected.

Standard/Reference used for z-score calculation: WHO standards 2006

Overall data quality

Criteria	Flags*	Unit	Excel.	Good	Accept	Problematic	Score
Flagged data	Incl	%	0-2.5	>2.5-5.0	>5.0-7.5	>7.5	
(% of out of range subjects)			0	5	10	20	**0** (2.0 %)
Overall Sex ratio	Incl	p	>0.1	>0.05	>0.001	<=0.001	
(Significant chi square)			0	2	4	10	**2** (p=0.056)
Age ratio(6-29 vs 30-59)	Incl	p	>0.1	>0.05	>0.001	<=0.001	
(Significant chi square)			0	2	4	10	**0** (p=0.117)
Dig pref score - weight	Incl	#	0-7	8-12	13-20	> 20	
			0	2	4	10	**0** (5)
Dig pref score - height	Incl	#	0-7	8-12	13-20	> 20	
			0	2	4	10	**0** (6)
Dig pref score - MUAC	Incl	#	0-7	8-12	13-20	> 20	
			0	2	4	10	**0** (6)
Standard Dev WHZ	Excl	SD	<1.1 and	<1.15 and	<1.20 and	>=1.20 or	
.							
.	Excl	SD	>0.9	>0.85	>0.80	<=0.80	
			0	5	10	20	**5** (1.15)
Skewness WHZ	Excl	#	<±0.2	<±0.4	<±0.6	>=±0.6	
			0	1	3	5	**0** (-0.12)
Kurtosis WHZ	Excl	#	<±0.2	<±0.4	<±0.6	>=±0.6	
			0	1	3	5	**0** (-0.14)
Poisson dist WHZ-2	Excl	p	>0.05	>0.01	>0.001	<=0.001	
			0	1	3	5	**5** (p=0.000)
OVERALL SCORE WHZ =			0-9	10-14	15-24	>25	**12** %

The overall score of this survey is 12 %, this is good.

There were no duplicate entries detected.

Standard/Reference used for z-score calculation: WHO standards 2006

Overall data quality

Criteria	Flags*	Unit	Excel.	Good	Accept	Problematic	Score
Flagged data	Incl	%	0-2.5	>2.5-5.0	>5.0-7.5	>7.5	
(% of out of range subjects)			0	5	10	20	**0** (0.6 %)
Overall Sex ratio	Incl	p	>0.1	>0.05	>0.001	<=0.001	
(Significant chi square)			0	2	4	10	**0** (p=0.969)
Age ratio(6-29 vs 30-59)	Incl	p	>0.1	>0.05	>0.001	<=0.001	
(Significant chi square)			0	2	4	10	**4** (p=0.006)
Dig pref score - weight	Incl	#	0-7	8-12	13-20	> 20	
			0	2	4	10	**0** (4)
Dig pref score - height	Incl	#	0-7	8-12	13-20	> 20	
			0	2	4	10	**0** (3)
Dig pref score - MUAC	Incl	#	0-7	8-12	13-20	> 20	
			0	2	4	10	**0** (7)
Standard Dev WHZ	Excl	SD	<1.1	<1.15	<1.20	>=1.20	
.			and	and	and	or	
.	Excl	SD	>0.9	>0.85	>0.80	<=0.80	
			0	5	10	20	**5** (1.13)
Skewness WHZ	Excl	#	<±0.2	<±0.4	<±0.6	>=±0.6	
			0	1	3	5	**0** (0.00)
Kurtosis WHZ	Excl	#	<±0.2	<±0.4	<±0.6	>=±0.6	
			0	1	3	5	**0** (-0.15)
Poisson dist WHZ-2	Excl	p	>0.05	>0.01	>0.001	<=0.001	
			0	1	3	5	**0** (p=0.394)
OVERALL SCORE WHZ =			0-9	10-14	15-24	>25	**9** %

The overall score of this survey is 9 %, this is excellent.

There were no duplicate entries detected.

Standard/Reference used for z-score calculation: WHO standards 2006

Overall data quality

Criteria	Flags*	Unit	Excel.	Good	Accept	Problematic	Score
Flagged data	Incl	%	0-2.5	>2.5-5.0	>5.0-7.5	>7.5	
(% of out of range subjects)			0	5	10	20	**0** (1.8 %)
Overall Sex ratio	Incl	p	>0.1	>0.05	>0.001	<=0.001	
(Significant chi square)			0	2	4	10	**0** (p=0.575)
Age ratio(6-29 vs 30-59)	Incl	p	>0.1	>0.05	>0.001	<=0.001	
(Significant chi square)			0	2	4	10	**10** (p=0.000)
Dig pref score - weight	Incl	#	0-7	8-12	13-20	> 20	
			0	2	4	10	**0** (3)
Dig pref score - height	Incl	#	0-7	8-12	13-20	> 20	
			0	2	4	10	**0** (5)
Dig pref score - MUAC	Incl	#	0-7	8-12	13-20	> 20	
			0	2	4	10	**0** (6)
Standard Dev WHZ	Excl	SD	<1.1	<1.15	<1.20	>=1.20	
.			and	and	and	or	
.	Excl	SD	>0.9	>0.85	>0.80	<=0.80	
			0	5	10	20	**5** (1.10)
Skewness WHZ	Excl	#	<±0.2	<±0.4	<±0.6	>=±0.6	
			0	1	3	5	**0** (-0.09)
Kurtosis WHZ	Excl	#	<±0.2	<±0.4	<±0.6	>=±0.6	
			0	1	3	5	**0** (-0.16)
Poisson dist WHZ-2	Excl	p	>0.05	>0.01	>0.001	<=0.001	
			0	1	3	5	**0** (p=0.106)
OVERALL SCORE WHZ =			0-9	10-14	15-24	>25	**15** %

The overall score of this survey is 15 %, this is acceptable.

There were no duplicate entries detected.

Standard/Reference used for z-score calculation: WHO standards 2006

Overall data quality

Criteria	Flags*	Unit	Excel.	Good	Accept	Problematic	Score
Flagged data	Incl	%	0-2.5	>2.5-5.0	>5.0-7.5	>7.5	
(% of out of range subjects)			0	5	10	20	**0** (0.7 %)
Overall Sex ratio	Incl	p	>0.1	>0.05	>0.001	<=0.001	
(Significant chi square)			0	2	4	10	**0** (p=0.169)
Age ratio(6-29 vs 30-59)	Incl	p	>0.1	>0.05	>0.001	<=0.001	
(Significant chi square)			0	2	4	10	**4** (p=0.004)
Dig pref score - weight	Incl	#	0-7	8-12	13-20	> 20	
			0	2	4	10	**0** (4)
Dig pref score - height	Incl	#	0-7	8-12	13-20	> 20	
			0	2	4	10	**0** (5)
Dig pref score - MUAC	Incl	#	0-7	8-12	13-20	> 20	
			0	2	4	10	**0** (7)
Standard Dev WHZ	Excl	SD	<1.1	<1.15	<1.20	>=1.20	
.			and	and	and	or	
.	Excl	SD	>0.9	>0.85	>0.80	<=0.80	
			0	5	10	20	**5** (1.10)
Skewness WHZ	Excl	#	<±0.2	<±0.4	<±0.6	>=±0.6	
			0	1	3	5	**0** (-0.04)
Kurtosis WHZ	Excl	#	<±0.2	<±0.4	<±0.6	>=±0.6	
			0	1	3	5	**0** (-0.15)
Poisson dist WHZ-2	Excl	p	>0.05	>0.01	>0.001	<=0.001	
			0	1	3	5	**3** (p=0.007)
OVERALL SCORE WHZ =			0-9	10-14	15-24	>25	**12** %

The overall score of this survey is 12 %, this is good.

There were no duplicate entries detected.

14.4 Annex 4: FSNA Questionnaire

Household ID: |__|__|__|__|__|
(Check and complete during data entry)
(First digit for District; second and third digit for Cluster ID; fourth and fifth digit for household #)

Food Security and Nutrition Assessment in Karamoja, May 2015

Please seek consent from interviewee as follows:

"My name is _____. I am part of a team of the United Nations World Food Programme. We are conducting a survey to assess the Food Security and Nutrition situation in the Karamoja region. I would like to ask you some questions which will take about 30 minutes.

We will not record your name and any information that you provide is confidential, but will be analyzed with information provided in the same way by others participating in this survey so that the outcome will not be attributed to you or others who take part in the survey.

Your participation is voluntary, but we hope you will participate since your views are important.

Do you have any questions?

May I begin the interview now?" (If response is "NO", go to the next Household)

GENERAL INFORMATION		
District		
Sub-county		
Village		
Cluster ID		
Household ID		
Is this household on the Extremely Vulnerable Households' (EVH) Programme?		□ Yes □ No
Do you have a card for the EVH Programme?		□ Yes □ No
Is any member of the household currently receiving assistance from the NUSAF programme?		□ Yes □ No

SECTION A – HOUSEHOLD INFORMATION		
A household is defined as a group of people who routinely eat out of same pot and live on the same compound (or physical location). It is possible that they may live in different structures		
A.1	Who is the head of household? Is it a man or a woman?	□ Male □ Female

A.2	What is the age of the household head?		|__|__| years
A.3	Is the head of household disabled, chronically ill or able bodied?	□ Disabled □ Chronically ill □ Able bodied	
A.4	Household head number of completed years of formal education		|__|__| Years

A.5 and A.6	Please record the number of people currently living in the household in each category.	**A.5 Male**	**A.6 Female**
	0 – 4 years	|___|	|___|
	5 - 10 years	|___|	|___|
	11 - 17 years	|___|	|___|
	18 - 29 years	|___|	|___|
	30 - 64 years	|___|	|___|
	Elderly (+ 65 years)	|___|	|___|
	TOTAL	|___|	|___|

A.7	How many primary school-aged children are in this household?	Girls |____|	Boys |____|
A.8	How many children attended primary school in the last academic year?	Girls |____|	Boys |____|
A.9	How many children did not regularly attend school in the past 6 months?	Girls |____|	Boys |____|
A.10	What was the main reason for these children not attending regularly?	**Girls**	**Boys**

1= Illness/handicap
2= Cannot pay school fees, uniforms, textbooks
3= Cannot pay transportation/ far away
4= Early marriage
5= Absent teacher/ poor quality teaching
6= Poor school facilities (*building, desk, etc.*)
7= Domestic household chores (*e.g. child care, washing etc.*)
8= Child work for cash or food (*e.g. casual work, petty trade, begging etc.*)
9= Not interested
10= Other reasons _____

A.10.1	|____|	**A.10.2**	|____|

A.11	Have you or a member of your household participated in any of the following development programmes by government or partners in the last one year? [*Check all that apply*]	1. Food aid rations 2. NUSAF 3. MCHN 4. Farmer Field Schools 5. WASH project 6. School feeding 7. Adult literacy programmes 8. Karamoja Livelihood Improvement Programme 9. Other (Specify):_____ 10. None of the above

SECTION B – HOUSEHOLD HEALTH		
B.1	What is the MAIN source of drinking water for your household? *(Circle one)*	1. Piped water through a tap 2. Water from open well/spring 3. Water from protected well/spring 4. Water from borehole fitted with a hand pump 5. Surface water (river, dam, run off, etc) 6. Rain water collected in a tank 7. Other
B.2	Does your household treat its drinking water? *(Circle one)*	1=Yes 0=No
B.3	How do you treat drinking water?	1. By chlorination (by adding water guard, aquatab, etc) 2. By boiling 3. Other. Please specify:
B.4	What is the amount of water (20 litres jerry cans) used per day in your household most of the time? (State number of jerry cans full of water)	|__|__|.|__| Jerry cans
B.5	What kind of toilet do you use? *Circle one*	1. Private latrine 2. Community latrine 3. Bush (Open air) 4. Neighbor's latrine 5. Other. Please specify:
B.6	Where do you and members of your household MOSTLY go for treatment when sick? *Circle one*	1. Main Hospital 2. Health center 3. Private Clinic 4. Traditional healer 5. Village Health Team (VHT) 6. Drug shop 7. Other. Please specify:
B.7	What is the type of fuel MOSTLY used by your household for cooking/preparing food? *Circle one*	1. Electricity 2. NPG/Natural Gas 3. Biogas

		4. Kerosene/Paraffin 5. Charcoal 6. Firewood 7. Straw/shrubs/grass 8. Animal dung 9. No food is cooked in the household 10. Other. Please specify:

SECTION C – LIVESTOCK PRODUCTION					
C.1	Does your household own any livestock? If *'No'* skip to section D			□ Yes □ No	
C.2	How many of the following livestock does your household currently own?	1.	Cattle	|__|__|__|	
		2.	Sheep	|__|__|__|	
		3	Goat	|__|__|__|	
		4.	Pig	|__|__|__|	
		5.	Poultry	|__|__|__|	
		6.	Donkey	|__|__|__|	
		8.	Other.		
C.3	What is the MAIN constraint for livestock and livestock production for your household? *Circle one*	0=No constraints			
		1=Poor breed		6=Lack of veterinary services	
		2=Parasites/diseases		7=Insecurity	
		3=Inadequate labour		8=Theft	
		4=Shortage of pasture/feed		9=Lack of market for livestock	
		5=Shortage of water		10=Other *(specify)*:	

SECTION D – FOOD AVAILABILITY		
D.1	Do you have access to agricultural land (arable land for cultivation)?	□ Yes □ No *(Go to Section E)*
D.2	What is the size of land you have to?	_____ acres
D.3	What was the biggest constraint to agriculture in the past six months?	0=No constraints 1=Insecurity 2=I have been prohibited by the clan 3=I have been prohibited by my husband 4=The land is infertile/marginal 5=I have been prohibited by the government 6=Sickness or physical inability 7=I did not have adequate seeds and tools 8=I do not have sufficient family/household labour 9=We are not agriculturalists 10= Land conflicts 11= Drought/Low rainfall 12=Other. Please specify:

D.4	Do you have any food stocks in your household at the moment?	□ Yes □ No
D.5	What was the source of these stocks?	□ WFP/Partner food distribution □ Own production □ Gifts □ Markets □ Other. Please specify:
D.6	How long will these stocks last your household?	|__|__| Weeks

SECTION 5 – MAIN INCOME SOURCE

E.1 - How many members of the household earn an income?			**|____|**
E.2.1 - During the past 30 days, what were your household's most important livelihood sources? *(use income source codes, up to 3 activities)*			**E.2.2 -** Using proportional piling or 'divide the pie' methods, please estimate the relative contribution to total income of each source **(%)**
A	**Most important**	**|__|__|**	**|__|__|__|**
B	**Second** *(leave blank if none)*	**|__|__|**	**|__|__|**
C	**Third** *(leave blank if none)*	**|__|__|**	**|__|__|**

Income source codes:
1 = Food crop production/sales (e.g. maize)
2 = Cash crop production/sale (e.g. coffee)
3 = Income derived from sale of livestock and / or animal products
4 = Agricultural wage labor
5 = Non-agricultural wage labor (construction…)
6 = Sale of firewood/charcoal
7 = Petty trade (market, whackers, etc.)
8 = Pension, government allowances
9 = Salary
10 = Fishing / Hunting
11 = Handicrafts
12 = Gifts/begging
13 = Food assistance
14 = Brewing
15 = Remittances
16= Other

E.3. If answer to question is 15, please indicate where the remittances were received from
1. Main town in the district
2. Neighboring district
3. Other district/town within Uganda
4. Country outside Uganda
5. Other. Please specify:

SECTION F– EXPENDITURES

Food Expenditure

	F.1 – Did you purchase any of the following items during the last 30 days for domestic consumption? If '**no**', enter '0' and proceed to the next food-item. If '**yes**', ask the respondent to estimate the total cash and credit expenditure on the item for **the 30 days.** (*register the expenses according to local currency*)			**F.2** – During the **last 30 days**, did your household consume the following foods **without purchasing** them? If so, estimate the value of the non-purchased food items consumed during **the last 30 days**
		(Cash, UGX)	**(Credit, UGX)**	**(Local currency)**

SECTION F– EXPENDITURES				
1.	Cereals (maize, rice, sorghum, wheat, bread)			
2.	Tubers (sweet potatoes, cassava)			
3.	Pulses (beans, peas, groundnuts)			
4.	Fruits & vegetables			
5.	Fish/Meat/Eggs/Poultry			
6.	Oil, fat, butter			
7.	Milk, cheese, yogurt			
8.	Sugar/salt			
9.	Tea/Coffee			
10.	Other meals/snacks consumed outside the home			

Non Food expenditure					
F.3 – Did you purchase the following items during the **last 30 days** for domestic consumption? ***If none, write 0 and go to next item***		**F.3.1** – Estimate expenditure during the **last 30 days** (*register the expenses according to the currency in which it was done*)	**F.3.2** – In the past **6 months** how much money have you spent on each of the following items or service? ***Use the following table, write 0 if no expenditure.***		**F.3.3**– Estimate expenditure during the **last six months**
		(local currency)			**(local currency)**
1	Alcohol/Palm wine & Tobacco		10	Medical expenses, health care	
2	Soap & HH items		11	Clothing, shoes	
3	Transport		12	Education, school fees, uniform...	
4	Fuel (wood, paraffin, etc.)		13	Debt repayment	
5	Water		14	Celebrations/social events	
6	Electricity/Lighting		15	Agricultural inputs	
7	Communication (phone)		16	Savings	
9	Rent		17	Constructions/house repairs	

F.4	Do you have any debt or credit to repay at the moment?	□ Yes □ No *If 'No', go to section G*
F.5	If yes, approximate the amount of current debt in Uganda shillings	……..UgX
F.6	Do you have to pay interest on your current loan?	□ Yes □ No
F.7	If yes, how much is the total interest you owe on the loan?	……..UgX
F.8	What was the main reason for new debts or credit?	**Main reason**

SECTION F– EXPENDITURES		
	1= To buy food 2= To cover health expenses 3= To pay school, education costs 4= To buy agricultural inputs (seed, tools...) 5= To buy animal feed, fodder, veterinary 6= To buy or rent land 7= To buy or rent animals 8= To buy or rent or renovate a flat/ house 9= To pay for social events / ceremonies 10= To invest for other business 11= Other. Specify:	|____|
F.9	Who is the main source of credit for all debts and loans? 1= Relatives 2= Traders/shop-keeper 3= Bank/ Credit institution/Micro-credit project 4= Money lender 5= Other. Specify:	**Main source** |____|

SECTION G– FOOD SOURCES AND CONSUMPTION

Could you please tell me how many days in the **past one week** (seven days) your household has eaten the following foods and what the main source was *(use codes at the bottom of the table, write 0 for items not eaten over the last 7 days)*

ASK LINE BY LINE FOR EACH ITEM BOTH QUESTIONS

	Food Item	***a.** # Of days Eaten during last 7 days*	***b.** Main Source (use Food source codes at the bottom of the table)*
7.1	**Cereals and grain:** Rice, bread / cake and / or donuts, sorghum, millet, maize, chapatti.	|__|	|__|
7.2	**Roots and tubers:** potato, yam, cassava, sweet potato, and / or other tubers	|__|	|__|
7.3	**Legumes/Nuts:** ground nuts, peanuts, sim-sim, coconuts or other nuts, beans, cowpeas, lentils, soy, pigeon pea	|__|	|__|
7.4	**Vegetables (orange, green and others):** carrot, red pepper, pumpkin, orange sweet potatoes, spinach, broccoli, amaranth and / or other dark green leaves, cassava leaves, bean leaves, pea leaves onion, tomatoes, cucumber, radishes, green beans, peas, lettuce, cabbage, etc	|__|	|__|
7.5	**Fruits:** mango, papaya, apricot, peach, banana, apple, lemon, tangerine	|__|	|__|
7.6	**Meat:** goat, beef, chicken, pork (meat consumed in large quantities not as a condiment)**. Liver, kidney, heart and / or other organ meats and blood**	|__|	|__|
7.7	**Fish / Shellfish:** fish, including canned tuna, and/or other seafood (fish consumed in large quantities not as a condiment)	|__|	|__|
7.8	**Eggs**	|__|	|__|

7.9	**Milk and other dairy products**: fresh milk / sour, yogurt, cheese, other dairy products (Exclude margarine / butter or small amounts of milk for tea / coffee)	|__|	|__|
7.10	**Oil / fat / butter:** vegetable oil, palm oil, shea butter, margarine, other fats / oil	|__|	|__|
7.11	**Sugar, or sweet:** sugar, honey, jam, cakes, candy, cookies, pastries, cakes and other sweet (sugary drinks)	|__|	|__|
7.12	**Condiments / Spices:** tea, coffee / cocoa, salt, garlic, spices, yeast / baking powder, lanwin, tomato / sauce, meat or fish as a condiment, condiments including small amount of milk / tea coffee.	|__|	|__|

Food source codes

1= wn production (crops, animal)
2= Fishing / Hunting
3= Gathering
4= Borrowed
5= Market (purchase with cash)
6= Market (purchase on credit)
7= Beg for food
8= Exchange labor or items for food
9= Gift (food) from family relatives or friends
10= Food aid from civil society, NGOs, government, WFP etc.

SECTION 8– SHOCKS AND COPING

*WHAT HAVE BEEN YOUR MAIN **DIFFICULTIES OR SHOCKS** IN THE PAST 30 DAYS* DO NOT LIST, LEAVE THE HOUSEHOLD ANSWER SPONTANEOUSLY. ONCE DONE, ASK THE HOUSEHOLD TO RANK THE 2 MOST IMPORTANT ONES	*1ST DIFFICULTY*		2nd Difficulty	
1 = Loss employment/reduced salary/wages 2 = Crop Loss due to Rodents 3 = Death household member/funerals 4 = High food prices 5 = High fuel/transportation prices 6= Debt to reimburse 7 = Floods, heavy rains, drought, land slides 8 = Sickness/disease 9= Other. Please Specify 99= No difficulty mentioned	***8.1***	|___|	***8.2***	|___|

	Reduced Coping Strategies Index During the last 7 days, how many times (in days) did your household have to employ one of the following strategies to cope with a lack of food or money to buy it? **READ OUT STRATEGIES**	**Frequency (number of days from 0 to 7)**
H.3	Relied on less preferred, less expensive food	| __ |
H.4	Borrowed food or relied on help from friends or relatives	| __ |
H.5	Reduced the number of meals eaten per day	| __ |
H.6	Reduced portion size of meals	| __ |
H.7	Reduction in the quantities consumed by adults/mothers for young children	| __ |
X.X	Have you/your children taken any type of alcohol to cope with the lack of food or money to buy food?	□ Yes □ No

Livelihood Coping Strategies Index During the last 30 days, did anyone in your household have to engage in any of the following activities because there was not enough food or money to buy food			**1=Yes** **2= No, because it wasn't necessary** **3=No, because i already sold those assets or did this activity and cannot continue** **4=No, because i never had the possibility to do so**
H.8	STRESS	Sold more animals (non-productive) than usual	| __ |
H.9		Sold household goods (radio, furniture, refrigerator, television, jewelry etc.)	| __ |
H.10		Spent savings	| __ |
H.11		Borrowed money	| __ |
H.12	EMERGENCIES	Sold productive assets or means of transport (sewing machine, wheelbarrow, bicycle, car, goats, cows, etc.)	| __ |
H.13		Reduced essential non-food expenditures such as education, health, etc…	| __ |
H.14		Consume seed stock held for next season	| __ |
H.15	CRISIS	Sold house or land	| __ |
H.16		Illegal income activities (theft, smuggling, prostitution)	| __ |
H.17		Begged	| __ |

SECTION 10 : CROSS CUTTING INDICATORS		
M.1	In the last 6 months, did this household receive the following from WFP – circle all that apply	1. Food aid 2. Cash 3. No assistance from WFP (If "No Assistance", STOP here)
M.2	Regarding the last WFP distribution, Who (men, women or both) decides what to do with the cash/voucher given by WFP, such as when, where and what to buy?	1. Women 2. Men 3. Women and Men Together
M.3	Regarding the last WFP distribution, Who (men, women or both) decides what to do with the food given by WFP, such as whether to sell, trade, lend or share a portion of it?	1. Women 2. Men 3. Women and Men Together
M.4	How many HH members went (or tried to go) to the WFP programme site during the last 2 months?	|__|
M.5	Have any of these HH member(s) experienced safety problems 1) going to WFP programme sites, 2) at WFP programme sites, and/or 3) going from WFP programme sites during the last 2 months?	1=Yes 0= No (If no, skip question 11.6)

SECTION 10 : CROSS CUTTING INDICATORS		
M.6	If yes, could you let me know where the problem occurred (select all that are relevant):	a) Going to the WFP programme site |__| b) At the WFP programme site |__| c) Going from the WFP programme site |__|

GENERAL INFORMATION	
District	
Sub-county	
Parish	
Village	
Cluster ID	
Household ID	

SECTION J: MOTHER / CAREGIVER 1 (WITH CHILDREN 0-59 MONTHS OLD)				
J.1	Respondent relationship to children *Circle one*		1=Mother 2= Care giver	
J.2	Age of mother/caregiver		|__|__| years	
J.3	Mother/Caregiver number of completed years of formal education		|__|__| years	
J.4	Number of live births by this mother/Care giver		|__|__|	
J.5	Is mother/caretaker pregnant or breast feeding?		1. Pregnant 2. Breastfeeding (lactating) 3. Pregnant and breastfeeding 4. None of the above	
J.6	Weight (kg)	|__|__|__|.|__|kg	(Only for non-pregnant women with children 0 to 59 months)	
J.7	Height (cm)	|__|__|__|.|__|cm	(Only for non-pregnant women with children 0 to 59 months)	
J.8	MUAC (cm)	|__|__|__|.|__|cm	(For ALL women with children 0 to 59 months)	

SECTION J: CHILD HEALTH AND NUTRITION (CHILDREN 0-59 MONTHS OLD): MOTHER / CAREGIVER 1				
Please ask Mother/Caregiver 1 all questions about Child 1 and write the answers before moving to Child 2, 3, etc.				
		Child 1	**Child 2**	**Child 3**
J.9	Sex of the child? *Circle one*	1=Male 2=Female	1=Male 2=Female	1=Male 2=Female
J.10	Date of birth *(Day/month/year)*	|__|__|/|__|__|/|__|__|	|__|__|/|__|__|/|__|__|	|__|__|/|__|__|/|__|__|
J.11	Age of the child? (*in months*)	|__|__|	|__|__|	|__|__|

SECTION J: CHILD HEALTH AND NUTRITION (CHILDREN 0-59 MONTHS OLD): MOTHER / CAREGIVER 1													
J.12	Has (mention child's name) been taken for immunization, de-worming or supplementation? Use the following codes **1**= Yes with card **2**= Yes without card **3**= No with card **4**= No without card	**Measles**	DPT3	De-worming	Vitamin A	**Measles**	DPT3	De-worming	Vitamin A (6 months)	**Measles**	DPT3	De-worming	Vitamin A (6 months)
J.13	What did the child aged 0-6 months feed on in your household in the last 24 hours? *Select all that apply*	1= Breast milk only 2= Breast milk and other foods or fluids 3= Bottled or milk in cup (cow or formula) 4= Other foods only											
9a.14	How long after birth did you put the baby to the breast? *(Circle one)*	1. Within first 1 hour 2. After 1 hour 3. Did not breast fed at all 4. Don't know				1. Within first 1 hour 2. After 1 hour 3. Did not breast fed at all 4. Don't know				1. Within first 1 hour 2. After 1 hour 3. Did not breast fed at all 4. Don't know			
9a. 15	Since birth, for how long (in months) was your child continuously breast-fed? *(if still breastfeeding, tick box)*	|__|__| months Type '999' if still breastfeeding				|__|__| months Type '999' if still breastfeeding				|__|__| months Type '999' if still breastfeeding			
9a. 16	Mention the diseases your child has suffered in the last 2 weeks.*Circle all that apply*	1 = Fever/malaria 2 = measles 3 = diarrhea 4 = ARI/cough 5 = skin diseases 6 = Eye disease 7 = other 8 = No Illness				1 = Fever/malaria 2 = measles 3 = diarrhea 4 = ARI/cough 5 = skin diseases 6 = Eye disease 7 = other 8 = No Illness				1 = Fever/malaria 2 = measles 3 = diarrhea 4 = ARI/cough 5 = skin diseases 6 = Eye disease 7 = other 8 = No Illness			
9a.17	Did the child sleep under a mosquito net last night? CIRCLE	1= YES 0= NO				1= YES 0= NO				1= YES 0= NO			
Questions 9a.18 to 9a.23iv apply only to children 6 to 23 months													

SECTION J: CHILD HEALTH AND NUTRITION (CHILDREN 0-59 MONTHS OLD): MOTHER / CAREGIVER 1				
9a.18	At what age of your child did you introduce Liquid/ solid foods	|__|__| months	|__|__| months	|__|__| months
9a.19	Was your child 6-23 months breastfed yesterday during the day or night	1 = Yes 2 = No 3 = Don't know	1 = Yes 2 = No 3 = Don't know	1 = Yes 2 = No 3 = Don't know
9a.20	How many times during the day or night did your child 6-23 months consume any of….	1 = Infant formula |__| times 2 = Milk such as tinned, powdered, or fresh animal milk |__|.times 3 = Yogurt |__| times 4=Thin porridge |__|times	1 = Infant formula |__| times 2 = Milk such as tinned, powdered, or fresh animal milk |__|.times 3 = Yogurt |__| times 4=Thin porridge |__|times	1 = Infant formula |__| times 2 = Milk such as tinned, powdered, or fresh animal milk |__|.times 3 = Yogurt |__| times 4=Thin porridge |__|times
9a.21	What foods did your child 6-23 months eat in the last 24 hours? Circle all that apply	Grains, roots, and tubers *eg porridge, bread, rice, posho, potatoes, cassava, etc* Legumes and nuts *eg beans, peas, ground nuts. etc* Dairy products *eg milk yoghurt, cheese* Flesh foods *eg meat, fish, poultry, liver, organ meats, blood* Eggs Vitamin A rich fruits and vegetables *eg carrots, ripe mangoes, papaya, etc* Other fruits and vegetables Fortified foods	1 = Grains, roots, and tubers *eg porridge, bread, rice, posho, potatoes, cassava, etc* 2 = Legumes and nuts *eg beans, peas, ground nuts. etc* 3 = Dairy products *eg milk yoghurt, cheese* 4 = Flesh foods *eg meat, fish, poultry, liver, organ meats* 5 = Eggs 6 = Vitamin A rich fruits and vegetables *eg carrots, ripe mangoes, papaya, etc* 7 = Other fruits and vegetables 8 = Fortified foods (WFP fortified products)	1 = Grains, roots, and tubers *eg porridge, bread, rice, posho, potatoes, cassava, etc* 2 = Legumes and nuts *eg beans, peas, ground nuts. etc* 3 = Dairy products *eg milk yoghurt, cheese* 4 = Flesh foods *eg meat, fish, poultry, liver, organ meats* 5 = Eggs 6 = Vitamin A rich fruits and vegetables *eg carrots, ripe mangoes, papaya, etc* 7 = Other fruits and vegetables 8 = Fortified foods (WFP fortified products)
9a.22	How many times did your child 6-23 months eat solid, semi-solid or soft foods during the previous day?	|__| times Don't know	|__| times Don't know	|__| times Don't know

SECTION J: CHILD HEALTH AND NUTRITION (CHILDREN 0-59 MONTHS OLD): MOTHER / CAREGIVER 1				
9a.23i	Is this child 6-23 months enrolled in the MCHN *Programme* *(Note: MCHN beneficiaries receive Premix of CSB, Oil and Sugar at health facilities)*	1= YES 0= NO (Skip to 9a.23iv)	1= YES 0= NO(Skip to 9a.23iv)	1= YES 0= NO(Skip to 9a.23iv)
9a.23ii	May I see your programme participation card ? *Tick the response provided*	1 = Card present 2 = Card absent	1 = Card present 2 = Card absent	1 = Card present 2 = Card absent
9a.23iii	Why do you not have a programme participation card?	1 = I was not given one 2= Did not know I needed one 3 = I lost/misplaced my card 4 = Other	1 = I was not given one 2= Did not know I needed one 3 = I lost/misplaced my card 4 = Other	1 = I was not given one 2= Did not know I needed one 3 = I lost/misplaced my card 4 = Other
9a.23iv	If child 6-23 months is not enrolled, what is the main reason for not enrolling the child?	I don't know about the programme Too much time required to participate The distribution site was too far No transportation to reach the distribution site I had other commitments that prevented enrolling the child Other – Specify	1 = I don't know about the programme 0 = Too much time required to participate= 1 The distribution site was too far 4 = No transportation to reach the distribution site 5 = I had other commitments that prevented enrolling the child 6 = Other – Specify	1 = I don't know about the programme 0 = Too much time required to participate= 1 The distribution site was too far 4 = No transportation to reach the distribution site 5 = I had other commitments that prevented enrolling the child 6 = Other – Specify
Questions 9a.24 to 9a.27 apply only to all children 6 to 59 months				
9a.24	Does the child have oedema? *(If yes, skip 10a.25-10a.27)*	1 = YES 0 = NO	1 = YES 0 = NO	1 = YES 0 = NO
9a.25	Weight (Kg) of the child	|__|__|.|__|kg	|__|__|.|__|kg	|__|__|.|__|kg
9a.26	Height (cm) of the child	|__|__|__|.|__|cm	|__|__|__|.|__|cm	|__|__|__|.|__|cm
9a.27	MUAC (cm) of the child	|__|__|__|.|__|cm	|__|__|__|.|__|cm	|__|__|__|.|__|cm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